

SECTION 064116 - PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Plastic-laminate-faced architectural cabinets on fire-resistant substrate.
 - 2. Wood furring, blocking, shims, and hanging strips for installing plastic-laminate-faced architectural cabinets unless concealed within other construction before cabinet installation.
- B. Related Requirements:
 - 1. Section 061000 "Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing cabinets and concealed within other construction before cabinet installation.
 - 2. Section 123623 "Plastic-Laminate-Clad Countertops."

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product high-pressure decorative laminate, adhesive for bonding plastic laminate, and cabinet hardware.
 - 1. Include data for fire-retardant treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 - 1. Show details full size.
 - 2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
- C. Samples for Initial Selection:
 - 1. Plastic laminates.
 - 2. PVC edge material, unless otherwise shown.
 - 3. Thermoset decorative panels.
- D. Samples for Verification:

1. Plastic laminates, 8 by 10 inches (200 by 250 mm).
2. Exposed cabinet hardware and accessories, one unit for each type and finish.

1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver cabinets until painting and similar operations that could damage woodwork have been completed in installation areas. If cabinets must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, 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 cabinets are 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 cabinets by field measurements before being enclosed, and indicate measurements on Shop Drawings.
- C. Established Dimensions: Where cabinets are indicated to fit to other construction, establish dimensions for areas where cabinets are to fit. 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 cabinets can be supported and installed as indicated.

PART 2 - PRODUCTS

2.1 PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS

- A. Quality Standard: Unless otherwise indicated, comply with the "Architectural Woodwork Standards" for grades of architectural plastic-laminate cabinets indicated for construction, finishes, installation, and other requirements.
 - 1. Provide AWI quality.
 - 2. The Contract Documents contain selections chosen from options in the quality standard and additional requirements beyond those of the quality standard. Comply with those selections and requirements in addition to the quality standard.
- B. Grade: Premium.
- C. Cabinet, Door, and Drawer Front Interface Style: Flush overlay unless otherwise shown.
- D. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or if not indicated, as required by woodwork quality standard.
 - 1. Manufacturers: As shown on Finish Legend.
- E. Materials for Semiexposed Surfaces:
 - 1. Surfaces Other Than Drawer Bodies: Thermoset decorative panels.
 - a. Edges of Plastic-Laminate Shelves: PVC edge banding, 0.12 inch (3 mm) thick, matching laminate in color, pattern, and finish (unless otherwise shown).
 - 2. Drawer Sides and Backs: Thermoset decorative panels with PVC or polyester edge banding.
 - 3. Drawer Bottoms: Thermoset decorative panels.
- F. Dust Panels: 1/4-inch (6.4-mm) plywood or tempered hardboard above compartments and drawers unless located directly under tops.
- G. Concealed Backs of Panels with Exposed Plastic-Laminate Surfaces: High-pressure decorative laminate, NEMA LD 3, Grade BKL.
- H. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.
 - 1. Join subfronts, backs, and sides with glued rabbeted joints supplemented by mechanical fasteners or glued dovetail joints.
- I. Colors, Patterns, and Finishes:
 - 1. As indicated in Finish Legend.

2.2 WOOD MATERIALS

- A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.

1. Wood Moisture Content: 8 to 13 percent.

2.3 FIRE-RETARDANT-TREATED MATERIALS

- A. Fire-Retardant-Treated Materials, General: Provide fire-retardant-treated materials for substrate, use materials 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.

2.4 CABINET HARDWARE AND ACCESSORIES

- A. Hardware Standard: Comply with ANSI/BHMA A156.9 "American National Standard for Cabinet Hardware".

1. Quality Level: Institutional grade, unless otherwise indicated.

- B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 170 degrees of opening, self-closing.

1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hafele Duomatic Premium Series.
 - b. Grass System Snap On 3000 Series.
 - c. Mepla CS 65.
 - d. Hettich America Intermat 9000 Series.

- C. Pulls for cabinets in typical units: Liberty Hardware P010126W-SS-C, 5" center to center, brushed stainless steel or equal approved by Architect.

- D. Catches: Magnetic catches, BHMA A156.9, B03141.

- E. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081.

- F. Adjustable Wall-Mounted Shelf Standards and Supports: Provide standards and supports of type indicated which comply with BHMA A156.9, B04071; with shelf rests, B04081.

1. Basis-of-Design Product: Provide the following or comparable products by another manufacturer:
 - a. Vertical Slotted Type: Vertical slots spaced 2" on center, 7/8" wide x 11/16" x length indicated, zinc-plated steel; Knappe & Vogt No. 87.
 - b. Shelf Brackets: Size required to support shelving widths indicated, zinc-plated steel; Knappe & Vogt No. 187 with #210 & #211 shelf rests.

- G. Cabinet Interior Shelf Rests: BHMA A156.9, B04013; stainless steel supports, screwed in place, for line bore.

- H. Clothes Poles and Supports (if shown): Provide steel pipe or tubing cut to lengths required, with standard wrought steel flanges (one with open top).

1. Size: 1.315" O.D., 0.1333" wall thickness.
 2. Finish: Satin chrome plated, BHMA 652.
 3. Basis-of-Design Product: Knappe and Vogt #660 with flanges #734 and #735 or comparable products by another manufacturer.
 4. Center Brackets for Shelves and Poles Over 48 Inches Long: Combination shelf and closet pole support wrought steel with manufacturer's standard enamel finish; complying with ANSI A156.16, Type B84051.
 - a. Furnish and install in quantity to limit shelf and pole unsupported length to 48 inches.
 - b. Basis-of-Design Product: Knappe and Vogt #1195 or a comparable product by another manufacturer.
- I. Drawer Slides: BHMA A156.9.
1. Grade 1HD-200: Side mounted; full-extension type; zinc-plated-steel ball-bearing slides.
- J. Locks, General: Where indicated, provide standard pin-type or disc-type (5 or 7 pins or discs) tumbler locks, keyed alike, except as otherwise indicated.
1. Basis-of-Design Products: Provide the following or comparable products by another manufacturer:
 - a. Heavy Duty Locks: Best 3L Series x 626.
- K. Door Locks: BHMA A156.11, E07121.
1. Where locks are indicated to be installed in cabinets, Contractor is to leave the keys in the locks at time of Substantial Completion. Keys will be removed and distributed by Owner.
- L. Drawer Locks: BHMA A156.11, E07041.
1. Where locks are indicated to be installed in cabinets, Contractor is to leave the keys in the locks at time of Substantial Completion. Keys will be removed and distributed by Owner.
- M. Door and Drawer Silencers: BHMA A156.16, L03011.
- N. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
1. Satin Stainless Steel: BHMA 630.
- O. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.
- 2.5 MISCELLANEOUS MATERIALS
- A. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.
1. Screws: Select material, type, size and finish required for each use. Comply with FS FF-S-111 for applicable requirements.

- a. For metal framing supports, provide screws as recommended by metal framing manufacturer.
- 2. Nails: Select material, type, size and finish required for each use. Comply with FS FF-N-105 for applicable requirements.
- B. Adhesives: Do not use adhesives that contain urea formaldehyde.

2.6 FABRICATION

- A. Sand fire-retardant-treated wood lightly to remove raised grain on exposed surfaces before fabrication.
- B. Fabricate cabinets to dimensions, profiles, and details indicated.
- C. Complete fabrication, including assembly 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. Notify Architect seven days in advance of the dates and times woodwork fabrication will be complete.
 - 2. 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 before disassembling for shipment.
- D. Shop-cut openings to maximum extent possible to receive hardware, appliances, 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.
- E. Install glass (if shown) to comply with applicable requirements in Section 088000 "Glazing" and in GANA's "Glazing Manual." For glass in wood frames, secure glass with removable stops.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition cabinets to average prevailing humidity conditions in installation areas.
- B. Before installing cabinets, examine shop-fabricated work for completion and complete work as required.

3.2 INSTALLATION

- A. Grade: Install cabinets to comply with same grade as item to be installed.

- B. Assemble cabinets and complete fabrication at Project site to the extent that it was not completed in the shop.
- C. Install cabinets level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm).
- D. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork.
 - 1. Use filler matching finish of items being installed.
- 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.
 - 1. Install cabinets with no more than 1/8 inch in 96-inch (3 mm in 2400-mm) sag, bow, or other variation from a straight line.
 - 2. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches (400 mm) o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch (38-mm) penetration into wood framing, blocking, or hanging strips.
 - 3. Where locks are indicated to be installed in cabinets, Contractor is to leave the keys in the locks at time of Substantial Completion. Keys will be removed and distributed by Owner.

3.3 ADJUSTING AND CLEANING

- A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean cabinets on exposed and semiexposed surfaces.

END OF SECTION 064116