

123531- PLASTIC LAMINATE CASEWORK

1.00 GENERAL

1.01 SCOPE OF WORK

- A. Provide all plastic laminate casework and accessory items as specified herein. Reference to plans for specific details and requirements will be adhered to.
- B. General Conditions: The General Conditions, Supplementary General Conditions, Special Conditions, and General Requirements apply to all work in this Division.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Rubber, vinyl or other finished toe base.
- B. Blocking within walls.
- C. Sinks, faucets, fittings, traps, stops, tail pieces, vacuum breakers, and other fixtures, electrical and mechanical runs and connections.
- D. Fixture installation/services connections: Setting and installation of equipment and fixtures, and related utility connections, are provided under the other sections of the Project Specification governing that utility.

1.03 SUBMITTALS:

- A. Submit shop drawings for approval. Show materials, dimensions, cabinet-cut details, and sink locations.
- B. Submit samples of colors upon award of contract for selection and coordination with other suppliers. Architect may request and retain samples and catalog cuts as required for accessory and special items.

1.04 CONSTRUCTION

- A. The basis of design is casework as manufactured by Buckeye Caseworks, 440 Woodland Avenue, Columbus, OH 43203, or equal.
 - 1. All core materials meet the performance requirements for ANSI A208.1-1999 M3 Standards and contain no formaldehydes.
 - 2. Lamination System: Doors, finished end panels, and other decorative exterior laminate surfaces shall be laminated exterior with .028 inch (.71 mm) high-pressure plastic laminate, and interior with thermofused melamine. Lamination with low viscosity contact bond adhesive.
 - 3. Structural Cabinet Body: Cabinet backs shall be $\frac{3}{4}$ " (19 mm) thick, plant on back. Back perimeter shall secured with mechanical fasteners located every 8" in accordance with AWI Premium Grade Standards for tight interior fitment and direct connection of back panel to body.
 - 4. Interior Structure: All cabinets over 36 inches (914 mm) wide shall be furnished with a 1" thick shelf to reduce horizontal member/shelf deflection. Wall cabinets shall have a clear inside nominal depth of 11 1/8 inches (282 mm) unless detailed otherwise.
 - 5. Shelf Loading: Shelves shall meet the loading/deflection standards of the National Particleboard Association.

6. Structural Drawer Body: Drawer body will include a positively captured rigid metal drawer box (Metabox Drawer System, Julius Blum, Inc.) with a minimum of ½" thermofused melamine bottom.
7. Drawer Suspension: Standard drawer slides are a self-closing design, epoxy powder coated, with positive instop, outstop, and out-keeper. Dynamic (operational) load rating shall be minimum 75 lbs. (34kg). 100 lbs. (45.3 kg) static load rating. Drawer system exceed ANSI/BHMA requirements for a Grade 1 rating.
8. Structural Cabinet Support: Cabinet sub-base is a separate and continuous ladder-type platform design, leveled and floor mounted prior to cabinet body placement. Material is an exterior grade plywood. No cabinet sides-to-floor will be provided.

2.00 PRODUCTS

2.01 MATERIALS

A. Laminated Plastics/Finishes:

1. High-pressure plastic laminate, .028 inch (.71 mm) in thickness, for exterior surfaces meet NEMA LD3-2000 VGS standards including thickness.
2. Exterior Color Selection Available:
 - a. Standard finish from casework manufacturer's standard stock colors consisting of wood grain patterns and solid colors. Minimum of 200 selections available.
 - b. Total of 5 different colors available per project.
 - c. Direction of wood grain shall be in accordance with AWI Premium Grade Standards
3. Countertop High-Pressure Plastic Laminate:
 - a. High-pressure plastic laminate, textured finish .048 inch (1.22 mm) thickness or .039 inch (1.07 mm) postforming grade as detailed. Color as selected from manufacturer's stock standard patterns and solid colors.
 - b. Heavy gauge neutral colored backing sheet will be used for balanced construction for tops with no cabinets below.
4. Pressure Fused Laminate:
 - a. Melamine resin impregnated, 85 gram PSM average, thermofused to core under pressure.
 - b. Meets NEMA LD3-2000 VGL standards and NEMA LD3-2000 CLS standards, except thickness.
 - c. White thermofused melamine for cabinet interiors behind door and drawers, interiors of all open cabinets, and underside of wall cabinets.

High Performance Core:

1. Shall be particleboard, minimum 47 lb. (21.3 kg) density, of balanced 3-ply construction with moisture content not to exceed 8%. Particleboard shall conform to ANSI A208.1-1999, Grade M-3.

2. Cabinet components are of the following thicknesses:
 - a. 3/4 inch (19.1 mm): cabinet backs, drawer body, and drawer bottoms.
 - b. 3/4 inch (19.1 mm): door and drawer face, base, wall, and tall cabinet tops and bottoms, cabinet sides, drawer spreaders, structural dividers, exposed cabinet backs, and shelves of less than 30 inch (762 mm) span.
 - c. 1 inch (25.4 mm): product-specific work surfaces and library stack shelving unless stack fitted with vertical divider. Shelves over 30 inch (762 mm) span.
- B. Edging types. Provide one or more of the following in accordance with "Edging Locations":
 1. FlatEdge PVC/ABS. .018 inch (.46 mm). Solid, high-impact, purified, color-thru, acid resistant PVC/ABS edging machine-applied with hot melt adhesives, automatically trimmed face, back and corners for uniform appearance.
- C. Edging Locations. Provide the above specified edging types at the following locations, of the following colors:
 1. Door/Drawer-Front edging:

FlatEdge PVC/ABS, color matched to door/drawer face or as selected.
 2. Cabinet body front-facing edge, including door/drawer front spacer rail: FlatEdge PVC/ABS, color matched to door/drawer face. edge of interior body components, interior dividers, shelf, and top edges of drawer body: FlatEdge PVC/ABS to match adjacent interior surface color.
- D. Hardware
 1. Hinges:
 - a. Concealed hinges of heavy gauge metal construction, 200,000 open/close cycle test, with hinge manufacturer's lifetime material replacement guarantee. 110 degree swing. Fully adjustable for clockwise, counter-clockwise, toe-in and out door alignment. Provide base plates to maintain 1/16 inch (3.2 mm) reveals between doors/drawers within the same cabinet, and between doors of adjoining cabinets. Doors shall be self-closing and fitted with silencer bumpers.
 2. Pulls:
 - a. Wire design, 4 inches (101.6 mm), in Satin Chrome 26-D
 4. Drawer Slides:
 - a. Standard Drawers: Metabox Drawer System, self-closing design, epoxy powder coated White, with positive in-stop, out-stop, and out-keeper to maintain drawer in 80% open position. Captive nylon rollers, front and rear. Minimum 100 lb (45 kg) dynamic load rating at 100,000 cycles.
 5. Adjustable Shelf Supports: As a standard, a 5mm Chrome Spoon style support will be used. Also available is a twin pin design with anti tip-up shelf restraints for both 3/4 inch (19.1 mm) and 1 inch (25.4 mm) shelves. The twin pin design includes slot for ability to mechanically attach shelf to clip. Load rating shall be minimum 200 lbs. (136 kg) each support without failure. Shelf system projection will be 1/2 inch less than cabinet body sides.
 9. Locks: Where indicated, shall be a disc tumbler lock by National Lock keyed to desired specifications (alike, different, master keyed, etc.)

- a. Hinged doors and drawers National Lock No. M4-7054.

F. Details For Cabinet Construction:

1. Sub-Base:

- a. Cabinet sub-base shall be separate and continuous (no cabinet body sides-to-floor), water resistant exterior grade plywood with concealed fastening to cabinet bottom. Ladder-type jobsite construction of individual front, back, and intermediates, to form a secure and level platform to which cabinets attach.
- b. Sub-base at exposed cabinet end panels shall be recessed 1/2 inch (6.4 mm) from face of finished end.

2. Cabinet Top and Bottom:

- a. Stretcher sub-top will be furnished for all base cabinets. All tall cabinets will be furnished with a solid sub-top.
- b. Exterior exposed wall cabinet bottoms will be pressure fused laminate on exterior. Assembly devices shall be concealed on bottom side of wall cabinets.

3. Cabinet Sides:

- a. Holes are drilled for adjustable shelves 1 1/4 inches (32 mm) on center.
- b. Exposed exterior cabinet ends will be laminated with high-pressure plastic laminate.

4. Fixed And Adjustable Shelves:

- a. Thickness shall be 3/4 inch (19.1 mm) at standard cabinetry, and 1 inch (25.4 mm) for cabinets over 30 inches wide.

5. Cabinet Backs:

- a. Cabinet back will be plant on style in accordance with AWI Premium Grade Standards (2003).
- b. Exposed exterior backs shall be high-pressure plastic laminate.

6. Door And Drawer Fronts:

- a. Laminated door and drawer fronts shall be 13/16 inch (20.6 mm) thick for all hinged and sliding doors. Drawer fronts and hinged doors shall fully overlay the cabinet body. Maintain a maximum 1/4 inch (3.2 mm) reveal between pairs of doors, between door and drawer front, or between multiple drawer fronts within the cabinet.
- b. Frameless sliding glass doors shall be 1/4 inch (6.4 mm) thick plate glass with ground and polished edges. Fit with anodized aluminum shoes and nylon rollers.

7. Drawers:

- a. Drawer fronts shall be applied to separate drawer body component.
- b. Drawer sides are positively captured within drawer body and secured with metal fasteners.
- c. Drawer bottom shall be fully captured within drawer body

8. Vertical and Horizontal Dividers:

- b. Pressure Fused laminate (exposed) 3/4 inch (19.1 mm) thickness. Thermofused Melamine (semi-exposed) 3/4 inch (19.1) thickness. Sub-dividers secured in cabinet with molded plastic clips or dowels. .

9. Door/Drawer Front Rail: Provide minimum 3/4 inch (19.1 mm) x 4 inch (101 mm) x full width cabinet body rails immediately behind all door/drawer and multiple drawer horizontal joints to maintain exact body dimensions, close off reveal, and be locator for lock strikes.
10. ADA, Americans with Disabilities Act Requirements: The following special requirements shall be met, where specifically indicated on architectural plans as "ADA", or by General Note. Shall be in compliance with Federal Register Volume 56, No. 144, Rules and Regulations:
 - a. Countertop height: With or without cabinet below, not to exceed a height of 34 inches (864 mm) A.F.F., (Above Finished Floor), surface depth as required.
 - b. Kneespace clearance: Shall be minimum 29 inches (737 mm) A.F.F. at apron, and 30 inches (762 mm) clear span width.
 - c. 12 inch (305 mm) deep shelving, adjustable or fixed: Not to exceed a range from 9 inches (229 mm) A.F.F. to 54 inches (1372 mm) A.F.F.
 - d. Wardrobe cabinets: Shall be furnished with rod/shelf adjustable to 48 inches (1219 mm) A.F.F. at a maximum 21 inch (533 mm) shelf depth.
 - e. Sink cabinet clearances: In addition to above, upper kneespace frontal depth shall be no less than 8 inches (203 mm), and lower toe frontal depth shall be no less than 11 inches (279 mm), at a point 9 inches (229 mm) A.F.F., and as further described in Volume 56, Section 4.19.

G. Countertops:

1. High-pressure plastic laminate bonded to core. Thickness as shown on plans. Furnish countertops with edge treatment and design profile as shown on drawings. Provide tops in as long as practical continuous lengths. Field glued and/or mechanically fastened joints will be provided. No joints closer than 24 inches (610 mm) either side of sink cutout.
2. Mobile cabinet tops shall be high-pressure plastic laminate on exterior and high-pressure cabinet-liner on underside. Edges shall be high-impact 3 mm PVC/ABS.

H. Workmanship:

1. All exposed vertical exterior cabinet surfaces are .028 inch (.71 mm) high-pressure laminate, color as selected from casework manufacturer's standards, over 200 colors/wood grains available. Laminate surface/balancing liner to core under controlled conditions by approved and regulated laminating methods to assure a premium lamination
2. Cabinet parts are accurately machined and bored for premium grade quality joinery construction utilizing automatic machinery to insure consistent sizing of modular components.
3. Back panel shall be plant on style with mechanical fasteners every 8 inches around entire perimeter for tight fit and rigidity.
4. Drawer system will utilize the Metabox Drawer System (Blum, Inc.) as a standard.
5. 3/4 inch solid back will be utilized to eliminate necessity for hanging rails.
6. All cases shall be square, plumb, and true.
7. Case body and drawer workmanship and quality of construction shall be further evidenced by compliancy with AWI Standards (2003).
 8. Open style backs are provided for access to all plumbing at all sink cabinets, where shown on drawings. Removable panels can be provided where specified.
 - 9.

2.02 STEEL FABRICATIONS, ASSEMBLIES, AND SUPPORT DEVICES:

- A. Angular Work Top Support Bracket: Shall be 11 gauge factory formed steel by A&M Worksurface Brackets. Features include built-in wire/conduit relief, ¼ inch holes for universal attachment. Colors available: White, Black, Grey, and Almond.

3.00 EXECUTION

3.01 COORDINATION

- A. Coordinate work of this Section with related work of other Sections as necessary to obtain proper installation of all items.
- B. Verify site dimensions of cabinet locations in building prior to fabrication.

3.02 INSTALLATION

- A. Storage and Protection: Casework shall be protected in transit. Casework will stored under cover in a ventilated building not exposed to extreme temperature and humidity changes. Casework will not be installed in building until concrete, masonry, and drywall/plaster work is dry.
- B. Workmen: Casework will be installed under the supervision of the manufacturer's representative with factory-trained mechanics certified by manufacturer.
- C. Workmanship:
 - 1. Casework will be installed straight, level and plumb and securely anchor in place in accordance with AWI (2003) Standards. Scribe and closely fit to adjacent work. Cut and fit work around pipes, ducts, etc.
 - 2. All items will be complete and adjust all moving parts to operate properly.
 - 3. All surfaces will be left clean and free from defects at time of final acceptance.
- D. Guarantee: All materials is guaranteed for a period of 3 years from manufacturer's defects and workmanship. Additional warranties may apply.
- E. Clean Up: All cartons, debris, sawdust, scraps, etc., will be removed and all areas will be left clean and all casework ready for Owner's use.

END of SECTION 123531