

SECTION 12 32 00
MANUFACTURED WOOD CASEWORK

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section specifies wood veneer casework, plastic laminate casework as detailed on the drawings, including related components and accessories required to form integral units. Wood casework items shown on the drawings, but not specified below shall be included as part of the work under this section, and applicable portions of the specification shall apply to these items. Each like item of casework shall be of the same design and by one manufacturer.
- B. Where shown, provide plastic laminate casework items as follows:
 - 1. Base cabinets
 - 2. Cabinets counters
 - 3. Plastic laminate covered countertops for casework.
- C. Where shown, provide wood veneer casework items as follows:
 - 1. Wall cabinets, base cabinets

1.2 RELATED WORK

- A. Custom Casework: Section 06 20 00, FINISH CARPENTRY.
- B. Color and Finish of Plastic Laminate: Section 09 06 00, SCHEDULE FOR FINISHES.
- C. Lavatories and Plumbing in Casework: Section 22 40 00, PLUMBING FIXTURES.

1.3 MANUFACTURER'S QUALIFICATIONS

The fabrication of casework shall be by a manufacturer who produces casework similar to the casework specified and shown.

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Manufacturer's Literature and Data:
 - Sinks, trim and fittings.
 - Locks for doors and drawers
 - Adhesive cements
- C. Samples:
 - Counter top, plastic laminate, 150 mm (six inch) square
 - Wood Face Veneer or Hardwood Plywood
- D. Shop Drawings (1/2 full size):
 - 1. All casework, showing details of construction, including materials, hardware and accessories.

2. Cabinets and counters showing faucets in connection with sink bowls, and electrical fixtures and receptacles which are mounted on cabinets and counters.
3. Fastenings and method of installation.

1.5 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by basic designation only.
- B. American Society for Testing and Materials (ASTM):
 - A167-99 (R2009).....Stainless and Heat-Resisting chromium-Nickel Steel Plate, Sheet and Strip
 - A1008-10.....Steel, Sheet, Cold-Rolled, Carbon, Structural, High Strength Low Alloy
 - C1036-06.....Flat Glass
- C. Composite Panel Association (CPA):
 - A208.1-09.....Particleboard
- D. U.S. Department of Commerce Product Standards (Prod. Std):
 - PS1-95.....Construction and Industrial Plywood
- E. Hardwood, Plywood and Veneer Association (HPVA):
 - HP-1-09.....Hardwood and Decorative Plywood
- F. Architectural Woodwork Institute (AWI):
 - Architectural Woodwork Quality Standards, Guide Specifications Quality Certification Program - 1999
- G. American Society of Mechanical Engineers (ASME):
 - A112.18.1-05.....Plumbing Fixture Fittings
- H. National Electrical Manufacturers Association (NEMA):
 - LD3-05.....High Pressure Decorative Laminates
 - LD3.1-95.....Performance, Application Fabrication and Installations of High-Pressure Decorative Laminates

PART 2 - PRODUCTS

2.1 PLYWOOD, HARDWOOD FACE VENEER

- A. HPVA HP-1, Premium Grade Rotary cut Select White Birch.
- B. Hardwood to be selected from first grade lumber, custom grade.
- C. Hardwood Veneer Plywood Paneling: Manufacturer's stock hardwood plywood panels complying with applicable requirements of ANSI/HPMAHP.
 - a) Face Veneer Species: Natural Birch
 - b) Construction: Veneer Core
 - c) Thickness: 3/4"

- d) Glue Bond: Type II interior water resistance capability.

2.2 PLASTIC LAMINATE:

- A. NEMA LD-3.
- B. Exposed decorative surfaces including countertops, both sides of cabinet doors, and for items having plastic laminate finish. General purpose Type HGL.
- C. Cabinet Interiors Including Shelving: Both of following options to comply with NEMA, LD3.1 as a minimum.
 - 1. Plastic laminate clad plywood or particle board.
 - 2. Resin impregnated decorative paper thermally fused to particle board.
- D. Backing sheet on bottom of plastic laminate covered wood tops. Backer Type BKL.
 - 1) Plastic Laminate: Subject to compliance with requirements, solid color core products which may be incorporated in the Work include, but are not limited to the following:
 - a) Formica Corporation used as basis for this specification
 - b) Wilson Art
 - c) Nevamar
- E. Post Forming Fabrication, Decorative Surface: Post forming Type HGP.
- F. Laminate Grade for Exposed Surfaces: Provide laminate cladding complying with the following requirements for type of surface and grade.
 - 1) Horizontal Surfaces (including tops): GP-50 (0.050" Nom. Thickness), or equal.
 - 2) Vertical Surfaces: GP-50 (0.050" Nom. Thickness), or equal.
 - 3) Edges: GP-50 (0.050" Nom. Thickness), or equal.
 - 4) Semi-Exposed Surfaces: High pressure laminate, GP-30.

2.3 PLYWOOD, AND PLYWOOD SOFTWOOD

- A. Prod. Std. PS1, five ply construction from 13 mm to 28 mm (1/2 inch to 1-1/8 inch) thickness, and seven ply for 31 mm (1 1/4 inch) thickness.
- B. 3/4" domestic plywood conforming to PSI-83 and the grading rules of the American Plywood Association. Plywood to be A-C grade for interior use.
- C. **Lumber:** Framing Lumber: Provide Douglas Fir-Larch, Standard Grade.

2.4 PARTICLEBOARD

- A. CPA A208.1, Type 1, Grade 1-M-3.
- B. Comply with ANSI A108.1 for Grade 1-M-1 panels with density of 45 lbs/cu. ft. for thicknesses of 3/4" and less and 44 lbs./cu. ft. for thicknesses of 13/16" to 1-1/4"; except as follows:

- Modulus of rupture and modulus of elasticity: 1600 psi and 350,000 psi, respectively, for 48 lb. density, 1300 psi, respectively, and 275,000 psi for 44 lb. density.
- Linear expansion: 0.35% for 45 lb. density and 0.50% for 44 lb. density.
- Screw-holding capacity, face and edge: 300 lbs. and 250 lbs., respectively, for 45 lb. density, and of 250 and 175 lbs., respectively, for 44 lb. density.

2.5 RUBBER OR VINYL BASE

Cove (for resilient floor); 100 mm (4 inch) high, 3 mm (1/8 inch) thick, flexible to conform to irregularities in walls, partitions and floors.

2.6 PLUMBING FIXTURES

ASME A112.18.1, except die-cast zinc-alloy material is not acceptable.

2.8 SOLID WOOD

Wood required for edge banding, moldings, and legs shall be of same species as wood face veneer.

2.9 SHEET STEEL

ASTM A1008.

2.10 STAINLESS STEEL

ASTM A167, with No. 4 finish.

2.11 HARDWARE

- A. Where pin tumbler locks are specified, disc tumbler lock "Duo A", with brass working parts and case, as manufactured by the Illinois Lock Company will be an acceptable substitute. Locks for each type casework, shall be keyed differently and shall be master-keyed for each type service, such as Nurses, Psychiatric, and Administration. Provide two keys for each lock. Exposed hardware, except as otherwise specified, shall be satin finished chromium plated brass or nickel plated brass.
- B. Marking of Locks and Keys:
 1. The name of the manufacturer, or trademark by which manufacturer can readily be identified, legibly marked on each lock.
 2. The key change number marked on the exposed face of lock, and also stamped on each key.
 3. Key change numbers shall provide sufficient information for replacement of the key by the manufacturer.
- C. Hinged Doors:

1. Doors 900 mm (36 inches) and more in height shall have three hinges and doors less than 900 mm (36 inches) in height shall have two hinges. Each door shall close against two rubber bumpers.
2. Hinges: Fabricate hinges with minimum 2 mm (0.072 inch) thick chromium plated steel leaves, and with minimum 3.5 mm (0.139 inch) diameter stainless steel pin. Hinges shall be five knuckle design with 63 mm (2-1/2 inch) high leaves and hospital type tips.
3. Fasteners: Provide full thread wood screws to fasten hinge leaves to door and cabinet frame. Finish screws to match finish of hinges.

D. Door Catches:

1. Friction or Magnetic type, fabricated with metal housing.
2. Provide one catch for cabinet doors 1200 mm (48 inches) high and under, and two for doors over 1200 mm (48 inches) high.

E. Locks:

1. Cylinder type pin tumbler.
2. Equip doors and drawers where shown with locks.

F. Drawer and Door Pulls:

Doors and drawers shall have flush pulls, fabricated of either chromium plated brass, chromium plated steel, stainless steel, or anodized aluminum.

G. Drawer Slides:

1. Full extension steel slides with nylon ball-bearing rollers.
2. Slides shall have positive stop.
3. Equip drawers with rubber bumpers.

H. Shelf Standards (Except For Fixed Shelves):

Bright zinc-plated steel for recessed mounting with screws, 16 mm (5/8 inch) wide by 5 mm (3/16 inch) high providing 13 mm (1/2 inch) adjustment, complete with shelf supports.

- I. Continuous Hinge: To be a full mortise type, made from clear anodized extruded aluminum with heavy-duty geared action. Shall conform to BHMA/ANSI Grade 1 performance standards.

a) Manufacturer: Stanley Lifespan 500, or equal.

- J. Grommets: To be 2" diameter O.D., 1" deep, made from heavy duty plastic, with cap and a slot cover. Provide at least 3 grommets per counter unit.

a. Manufacturer: . Outwater Plastics Industries, Inc. # 31-2.

- Doug Mockett & Co.

b) Color to be selected by Architect.

- K. Bass/Wall Cabinet Door/Drawer Pulls, Surface: Arched 5 1/4", with brushed aluminum finish, or equal.

- L. Hardware Standard: Comply with ASNI/BHMA A156.9 "American National Standard for Cabinet Hardware" for items indicated by reference to BHMA members or referenced to this standard.
- M. Drawer and Door Pulls:
Doors and drawers shall have flush pulls, fabricated of either chromium plated brass, chromium plated steel, stainless steel, or anodized aluminum.
- N. Drawer Slides:
 - 1. Full extension steel slides with nylon ball-bearing rollers.
 - 2. Slides shall have positive stop.
 - 3. Equip drawers with rubber bumpers.
 - 4. Full extension, 100 lb. capacity; "Unigrass Metallic System", No. 6036D1-P1 by Grass-America, Inc., or equal.
- O. Shelf Standards (Except For Fixed Shelves):
Bright zinc-plated steel for recessed mounting with screws, 5/8 inch wide by 3/16 inch high providing 1/2 inch adjustment, complete with shelf supports.
- P. Screws, fasteners, anchoring devices, etc. as required for complete assembly in a concealed manner.

2.12 FABRICATION

- A. Casework shall be of the flush full overlay design and, except as otherwise specified, be of premium grade construction and of component thickness in conformance with AWI Quality Standards.
- B. Fabricate casework of plastic laminated covered plywood or particleboard factory finished wood veneer as follows:
 - 1. Where shown, doors, drawers, shelves, all semi-concealed surfaces shall be plastic laminated.
 - 2. Horizontal and vertical reveals between doors and drawer for reveal overlay design shall be 19 mm (3/4 inch) unless otherwise shown. ,
- C. Electrical fixtures, receptacles, wiring and junction boxes required for fixtures and receptacles:
 - 1. Factory installed in casework.
 - 2. For electrical lighting fixtures, see drawings.
 - 3. For electric receptacles and lighting fixtures installed below or adjacent to wall cabinets or above counter tops, see electrical sections or specifications.
 - 4. Install wiring in built-in raceways and terminate at junction box mounted on rear of cabinet and counter.
 - 5. For final hook-up at junction box see electrical sections of specifications.

E. Base:

1. Provide rubber or vinyl base with close, flush joints; set with adhesive.
2. Remove adhesive from exposed surfaces.
3. Install base at floor line after casework has been accurately leveled.
4. Rub base to glossy finish.

F. Countertops:

1. Countertops, splashbacks and reagent type shelves shall be plastic laminate factory glued to either a plywood (PS1), or particleboard (CPA A208.1) core.
2. Countertops shall be 1-1/4 inchesthick.
3. Splashbacks and reagent type shelves shall be finished 19 mm (3/4 inch) thick and be secured to countertops with concealed metal fastenings and with contact surfaces set in waterproof adhesive.
4. Provide cut-outs for plumbing trim where shown.
5. Cover exposed edges of countertops, splashbacks and reagent type shelves with plastic.

G. Sink bowls:

1. 18 gage stainless steel, of size and design shown.
2. All interior corners of bowls shall be formed to manufacturer's standard radii.
3. Sinks shall have rims with flanged edges overlapping tops to provide tight joints.
4. Secure sink bowls with concealed fastenings.
5. For service lines from service fixtures, see other sections of specifications.

H. Provide the following plumbing trim and fittings:

1. Faucets: ASME A112.18.1 Type I, compression type, countertop mounted, chromium plated brass, having two valves and with swing-spoutand gooseneck spout as shown, elevated to clear handles.
2. Fittings shall have an elongated escutcheon for spout and handles, replaceable valve seats and four arm or lever style indexed chromium plated brass or stainless steel handles; handles either with or without hood.

I. Faucets:

1. ASME A112.18.1 Type I, compression type, splashback mounted, chromium plated brass, having two valves and with swing-spout and gooseneck spout as indicated.
2. Fittings shall have exposed body union inlets and adjustable flanges.

3. Valves shall have indexed chromium plated brass or stainless steel lever handles and replaceable valves seats; handles either with or without hood.

J. Drain:

1. Cast or wrought brass or stainless steel with flat strainer.
2. Surfaces of drains exposed from above shall have a chromium plated finish.

K. Traps: Cast brass.

L. Spray Hose:

1. Hose shall drop below counter top when not in use and be of sufficient length to reach the entire length of the countertop.
2. Concealed trim may be rough brass.

M. Support Members for Tops of Tables:

1. Construct as detailed.
2. Provide miscellaneous steel members and anchor as shown.

N. Legs For Counters:

1. Fabricate legs for counters of 1.6 mm (0.0635 inch) thick, 38 mm (1-1/2 inch) square tubular steel where shown.
2. Secure legs to counter tops and provide legs at bottom with shoes not less than 25 mm (one inch) in height.
3. Fabricate shoes of either stainless steel, aluminum or chromium plated brass.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Set casework in place; level, plumb and accurately scribe and secure to walls, and/or floors.
- B. The installation shall be complete including all trim and hardware. Leave the casework clean and free from defects.

3.2 FASTENINGS

- A. Fastenings for securing casework to adjoining construction shall be as detailed on the drawings or approved shop drawings.
- B. See Section 05 50 00, METAL FABRICATIONS for reinforcement of walls and partitions for casework anchorage.

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