

**SPECIFICATION
FOR
DESKS, WOOD, OFFICE**

(This specification is released for procurement purposes until revised or rescinded.)

SCOPE

This specification covers requirements for general office casegoods. This category includes desks, credenzas, bookcases, lateral files, conference tables and worktables. These requirements are based on general industry standards and are intended to provide high quality wood casegoods that will withstand constant use for long periods. This specification is intended for general use, but may not necessarily address unusual applications, which may require specialized equipment.

I. CLASSIFICATION

The wood casegoods shall be classified in the following styles:

- A. Post and Panel
- B. Flush Panel (Box Construction)
- C. Contemporary, Slab End Panel
- D. Traditional

II. APPLICABLE SPECIFICATIONS AND STANDARDS

Referenced specifications and standards shall be the latest issue in effect on the date of the Invitation for Bids. Copies of referenced materials may be obtained from the issuing organizations at the addresses shown. The following documents form a part of this specification.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), 1430 Broadway, New York, NY 10018:

-ANSI Z34.2-87 Self Certification by Producer or Supplier.

-ANSI/BIFMA X5.5-2008 Office Furnishings, Desk Products: Tests.

FEDERAL SPECIFICATIONS, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

-US Dept. of Commerce PS-51-71, Hardwood and Decorative Plywood, National Bureau of Standards

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) 2101 L Street, NW Washington, DC 20037.

-NEMA LD-3 High Pressure Decorative Laminates

III. REQUIREMENTS

A. GENERAL REQUIREMENTS

1. All casegoods furnished under this specification shall meet or exceed the requirements of ANSI/BIFMA X5.5.
2. Casegoods shall be new and in first class condition. Models offered are to be in current production and standard products of an established manufacturer. All units shall be free from

defects, imperfections, or hazards that might affect appearance, normal life, serviceability, or user safety.

3. Details not specifically covered in this specification shall be in accordance with the best commercial practice for products of this type.
4. Models offered are to fall within a classification and must include all items listed in the beginning of this document (Scope).
5. The product offered herein must be a stand-alone product that is of a standard manufacture of the manufacturer and not modified specifically to meet the requirements of the State of North Carolina. The product offered must be offered to the general public and must be advertised in the manufacturer's current printed literature.
6. References herein to "modular" components are not to be construed as prohibiting fully assembled units.

B. MATERIALS

1. Wood
 - a) Exterior - All exterior veneered surfaces shall be of species as stated in the Invitation for Bids. All exterior solid wood parts shall be of the same specie as veneers or other hardwoods with similar finishing characteristics. They shall be of clear face cuttings, free from visible defects.
 - b) Interior - All interior structural parts not otherwise specified in construction section shall be of furniture grade hardwoods free from defects and in accordance with best industry practice.
 - c) General - All woods shall be kiln dried to a level of moisture content consistent with best gluing practice.
2. Glues
 - a) To assure glue joints of maximum strength, the glues used shall be of good commercial grade and the gluing processes shall be performed in accordance with best industry practice. Joints with inadequate amount of glue or coverage are not acceptable.
3. Hardware
 - a) Ferrules - When used, ferrules shall be of corrosion resistant materials with finish compatible with design and decor of the casegood.
 - b) Door Catches
 - (1) Bullet type friction catches, when used, are to have 3/8" barrel. The bullet to be adjustable and spring controlled. The escutcheon plate shall be of durable material with finish to match or blend with decor of the casegood and shall be securely mounted to the door.
 - (2) Other type friction catches or magnetic catches satisfactorily proven in field use and acceptable in the industry may be used. Finishes shall match or blend with the decor of the casegood.
 - c) Hinges - Hinges shall be of the concealed type and constructed and attached such that the axis of rotation (swing) of the door is absolutely parallel to the vertical corners of the casegood. Each part of conventional style hinges is to be formed from steels not less than 0.042" thick. All hinges shall be coated or plated to prevent rust and corrosion.

- d) Locks - All conventional double pedestal desks to be equipped with a locking arrangement that will lock all drawers. This is typically achieved with a locking center drawer that operates a mechanism that locks and releases all drawers. One lock for each pedestal and a separate lock for the center drawer may also be used. When more than one lock is used, they shall be keyed alike. Locks for center drawers, in a modular design, are optional. Two keys will be required for each lock system.
- e) Drawer Pulls - Metal drawer pulls and metal parts of combination pulls shall be zinc die-cast, aluminum, or equivalent. Plastic in combination metal and plastic pulls shall be smooth and of ABS (Acrylonitrile Butadiene Styrene) type plastic or equivalent. Finish on pulls shall be compatible with decor of desk. All pulls shall be securely mounted to drawer or door. Shaped pulls on edges of drawer fronts may be used.
- f) Finish - The finish shall be of the best grade standard finish that the manufacturer normally uses in production. A finish sample panel approximately 6" x 12" showing steps in finish to be used shall be supplied when stated in the Invitation for Bids. Finish shall be the manufacture's standard colors unless otherwise specified.

Color and shade of finish on all exterior components throughout the unit must match in accordance with best industry practice. In this respect, it is specifically emphasized that the color and shade of an HPL top (e.g. work surface of a desk) must match the veneer surfaces elsewhere in the unit to the State's satisfaction. Units, which, in the State's judgement, contain components with unmatched color and/or shade, shall be rejected.

- g) Plywood - All plywood shall be constructed according to the requirements of PS-51-71, including the following limitations: Bondage shall be not less than Type II. Cross banding shall be not less than Grade 2, and not less than 1/20" thick. All exposed faces (such as end panels, plywood drawer fronts, the sides of knee-space openings, top of reference slide) shall have Grade 1 veneer having matching cut, grain and color to present a uniform appearance. Grade 2 veneers shall be used on the face of unexposed panels, drawer bottom faces and backs, and for the backs of all panels. Lumber cores shall be regular grade except that no butt-end joints shall be permitted. Veneer shall be in full-length pieces and shall be applied in balanced construction form with no veneer joints less than 1" from the edge of the panels. All veneers shall be glue-edged.
- h) Veneers - Before sanding, face and back veneers shall be not less than 1/36" for maple and oak and not less than 1/40" for cherry and walnut. These veneer thicknesses are applicable to all components which have veneers of the above species, whether on conventional plywood or otherwise. For other veneer species, in no case shall the veneer be less than 1/36" thick before sanding unless otherwise approved.

C. DESIGN STYLES

1. Post and Panel

Casegoods shall exhibit post and panel styling with either:

- "Underset" legs (the legs shall be set in from the exterior panels of the casegood)
- The posts at the four corners shall be extended to form the legs.

Conference Desks and Executive Desks:

Each desk shall be a double pedestal executive style desk. Each pedestal shall contain a minimum of either: three box drawers in one pedestal and one box drawer and a file drawer in the other pedestal, or a minimum of one box drawer and one file drawer in each pedestal. There shall be a knee space drawer. A pullout arm slide shall be located at the

top of each pedestal. Grommets shall be available for wire management where requested.

Flush Panel (Box Construction)

Casegoods shall exhibit flush panel styling (box construction) with underset legs. (The legs shall be set in from the exterior panels of the casegood.)

Senior, Junior and Clerical Executive Desks:

Same requirements as 1 above

3. Contemporary, Slab End Panel

Casegoods shall exhibit slab end styling with recessed approach sides and either 3/4 or full modesty panels.

Executive Desks:

Each desk shall be a double pedestal executive style desk. Each pedestal shall contain a minimum of either: three box drawers in one pedestal and one box drawer and a file drawer in the other pedestal, or a minimum of one box drawer and one file drawer in each pedestal. There shall be a knee space drawer. Grommets shall be available for wire management where requested.

4. Traditional

Casegoods shall exhibit traditional style construction with solid hardwood edge banding, and solid hardwood base molding. Edge banding using veneer wrap is also acceptable. Shaped hardwood decorative molding, or decorative molding of an appropriate plastic type compound, shall be provided, and is to be of a style and placement typical of best industry practice. Such molding may be offered as an option.

Senior, Junior and Clerical Executive Desks:

Each executive desk is to contain as a minimum one box drawer and one file drawer in each pedestal. There shall be a knee space drawer. A pullout arm slide shall be at the top of each pedestal. Grommets shall be available for wire management where requested.

D. CONSTRUCTION

Where companion items are not covered by this or other specifications, but are called for in the IFB, the intent is for the bidder to quote on items of comparable quality and appearance to those specifically described herein. The companion items shall be those normally offered in the same series as those described herein.

The chassis shall be constructed in such a manner that "racking" does not occur under any condition. "Knock-down"/cam lock assembly construction is not permitted.

Determinations concerning acceptability of the quality offered shall be the sole discretion of the Division of Purchase and Contract.

1. Individual Components

- a) Exterior - Exterior surfaces of plywood such as panels and drawer fronts shall be face veneer, with a veneer thickness of not less than that specified in Section III.B.3.h above.

All exterior solid wood parts such as parting rails, posts, top banding, and panel molding shall be in compliance with the applicable provisions of Section III.B.1.a above. High Pressure Laminate is not permitted on vertical surfaces, such as panels and drawer fronts.

- b) Tops - Unless otherwise specified in the Invitation For Bids or on the purchase order, for Post and Panel, Flush Panel, and Slab End Panel designs, tops shall be minimum 3-ply core construction, 1 3/32" thick, and faced and self edged with a high pressure laminate (HPL) plastic in accordance with NEMA LD-3, GP-50 standard and backed with a balancing sheet. Edge banding with solid hardwood is also acceptable. PVC type plastic facing material on working surface or edge banding of tops is not allowed.

Unless otherwise specified in the Invitation For Bids or on the purchase order, for Traditional designs, top shall be minimum 3-ply, core construction, 1 3/32" thick, and faced and edged with furniture grade hardwood veneer of the species called for in the Invitation For Bids, and in full accordance with best industry practice and free of any defects, visual or otherwise. Veneer thickness shall be not less than that specified in Section III.B.3.h above. Edge banding may be either solid hardwood or veneer wrap. On Traditional desks ordered with HPL tops, edge banding may be HPL, veneer, or solid hardwood.

For all designs, high-density flakeboard cores, when used, shall be best quality that manufacturer normally uses for this quality casegood and be minimum 45 lb. density.

- c) Panels - All panels shall be minimum 3-ply laminated construction. Three-ply veneer panels shall be minimum 3/16" thick. End panels and approach panels on high density flakeboard in flush panel or box construction shall be minimum 3/4" thick (11/16" thick for approach panels) and minimum 45 lb. density unless otherwise specified.
- d) Drawers - Drawer fronts shall be 5-ply laminated construction, or minimum 3-ply balanced laminated construction or 45 lb. high density fiberboard with veneer on both sides. (For the purposes of this specification, "high density fiberboard" is defined as finely ground wood chips, pressed and glued together). OVERLAPPING drawer fronts are not acceptable for the POST AND PANEL, FLUSH PANEL, and TRADITIONAL classifications. Drawer sides and backs shall be of solid oak or other furniture grade hardwoods, or hardwood plywood, in accordance with best industry practice and finished minimum 7/16" thick. Detachable drawer fronts to be acceptable. Vinyl-wrapped drawer sides or sides fabricated from particleboard, flake board, or a related material are not acceptable.

For inset drawers, the difference in the size of the drawer opening and the drawer front shall be no greater than 1/4" (total) in height, and 1/4" (total) in width. Drawers shall be installed so that the drawer is centered in the drawer opening.

Drawer bottoms shall be minimum 1/8" thick 3-ply with oak face, or 1/8" fiberboard with printed face compatible with the finish of the drawer. Bottoms shall be fitted into grooves on all four sides and stabilized with glue blocks, hot melt adhesive or coated staples.

Drawers shall have dovetail (both English and French types are acceptable) construction at all four corners. Chuck-and-bore construction, bored-and-doweled construction, and box joint construction are also acceptable. All drawer corner joints shall be tight, free from cracks or missing wood, and properly and fully glued. Use of staples on corner joints is not acceptable. However, it is acceptable to use pins in addition to the above joining methods for additional joint reinforcement. Rabbeted, rabbeted-and-pinned, four sided miter or other methods of construction are not allowed.

In assembled desks, file drawers shall operate on full extension, roller bearing, or ball bearing suspensions (Ex: "Accuride"-type") and shall be rated to hold a minimum of 50 lbs per drawer. Box and pencil drawers shall operate on a roller bearing or ball bearing suspension (Ex: "Accuride"-type"). Drawers determined by the State to be significantly

shorter than the industry norm for the given desk size are not acceptable. Drawer length (inside dimension) shall be a minimum of 80% of the depth (inside dimension) of the pedestal. Drawers (except file drawers as specified above) shall, when fully opened, expose a minimum of 75% of the drawer depth (inside dimension). The length of the drawer suspensions shall be within approximately 3" of the inside depth of the pedestal. Note: All ball bearings must be metal, no plastic balls, retainers or races allowed. All file drawers on desks and credenzas shall be such that as furnished they will accommodate both letter and legal size folders, whichever size is elected by the end user. A complete set of supports for both letter and legal size hanging type folders is to be included. Folder hanger hardware is to be set up at delivery for letter size folders. Any holes required to locate hardware to hang legal size folders are to be drilled by contractor. Relative arrangement of file drawer, suspension, case, and hanger hardware is to be such that a standard Pendaflex hanging folder equipped with plastic tab on top edge and properly suspended from the file hanger rails clears the parting rail or drawer front above it during drawer operation and does not drag the drawer bottom.

All drawers (file, box, and center) are to be removable from the case by the user. Release mechanisms (to allow such removal of the drawers from the case) are to be easily accessible by user without tools. Otherwise, the case good is to be provided with an appropriate tool to enable the user to actuate the release mechanism. In addition, if shipping screws to retain the file drawer during transit are provided, these must be clearly labeled as such, or else written instructions are to be provided in the drawer advising the user as to the location of these screws and that they need to be removed in order to remove the drawer.

If center drawers are not full extension and the back of the drawer is not easily accessible, vendor is to install an appropriate barrier across the inside rear part of the drawer to prevent items from moving into the inaccessible rear portion thereof.

All drawer margins shall be even, without any evidence of misalignment of the drawer in closed position. On each drawer, the suspension shall be adjusted so that the drawer hits both stops simultaneously at drawer's limit of withdrawal.

- e) Pullout arm slides - The slides shall be a minimum 3-ply laminated construction on 45 lb. High-density flakeboard core with face solid wood or high-pressure laminate. The slide shall have a finger hole pull on the side or underside, or a button pull on the front edge. A slide shall be provided for the top of each pedestal except that it may be optional in the slab end design.
- f) Posts - On post-and-panel models, posts shall be solid wood as specified in the materials section with an approximate dimension of 1 3/4" x 1 3/4". The smallest dimension shall not be less than 1 1/4" with a cross section not less than 2.5 square inches.
- g) Legs - Legs shall be in accordance with standard manufacture - wood, metal, or plastic, rectangular, round or square with or without ferrules matching trim hardware. All legs shall be equipped with adjustable levelers. Detachable legs shall be securely fastened to pedestal bottom by anchor bolts and tee nuts. The smallest dimension shall not be less than 1 1/4" with a minimum cross section of not less than 2.25 sq. inch.
- h) Bottom Edge - The bottom edge of all panels and other components around the bottom perimeter of the desk shall be smoothed to prevent snagging or veneer tear out by housecleaning appliances. An edging or molding may be applied to the bottom of panels for this protection.

IV. WARRANTY

The contractor warrants to the owner that all furniture supplied under this specification will be new and of good material and workmanship, and agrees to replace promptly any part or parts which by reason of

defective material or workmanship shall fail under normal use, free or negligence or accident, for a minimum period of 24 months from date of acceptance. Such replacement shall be free of any charge to the owner or his representative, and shall cover all parts, labor, freight, and round trip travel to user's site if required. For any component (such as a suspension) which has a manufacturer's warranty period longer than the above, such longer warranty period shall apply in place thereof.

V. SERVICE, PARTS, AND MANUALS

The contractor shall furnish complete written instructions for installation, an operation and maintenance manual, and a complete list of replacement parts or assemblies.

VI. ACCEPTANCE, EVALUATION AND QUALITY ASSURANCE

The purchaser or his authorized representative may arrange for acceptance inspection for compliance with this specification.

VII. DELIVERY AND PAYMENT

Delivery of and payment for equipment provided under this specification shall be in accordance with the terms and conditions stated in the Invitation for Bids. The contractor shall be responsible for any packing, packaging, or protection required to insure delivery in an undamaged condition.

VIII. ORDERING DATA

Purchasers should exercise any desired option offered herein and should specify the following in the requisition and Invitation for Bids:

1. Style and size
2. Item name
3. Veneer specie
4. Solid wood specie
5. Type of pedestal (Left or right pedestal to be specified)

--- END OF SPECIFICATION ---