STATE OF NORTH CAROLINA
DEPARTMENT OF ADMINISTRATION
PURCHASE AND CONTRACT DIVISION

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SUPERSEDING
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SPECIFICATION FOR DESK, TEACHER, WOOD

(This specification is released for procurement purposes until revised or rescinded.)

SCOPE

This specification covers wood teachers desks in both conventional and contemporary design.

I. CLASSIFICATION

Wood teachers desks shall be classified in the following classes and sizes:

Class I - Conventional Design, Single Pedestal
Minimum Top Size: 26"x42"

Class II - Contemporary Design, Single Pedestal
Minimum Top Size: 30"x50"

II. APPLICABLE SPECIFICATIONS

The following documents in effect on the date of the Invitation For Bids shall form a part of this specification:

NEMA LD-3 - High Pressure Decorative Laminates
National Electrical Manufacturer's Assn. (NEMA)
2101 "L" Street, NW
Washington, DC 20037

U.S. Dept. of Commerce, Com.Std. 35, Hardwood Plywood
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

III. REQUIREMENTS

A. MATERIALS

1. Wood (Species) - The woods shall be of the following:

   a) Hard Maple - Acer Sacchrum
   b) Hard Birch - Betula Lutes or Betula Lenta
   c) Hard Beech - Fagus Grandifolia
   d) Hard Oak - Quercus (genus)

The Woods are to be clear of defects; kiln-dried to commonly accepted tolerances for glued parts and also properly dried so there will be no checking or splitting occurring when used.

2. Glues

Glues shall be with good commercial practice so that the glue joints are as strong as the wood.

3. Glides

Glides shall be nickel-plated, case-hardened, and rubber cushioned.

4. Finish

The finished furniture (or panels) shall meet the following requirements:

The color and appearance of the finished furniture shall be within the tolerances defined by the standard control panels for the furniture on contract, the standard control panels to be furnished by the contracting agency. The finish shall be natural but can be toned or stained for uniformity.

B. CONSTRUCTION

1. Top

Class I - Top shall have a minimum thickness of 13/16" and a minimum size of 26"x42". Top surface shall be either Hard Maple veneer, Birch veneer, Beech veneer or High pressure plastic laminate. The edges shall be either banded with solid lumber on all sides or edge banded with veneer/high pressure laminate to match the top surface. Tops to be securely attached to the rails. Core material may be plywood or particle board.

Class II - Top shall have a minimum thickness of 1-1/8" and a minimum size of 30"x50". Top surface shall be either Hard Maple veneer, Birch veneer, Beech veneer or High pressure plastic laminate. The edges shall be either banded with solid lumber on all sides or edge banded with veneer/high pressure laminate to match the top surface. Tops to be securely attached to the rails. Core material may be plywood or particle board.

Plastic surfaces shall be in accordance with NEMA LD-3, 1980 or issue in effect at the time of the bid. Plastic thickness shall be not less than .050". The plastic shall be General Purpose Type Decorative Laminate, Grade GP50. Balancing backing sheet shall be equal to grade BK20.

NOTE: If particleboard is used as a core for the tops, the manufacturer must guarantee the top against loosening, breaking, or any other condition causing the top to be unsatisfactory for a period of three (3) years from the date of delivery. Where applicable the top shall be wood rimmed before the plastic is applied.

2. Chassis (Class I and Class II)

All panels shall be a minimum of 1/4" thick plywood (same veneer as top) and be routed into or securely attached to the posts. Drawer fronts shall be a minimum of 3/4" plywood (same veneer as top). Concealed rails or some other means of bracing shall be provided to prevent the desk from swaying or becoming loose during normal use.

The single pedestal shall contain one deep file drawer, and two smaller drawers or the pedestal may contain a pull out board in lieu of one of the small drawers. The knee drawer shall have a pen and pencil tray and be equipped with a paracentric lock, controlling the metal locking device for all drawers in the pedestal. All drawers shall be dovetailed front and back and be completely boxed in. All drawers shall be equipped with suitable wood, aluminum, or brushed brass drawer pulls. Drawer slides shall be wood or metal. Adjustable glides or brass ferrules shall be used on the legs of the desk.

C. DIMENSIONS

The desks shall meet the following minimum <u>finished</u> dimensions:

Top Size	26" x 42" 30" x 50"	Class I Class II
Top Thickness	13/16"	Classes I & II
Height	29	Classes I & II
Panel Thickness	1/4"	Classes I & II
Drawer Front Thickness	3/4"-1/16"	Classes I & II
Drawer Sides & Back Thickness	1/2"-1/16"	Classes I & II
Drawer Bottom Thickness	1/4"-1/16"	Classes I & II
Drawer Partition Thickness	1/4"-1/16"	Classes I & II
Legs	1-3/4"	Classes I & II

<u>NOTE:</u> Drawer bottoms less than 1/4" thick to be unconditionally guaranteed against sag.

IV. WARRANTY

The contractor warrants to the owner that all wood teacher's desks furnished under this specification will be new, 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 of negligence or accident, for a minimum period of three years from date put in operation. Such replacement shall be free of any charge to the owner or his representative.

V. SERVICE, PARTS, AND MANUALS

None required in this specification.

VI. ACCEPTANCE EVALUATION AND QUALITY ASSURANCE

A. SAMPLING FOR LOT ACCEPTANCE

1. Contractor Inspection

   Unless otherwise specified herein, the supplier is responsible for the performance of all inspection requirements prior to submission for state inspection and acceptance.

2. Classes of Inspection

   All examination and testing shall be to determine conformance to the requirements of this specification to serve as a basis for acceptance.

3. Inspection Lot

   For purpose of sampling and testing, a lot shall consist of all wood teacher's desks offered for delivery for one location at one time.

B. INSPECTION

The field inspector shall pick at random one wood teacher's desk from a shipment for test purposes.

C. LOT ACCEPTANCE

The sample selected by the field inspector shall be subjected to tests herein specified. If the sample fails in one or more of these tests the lot shall be rejected. Rejected lots may be resubmitted for acceptance tests provided the contractor has reworked all nonconforming materials.

D. TEST PROCEDURE

The following tests are to be performed after the furniture (or panels) has been aged at least 10 days at not less than 70°F.

1. Print Test

   Place a piece of surgical gauze folded twice to form a pad approximately 3"x3" on the finish surface (at room temperature). Apply a weight equivalent to two pounds per square inch. Allow to remain in contact for 24 hours. Remove weight and gauze. One hour later examine. There shall be no evidence of printing except those marks which can be easily polished out.

2. Hot Water Test

   Pour 25cc of boiling water in a pool on the finish surface. Allow to cool and blot up. Polish with a clean, dry cloth. There shall be no evidence of whitening or spotting.

3. Cold Water Test

   Apply a pool of 2cc of cold water to the finish surface. Cover with a 3" watch glass. Allow to remain in contact for 24 hours. Remove watch glass and blot up water. One hour later, polish with a clean, dry cloth. There shall be no evidence of whitening, spotting, or checking.

4. Adhesion Test

Using a single edge razor blade, make cuts through the film into the wood 1" long, 1/8" apart at an angle 45° to the grain on the wood. Then repeat at a 90° angle to the first cuts, forming 1/8" squares. The squares so formed should adhere to the wood and not chip off or break in a brittle manner when rubbed with a cloth.

5. Impact Test

Drop a one-pound steel ball on the finish from a height of one foot. Examine the crater so formed. Finish shall not be shattered or loosened.

6. Smear Test

Make smears on the finish surface with lipstick and carbon paper. Smears shall be easily removed with a cloth dampened with VM&P Naphtha.

7. Wood Classroom Furniture Finish - Tri-Sodium Phosphate (Detergent) Test

A 5% solution of tri-sodium phosphate shall be confined by means of a putty ring over an area of approximately three square inches for a period of 24 hours. Cover the solution and putty ring with a piece of glass to prevent evaporation. At completion of test, the solution and putty ring shall be removed and the completion surface wiped dry and clean with a cloth. There shall be no permanent discoloration or softening of film.

8. Ink Test

Apply a pool of ½cc of ink to the finish surface. Allow to remain in contact 30 minutes. Blot and wipe clean with a damp cloth. There shall be no staining.

9. Chemical and Stain Resistance Test

The finish shall be resistant to staining and spotting from contact with various liquids, foods, etc. The following group being representatives:

a. Coffee	e. Tomato Juice
b. Vinegar	f. Butter
c. Lemon Juice	g. Milk
d. Orange Juice	h. Tea

Place several drops or a daub of each material on the finish being tested. Cover with a watch glass. Allow to remain in contact for 18 hours. Remove materials with a damp cloth. After a two hour recovery period, examine. There shall be no spotting, staining or discoloration. (The above tests are of such a nature that they may be performed in the field. In addition, the finish shall meet the following laboratory requirements after at least 10 days aging at not less than 70°F.)

10. Cold Check Test

Finish shall withstand 10 hot to cold cycles without cracking. One cycle is as follows:

a) One hour at 120°F.

b) Followed immediately by one hour at 5°F.
c) One hour at room temperature after which panel is examined (preferably while holding the panel at a 45° angle to the rays of bright sunlight or some other strong source of light) for checks in the finish.

11. Abrasion Test

A wood block with rounded edges approximately 4"x6" faced with 1.05-54 sateen and loaded with a total weight of ten pounds shall be moved reciprocally across the finish surface, the pad being saturated with Dutch Cleanser paste (20 grams of Dutch Cleanser in one ounce, liquid measure, of tap water). Rewet with paste every 50 reciprocations. The finish shall withstand at least 300 motions in each direction without being worn through or cut through to wood.

E. SAMPLES

If samples with the bids are necessary, they shall be specifically asked for in the Invitation for Bids and the particular purpose to be served the bid sample shall be stated.

VII. DELIVERY AND PAYMENT

Delivery of and payment for wood teacher's desks purchased under this specification shall be in accordance with the terms and conditions of the Invitation for Bids. The contractor shall be responsible for any packaging, or protection required to insure safe delivery in an undamaged condition.

VIII. ORDERING DATA

Purchasers should exercise any desired option herein and should specify the following:

1. Title, number, and date of this specification
2. Species of wood desired
3. Class and size of desk desired

This interim specification shall, until revised or rescinded, apply as far as practicable in terms and effect to every state purchase of the commodity described herein; however, modifications may be made by the Secretary of Department of Administration prior to the adoption of revisions.