

SECTION 12 50 00 – LOOSE FURNISHINGS

1.1 PRODUCTS, GENERAL

A. Furniture glides and casters:

1. Specify sled-based student chairs with non-skid glides appropriate for hard-surface floors to prevent damage to the floor.
2. Specify steel glides in lieu of nylon glides on hard surface flooring; although steel glides may cause black marks on the floor, they are less likely than plastic to scratch the floors over time. Steel guides must be specified, if desired, since most manufacturers have nylon as a standard.
3. Non-skid, durable, plastic glides that will not mar or damage floors may be specified with the building owner's consent. It should be noted that this glide type may increase the furniture cost and it may not slide on the floor.
4. Felt glide protectors may be specified for field-installation. These will protect resilient flooring but will need periodic replacement.

1.2 LOOSE FURNISHINGS/EQUIPMENT

- A. Loose furnishings and equipment in the project are those items that are not attached to the building such as furniture, special subject equipment, appliances, trash receptacles, cleaning equipment, etc. The type of loose furnishings and equipment for a school should be selected to support the educational curriculum and the function of the spaces, but also provide flexibility for change and development in the future. The exact items and styles may vary from school to school.
- B. The recommended furniture and equipment are identified on each space plate in chapter 5. Following are guidelines for a level of quality, durability, and function for various types of furniture that may be used in a school as well as features for consideration and review with school district representatives.
- C. Maintenance items such as sweepers, lawn care machines, mops, brooms, buffers, scissors hoist, etc., are funded by the school district.
- D. Student tables, student desks, and student chairs must comply with The Consumer Product Safety Improvement Act (CPSIA) of 2008 which regulates testing requirements for children's products. Section 102 of CPSIA provides regulations for lead in paint and similar surface coatings. Upon request, manufacturers must submit a third party testing and certification complying with Section 102 of the CPSIA with the requested bid.

1.2 QUALITY GUIDELINES AND FURNITURE SELECTION CONSIDERATIONS

A. Student Tables

1. Tops

- a. 1 inch to 1 1/4 inch plywood with patterned horizontal grade plastic laminate on top and exposed, sanded, sealed, and lacquered plywood edge. Include steel stretcher support bar on tables over 60 inches in length.

2. Legs or T Bases

- a. 19-gauge steel tubing with self-adjusting, rubber-cushioned, swivel type, nonremovable glides. Nickel plated chrome or electrostatically applied epoxy powder coat finish. Adjustable legs for flexibility for elementary schools and middle schools are beneficial to accommodate a wide range of student sizes at a given grade level. Tables 29 inches high are a standard height for adults and meet the Americans with Disabilities Act guidelines.

B. Student Desks

1. Styles and sizes vary. Both present and future activities and goals should be considered when selecting the type of desk. If combination and attaching chair units are purchased, some free

stand desks without chairs meeting the Americans with Disabilities guidelines should also be purchased.

2. Tops

- a. For ease of maintenance and durability, it is recommended that tops be 5/8 inches to 3/4 inches solid molded, thermosetting plastic with rounded edges.

3. Frames

- a. Nickel chrome plated or electrostatically applied epoxy powder coat finish shall be used. Construction will vary with style of desk. A minimum of 18-gauge should be used for legs and a minimum of 16-gauge steel tubing used for horizontal support and bracing. All welds should be continuous.

4. Glides

- a. Super-silent, rubber-cushioned, swivel-type, nickel plated steel should be externally applied and crimped onto legs. Glides should be nonremovable.

C. Student Chairs

1. Two different types of student chairs are typically used in schools. One is a soft plastic, molded steel chair, and the other type is a hard solid, molded thermosetting, plastic independent seat and back support. Both are valid options for classroom seating. The soft plastic chairs are usually available in either a four leg with glide or a sled base style. The hard plastic chairs are usually available only in a four leg with glide option.
2. Sled base style chairs are generally used in carpeted areas, but, if a glide is placed on the bottom of the sled base, it can also be used on a resilient floor. The four leg chair option is generally used for resilient floors, but can also be used in carpeted spaces. The concern with a four leg chair is that the glides do sometimes come off the legs, even when crimped on in a permanent mounting. The exposed leg of the chair can then cause damage to both a carpeted or resilient floor.
3. Soft plastic chairs provide a softer and more comfortable seat. They, generally, are less expensive.
4. The hard plastic chairs are much heavier, are easier to keep clean, and are more durable with a longer use life than soft plastic. Both styles of chairs only stack about 5 to 7 chairs high.
5. Frames
 - a. Nickel chrome plated or electrostatically applied epoxy powder coat finish shall be used. Nickel/chrome finish must meet all requirements for nonpeeling and abrasion-resistant finish. A minimum of 18-gauge steel tubing for legs and 16-gauge 1 1/8 inch steel tubing for backs should be used to construct the frame.
 - b. Solid plastic chairs should have an "H" style frame for the legs. Avoid using an "A" style leg base. Cross-bracing of the legs about 9 inches to 12 inches below the seat is recommended for support. All welds should be continuous.
6. Solid Plastic Seat and Back
 - a. Seat back should be a minimum of 5/8 inch solid, molded thermosetting plastic with contoured edges. Seat and back should be attached with metal to plastic fasteners from the frame or with exposed rivets so the exposed seating surfaces of plastic units are left unbroken.
7. Soft Plastic Shell Seat
 - a. Shell shall be one piece, flexible injection, molded shell with support ribbing. Shell should be attached with metal to plastic fasteners from the frame in such a way that the exposed seating surface is left unbroken and fasteners should not penetrate front of shell.
 - b. Seat shall be braced in such a way that visible "stress" marks do not occur.

8. Glides

- a. Swivel-type, nickel-plated, steel glides should be externally applied and crimped onto legs. Glides should be nonremovable.

9. Sizes

- a. Exact sizes vary from manufacturer to manufacturer ranging from 12 inches to 18 inches in seat height. The following are some general guidelines for grade levels; however, Owner representatives should verify exact sizes and ratio depending on their own school requirements and need for flexibility.

Kindergarten and Prekindergarten 12 inches to 13 1/2 inches:

Grade 1	12"	to	14"
Grade 2	13 1/2"	to	15"
Grade 3	14"	to	15"
Grade 4	15"	to	16"
Grade 5	15"	to	16"
Grade 6	16"	to	18"
Grades 7 to 12	17 1/2"	to	18"

D. Teacher Desk

1. Teacher/staff desks may vary in size and style. Depending on teaching styles and methods of different school districts, the option to use something more mobile and flexible, such as a teacher support cart with writing area or a work surface on casters with hanging storage drawers versus an actual desk, may be considered.
 - a. Regardless of the actual style of this desk/work surface or cart, the unit should have the capacity to hold supplies and a computer. Lockable drawers or storage is beneficial.
2. Desk Construction
 - a. 22-gauge steel, reinforced, double wall, end panel or 20-gauge steel modesty panel or steel pedestal supported desks with steel or 1 inch horizontal grade plastic laminated 4 1/2 pound per linear inch honeycomb core. Front and back edges of top are to have post formed curved contour.
3. Work Surface Construction
 - a. The frame is to be seam welded 16-gauge steel outer leg with 14-gauge steel tubing inner leg/support. Formed steel (11-gauge) cross support channel 1/4 inch thick steel work surface mounting plates or support arms or 14-gauge steel tubing support arms. All welds are to be continuous. Cable and cord raceway integral with frame construction. Top surface is to be horizontal grade plastic laminated 1 inch to 1 1/4 inch thick high density particle board with melamine/phenolic backing sheet. Front and back edges are to be post curved contour.
4. Glides
 - a. Nickel/chrome plated steel self-leveling units
5. Drawer Construction
 - a. 22-gauge steel durable wall box construction with 18-gauge steel ball bearing full extension glides or nylon roller suspension. Integral shaped pull in steel front. File drawers are to include integral hanging file lip on side of drawer and spring loaded follower.
6. Finish

- a. Nonchipping enamel or epoxy powder coat, electrostatically applied and then baked on over a rustproofing primer.

7. Details

- a. Plastic grommets with snap fit covers in top, wire management under unit, locks on drawers, end panel cable pass through is advantageous.
 - 1. Space considerations, location, layout, and type of filing should be reviewed before determining type of file and drawer capacity required. Vertical files are available in both letter and legal size.
 - 2. Shell Construction
 - a) 22-gauge cold rolled, steel for all vertical surfaces and 20-gauge steel for top and bottom.
 - 3. Drawer Construction
 - a) 22-gauge, cold rolled, steel with high drawer sides to form integral lip for hanging files. Drawer should include spring-loaded 22-gauge steel follower back with positive locking action.
 - 4. Drawer Suspension
 - a) Full extension of triple tier assembly with a minimum of 116 steel ball bearings.
 - 5. Details
 - a) Interchangeable core, removable locks, counterweight to inhibit tipping. Mechanical interlock preventing extension of more than one drawer at a time.
 - 6. Warranty
 - a) 15 years

F. Lateral File

- 1. Space considerations, location, layout, and type of filing should be reviewed before determining the type of file and drawer quantity required. Lateral files can be used to file paper both from front to back and side to side. Most lateral files are sized to fit both letter and legal paper but others are sized only for letter filing side to side.
- 2. Shell Construction
 - a. A minimum of 20-gauge steel sides and double wall base and back and 18- gauge steel top and bottom with double wall base.
- 3. Drawer Construction
 - a. A minimum of 20-gauge cold rolled steel front with high sides. Removable front to back filing handrail bars to permit side to side filing.
- 4. Finish
 - a. Chip resistant enamel electrostatically applied and then baked over a rustproofing primer.
- 5. Drawer Suspension
 - a. Full extension of triple tier assembly with a minimum of 40 steel ball bearings.
- 6. Details

- a. Locks are to be interchangeable and core removable. Center weight to inhibit tipping. Mechanical interlock preventing extension of more than one drawer at a time.

7. Warranty

- a. 15 years

- G. Steel Bookcases

1. Bookcases range from 2 to 5 shelves and usually 12 inches to 14 inches deep. Units over 36 inches should be placed against wall because they will easily tip over.
2. Shell Construction
 - a. 20-gauge, cold rolled, steel sides and back with double wall box base. Integral standards to accept shelf supports for adjustment of 1/2 inch increments.
3. Shelves
 - a. 18-gauge, cold rolled, steel to accept loads of up to 100 pounds.
4. Finish
 - a. Chip-resistant enamel electrostatically applied and baked over a rustproofing primer.

- H. High Density Stack Chair

1. High-density stack chairs provide flexibility in many spaces. Chairs should be comfortable with seat and back contours to give user back support. Chairs vary with stacking ability depending on design. Chairs should stack no higher than 60" above the floor.
2. Frame
 - a. 7/16 inch diameter, solid coil, wire bent, sled base frame with maximum of 8 welded points on frame. Avoid cold welds.
 - b. Frame to include 7/16 inch solid wire seat brace. Frame finish to be either nickel chrome plate or electrostatically applied epoxy powder coat.
3. Seat and Back
 - a. Two-piece, independently molded seat and back. Seat and back construction should be in-through color injection, molded thermoset plastic. Attach to frame with plastic to metal fasteners. Seat and back should be replaceable.

- I. General

1. Manufacturers shall provide the standard product warranty, unless otherwise noted by the Design Professional.
2. Adjustable, pneumatic chairs should have a minimum replacement warranty of 5 years for the hydraulic lift mechanism.
3. Fabrics on seating being used by students should have a durability exceeding 50,000 double rubs and meet state and local fire codes. Fabric is to pass ASTM-E84 and NFPA-255 codes. Color fastness is to meet 40-hour NAFM requirements.
4. Fabrics on seating being used in the administrative, guidance, or other private staff areas should have a durability of exceeding 30,000 double rubs and meet state and local fire codes. Fabric is to pass ASTM-E84, and NFPA-255 codes. Color fastness is to meet 40-hour NAFM requirements.
5. Folding cafeteria tables on wheels should have pneumatic cylinders lift assist mechanism and an automatic lock with 2 manual releases in the folded and unfolded position.
6. All furniture is to meet the Americans with Disabilities Act guidelines.
7. Horizontal grade, plastic laminate tops on table, desk, work surface, and file tops are

recommended for cleaning and durability.

END OF SECTION