

1 Products

.1 Window Treatments

.a HORIZONTAL LOUVER BLINDS

- i. Use: Used at interior glazed openings as approved by owner.
- ii. Slats: Aluminum with a width of 1" and a minimum thickness of 0.009 inch.
- iii. Headrail: Formed Steel or extruded aluminum, long edges returned or rolled; fully enclosed operating mechanisms on three sides and end plugs.
- iv. Bottom Rail: Formed steel or extruded-aluminum tube, with plastic or metal capped ends top contoured to match crowned shape of slat; with enclosed ladders and tapes to prevent contact with sill.
- v. Ladders: Evenly spaced to prevent long-term slat sag.
- vi. Tilt Control: Enclosed worm-gear mechanism, slip clutch or detachable wand preventing over rotation, and linkage rod. Full tilt with tilt control long enough to make operation convenient from floor level.
- vii. Lift Operation: Manual, cord lock; locks pull cord to stop blind at any position in ascending or descending travel.
- viii. Tilt-Control and Cord-Lock Position: Right and left side head rail, respectively unless otherwise indicated.
- ix. Mounting: Wall mounting, Ceiling mounting, End mounting wall extension brackets as required, permitting easy removal and replacement without damaging blind or adjacent surfaces and finishes, with spacers and shims required for blind placement and alignment indicated.
- x. Colors, Textures, Patterns, and Gloss: As selected by consultant and approved by owner.

.b ROLLER SHADES:

- i. Use: Used at exterior windows when approved by owner.
- ii. Shade Band Material:
 - (a) PVC-coated fiberglass
 - (i) Fabric Width: As required to align with vertical window mullions spacing and spanning the width of the window frame.
 - (ii) Colors: As selected by consultant and approved by owner.
 - (iii) Bottom Hem: Straight
 - (b) Rollers: Electrogalvanized or epoxy primed steel of diameter and wall thickness required to support and fit internal components of operating system and the weight and width of shade band material without sagging, designed to be easily removable from support brackets with attaching shade material.
 - (c) Direction of Roll: From back of roller.
 - (d) Mounting Brackets: Galvanized or zinc-plated steel.
 - (e) Bottom Bar: Steel or extruded aluminum, with plastic or metal capped ends. Provide concealed, by pocket of shade material, internal-type bottom bar with concealed weight bar as required for smooth balanced shade operation.
- iii. Controls:
 - (a) Manual control preferred. Motorized units to be used only when approved by owner.
 - (b) Controls Equipment: Comply with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6 with NFPA 70, Class 2 control circuit, maximum 24-V ac or dc.

- (c) Electric Motors: UL-approved or recognized totally enclosed, insulated motor, complying with NEMA MG 1, with thermal-overload protection, brake, permanently lubricated bearings and limit switches, sized by shade manufacturer to start and operate size and weight of shade.
- (d) Limit Switches: Adjustable switches, interlocked with motor controls and set to automatically stop shade at fully raised and fully lowered positions.
- (e) Operating Function: Stop and hold shade at five predetermined positions including open, closed, and three user-programmed positions.

.2 Fixed Audience Seating

- .a GENERAL:** Fixed auditorium seating shall have upholstered seat and back and be floor-mounted, with self-lifting seats.
- .b DESIGN:** Shall comply with N.C. Building Code, Volume 1, and Americans with Disabilities Act (ADA) rules and regulations.
- .c WARRANTY:** Provide manufacturer's warranty covering material and workmanship for a period of one years from the date of final acceptance.
- .d SIZE:** Individual chair width and row spacing may vary to accommodate required number of seats.
- .e MATERIALS:**
 - i. STRUCTURAL SUPPORT:** Primary structural material shall be steel, die-formed and assembled by means of MIG welding processes. Exposed steel shall be ground smooth to prevent injury.
 - ii. WOOD:** Plywood, exposed or concealed, shall be hardwood, with inner plies of Class 3 or better, exposed plies of Class 1. Particle board core shall be resin-bonded wood particles, 5/8" minimum thickness, 45 lb./cubic feet density.
 - iii. PLASTICS:**
 - (a) Injection-molded plastic shall be one-piece, high-impact resistant, 25% glass-filled polypropylene, with built-in ultra-violet light inhibitors to retard fading, and anti-static compounds to resist dirt attraction.
 - (b) Plastic laminates shall be .030" minimum thickness, composed of a core of phenolic-impregnated craft paper, a decorative surface sheet and an overlay sheet containing melamine. Plastic laminates shall meet or exceed standards established by N.E.M.A.
 - iv. PADDING MATERIAL:** Seat and back padding shall be polyurethane foam complying with the flammability requirements outlined in the California Technical Information Bulletin #117, Resilient Cellular Materials, Section A & D, dated February 1975, when tested in accordance with Federal Test Method Standard 191, Method 5903.2.
 - v. FABRIC:** 100% Nylon seats and backs. Minimum weight 17.5 oz. per lineal yard (14.4 oz. unbacked), minimum of 13 ends and 13 picks per inch. Fabric shall exhibit superior color fastness, light fastness, tear strength, and break strength and shall be exceptionally resistant to staining, chemicals, and abrasion. Fabric shall meet Class 1 flammability requirements of the U.S. Department of Commerce Commercial Standard 191-53 per Bulletin #117 (California Code). Material and colors shall be approved by WCPSS prior to bidding.
- .f FLAMMABILITY:** All materials shall comply with applicable flame spread ratings, and other criteria per N.C. Building Code and BIFMA Voluntary Upholstered Furniture Flammability Standard X5.7-1991.
- .g FINISHES**
 - i. METAL PARTS:** All exposed metal parts shall powder-coated with a hybrid thermosetting powder coat finish. Finish shall be applied by electrostatic means to a thickness of 2.0 – 2.5 mils, and shall provide a durable coating having a 2H pencil hardness.
 - ii. WOOD PARTS:** All exposed wood surfaces shall be stained to specified color and coated with lacquer of sufficient film depth to afford industrial quality wear resistance.
 - iii. PLASTICS:** Colors shall be selected from manufacturer's standard color range.

.3 Courtroom Bench Seating

- .a** Materials and Construction:
 - i.** Solid Wood Construction: Provide solid hardwood contoured and inclined backs and seats, solid hardwood full backs and seat supports, and custom designed solid hardwood end panels.
 - (a) Backs and Seats: Provide 1-1/4" minimum thick solid hardwood for backs and seats.
 - (b) Bench Supports: Provide 1-1/2" minimum thick solid hardwood for bench supports. Supports may be constructed from two layers of 1" hardwood and finished to 1-1/2" thick.
 - (c) End Panels: Provide 2" minimum thick solid hardwood for end panels. End panels may be constructed from wood veneer panels with particleboard cores and hardwood trim.
 - (d) Use of particleboard or fiberboard core with wood veneer facing is not permitted except for end panels as noted above.
 - ii.** Joints: Provide tongue-in-groove joints for all solid hardwood edge to edge joints.
 - iii.** Caps and Trim: provide solid hardwood caps and trim to conceal fasteners.
 - iv.** Wood Species and Cut: As selected by consultant and approved by owner.

.4 Floor Mats

- .a** Use: Mats at all building entrances.
- .b** Rubber or Vinyl Mats: Square mats with bevel edges for surface mounting.
- .c** Recessed drainable mats not to be used.

.5 Bike Racks

- .a** STANDARDS: The site designer shall be responsible for selecting appropriate sized bike racks for the project which comply with the local zoning ordinances.
 - i.** Acceptable materials include galvanized and stainless steel.

.6 Library Stack Systems

- .a** Book Stacks and Frames: Only the finest materials and quality of workmanship will be acceptable. Sheet metal is to be Class I cold rolled or hot rolled and full pickled. Gauge thickness is US standard with the following minimum requirements.
 - i.** Shelves 18 gauge.
 - ii.** Base bracket 13 gauge.
 - iii.** Top and Bottom spreader 13 gauge.
 - iv.** Adjustable shelf brackets 16 gauge.
 - v.** Upright columns 16 gauge.
- .b** CONSTRUCTION
 - i.** Steel book stacks shall be cantilever design with individual welded frame assemblies. Welded frame every other unit is not acceptable. Commercial or case-type shelving will not be considered. Each section is a welded frame with two base brackets for each starter section and one base bracket for each adder section.
 - ii.** Standard Unit Sizes: Except as otherwise indicated, provide units of standard 36 inch nominal width, with other dimensions as follows:
 - (a) Shelf Depth: Actual 9 inches
 - (b) Shelf Depth: Actual 11 inches
 - (c) Unit Heights: Provide units in the following nominal heights as indicated on Drawings:
 - (i) 66 inches high: 4 adjustable shelves per face
 - (ii) 42 inches high: 2 adjustable shelves per face

.c DESCRIPTION**i. FRAME**

- (a) Welded Frame: Welded frame consists of two upright columns and one each top and bottom spreader. Each spreader is welded between upright columns on each face.
- (b) Upright Columns: 16 gauge channel shape with no less than 1/2" stiffening flanges measuring 2" into the web and 1-3/16" at front and rear surfaces. Uprights are perforated with a series of 1/4" x 5/8" slots spaced 1" vertical centers.
- (c) Every fifth and sixth slot to be shaped differently for ease of shifting adjustable shelves.
- (d) Top and Bottom Spreader: 13 gauge "C" shaped channel 2" deep with 1-1/4" flanges. The top spreader is turned downward. The bottom channel is punched to receive leveling devices and is turned upward to provide for a 6 point leveling on double-faced units. Decorative reveals per the Drawings.
- (e) Base Bracket: Shall be designed to fit between uprights. Brackets to have a 90-degree flange at bottom to rest on floor with outer ends punched to receive leveling glides. Top and front edge of base brackets angled to match adjustable shelf brackets and to allow nesting adjustable shelves into base shelf area when desired.
- (f) Sloped Base Shelves: Shelves are one piece 18 gauge steel formed to meet industry performance standards of 50 pounds per foot without deflection in excess of 3/16". One-piece construction designed to fit snugly into base bracket slots without the need of hardware fasteners. Front height shall be approximately 4" and sides shall have stiffening flanges designed to inter-member with base bracket slots. Base shelf shall be sloped 10 degrees to the rear to allow stored material to be displayed. The integral back of the shelf shall prevent material from sliding off the sloped base shelf.
- (g) Hardware: Shall be rust proof, cadmium plated or equal and shall be completely concealed from view in finished assembly with no projections to harm material or users.
- (h) Sway Braces: One pair of full height sway braces shall be provided for each Double Face Range of Shelving.

ii. SHELVES

- (a) Adjustable Shelves: Shelves are one-piece formed at both front and rear with three 90-degree bends. Each bend is slightly rounded. Shelf ends are turned down 90-degrees to form a proper connection with shelf brackets. The front face of the shelf shall be 13/16" thick and designed to carry a uniformly distributed load of 50 pounds per lineal foot without deflection in excess of 3/16". All sloped shelving shall be one piece construction hung by brackets with no use of shims to meet slope requirements
- (b) Shelf Brackets: Plate brackets for the ends of adjustable shelves have angled front edge and out-turned flanges. Brackets be full depth of the shelf. The brackets are securely fastened to the shelf by interlocking lugs formed at the bottom of each bracket designed to prevent accidental movement or removal. The rear edge of each bracket is formed with a notched hook and rounded safety lug. Bracket hooks shall inter-member with the slots on the uprights. The safety lug shall also inter-member with the upright slots and be properly designed to prevent unintentional lifting of shelf assemblies and to prevent lateral movement of the shelves. Automatic spacing and alignment is achieved by safety spacers formed into the bracket in the upper front portion.
- (c) Sloping Adjustable Shelf Brackets shall be similar to standard shelf brackets except designed to slope shelf 8-degrees without adding to the overall shelf depth.
- (d) Divider Shelves shall be one-piece steel with the front edge formed down with three 90 degree bends forming a hollow square in section. The back edge of the shelf shall be formed up to receive slots for the placement of adjustable dividers. Slots for divider adjustment shall be placed 1" on center across the width of the shelf. Each shelf shall be supplied with a pair of 16 gauge shelf brackets.

- (e) Dividers shall have a formed hook at the bottom front and hook and safety lug on the rear edge.
- (f) Hinged Periodical Display & Storage Shelves: This unit shall provide a 14" display and consist of two major components; the display shelf and the storage shelf assembly. The display shelf shall be one-piece 20-gauge steel. The storage shelf shall consist of a shelf and a pair of brackets. The shelf shall be formed front and rear with three 90-degree bends. Shelf ends shall be turned down and perforated to accept the tabs of the shelf brackets. Brackets shall be as described for adjustable shelf brackets except perforated to accept display shelf pivot pins at the front and a display face stop mounted towards the rear.

iii. ACCESSORIES

- (a) One-Piece Hinged Clear Plexiglas Cover: Cover shall have rounded bottom corners and be attached with piano hinge. The hinge is attached to the top of the display shelf. The Plexiglas is secured to the piano hinge with flat head countersunk machine screws.
- (b) End panel and canopy support gussets are 13-gauge steel and are bolted to the uprights. (Hook-on supports are not acceptable.) Steel angles shall be provided for the attachment of the wood canopies to the steel shelving system. The angles shall bolt through the end panel and canopy gussets and shall be screwed into the bottom surface of the canopy top. One end panel support gusset is to be provided per end panel. Provide one canopy support gusset for each intermediate upright for all shelving receiving canopies. Gussets shall be properly sized to support both end panels and canopies.
- (c) All decorative end panels shall be 1-1/4" thick with a 45# furniture grade particleboard substrate with northern white maple veneer on face and backside. Panels shall have a 1" wide solid northern white maple edge on four sides with corners mitered and all edges eased 1/8" radius and sanded smooth. Panels to extend full height and width of unit. Decorative reveals per the Drawings. Edge treatment finish, colors and stain shall be pre-approved by the architect prior to fabrication.
- (d) Decorative slat-wall end panels shall be 1-1/4" thick with MDF substrate with northern white maple veneer on face and backside. Slat shall have plastic snap-in inserts and begin four (4) inches from the bottom of the panel and spacing shall be 3" on center between inserts. Panels to extend full height and width of unit. Panels shall have a 1" wide solid northern white maple edge on four sides with corners mitered and all edges eased 1/8" radius and sanded smooth. Edge treatment finish, colors and stain shall be preapproved by the architect prior to fabrication.
- (e) Canopy Tops shall be 1 1/4" thick 45lb. furniture grade particle board substrate with high pressure laminate surface using .050 horizontal grade laminate. Use of vertical grade laminate is not acceptable. A non-decorative high pressure laminate sheet of equal thickness to surface laminate shall be applied to the underside. Paper or gator ply backer not acceptable. A one inch wide by 1" thick solid northern white maple edge on all four sides with corners mitered, all edges eased 1/8" radius and sanded smooth. Canopy tops shall be constructed in lengths as long as possible with minimum number of joints. All joints to be clean and flat incorporating tight joint fasteners and biscuit cut for alignment. Laminate to be determined. Canopy to mount on top of end panels and overhang the end panel by 1/4" on three sides.

iv. INSTALLATION

- (a) All work must be performed by persons with previous experience in library shelving assembly. Job Supervisor must have completed at least 3 successful large installations and must be on site at all times.
- (b) Bookshelf Units: Install units at locations indicated on floor plans, in continuous ranges made up of number of units shown, complying with manufacturer's instructions. Set units plumb and level; use non-corrosive metal shims as required.
- (c) Anchor single-faced ranges to wall construction using manufacturer's recommended method. All wall or single faced shelving will be secured to walls in an inconspicuous manner. Location of anchors is to be determined by field conditions in accordance with local codes.
- (d) Install adjustable shelves at equal spacing unless otherwise indicated.
- (e) Install accessory items in locations indicated.
- (f) Shelving supplier will be responsible for attaching wood end panels and canopies. Install end panels and canopy tops with concealed fasteners.
- (g) All items required for a proper and complete installation of the steel shelving system, and panels and canopies shall be provided by the shelving vendors.