

SECTION 12900 - LIBRARY FURNITURE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Library furniture as indicated and described on the Drawings, including:
1. Plastic laminate, quartz and solid wood with linoleum insert countertops.
 2. Wood desks and cabinetry.
 3. Plastic laminate faced desks and cabinetry
 4. Decorative glass.
 5. Fabric wrapped tackboard.
 6. Retractable belt system.
 7. Hardware for operating library furniture.
 8. Coordinate the installation of the Circulation Counter, Reference Desks and Patron Computers with electrical and data, supplying grommets and raceways as necessary. Provide grommets for both vertical and horizontal wiring.
- B. ~~Alternate Bid: Include an alternate Bid for providing wood veneered end panels with solid wood edge banding, WD-1, to cover metal shelving range ends. Size: approximately 2'-0" wide x 90" high x 1 3/4" thick, quantity of 6.~~
- C. The materials in this Section are part of the overall USGBC "Leadership in Energy and Environmental Design" LEED prerequisites and credits needed for Project to obtain LEED Silver certification based on LEED 2009 requirements. See Section 01352 LEED Requirements and this section for more information.
- D. Related Sections:
1. Division 6 Section "Miscellaneous Carpentry" for wood blocking for anchoring furniture.
 2. Division 6 Section "Interior Architectural Woodwork."
 3. Division 6 Section "Simulated Stone Countertops" for quartz agglomerate countertops.
 4. Division 9 Section "Recycled Rubber Flooring"
 5. Division 9 Section "Resilient Wall Base".

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. LEED Submittals:
1. Product Data for Credit MR 4.1 and MR 4.2: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content.
 - a. Include statement indicating costs for each product having recycled content.

2. Certificates for Credit MR 7: Chain-of-custody certificates certifying that wood used to furniture complies with forest certification requirements. Include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.
 - a. Include statement indicating costs for each certified wood product.
3. Product Data for Credit EQ 4.4: For adhesives and composite wood products, documentation indicating that product contains no urea formaldehyde.
 - a. Submit product data certifying that laminating adhesives used to fabricate on site or in the shop composite wood and agrifiber assemblies contain no added urea-formaldehyde resins.
- C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show fabrication details, including types and locations of hardware. Show installation details, including field joints and filler panels.
- D. Samples for Verification: 8-by-10-inch Samples for each type of finish, including top material and the following:
 1. Section of countertop showing top, front edge, and backsplash construction for both the plastic laminate and quartz applications.
- E. Qualification Data: For qualified Installer.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is certified for chain of custody by an FSC-accredited certification body.
- B. Forest Certification: Fabricate furniture with wood and wood-based products produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- C. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards", Premium Grade for interior architectural woodwork indicated for construction, finishes, installation, and other requirements.
 1. Provide AWI Quality Certification Program labels and certificates indicating that woodwork, including installation, complies with requirements of grades specified.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver library furniture only after painting, utility roughing-in, and similar operations that could damage, soil, or deteriorate furniture have been completed in installation areas. If furniture must be stored in other than installation areas, store only in areas where environmental conditions meet requirements specified in "Project Conditions" Article.
- B. Keep finished surfaces covered with polyethylene film or other protective covering during handling and installation.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install manufactured wood casework until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Verify actual dimensions of construction contiguous with manufactured wood casework by field measurements before fabrication.

1.6 COORDINATION

- A. Coordinate layout and installation of reinforcements in walls and partitions for support of furniture.

PART 2 - PRODUCTS

2.1 FURNITURE MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Agati, "Primary Series - Modified", Chicago, IL
 - a. Contact: Karina Gitlevich or Melissa Munro Fuller p: 312.829.1977
 - 2. Brodart Company "Maxim Series - Modified", Williamsport, PA
 - a. Contact: Pat Carroll, Carroll Seating p:847.434.0909

2.2 COMPONENT MATERIALS

- A. Wood Species and Cut for Transparent Finish: WD-1:
 - 1. White maple, plain sawn or sliced, to match Architect's sample, transparent finished.
- B. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.
 - 1. Basis of Design for PLAM-1: Provide Arpa, Indobra, color: TBD, Ghibli finish; Contact: Youngi Kim, Parkwood Chicago, p: 312.551.0086
 - 2. Basis of Design for PLAM-4: Provide Pionite, Slate, SG228 Suede: Contact: Joe Johnson, Panolam Industries, p: 773.339.9007, or a comparable product by one of the following:
 - a. Laminart.
 - b. Nevamar

- C. Linoleum for Inserts: ASTM F 2034, Type III, linoleum sheet with special backing, 0.10 inch thick:
 - 1. Basis of Design for LINO-2, Forbo Marmoleum Fresco, color: 3858 Barbados; Contact: Mary McBride, p: 312.282.4362, or a comparable product by one of the following:
 - a. Armstrong World Industries, Inc.
 - b. Tarkett Inc.
- D. Decorative Glass:
 - 1. Basis of Design DG -1, Provide Skyline Design, Lucinda Spears, Horizontal Option A surface etched tempered glass with polished edges; Contact: Lisa Zschunke, p: 773.486.9804
- E. Fabric Wrapped Tackboard:
 - 1. Basis of Design FWC-1, Provide Maharam, Inox Structure 398980, color: 004 Lace; Contact: Jessica Graham, p: 312.661.1630

2.3 MATERIALS, GENERAL

- A. Low-Emitting Materials: Provide library furniture made with adhesives and composite wood products containing no urea formaldehyde.
- B. Maximum Moisture Content for Lumber: 7 percent for hardwood and 12 percent for softwood.
- C. Hardwood Plywood: HPVA HP-1, either veneer core or particleboard core unless otherwise indicated.
- D. Softwood Plywood: DOC PS 1.
- E. Particleboard: ANSI A208.1, Grade M-2.
 - 1. Recycled Content: Not less than 25 percent preconsumer recycled content.
- F. Particleboard: Straw-based particleboard complying with ANSI A208.1, Grade M-2, except for density.
- G. MDF: ANSI A208.2, Grade 130.
 - 1. Recycled Content: Not less than 25 percent preconsumer recycled content.

2.4 CABINET HARDWARE

- A. General: Provide cabinet hardware and accessory materials associated with library furniture.
- B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 135 degrees of opening.

- C. Cabinet Pull With Standoffs: Hafele No. 117.05.600, in stainless steel
- D. Catches: Magnetic catches, BHMA A156.9, B03141.
- E. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081 and BHMA A156.9, B04102; with shelf brackets, B04112.
- F. Shelf Rests: BHMA A156.9, B04013; plastic metal, two-pin type with shelf hold-down clip.
- G. Drawer Slides: BHMA A156.9, B05091.
 - 1. Standard Duty (Grade 1, Grade 2, and Grade 3): Side mounted and extending under bottom edge of drawer; full-extension type; zinc-plated steel with polymer rollers.
 - 2. Heavy Duty (Grade 1HD-100 and Grade 1HD-200): Side mounted; full-extension type; zinc-plated steel ball-bearing slides.
 - 3. Box Drawer Slides: Grade 1; for drawers not more than 6 inches high and 24 inches wide.
 - 4. File Drawer Slides: Grade 1HD-200; for drawers more than 6 inches high or 24 inches wide.
 - 5. Pencil Drawer Slides: Grade 2; for drawers not more than 3 inches high and 24 inches wide.
- H. Door Locks: BHMA A156.11, E07121.
- I. Drawer Locks: BHMA A156.11, E07041.
- J. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
 - 1. Satin Stainless Steel: BHMA 630.
- K. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.
- L. Retractable Belt System:
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide EquiCross, Inc., Rectra Belt WM700 Wall Mount Unit, or a comparable product by one of the following: .
 - a. BankSupplies.
 - b. Crowd Controller, Inc.

2.5 LIBRARY FURNITURE FABRICATION

- A. Grade: Unless otherwise indicated, provide Premium-grade interior woodwork complying with referenced quality standard.
- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.

- C. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
 - 1. Corners of Cabinets and Edges of Solid-Wood (Lumber) Members 3/4 Inch Thick or Less: 1/16 inch.
 - 2. Corners of Cabinets and Edges of Solid-Wood (Lumber) Members and Rails: 1/16 inch.
- D. Edgebanding:
 - 1. For Plastic Laminate: Plastic laminate matching adjacent surfaces.
 - 2. For Wood-Veneered Construction: Minimum 1/8-inch- thick, solid wood of same species as face veneer.
 - a. Select wood edgebanding for grain and color compatible with face veneers.
- E. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
 - 1. Notify Architect seven days in advance of the dates and times fabrication will be complete.
 - 2. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- F. Shop-cut openings to maximum extent possible to receive hardware electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
 - 1. Seal edges of openings in countertops with a coat of varnish.
- G. Filler Strips: Provide as needed to close spaces between furniture and walls and indicated equipment. Fabricate from same material and with same finish as cabinets.

2.6 FINISH FOR LIBRARY FURNITURE

- A. Preparation: Sand lumber and plywood for library furniture before assembling. Sand edges of doors and drawer fronts and molded shapes with profile-edge sander. Sand casework after assembling for uniform smoothness at least equivalent to that produced by 220-grit sanding and without machine marks, cross sanding, or other surface blemishes.
- B. Apply fabricator's standard three-coat, baked, clear finish consisting of a thermosetting catalyzed sealer and two coats of a thermosetting catalyzed conversion varnish. Sand and wipe clean between applications of sealer and topcoat and between topcoats. Topcoats may be omitted on concealed surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas, with Installer present, for compliance with requirements for installation tolerances, location of framing and reinforcements, and other conditions affecting performance of manufactured wood casework.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install level, plumb, and true; shim as required, using concealed shims. Where library furniture abuts other finished work, apply filler strips and scribe for accurate fit, with fasteners concealed where practical.
- B. Install hardware uniformly and precisely. Set hinges snug and flat in mortises unless otherwise indicated. Adjust and align hardware so moving parts operate freely and contact points meet accurately. Allow for final adjustment after installation.
- C. Adjust furniture and hardware so doors and drawers operate smoothly without warp or bind. Lubricate operating hardware as recommended by manufacturer.

3.3 INSTALLATION OF TOPS

- A. Field Jointing: Where possible make in the same manner as shop jointing, using dowels, splines, adhesives, and fasteners recommended by manufacturer. Prepare edges to be joined in shop so Project-site processing of top and edge surfaces is not required. Locate field joints where shown on Shop Drawings.
 - 1. Secure field joints in countertops with concealed clamping devices located within 6 inches of front and back edges and at intervals not exceeding 24 inches. Tighten according to manufacturer's written instructions to exert a constant, heavy-clamping pressure at joints.
- B. Secure tops to cabinets with Z- or L-type fasteners or equivalent, using two or more fasteners at each front, end, and back.
- C. Abut top and edge surfaces in one true plane, with internal supports placed to prevent deflection.

3.4 CLEANING AND PROTECTING

- A. Repair or remove and replace defective work as directed on completion of installation.
- B. Clean finished surfaces, touch up as required, and remove or refinish damaged or soiled areas to match original factory finish, as approved by Architect.

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- C. Protection: Provide 6-mil plastic or other suitable water-resistant covering over top surfaces. Tape to underside of top at a minimum of 48 inches o.c. Remove protection at Substantial Completion.

END OF SECTION 12900