

SECTION 12 56 51 - LIBRARY FURNITURE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes library furniture of stock design and modified as indicated.
- B. Related Requirements:
 - 1. Division 06 Section "Rough Carpentry" for wood blocking for anchoring furniture.
 - 2. Division 09 Section "Non-Structural Metal Framing" for reinforcements in metal-framed partitions for anchoring furniture.

1.3 ALTERNATE BIDS

- A. Library furniture as manufactured by Brodart Company is included in the Base Bid. Provide alternate prices for the change in cost to provide the alternate manufacturers products in the space provided on the Bid Form for items of work as scheduled hereinafter, and in accordance with the following requirements:
 - 1. All work to be performed under accepted alternate prices shall conform to the applicable Contract Documents, and shall include all work in connection with or consequent to the alternate price work to produce a complete installation. Work associated with countertops in rooms with library furniture shall be considered part of the Alternate Bid Series.
 - 2. Alternate prices shall be all inclusive of the cost of materials, work and profit, supervision, administration, and any and all other costs in connection therewith for work in place and accepted or omitted as the case may be, and shall hold for the same period as the bid.
 - 3. Coordinate related work and modify or adjust adjacent work as necessary to ensure that work affected by the accepted Alternate is complete and fully integrated into the project. All costs to modify or adjust the adjacent work of other trades for a complete installation shall be included in the Alternate Bid.

1.4 ACTION SUBMITTALS

- A. Product Data: Submit manufacturer's product literature for each type of library furniture item and installation accessory required.
 - 1. Submit written data on physical characteristics, load bearing capabilities and durability.
- B. 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. Indicate manufacturer's catalog numbers for library furniture.

- C. Keying Schedule: Include schematic keying diagram and index each key set to unique designations that are coordinated with the Contract Documents.
- D. Samples for Initial Selection: For cabinet finishes.
- E. Samples for Verification: 8-by-10-inch Samples for each type of finish.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Quality Certificates: UL Certificate identification compliance with QAWZ Standards.
- C. Sample Warranty: For special warranty.

1.6 MAINTENANCE MANUAL SUBMITTALS

- A. Maintenance Data: Include data in Maintenance Manual as specified in Division 01.
- B. Maintenance Instructions: Submit manufacturer's printed instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition of wood and painted metal surfaces under anticipated use conditions. Include precautions against materials and methods which may be detrimental to finishes and performance.

1.7 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Firm (material producer) with not less than 5 years of production experience, whose published literature clearly indicates general compliance of products with requirements of this section.
- B. Installer's Qualifications: Firm approved by furniture manufacturer and specializing in furniture installation with not less than 3 years of experience in installation similar to those required for this project.
- C. Single Source Responsibility: Provide material produced by a single manufacturer for all free-standing library furniture.

1.8 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review specification requirements.
 - 2. Review installation procedures.
 - 3. Inspect project conditions.

1.9 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to project site in original factory wrappings and containers, clearly labeled with identification of manufacturer, brand name, and lot number. Store materials in original undamaged packages and containers, inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, humidity; laid flat, blocked off ground to prevent sagging and warping.

- B. Comply with instructions and recommendations of manufacturer for special delivery, storage, and handling requirements.
- C. Protect furniture during transit, delivery, storage and handling to prevent damage, soiling and deterioration.
- D. Do not deliver furniture until painting, wet work, grinding and similar operations which could damage, soil or deteriorate woodwork, have been completed in installation areas. If, due to unforeseen circumstances, furniture must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.

1.10 PROJECT CONDITIONS

- A. Conditioning: Furniture Manufacturer and Installer shall advise Contractor of temperature and humidity requirements for furniture installation and storage areas. Do not install furniture until required temperature and relative humidity have been stabilized and will be maintained in installation areas.
- B. Maintain temperature and humidity in installation area as required to maintain moisture content of installed furniture within a 1.0 percent tolerance of optimum moisture content, from date of installation through remainder of construction period. Require Furniture Manufacturer to establish optimum moisture content and required temperature and humidity conditions.

1.11 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of library furniture that fail in materials or workmanship within specified warranty period.
- B. Warranty Period: 25 years from date of Substantial Completion for library furniture.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design: Subject to compliance with requirements, Library Furniture incorporated into the project based on products as manufactured as follows:
 - 1. Brodart Company; Contract Library Furniture Design
- B. Alternate Bid Manufacturers: The alternate bid manufacturers listed shall provide products in accordance with this section and products that meet the minimum standards of quality of the Basis of Design manufacturer's specified product. Provide library furniture from the following manufacturers as included in Alternate Series A1250.
 - 1. Alt. No. A1251: Brodart Company; Contract Library Furniture Design.
 - 2. Alt. No. A1252: Liat.
 - 3. Alt. No. A1253: The Worden Company.

2.2 LIBRARY FURNITURE, GENERAL

- A. Product Designations: Drawings indicate sizes, configurations, and finish materials of manufactured library furniture by referencing basis of design manufacturer's catalog numbers. Alternate bid library furniture manufacturers shall be of equal or approximate sizes, configurations, same finish materials, and comply with the Specifications.

2.3 FABRICATION

- A. General: Fabricate work in shop to greatest extent possible before application of finishes. Remove sharp and rough edges and corners from cut metal and grind welds smooth. Design components, joints, and connections to withstand most severe possible loading condition, with normal safety factor.
- B. Measurements: Before proceeding with fabrication of woodwork required to be fitted to other construction, obtain field measurements and verify dimensions and shop drawing details as required for accurate fit.

2.4 MATERIALS

- A. Lumber: All exposed veneers and solid lumber shall be plain-sliced Northern Red Oak selected and matched for uniformity of texture, grain and color. All hardwood shall be kiln dried to a moisture content of 5-7%.
- B. Plywood: Exposed face veneers selected for uniformity of grain and color and shall be constructed with an odd number of plies. Inner plies shall be sound and cross-banded.
- C. Plastic Laminate: High pressure decorative laminate complying with NEMA LD 3.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Formica Corporation.
 - b. Nevamar Company, LLC.
 - c. Pionite; a Panolam Industries International, Inc. brand.
 - d. Wilsonart LLC.
- D. Wood Finishes: All exposed wood surfaces shall be inspected for imperfections and hand sanded to remove traces of machine and mill marks before finishing. Apply stain, sealer, and 2 coats catalyzed lacquer following AWI Section 1500 for Premium Grade. Stain color shall be as selected by the Architect.
- E. Metal Finishes: ANSI 156.18, polyester epoxy powder coating.
- F. Miscellaneous Furniture:
 - 1. Tables, shelving, carrells, circulation desk furniture, display furniture, etc. of alternate manufacturers shall be equal in design, construction and finish to those of the manufacturer specified as the basis of design.
- G. Wood Shelving Units:
 - 1. General: Shelving construction shall be modular type, utilizing all natural hard woods. No particle board or synthetic material is permitted. Shelving units shall be starter/adder type.

2. Intermediate End Panels: 1-inch-thick formaldehyde free, 9-ply hardwood veneer core with 1.6 mm maple solid hardwood edge bands on vertical and top edges with eased edges and pre-drilled holes at 32 mm centers for shelf placement. Attachments shall be made with hex bolts.
3. Cornice Tops: 2-1/8-inch high by 3/4-inch-thick solid oak banded to a 3/4-inch-thick, 7-ply hardwood panel with 1/8-inch radius on top front corners.
4. Base: 4-inches high by 3/4-inch-thick solid maple with 2-inch by 3/4-inch rail installed at the front and rear of the base for support of shelving and base alignment.
5. Shelving: 3/4-inch-thick solid hardwood routed to set firmly without movement on shelf pins. Shelves containing a combination of wood species and plywood shall not be provided.
6. Shelf Pins: Cadmium-plated and threaded.
7. Backs and Partitions: 1/4-inch furniture-grade plywood maple veneered finish to match shelving and shall be finished on both sides at double spaced shelving.

H. Shelving Accessories:

1. General: Provide manufacturer's standard accessory and special-use items as shown or scheduled, and as follows:
2. Range Finders: Provide metal range finder for 5" x 3" cards on aisle-end of each range.
3. Card-Holders: Provide cast aluminum card-holder for 5" x 3" card at aisle-end of each face, for mounting on end panel.
4. Provide 2 book supports for every 3 shelves.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to installation of library furniture, examine shop fabricated work for completion, and complete work as required, including back priming and removal of packing.
- B. Verify that all library furniture components, including size and finish, are those specified before installing.
- C. Verify that all required electrical hook-up provisions are in place prior to installing.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install units at locations shown, in continuous ranges made up of number of units shown, complying with manufacturer's instructions. Set units level, true and straight with no distortions. Shim as required using non-corrosive concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level (including tops); and with no variations in flushness of adjoining surfaces.
 1. All attachment and connection hardware shall be concealed from view after assembly.
- B. Scribe and cut work to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.
- C. Anchor shelving to wall construction, using manufacturer's recommended method.
- D. Install adjustable shelves at equal spacings unless otherwise indicated.
- E. Install accessory items in locations indicated.

3.3 FIELD QUALITY CONTROL

- A. Remove and replace components which are chipped, scratched or otherwise damaged, or do not operate smoothly and which do not match adjoining work. Provide new matching units installed as specified and in manner to eliminate evidence of replacement.

3.4 CLEANING

- A. Immediately upon completion of furniture installation, clean components and surfaces.
- B. Clean furniture on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.
- C. Remove surplus materials, rubbish and debris resulting from installation, upon completion of work and leave areas of installation in neat clean condition.

3.5 PROTECTION

- A. Protect furniture against damage during remainder of construction period. Advise Contractor of additional protection needed to ensure that furniture will be without damage or deterioration at time of substantial completion.

END OF SECTION 12 56 51