

12 35 53 -- Laboratory Casework & Countertops

DIVISION 12 – Furnishings



STATEMENT OF PURPOSE & BACKGROUND

- Scope:
 - Selection, Preparation and Installation of Laboratory Casework for Secondary Level (Middle School to High School) applications.
 - Refer to Educational Adequacy Guidelines (EAA).
- Statement of goals:
 - Provide consistent, high quality casework that:
 - Creates a clean & organized environment to support education.
 - Provides years of performance & requires low maintenance.
- Revision history of section:
 - 08/15/18 (date of adoption)
 - 02/02/21 (moved from 11 50 00)

SELECTION AND APPLICATION CRITERIA

Application	Countertop	Lockable
Science Laboratory Grade 6-12	Epoxy Resin top and sink	Throughout

- See Section 12 35 50 Educational Casework for typical classroom casework.
- See Section 22 40 00 for plumbing fixtures and fittings.
- Plastic Laminate-clad casework may be considered for laboratory use in lieu of wood casework if construction conforms to these standards. Confirm with Owner's project manager. See Section 12 35 50.

OUTLINE SPECIFICATION

- Part 1 General
 - Section includes fixed wood laboratory casework, work surfaces, laboratory sinks, and accessories for laboratory use.
 - Furnish and install casework and accessories. Include all countertops, sink cutouts, splashes, supports, shelving, and filler panels necessary for complete casework installation.
 - Manufacturer shall be a QCP Certified Woodworking Firm under the Architectural Woodwork Institute (AWI) Quality Certification Program.
 - Product handling, storage and delivery: deliver completed casework, countertops and related products only after wet operations in building are completed. Jobsite storage areas shall be enclosed, dry, and ventilated. Protect finished surfaces from soiling and damage during handling and installation with a protective covering.
 - Warranty all materials to be guaranteed for a period of 5 years from manufacturer's defects and workmanship.
 - Casework dimensions:
 - Single base cabinets and wall cabinets shall not exceed 48" in width.

- Single cabinet doors shall not exceed 24" in width.
 - Shelves in cabinets shall be ¾" thick up to 30" wide, and 1" thick over 30" wide.
 - Tall cabinets, and tops of wall cabinets, shall not exceed 84" (7'-0") in height. Existing soffit conditions may require downward deviations from this height. At such conditions, maintain minimum clearances between upper and lower cabinets as noted below.
 - Wall cabinets shall be a maximum of 24" in height and 12" in depth.
 - Base cabinets shall be 34" in height. If a sink is provided in an accessible space, provide front or side access to meet Minnesota Accessibility Code requirements.
 - Clearance between base cabinets and the bottom of upper cabinets shall be as follows:
 - At 34" high base cabinets, provide maximum 24" high upper cabinets for a clearance of 26", except above sinks provide 12" high upper cabinets for a minimum clearance of 38", or omit upper cabinets above sinks. This provides space for soap and towel dispensers and drying racks.
- Part 2 Products
 - Acceptable Manufacturers:
 - Wood laboratory casework:
 - Kewaunee Scientific Corp. is basis of design.
 - Campbell Rhea by Institutional Casework Inc. (ICI)
 - Diversified Casework
 - Equivalent manufacturers, **approved, in writing, in advance, by the Architect**, may be substituted in accordance with the provisions of the Contract.
 - Refer to Section 12 35 50 for Plastic laminate-clad casework manufacturers.
 - Casework, General:
 - Cabinet Style: Style 5 – Contemporary Full Overlay.
 - Wood Species: Red Oak, plain sliced. Maple or Birch may be considered with Owner approval on a per project basis.
 - Construction: Joints doweled, glued and screwed, with interior of units smooth and flush; cabinet bottom flush with top of face frame.
 - Cabinet backs: Minimum ¼ inch thick hardboard.
 - Drawer fronts: ¾ inch thick hardwood plywood or solid hardwood.
 - Drawer sides and backs: ½ inch thick solid hardwood or veneer-core hardwood plywood with glued dovetail or multiple-dowel joints.
 - Drawer bottoms: ¼ inch thick veneer-core hardwood plywood glued and dadoed into front, back and sides of drawers. Use ½ inch thick material for drawers over 24 inches wide.
 - Access panels: Provide access panels as needed for maintenance of utility service and mechanical and electrical components.
 - Glass insert in cabinet doors: 1/8 inch thick tempered glass where shown.
 - Wood Finish:
 - Factory finish all exposed and semi-exposed surfaces with the same finish. Color of stain selected from manufacturer's standard range.
 - Casework Hardware:
 - Hinges:
 - Five-knuckle hinges with hospital tips - 2 ¾", offset type. Satin finish stainless steel.
 - Door < 4ft: 1pr heavy duty 5 knuckle institutional hinges per door.
 - Door > 4ft: 1-1/2 pr heavy duty 5 knuckle institutional hinges per door.

- Magnetic Catches: Min. 5 lb. pull for base and wall cabinets. Provide two 7 lb. pulls at each tall cabinet door.
 - Locks:
 - For typical drawer/cabinet locks: Olympus lock #100DR or 100DW, equivalent to National D4291 keyway; provide where shown.
 - Cabinets to be keyed alike per room. Provide 2 keys per room and 2 master keys for the project.
 - Drawer Slides:
 - Zinc plated, Full extension 100-lb. load rated cold rolled steel, side mounted, with steel ball bearing rollers with positive stop and self-closing feature.
 - Shelf Support Clips:
 - Twin pin type for mounting on interior of cabinet end panels and shall be corrosion resistant. Shelves shall be adjustable on 32mm centers.
 - Door and Drawer Pulls:
 - Casework manufacturer shall provide choice of pulls for Owner selection without variation in cost.
 - Pulls to be anodized aluminum in a shallow rounded shape.
 - Pulls shall meet all current accessibility requirements.
 - Epoxy Resin Countertops and Sinks:
 - Acceptable Manufacturers:
 - Kemresin Epoxy Resin
 - Durcon
 - ChemTops
 - American Epoxy Scientific
 - Equivalent manufacturers, **approved, in writing, in advance, by the Architect**, may be substituted in accordance with the provisions of the Contract.
 - Chemical-resistant, asbestos-free material.
 - Standard one-inch thick tops with 1/8 inch beveled edges.
 - Sinks to be molded epoxy resin, drop-in type.
 - Color to be selected from manufacturer's full color range.
- Part 3 Execution
 - Per Consultant and / or manufacturer specification.
 - Install casework under the supervision of the manufacturer's representative with factory-trained installers authorized by manufacturer.
 - Install casework straight, level and plumb and securely anchor in place. Shim as required. Scribe and cut to accurate fit at adjacent work.

End of Section