

# 12 35 50 -- Educational Casework & Countertops

## DIVISION 12 – Furnishings



### STATEMENT OF PURPOSE & BACKGROUND

- Scope:
  - Selection, Preparation, and Installation of casework for specific applications.
- 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:
  - 03/19/13
  - 10/07/15
  - 01/10/19
  - 02/02/21 (moved from 06 41 00)

### SELECTION AND APPLICATION CRITERIA

Application	Countertop	Lockable
General Classroom	Plastic Laminate except Solid Polymer at sink counter as occurs	Teacher's Wardrobe; Others TBD
Computer Labs	Plastic Laminate	TBD per project
Music / Band	Plastic Laminate except Solid Polymer at sink counter as occurs	TBD per project
Staff Lounge	Solid Polymer	
Science Classroom Grade 6-12	Plastic Laminate except Solid Polymer at sink counter as occurs	Throughout
Science Laboratory Grade 6-12 See Section 12 35 53	Epoxy Resin countertops and sinks. See Section 12 35 53.	Throughout
FACS Classroom & Demonstration Table	Solid Polymer except Stainless Steel at Demonstration Table	Throughout
Art Classroom	Solid Polymer	TBD per project
Woodshop	Wood	TBD per project
Administration, Health Office	Plastic Laminate except Solid Polymer at sink counter as occurs	Throughout
Food Service and Culinary Classroom	Stainless Steel	TBD per project

- See Section 06 20 00 Finish Carpentry for other wood and solid polymer standards.
- See Section 12 35 53 for Laboratory Casework and Countertop standards.
- See Section 22 40 00 for plumbing fixtures and fittings.

## OUTLINE SPECIFICATION

- Part 1 General
  - Furnish and install casework and accessories. Include all countertops, sink cutouts, splashes, supports, shelving, and filler panels necessary for a 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.
  - **Plastic Laminate-Clad Casework** is the district standard.
    - Wood veneer-faced casework may be considered on a per-project basis in specific areas with Owner input. If specified, wood veneer-faced casework shall comply with these construction and hardware standards.
      - Species to be maple, birch or red oak for clear finish to match existing where shown or specified.
      - See Section 12 35 53 for laboratory casework standards.
      - Plastic laminate casework can be considered for science laboratories.
  - **Typical Casework Dimensions** (nominal 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. Wall cabinets to be installed under existing soffits may require downward deviations from this height. At such conditions, maintain minimum clearances between upper and lower cabinets as noted below.
    - All wall cabinets shall be a maximum of 30" in height, and shall be 12" in depth.
    - Base cabinets in all locations shall be 34" in height, with or without sinks, u.n.o. At laboratory spaces, 34" counter height shall be used, in compliance with accessibility requirements. If a counter-mounted sink is provided in a room or space required to be accessible, provide front or side access to meet Minnesota Accessibility Code requirements.
    - Clearance between base cabinet countertops, and the bottom of upper cabinets, shall be as follows:
      - At 34" high base cabinets, provide maximum 30" high upper cabinets for a minimum clearance of 20", except above sinks provide 12" high upper cabinets for a minimum clearance of 38", or omit upper cabinets above sinks. This provides space for wall mounted soap and towel dispensers. Laboratory sinks may require greater clearances for wall-mounted drying racks or other equipment.
    - These conditions do not apply at inclusive restroom sinks and counters. Refer to Section 22 40 00.

- Part 2 Products

- Acceptable Manufacturers:

- Casework: TMI Systems Design Corporation is the basis of design.
    - Custom casework or products by Stevens Industries and Case Systems, or other manufacturer **approved, in writing, in advance, by the Architect**, may be substituted in accordance with the provisions of the Contract and if they comply with all other conditions specified herein.
    - Plastic Laminate Products by Wilsonart, Formica, Westinghouse, Pionite and Nevamar are acceptable.
      - Equivalent manufacturers **approved, in writing, in advance, by the Architect**, may be substituted in accordance with the provisions of the Contract.
    - Solid Polymer for Countertops and Backsplashes and other locations where indicated: Corian and Staron are basis of design.
      - Equivalent manufacturers **approved, in writing, in advance, by the Architect**, may be substituted in accordance with the provisions of the Contract.
    - Casework Construction:
      - Lamination system ¾" core; laminated exterior with .028" high pressure plastic laminate and interior balanced with .020" high pressure cabinet liner; structural cabinet body: cabinet back shall be min ½" thick.
    - Construct wood cabinets of MDF substrates that comply with the following: Construct boxes of MR Moisture Resistant Particle Board, average 45-pound density, ANSI A208.1-2009, M-2 Requirements.
      - Formaldehyde Free per SCS-NAF-01329 and CHPS.
    - Casework Hardware:
      - Hinges
        - Five-knuckle hinges with hospital tips - 2 ¾". Temper-controlled cold rolled .095" steel construction, dull chrome. Grade 1 institutional hinge meets ANSI/BHMA A156.9-1494, section 4.2. Similar or equal to RCP #RP454-260.
        - 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 birth to 5 space: Tot-Lok & Rev-A-Lock w/ plunger.
        - For sliding wood door frames: disc type plunger lock with strike.
        - 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.
      - Slides
        - 100-lb. load rated epoxy coated steel, bottom corner mounted, with nylon rollers with positive stop and self-closing feature.

- Shelf Support
      - Transparent polycarbonate with two integral support pins to interface pre-drilled holes, provides non-tip feature for shelving. Load rating: 300 lbs. per support, per ANSI A161.1-1980.
    - Door and Drawer Pulls
      - Heavy Bow Pull by TMI is Owner preference; Brushed Nickel finish.
      - Pulls shall meet all current accessibility requirements.
    - Wall anchors as required.
  - Cabinet Box Construction
    - Cabinet bases: MDF-1Sub-base: preservative treated exterior grade plywood, ¾" thick.
    - Doors and Drawer Fronts: Core to be ¾" particleboard, with high-pressure plastic laminate exterior and high-pressure cabinet liner on interior face. Edges: 3mm PVC machine applied.
    - Provide double doors in openings over 24" wide.
    - Shelving: Particleboard core; ¾" thick up to 30" wide; 1" thick over 30" wide and at all tall cabinets; edging to be 1mm PVC on front edge.
  - Plastic Laminate Countertop Construction:
    - High-pressure laminate bonded to solid slab core; underside to be balanced with backer sheet. Countertops 1-1/8" thick. Edging, including applied backsplash: 3mm PVC, external edges and outside corners machine profiled to 1/8" radius.
    - Colors of counter tops and edging to be selected from manufacturer's full color range.
  - Solid Polymer Countertops and Backsplashes:
    - Countertops and Backsplashes at sink locations, and at other locations as specified or shown on drawings, to be Solid Polymer material. Material to be minimum ¾" thick with eased edge and minimum joints. Sinks where shown to be stainless steel drop-in type, except at inclusive restroom areas where integral or undermount lavatories are to be used. Refer to Section 22 40 00 for plumbing fixtures and fittings.
- 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