

SECTION 123623 - PLASTIC-LAMINATE-CLAD COUNTERTOPS**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

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

1.2 SUMMARY

- A. Section includes
 - 1. Plastic-laminate countertops.
 - 2. Wire management grommets.
 - 3. Metal countertop brackets.
 - a. See Part 3 - Execution section for support requirements in full height and partial height walls, including heavier base metal thickness for studs, wood blocking and miscellaneous steel supports.
- B. Related Requirements:
 - 1. Section 055000 "Metal Fabrications" for steel tube reinforcement for partial height (pony) walls used for anchoring concealed metal brackets use for countertop support.
 - 2. Section 061000 "Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing cabinets and concealed within other construction before cabinet installation.\
 - 3. Section 064116 "Plastic-Laminate-Faced Architectural Cabinets."
 - 4. Section 123662 "Quartz Agglomerate Countertops"

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product, including high-pressure decorative laminate and adhesive for bonding plastic laminate.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 - 1. Show locations and sizes of cutouts and holes for plumbing fixtures faucets soap dispensers electrical switches and outlets and other items installed in plastic-laminate countertops.
 - 2. Apply AWI Quality Certification Program label to Shop Drawings.
- C. Samples for Initial Selection:
 - 1. Plastic laminates.
 - 2. PVC Edging

1.4 MAINTENANCE MATERIAL AND REPLACEMENT STOCK

- A. Wire-Management Grommets: In addition to the grommets required by drawings and specifications, provide a quantity of five additional grommets with matching caps of each size and type specified. Deliver to the owner in the original packaging at the close of the project.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver countertops until painting and similar operations that could damage countertops have been completed in installation areas. If countertops must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install countertops until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where countertops are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Established Dimensions: Where countertops are indicated to fit to other construction, establish dimensions for areas where countertops are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.1 PLASTIC-LAMINATE COUNTERTOPS

- A. Grade: Custom.
- B. High-Pressure Decorative Laminate: NEMA LD 3, Grade HGS.
- C. Manufacturers, Colors, Patterns, and Finishes: Provide materials and products as noted on drawing details and schedules.
- D. Edge Treatment: 3.0-mm PVC edging in color and patterns to match the color of the decorative laminate.
- E. Core Material: Particleboard or medium-density fiberboard.
- F. Core Material at Sinks: Particleboard made with exterior glue medium-density fiberboard made with exterior glue or exterior-grade plywood.
- G. Core Thickness: 3/4 inch.
 - 1. Build up countertop thickness to 1-1/2 inches at front, back, and ends with additional layers of core material laminated to top.

2.2 WOOD MATERIALS

- A. Wood Products: Provide materials that comply with requirements of referenced quality standard unless otherwise indicated.
 - 1. Wood Moisture Content: 5 to 10 percent.
- B. Composite Wood and Agrifiber Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
 - 1. Medium-Density Fiberboard: ANSI A208.2, Grade 130.
 - 2. Particleboard: ANSI A208.1, Grade M-2.
 - 3. Softwood Plywood: DOC PS 1.

2.3 ACCESSORIES

- A. Wire-Management Grommets: Circular, metal or molded-plastic grommets and matching caps with slot for wire passage.
 - 1. See Finish Schedule for manufacturer, size (outside diameter) and material.
 - 2. Color: As scheduled or as selected from manufacturers available color options.

2.4 MISCELLANEOUS MATERIALS

- A. Metal Countertop Brackets: Provide brackets as manufactured by the following, or approved equal:
 - 1. A & M Hardware, Inc., 1165 Strickler Rd., Mount Joy, PA 17552; 1-888-647-0200; info@aandmhardware.com.

2. Surface Mounted, Exposed Angle Brackets: 1/8" steel brackets with return legs punched for attachment to wall and underside of counters, as indicated on drawings. Brackets fabricated with 45 degree rear notch at corner to allow for wall cleat and wire management.
 - a. Standard-of-Design Angle Bracket: A&M Hardware, Inc. "Standard Workstation Bracket", size as noted on drawings.
 - b. Color: Primed for field painting.
3. Concealed Flat-Bar Metal Countertop Brackets: Provide steel brackets with concealed vertical angle mounted to face of stud within wall construction with projecting 1/2-inch thick flat bar steel counter support.
 - a. Standard-of-Design Bracket: Where noted on drawings, provide concealed countertop brackets by A&M Hardware, Inc.
 - 1) Countertops mounted to full height walls: "ECFLAT" series (2.0), with vertical angle leg (8-inch above projecting support) concealed within wall, full welded to 2-inch-wide x 1/2-inch thick, projecting support. See drawings for support length.
 - 2) Countertops mounted to partial height walls: "CFLAT" series (2.0), with vertical angle leg concealed within wall below 2-inch-wide x 1/2-inch thick, projecting support. See drawings for support length.
 - b. Finish: Primed for field painting.

2.5 FABRICATION

- A. Fabricate countertops to dimensions, profiles, and details indicated. Provide front and end overhang of 1 inch over base cabinets. Ease edges to radius indicated for the following:
 1. Solid-Wood (Lumber) Members: 1/16 inch unless otherwise indicated.
- B. Complete fabrication, including assembly, 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.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition countertops to average prevailing humidity conditions in installation areas.
- B. Before installing countertops, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

3.2 INSTALLATION

- A. Grade: Install countertops to comply with same grade as item to be installed.
- B. Assemble countertops and complete fabrication at Project site to the extent that it was not completed in the shop.
 1. Provide cutouts for appliances, plumbing fixtures, electrical work, and similar items.
 2. Seal edges of cutouts by saturating with varnish.
- C. 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 plastic-laminate 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.
- D. Install countertops level, plumb, true, and straight. Shim as required with concealed shims. Install level and

plumb to a tolerance of 1/8 inch in 96 inches.

- E. Scribe and cut countertops to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- F. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
 - 1. Install countertops with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
 - 2. Secure backsplashes to tops with concealed metal brackets at 16 inches o.c. and to walls with adhesive.
 - 3. Seal junctures of tops, splashes, and walls with mildew-resistant silicone sealant or another permanently elastic sealing compound recommended by countertop material manufacturer.
- G. Metal Countertop Brackets: Install countertop brackets per manufacturer's recommendations securely attached to wall framing or supplemental supports as required. Unless countertop loads exceed the manufacturer's listed capacities for pairs of brackets or unless noted otherwise, provide brackets at 32" o.c. (36" maximum). Install brackets level within industry tolerances allowed for each type of countertop supported.
 - 1. At full height partitions where studs are securely anchored to the floor and braced at the top of the wall as required to resist deflection, provide minimum 18 ga. metal stud at each bracket location with continuous vertical wood blocking, nested within metal stud framing to receive bracket anchors. Provide fire retardant treated wood blocking where required by building code and local authorities having jurisdiction.
 - a. At the contractor's option, the provisions for supporting concealed brackets in partial height (pony) walls (steel tubes or prefabricated post) may be used in full height partitions in lieu of heavier gage studs and wood blocking.
 - 2. At partial height (pony) walls provide tube steel post as shown on drawings or prefabricated steel supports equal to ClarkDietrich "Pony Wall Heavy" (PW series in heights required for partial height walls detailed).
 - 3. For concealed brackets, mount vertical support angle alongside wood blocking and metal studs at full height partitions and alongside the steel support post in partial height walls.
 - 4. At standard (exposed) brackets attach through mounting flange of bracket into drywall and into the wood blocking and metal studs at full height partitions and into the face of the steel support post in partial height walls.
 - 5. Install drywall trim around projecting horizontal support bar with 1/4" gap between bar and drywall edge. Caulk between bracket and wall.
- H. Grommet Installation: Unless noted otherwise, provide one grommet directly above each electrical outlet (power, data, and telephone) shown on the electrical drawings, including existing electrical outlets located below new countertops. Coordinate with electrical drawings.
 - 1. Do not install grommets where electrical outlets serve equipment located below the countertops and connection is not anticipated from above.
 - 2. Provide additional grommets where shown on drawings regardless of electrical service below.

3.3 ADJUSTING AND CLEANING

- A. Repair damaged and defective countertops, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean countertops on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION 123623