**SECTION 10 11 00**

**MARKER BOARDS AND TACK BOARDS**

**PART 1 GENERAL**

1. RELATED DOCUMENTS
   1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division‑1 specification section, apply to work of this section.
2. DESCRIPTION OF WORK
   1. Supply marker boards and tack boards as indicated on drawings.
   2. Types of marker boards and tack boards specified in this section include the following:
      1. Porcelain enamel marker boards
      2. Vinyl fabric faced cork tack boards and tackable wall panels.
3. QUALITY ASSURANCE
   1. Manufacturer: Unless otherwise acceptable to the Owner or Architect, furnish all marker boards and tack boards by one manufacturer for entire project.
4. SUBMITTALS
   1. Product Data: Submit manufacturer's technical data and installation instructions on each material and component part, including data substantiating the material complies with requirements.
   2. Samples:
      1. Submit a full range of color samples for each type of marker board, tack board, trim, and required accessories.
      2. Provide 12" square samples of sheet materials and 12" lengths of trim members for color verification.
   3. Shop Drawings:
      1. Show anchors, grounds, reinforcement, accessories, and installation details.
   4. Submit Manufacturer's certification that materials furnished for the project comply with the specified requirements.
5. SPECIAL PROJECT WARRANTY
   1. Porcelain Enamel Marker Board Warranty:
      1. Furnish the manufacturer's "Lifetime of The Building Warranty", agreeing to replace, porcelain enamel marker boards that do not retain their original writing and erasing qualities, or exhibit crazing, cracking or flaking.
      2. Replacement is limited to material replacement only; labor for removal and reinstallation is not included.
   2. Provide manufacturer's instructions with regard to handling, installation, protection, and maintenance.

**PART 2 PRODUCTS**

1. ACCEPTABLE MANUFACTURERS
   1. Manufacturers: Subject to compliance with requirements, provide products from the following:
      1. Aarco Products, Inc
      2. Polyvision, a Steelcase Company
      3. Claridge Products and Equipment, Inc
      4. Weber Costello Co
      5. Platinum Visual Systems
      6. ASI Visual Display Products
      7. Approved Equal
2. MATERIALS
   1. Porcelain Enamel Marker Boards:
      1. Provide balanced high‑pressure laminated porcelain enamel marker boards of 3-ply construction consisting of face sheet, core material and backing.
      2. Facing Sheet:
         1. Provide facing sheet of 24-gauge enameling grade steel sheet especially processed for temperatures used in coating porcelain on steel (can provide- 28-gauge porcelain steel on 4’ height material and 24-gauge on 5’ height material).
         2. Coat the exposed face with a 3-coat process consisting of primer; ground and color cover and the concealed face with a 2-coat process consisting of primer and ground.
         3. Fuse cover and ground coats to steel at the manufacturer's standard firing temperatures, but not less than 1,200°F (649°C).
      3. Cover Coat: Provide the manufacturer's standard light-colored special writing surface with gloss finish intended for use with liquid felt tipped dry erasable markers.
      4. Core: Provide the manufacturer's standard 7/16" thick MDF/particle board core material.
      5. Backing Sheet: Provide the manufacturer’s standard, a moisture barrier backer preferred.
      6. Laminating Adhesive: Provide the manufacturer's standard moisture‑resistant, non‑flammable, non‑contact, pressured activated, water-based type adhesive.
      7. Final surface shall be able to hold paper material to the board with rare earth type magnets.
   2. Vinyl Fabric‑Faced Tack Boards:
      1. Provide mildew resistant, washable, vinyl fabric complying with Federal Specifications CCC‑W‑408, Type II, mildew resistant, laminated to 1/4" thick cork backing sheet.
         1. Provide only fabric that has a flame spread rating of 25 or less when tested in accordance with the requirements of ASTM E84.
         2. Provide color and texture as scheduled or as selected by Architect from manufacturer's standard colors.
      2. Make panels rigid, laminate ¼" cork face sheet under pressure to 1/4" thick fiberboard backing at factory.
      3. Metal Trim and Accessories:
         1. Fabricate wrap frames and trim of not less than 0.062" thick aluminum alloy, size and shape as indicated, to suit type of installation.
         2. Provide straight, single-length units wherever possible; keep joints to a minimum, Miter both exposed and concealed faces of trim, not edge, and bend to create a safety corner with neat, hairline closure.
      4. Where the size of boards or other conditions exist, which require support in addition to the normal trim, provide structural supports or modify the trim as indicated by Architect from the manufacturer's standard structural support accessories to suit the condition indicated.
   3. Clear Anodized Finish: Furnish exposed aluminum finish with clear anodic coating
   4. Chalk Tray: Furnish manufacturer's standard continuous box-type aluminum chalk tray with slanted front, end caps either aluminum or plastic.
   5. Map Rail: Furnish 1" map rail at the top of each unit, complete with the following accessories:
      1. Provide one end stop at each end of the map rail.
      2. Provide 2 map hooks with flexible metal clips for each 4' of map rail or fraction thereof.
      3. Provide one flag holder per room installed on the teaching wall marker board.
   6. Provide a tack-able wall surface comprising of a vinyl fabric face laminated to 1/4" thick underlayment cork laminated to 1/4" thick fiberboard.
      1. The vinyl facing shall meet or exceed Federal Specifications CCC‑W‑408‑A, Type II with U.L. ratings 25‑10‑5 and weigh no less than 22-oz per 54" wide lineal yard.
         1. Size: Provide 4' wide panels.
         2. Aluminum Trim: Wrap with matching vinyl on exposed surfaces.
         3. Joiners shall be "H" in shape with ¾" wide exposed face.
         4. End trim shall be "J" shaped with ½" minimum exposed face.
         5. Provide one-piece corner trim with configuration allowing the trim be fastened to base wall with concealed fasteners/clips.
3. FABRICATION
   1. Porcelain enamel marker boards, laminate facing, and backing sheet to core material under pressure with manufacturer's recommended waterproof, non-flammable, non-contact, water-based adhesive.
   2. Assembly: Provide factory-assembled marker board and tack board units, except where field assembled units are required.
      1. Make joints only where the total length exceeds the maximum manufactured length, fabricate with the minimum number of joints, balanced around the center of the board, as acceptable to the Architect and Owner.
      2. Provide the manufacturer's standard vertical joint system between abutting sections of marker board.
      3. Provide the manufacturer's standard mullion trim at joints between marker boards and tack boards.

**PART 3 EXECUTION**

1. PREPARATION
   1. Take field measurements prior to fabrication, to ensure proper fitting of the work.
   2. Allow for trimming and fitting wherever taking field measurements.
2. INSTALLATION
   1. Deliver factory‑built marker board and tack board units completely assembled in one piece without joints, wherever possible.
      1. When overall dimensions require delivery in separate units, pre-fit components at the factory, disassemble for delivery, and make final joints at the site.
      2. Use splines at joints to maintain surface alignment.
   2. Install units in locations and at mounting heights indicated on the plans and specifications in accordance with the manufacturer's installation instructions.
      1. Keep perimeter lines straight, plumb, and level.
   3. Coordinate job-site assembled units with grounds, trim, and accessories; join all parts with a neat, precision fit.
3. ADJUST AND CLEAN
   1. Verify that the required accessories are properly installed and operating properly.
   2. Clean surfaces and trim in accordance with manufacturer's instructions leaving ready for use.

END OF SECTION