

BuildingName
The Description of the Project
P00000000 0000

ARCHITECTURE & ENGINEERING
326 East Hoover, Mail Stop B
Ann Arbor, MI 48109-1002
Phone: 734-764-3414
Fax: 734-936-3334

SPECIFICATION DIVISION 10

NUMBER SECTION DESCRIPTION

DIVISION 10 SPECIALTIES

SECTION 101100 - VISUAL DISPLAY UNITS

END OF CONTENTS TABLE

DIVISION 10 SPECIALTIES
SECTION 101100 - VISUAL DISPLAY UNITS

JUNE, 2005 - UPDATED TO CHANGE TO 1997 NFPA "LIFE SAFETY CODE".

PART 1 - GENERAL

1.1 SUMMARY

- A. Extent of visual display boards is indicated on drawings.

EDIT THE FOLLOWING TO SUIT PROJECT.

- B. Types of visual display boards include the following:
1. Chalkboards.
 2. Markerboards.
 3. Multi-purpose visual display units.

1.2 SUBMITTALS

- A. Product Data: Submit mfr's product literature, indicating compliance with requirements.
- B. Shop Drawings: Indicate elevation, sections of trim members, and installation details.
- C. Samples for Initial Selection: Manufacturer's sample booklet of not less than 7 colors for porcelain enamel surfaces, and not less than 10 fabrics.

INCLUDE BELOW FOR ALL PROJECTS.

- D. Affidavits of Compliance to be included in final inspection manual:
1. Provide manufacturer's letter of certification showing compliance with finish testing and classification requirements referenced by current adopted NFPA 101 "Life Safety Code".
 2. Letter shall include project number, project name, and building name.

PART 2 - PRODUCTS

THE FOLLOWING IS MULTI-PURPOSE DISPLAY UNIT.

2.1 GRAPHIC PRESENTATION BOARD

- A. Plastic laminate board and screen housing, and board cover doors. Self-edged plastic laminate construction, with concealed hinges, and as follows:
1. Size: 4 feet by 4 feet.
 2. Accessories:
 - a. Glass-beaded projection screen.

- b. Markerboard and marker tray.
- c. Door mounted drawing paper pads with min. 50 sheets each.
- 3. Manufacturer: Subject to compliance with requirements, products of one of the following:
Cig-Jan Products, Ltd.
Da-Lite.
Egan Visual.
Marsh Chalkboard Co.; Div. Marsh Lumber Co.
Polyvision Corp.

BELOW IS STANDARD MARKERBOARD UNIT FOR SPECIAL FELT TIP MARKERS.

2.2 MARKERBOARDS, PORCELAIN ENAMEL

- A. Markerboards: Provide markerboard units with concealed mechanical fastening devices for wall mounting to indicated substrates, and complete with the following:

SELECT ONE OF THE FOLLOWING - "C" CHANNEL TYPE (MOST COMMON) IS USED WITH PARTICLEBOARD BACKING (MOUNTING CLIPS ATTACH TO PARTICLEBOARD). MOUNTING CLIPS WITH SNAP-ON TRIM ARE USED WITH GYPSUM BOARD BACKING.

- 1. Frames: Aluminum "C" channel type with concealed fasteners.
- 2. Frames: Mounting clip type with extruded aluminum snap-on trim.

SELECT SOLID EXTRUSION BELOW WITH "C" CHANNEL TRIM - HOLLOW TYPE IS MORE SUBSTANTIAL AND MORE EXPENSIVE.

- 3. Markertray: Solid aluminum extrusion type.
- 4. Markertray: Hollow extruded aluminum box type.

INCLUDE BELOW IF DESIRED.

- 5. Map Rail: Aluminum extrusion with tackable cork insert.

- B. Balanced, high pressure laminated porcelain enamel markerboards of 3 ply construction consisting of facing sheet, core material, and backing.

- 1. Facing Sheet: Enameling steel or iron sheet with low metaloid and copper content, able to withstand temperature of over 1,400 degrees as used in coating porcelain on steel for architectural purposes, and as follows:
 - a. Minimum Thickness: 0.299-inch (22 gage).
 - b. Chemically bathe steel sheets in potassium hydroxide and sodium metal silicate solution and rinse prior to enameling.
 - c. Apply minimum 0.0025-inch thick spray coat of nickel cobalt primer and silica to face opposite writing surface for adhesion of laminate.
 - d. Aluminum and aluminized cold-rolled steel are not acceptable.
- 2. Markerboard Cover Coat: Mfr's special writing surface with gloss finish intended for use with erasable liquid felt tipped markers, and as follows:

- a. Apply minimum 0.0025-inch thick spray coat of nickel cobalt primer to facing sheet. Writing surface to be minimum 0.003-inch thick fired porcelain frits. Panel edges at butt joints to be porcelain same as fronts. Low fired organic (paint) coated writing surfaces are not acceptable.
- b. Provide final writing surface with uniform texture, with reflectance factor between 15 and 20 percent, and with not less than 6.0 hardness on Moh's Scale. Writing surface shall not become slick and shiny through normal use.

CONSULT CATALOG FOR ADDITIONAL AVAILABLE COLORS - USUAL SELECTION IS WHITE.

- c. Color: White.
- d. Color: Silver.
- e. Color: Selected by Architect from Manufacturer's standard range.
3. Core: 1/2-inch thick gypsum board.
4. Backing Sheet: Mfr's standard aluminum foil.
5. Laminating Adhesive: Moisture-resistant, thermoplastic type.

- C. Manufacturers: Subject to compliance with requirements, provide products of one of the following:

Cig-Jan Products, Ltd.
Claridge Products and Equipment, Inc.
Marsh Chalkboard Co.; Div. Marsh Lumber Co.
Polyvision Corp.

BELOW IS STANDARD CHALKBOARD.

2.3 PORCELAIN ENAMEL CHALKBOARDS

- A. Chalkboards: Provide chalkboard units with concealed mechanical fastening devices for wall mounting to indicated substrates, and complete with the following:

SELECT ONE OF THE FOLLOWING - "C" CHANNEL TYPE (MOST COMMON) IS USED WITH PARTICLEBOARD BACKING (MOUNTING CLIPS ATTACH TO PARTICLEBOARD). MOUNTING CLIPS WITH SNAP-ON TRIM ARE USED WITH GYPSUM BOARD BACKING.

1. Frames: Aluminum "C" channel type with concealed fasteners.
2. Frames: Mounting clip type with extruded aluminum snap-on trim.

SELECT SOLID EXTRUSION BELOW WITH "C" CHANNEL TRIM - HOLLOW TYPE IS MORE SUBSTANTIAL AND MORE EXPENSIVE.

3. Chalktray: Solid aluminum extrusion type.
4. Chalktray: Hollow extruded aluminum box type.

INCLUDE BELOW IF DESIRED.

5. Map Rail: Aluminum extrusion with tackable cork insert.
- B. Balanced, high pressure laminated porcelain enamel chalkboards of 3 ply construction consisting of facing sheet, core material, and backing.

1. Facing Sheet: 24 gage enameling steel sheet especially processed for temperatures used in coating porcelain on steel Fuse cover and ground coats to the steel at the manufacturer's standard firing temperature.
2. Exposed Face: 3 coat process (primer, ground coat and color cover coat).
3. Concealed Face: 2 coat process (primer and ground coat).
4. Proprietary Facing Sheet: At the Contractor's option, provide 24 gage, "Vitracite" porcelain enamel clad aluminized steel facing sheet, as manufactured by Claridge Products and Equipment, Inc.
5. Chalkboard Cover Coat: Mfr's standard matte finish cover coat.

SELECT FROM CHOICES BELOW OR CONSULT MANUFACTURER'S CATALOG.

- a. Color: Dark Green.
 - b. Color: Black.
 - c. Color: Dark Brown.
 - d. Color: Selected by Architect from Manufacturer's standard range.
 6. Core: Mfr's standard 3/8 inch thick particleboard core material complying with ANSI A208.1, Grade 1-M-1.
 7. Backing Sheet: Mfr's standard 0.015 inch thick aluminum backing sheet.
 8. Laminating Adhesive: Mfr's standard moisture-resistant, thermoplastic type adhesive.
- C. Manufacturers: Subject to compliance with requirements, provide products of one of the following:
- Cig-Jan Products, Ltd.
 Claridge Products and Equipment, Inc.
 Marsh Chalkboard Co.; Div. Marsh Lumber Co.
 Polyvision Corp.

2.4 BULLETIN BOARDS

- A. Bulletin Boards: Provide bulletin board units with concealed mechanical fastening devices for wall mounting to indicated substrates, and complete with the following:

SELECT ONE OF FOLLOWING.

1. Frames: Aluminum "C" channel type with concealed fasteners.
2. Frames: Incorporate bulletin boards in chalk/markerboard frames.

SELECT ONE OF THE BOARD TYPES BELOW.

- B. Tackable, nominal 1/4-inch thick, resilient linoleum homogenous with integral color through board.
1. Product: Bulletin Board Cork; Forbo North America.
 - a. Color: SELECT COLOR .
- C. Vinyl fabric on fire retardant resilient tackable backing board; ASTM E-84, Class A.
1. Fabric: Tackboard manufacturer's standard.
 - a. Fabric Pattern: Burlap.

- b. Color: insert selection .
- D. Polyester cloth fabric, plain weave with edges wrapped on fire retardant resilient tackable backing board; ASTM E-84, Class A.
 - 1. Fabric Manufacturer: Guilford of Maine Div. Interface Co.
 - a. Color: insert selection .
- E. Manufacturers: Subject to compliance with requirements, provide products of one of the following:
Cig-Jan Products, Ltd.
Claridge Products and Equipment, Inc.
Marsh Chalkboard Co.; Div. Marsh Lumber Co.
Polyvision Corp.

**INCLUDE BELOW WITH EITHER CHALKBOARD OR MARKERBOARD SURFACES -
MODIFY OR DELETE ALL FOR PROJECTS WITH BULLETIN BOARDS ONLY**

2.5 ACCESSORIES

- A. Metal Trim: 0.062 inch thick aluminum, manufacturer's standard channel size and shape; minimize number of joints. Miter corners to a neat, hairline closure.

DELETE PARAGRAPH ABOVE OR BELOW

- B. Field-Applied Trim: Mfr's standard snap-on trim, with no visible screws or exposed joints.
- C. Clear Anodized Finish: Mfr's standard color anodized satin finish with hardcoat anodic coating AA Class I integral Color Coating (AA-442), color as selected.
- D. Chalk/Markertray: Mfr's standard continuous, box type aluminum with slanted front and cast aluminum end closures.

INCLUDE THE FOLLOWING IF MARKERBOARDS HAVE BEEN SELECTED

- E. Erasable Liquid Markers: Provide a carton containing not less than 5 markers, each a different color, of type recommended by markerboard manufacturer.

2.6 FABRICATION

- A. Factory assemble units with a minimum number of joints balanced about the center of units, as acceptable to the Architect.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with mfr's print instructions. Include grounds, clips, backing materials, brackets and anchors, trim and accessories required for a complete installation.
- B. Clean units and repair or replace defective and damaged components to the satisfaction of the Architect.

END OF SECTION 101100