

SECTION 10 12 00

**BULLETIN CASES
DIRECTORY CASES
POSTER CASES**

**HIGHLIGHTED SECTIONS REQUIRE SELECTION BY ARCHITECT OR OWNER BEFORE BID SUBMITTAL.
REMOVE HIGHLIGHTED TEXT UPON COMPLETION.**

PART 1 – GENERAL

* Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.1 DESCRIPTION OF WORK

CHOOSE CASE STYLE

- A. Bulletin Cases
- B. Directory Cases
- C. Poster Cases

1.2 REFERENCES

- A. (ANSI) American National Standards Institute
 - 1. ANSI H35.1 - Alloy and Temper Designation for Aluminum.
- B. (ASTM) American Society for Testing and Materials
 - 1. ASTM B 221 - Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
 - 2. ASTM E-84 – Standard Testing Method for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS

- A. **PRODUCT DATA:** For each type of display case indicated, provide technical data & materials test reports where applicable.
- B. **SHOP DRAWINGS:**
 - 1. Include dimensional elevations.
 - 2. Show location of door-connecting Jambs when unit exceeds maximum door width.
 - 3. Show anchors, grounds, reinforcement, and installation details.
 - 4. Submit wiring diagrams for illumination to coordinate with electrical contractor.
 - 5. Submit shop drawings for each case style required.
- C. **SAMPLES & COLOR CHARTS:**
Manufacturer's color charts showing the full range of colors and textures available for the following and dispersed at architect request:
 - 1. Interior Wall Materials: Furnish swatches for color section chosen from one of the following:
 - a. Vinyl: Manufacturer standard 22OZ. Vinyl - Burlap Weave Type1 Class A color range.
 - b. Fabric: Guilford of Maine panel 2100- FR701 standard panel fabric color range.
 - c. Colored Cork: Forbo Linoleum Inc. burlap backed 1/4-inch (6.35-mm) thick cork bulletin board color range.
 - d. Natural Cork: 1/4-inch (6.35-mm) thick face-sanded natural cork

2. Housing and Door Trim:
 - a. Clear Satin or Bronze Aluminum samples on 6-inch (150-mm) long sections.
 - b. Sherwin Williams polyurethane enamel standard Polane color selector chart or color selected to match architect specification.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an authorized crew with installation and maintenance experience of the type of product as required for this project.
- B. Product Options: Drawings indicate size, profiles, and dimensional requirements of visual display boards and are based on the products indicated. Other manufacturers' products with equal performance characteristics may be considered. Refer to Division 1 section "Substitutions."
 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval and only to the extent needed to comply with performance requirements. Where modifications are proposed, submit comprehensive explanatory data to Architect for review.
- C. Fire-Test-Response Characteristics: For vinyl/fabric-faced tack surfaces, provide Class A (or Class 1) performance characteristics identical to those required in this Section per ASTM E 84.
- D. Operation and Maintenance: Include data on regular cleaning, stain removal and general precautions.
- E. Delivery, Storage and Protection: Deliver factory built units crated for protection and secured to the trailer whenever possible. Once delivered, inspect the unit for damage and return to crating for storage. Store crated units protected from temperature (above 55 degrees Fahrenheit) and humidity variations or possible jobsite traffic damage until the system is ready to be installed.

1.5 PROJECT CONDITIONS

- A. Verify field measurements before fabrication to ensure proper fitting. Coordinate fabrication lead time with construction progress to avoid delaying the work. Notify Architect of any conflicts with other construction such as casework, electrical switches, outlets, clocks, fire detector devices, etc.
 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with the fabricating without field measurements. Coordinate wall construction to ensure actual dimensions correspond to established dimensions.
 2. Coordinate delivery with field conditions to provide proper temperature (above 55 degrees Fahrenheit) and humidity variations and protect from possible jobsite traffic damage until the system is ready to be installed.

1.6 WARRANTY

- A. Project Warranty: Submit a written warranty executed by manufacturer agreeing to replace the unit provided the manufacturer's written instructions for proper handling, installation, protection, and maintenance have been followed.
 1. Manufacturer Warranty Coverage: Pyramid Presentation Products cases are warranted for One Year against defect in materials and workmanship. Warranty voided upon improper handling, installation, or vandalism. Warranty covers replacement of defective material but does not include the cost of removal or reinstallation.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Specifications for Stargazer Display Cases based on Bulletin, Directory and Poster Cases as distributed by Pyramid Presentation Products and manufactured by Educational Equipment- 330-673-4881 – 845 Overholt Rd. Kent, OH 44240 – www.stargazerdisplaycases.com. Manufacturer substitutions must meet or exceed specifications approved for the project and minimum five years experience. For substitutions see Division 1 product requirements regarding substitutions.

2.2 MATERIALS & CONSTRUCTION

CHOOSE SERIES AND REMOVE LETTER SECTION AS REQUIRED

A. BULLETIN CASES:

1. MOUNTING:

CHOOSE MOUNTING STYLE

- a. Surface: Mount case on wall face with concealed clips or through angle brackets.
- b. Recessed or Semi-recessed: Mount case to wall structure through back plate or case interior sides.

2. HOUSING:

- a. Fabricated frames of not less than 1/8-inch- (3.175-mm-) thick aluminum alloy 6063-T5 extrusions meeting ASTM B221.
- b. Finish:

CHOOSE FINISH

- i. Clear Satin Anodized Aluminum (standard)
- ii. Dark Bronze Anodized Aluminum
- iii. Aluminum with polyurethane enamel coating with a minimum film thickness of 1.5 mils when dry. All exposed surfaces to be free of scratches, blemishes or any other imperfections. Extra touch-up paint available upon request.
- c. Size: As indicated on shop drawings.
- d. Connection: All connection corners to be double keyed for structural integrity and clean miters.

3. GLASS DOORS:

CHOOSE SLIDING OR HINGED

- a. Sliding Glass Doors (standard) to be 1/4-inch (6.35-mm) thick tempered safety glass with polished edges, and inset finger pulls. Glass door shoe to be constructed with inset ball-bearing rollers traveling on a bottom guide track and top guides following a top track. Ratchet or plunger lock and two keys provided as required.
- a. Hinged Glass Doors to be 1/4-inch (6.35-mm) or 3/16-inch (4.76-mm) thick tempered safety glass. Miter door frame corners to a neat, hairline closure constructed with double corner-keys for an accurate square and does not require glass to maintain dimensional stability. Attached full-length piano hinge. Cam lock and two keys provided.

4. BACK PANEL:

Consist of facing material laminated to core laminated to total 1/2-inch (12-mm) thick following factory laminating procedures. Laminating adhesive consist of manufacturer's standard, moisture-resistant, thermoplastic-type adhesive.

CHOOSE PANEL TYPE

- a. Panel Facing

- Fire Rated Tackable Vinyl: 22oz. PLY specifically produced for tackable surfaces. Mildew-resistant, washable vinyl complying with FS CCC-W-408, Type 1 Class A vinyl.
- Tackable Fabric: Mildew-resistant, Washable fabric weighing not less than 16 oz./lin. yd. Provide Class 1 (A) fabric with a flame-spread rating of 25 or less when tested according to ASTM E-84. Provide color and texture as scheduled or as selected from manufacturer's standard Guilford of Maine Panel Fabric style 2100 – FR701 or as chosen by architect.
- Colored Cork: Forbo Linoleum resilient tackable surface, 1/4-inch (6.35-mm) all natural materials with burlap binders, Uni-color shall extend throughout thickness of material, contains no harmful byproducts or carcinogens, Class B rated in accordance to ASTM E-84, Class II rated in accordance to NFPA 255, Zero-effect chemical resistance to diluted acids and solvents with no resistance to high alkalis, Washable finish to retain original appearance and resists cracking, drying and peeling, Self-healing from thumbtacks and pin punctures, Self-sanitizing quality in the form of a bactericidal effect. Provide color as selected from manufacturer's standard Forbo Bulletin Board color chart.
- Natural Cork: Face-sanded natural granulated cork surface 1/4-inch (6.35-mm) thick.
- Hook and Loop fabric: Colors chosen from manufacturer standards.

b. Core

CHOOSE CORE

- Fiberboard [standard for vinyl and fabric]
- Fire Rated Fiberboard
- 1/4-inch (6-mm) thick Cork (described above) laminated to 1/4-inch (6-mm) thick Hardboard [can be used with fabric or vinyl]
- 1/8-inch (3-mm) thick Natural Cork laminated to 3/8-inch (9-mm) thick Fiberboard [to be used with fabric or vinyl]
- Other (specify)

REMOVE SECTION 5 AS REQUIRED

5. LIGHTING:

- a. T8 or T12 -120V or 277V fluorescent lighting. Single lamp fixtures as recommended by manufacturer.
- b. Translucent diffuser.
- c. Top inside housing mounted.
- d. Wiring locations as per architect drawings. Lighting installation performed by electrical contractor.

B. DIRECTORY CASES:

1. MOUNTING:

CHOOSE MOUNTING STYLE

- a. Surface: Mount case on wall face with concealed clips or through angle brackets.
- b. Recessed or Semi-recessed: Mount case to wall structure through back plate or case interior sides.

2. HOUSING:

- a. Fabricated frames of not less than 1/8-inch- (3.175-mm-) thick aluminum alloy 6063-T5 extrusions meeting ASTM B221.

b. Finish:

CHOOSE FINISH

- i. Clear Satin Anodized Aluminum (standard)
 - ii. Dark Bronze Anodized Aluminum
 - iii. Aluminum with polyurethane enamel coating with a minimum film thickness of 1.5 mils when dry. All exposed surfaces to be free of scratches, blemishes or any other imperfections. Extra touch-up paint available upon request.
 - c. Size: As indicated on shop drawings.
 - d. Connection: All connection corners to be double keyed for structural integrity and clean miters.
- 3. **GLASS DOORS:**
CHOOSE SLIDING OR HINGED
 - a. Sliding Glass Doors (standard) to be 1/4-inch (6.35-mm) thick tempered safety glass with polished edges, and inset finger pulls. Glass door shoe to be constructed with inset ball-bearing rollers traveling on a bottom guide track and top guides following a top track. Ratchet or plunger lock and two keys provided as required.
 - a. Hinged Glass Doors to be 1/4-inch (6.35-mm) or 3/16-inch (4.76-mm) thick tempered safety glass. Miter door frame corners to a neat, hairline closure constructed with double corner-keys for an accurate square and does not require glass to maintain dimensional stability. Attached full-length piano hinge. Cam lock and two keys provided.
- 4. **DIRECTORY PANEL:**
Consist of fabric or vinyl (architect to select from a range of colors) laminated to particleboard routed on 1/4-inch (6-mm) center to allow plastic changeable letters secure placement. (Outdoor cases recommended to be vinyl as fabric may fade in direct sunlight)
- REMOVE SECTION 5 AS REQUIRED**
- 5. **LIGHTING:**
 - e. T8 or T12 -120V or 277V fluorescent lighting. Single lamp fixtures as recommended by manufacturer.
 - f. Translucent diffuser.
 - g. Top inside housing mounted.
 - h. Wiring locations as per architect drawings. Lighting installation performed by electrical contractor.

C. POSTER CASES:

- 1. **MOUNTING:**
CHOOSE MOUNTING STYLE
 - a. Surface: Mount case on wall face with concealed clips or through angle brackets.
 - b. Recessed or Semi-recessed: Mount case to wall structure through back plate or case interior sides.
 - c. Leg: Square aluminum extrusion mounted on the case sides to extend at a minimum of 24-inches under ground and secured with concrete or similar product.
- 2. **HOUSING:**
 - a. Fabricated frames of not less than 1/8-inch- (3.175-mm-) thick aluminum alloy 6063-T5 extrusions meeting ASTM B221.
 - b. Finish:
CHOOSE FINISH
 - i. Clear Satin Anodized Aluminum (standard)
 - ii. Dark Bronze Anodized Aluminum
 - iii. Aluminum with polyurethane enamel coating with a minimum film thickness of 1.5 mils when dry. All exposed surfaces to be free of scratches, blemishes or any other imperfections. Extra touch-up paint available upon request.

- c. Size: As indicated on shop drawings.
- d. Connection: All connection corners to be double keyed for structural integrity and clean miters.

3. **GLASS DOORS:**

CHOOSE SLIDING OR HINGED

- a. Sliding Glass Doors (standard) to be 1/4-inch (6.35-mm) thick tempered safety glass with polished edges, and inset finger pulls. Glass door shoe to be constructed with inset ball-bearing rollers traveling on a bottom guide track and top guides following a top track. Ratchet or plunger lock and two keys provided as required.
- a. Hinged Glass Doors to be 3/16-inch (4.76-mm) thick tempered safety glass. Miter door frame corners to a neat, hairline closure constructed with double corner-keys for an accurate square and does not require glass to maintain dimensional stability. Attached full-length piano hinge. Cam lock and two keys provided.

4. **BACK PANEL:**

Consist of facing material laminated to core laminated to total 1/2-inch (12-mm) thick following factory laminating procedures. Laminating adhesive consist of manufacturer's standard, moisture-resistant, thermoplastic-type adhesive.

CHOOSE PANEL TYPE

- a. Panel Facing
 - Fire Rated Tackable Vinyl: 22oz. PLY specifically produced for tackable surfaces. Mildew-resistant, washable vinyl complying with FS CCC-W-408, Type 1 Class A vinyl.
 - Tackable Fabric: Mildew-resistant, Washable fabric weighing not less then 16 oz./lin. yd. Provide Class 1 (A) fabric with a flame-spread rating of 25 or less when tested according to ASTM E-84. Provide color and texture as scheduled or as selected from manufacturer's standard Guilford of Maine Panel Fabric style 2100 – FR701 or as chosen by architect.
 - Colored Cork: Forbo Linoleum resilient tackable surface, 1/4-inch (6.35-mm) all natural materials with burlap binders, Uni-color shall extend throughout thickness of material, contains no harmful byproducts or carcinogens, Class B rated in accordance to ASTM E-84, Class II rated in accordance to NFPA 255, Zero-effect chemical resistance to diluted acids and solvents with no resistance to high alkalis, Washable finish to retain original appearance and resists cracking, drying and peeling, Self-healing from thumbtacks and pin punctures, Self-sanitizing quality in the form of a bactericidal effect. Provide color as selected from manufacturer's standard Forbo Bulletin Board color chart.
 - Natural Cork: Face-sanded natural granulated cork surface 1/4-inch (6.35-mm) thick.
 - Hook and Loop fabric: Colors chosen from manufacturer standards.
 - Fabric or Vinyl Directory panel (architect to select color)
- b. Core
 - **CHOOSE CORE**
 - Fiberboard [standard for vinyl and fabric]
 - Fire Rated Fiberboard
 - 1/4-inch (6-mm) thick Cork laminated to 1/4-inch (6-mm) thick Hardboard [can be used with fabric or vinyl]
 - 1/8-inch (3-mm) thick Cork laminated to 3/8-inch (9-mm) thick Fiberboard [to be used with fabric or vinyl]
 - Other (specify)

REMOVE SECTION 5 AS REQUIRED

5. LIGHTING:
- i. T8 or T12 -120V or 277V fluorescent lighting. Single lamp fixtures as recommended by manufacturer.
 - j. Translucent diffuser.
 - k. Top inside housing mounted.
 - l. Wiring locations as per architect drawings. Lighting installation performed by electrical contractor.

2.3 FABRICATION

- A. General:
- 1. Comply with indicated requirements for materials, thickness, finishes, colors, and sizes of construction.
 - 2. All units to be fully factory assembled in accordance to dimensions shown on architectural drawings.
 - 3. All housing aluminum connection points to be braced internally and sealed to tight hairline fits.
- B. Substitutions:
- 1. No substitutions permitted.

2.4 FINISHES

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.
- B. Finish designations prefixed by AA conform to the system established by The Aluminum Association for designating aluminum finishes.
- C. Aluminum Trim: Class II, Clear Anodic Finish AA-M12C22A31 (Mechanical Finish: Nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating; Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 607.1.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Site conditions and verification:
- 1. Examine wall surfaces, with Installer present, for compliance with requirements and other conditions affecting installation.
 - 2. Verify required anchorage have been installed such as blockings.
 - 3. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General:
- 1. Deliver factory-built units completely assembled in accordance with manufacturer's shop drawings as approved by the architect. 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. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim and accessories necessary for complete installation.

3. Install units in locations and at mounting heights indicated and according to manufacturer recommendations. Keep perimeter lines straight, plumb, and level.
4. Do not install units over any mechanical or electrical openings or utilities. Should this condition occur, notify the Construction Manager for direction.

3.3 CLEANING AND PROTECTION

- A. General:
 1. Remove construction debris from project site and dispose of in accordance to local laws.
 2. Clean glass surfaces, housing wall panels and aluminum trim in accordance to manufacturer recommendations leaving all materials ready for owner acceptance.
- B. Protection:
 1. Properly protect finished surfaces from site damage where possible.

End of Section