

NORTHWESTERN UNIVERSITY  
PROJECT NAME \_\_\_\_\_  
JOB # \_\_\_\_\_

FOR: \_\_\_\_\_  
ISSUED: 03/29/2017

SECTION 10 1100 - VISUAL DISPLAY UNITS

PART 1 -

1. Samples of facings for each visual display panel type, indicating color and texture.
2. Provide 6-inch square sample panel to demonstrate magnetic properties of panels.
3. Actual factory-finish color samples, applied to aluminum substrate.
4. Include accessory Samples to verify color selected.

E. Samples for Verification: For each type of visual display unit indicated.

1. Visual Display Panel: Not less than 8-1/2 by 11 inches (215 by 280 mm), with facing, core, joint and joint material, and backing indicated for final Work. Include one panel for each type, color, and texture required.
2. Trim: 6-inch- (150-mm-) long sections of each trim profile.
3. Rail Support System: 6-inch- (152-mm-) long sections.
4. Accessories: Full-size Sample of each type of accessory.
5. Provide sample joint and seaming to demonstrate that joint system are not stained or permanently marked by pens.

F. Product Schedule: For visual display units. Schedule shall include the following information:

1. Location
2. Type of visual display unit.
3. Overall size of the display unit.
4. Mounting height.
5. Mounting system.
6. Accessories.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for surface-burning characteristics.
- C. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For visual display units and motorized units to include in cleaning instructions and maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Comply with the most current edition of the Northwestern University Design Standards.
- B. Installer Qualifications: An entity that employs installers and supervisors with a minimum of 5-years of experience who are trained and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-fabricated visual display units completely assembled in one piece. If dimensions exceed maximum manufactured unit size, or if unit size is impracticable to ship in one piece, provide two or more pieces with joints in locations indicated on approved Shop Drawings.





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1. Edge Treatments:
    - a. Panel-Joint Edges: **[Wrapped with fabric] [Concealed by fabric-covered trim]**.
    - b. Top-of-Wall Edges: **[Wrapped with fabric] [Concealed by fabric-covered trim]**.
    - c. Bottom-of-Wall Edges: **[Wrapped with fabric] [Concealed by fabric-covered trim]**.
    - d. Corners: **[Wrapped with fabric] [Concealed by fabric-covered trim]**.
  2. Color: **[As selected by Architect from full range of industry colors] <Insert color>**.
- D. Width: **[As indicated on Drawings] <Insert dimension>**.
- E. Height: **[As indicated on Drawings] <Insert dimension>**.
- F.

- B. Horizontal-Sliding Visual Display Units: Factory-fabricated units consisting of extruded-aluminum tubular frame, fixed rear visual display panel, aluminum-framed horizontal-sliding visual display panels, and extruded-aluminum fascia that conceals overhead sliding track; designed for recessed mounting. Provide panels that operate smoothly without vibration or chatter.
1. Two-Track Units: Fabricate unit with fixed rear panel covering entire rear surface. Provide two sliding panels, each equal to not less than one-half of overall length of unit.
  2. Three-Track Units: Fabricate unit with fixed rear panel covering entire rear surface. Provide three sliding panels, each equal to not less than **[one-third]** **[one-half]** of overall length of unit.
  3. Four-Track Units: Fabricate unit with fixed rear panel centered in and covering not less than one-half of rear surface, and fixed front panel on each side of unit equal to not less than one-quarter of overall length of unit. Provide four sliding panels, each equal to not less than one-quarter of overall length of unit.
  4. Hardware: Manufacturer's standard, extruded-aluminum overhead track and channel-shaped bottom guides; with two nylon ball-bearing carriers and two nylon rollers for each sliding panel.
  5. Overall Width: As indicated on Drawings.
  6. Overall Height: As indicated on Drawings.
- C. Vertical-Sliding Visual Display Units: Factory-fabricated units consisting of extruded-aluminum tubular frame, fixed rear visual display panel, and aluminum-framed vertical-sliding panels; **[motor operated];** designed for recessed mounting. Provide panels that operate smoothly without vibration or chatter.
1. Type: Tubular frame on [four sides] [top and two sides, with sides extending to floor; with kick panel to conceal sliding panels]. Design unit to support panels independently of wall.
  2. Two-Track Units: Fabricate unit with fixed rear panel covering entire rear surface. Provide two sliding panels, each equal to not less than one-half of overall height of unit.
  3. Three-Track Units: Fabricate unit with fixed rear panel covering entire rear surface. Provide three sliding panels, each equal to not less than one-half of overall height of unit.
  4. Four-Track Units: Fabricate unit with fixed rear panel centered in and covering not less than one-







G. End Stops: Aluminum.

H. Accessories:

1. Metal Map Hooks: Include <Insert number> map hooks per [room].
2. Roller Brackets: Include <Insert number> roller brackets per [20 feet (6 m)].
3. Flag Holders: Include <Insert number> flag holder per [room].

## 2.9 CHALKBOARD PANELS

A. Porcelain-Enamel Chalkboard Panels: High-pressure, factory-laminated chalkboard panels of balanced three-ply construction, consisting of moisture-barrier backing, core material, and porcelain-enamel face sheet with matte finish. Laminate panels under heat and pressure with manufacturer's standard, flexible waterproof adhesive.

1. Face Sheet Thickness: 0.021 inch (0.53 mm) uncoated base metal thickness.
2. Medium-Density Fiberboard Core: 7/16 inch (11 mm) thick; with manufacturer's standard moisture-barrier backing.
3. Laminating Adhesive: Manufacturer's standard moisture-resistant thermoplastic type.

## 2.10 MARKERBOARD PANELS

A. Porcelain-Enamel Markerboard Panels: Balanced, high-pressure, factory-laminated markerboard assembly of three-ply construction, consisting of moisture-barrier backing, core material, and porcelain-enamel face sheet with [high-gloss] [low-gloss] finish. Laminate panels under heat and pressure with manufacturer's standard, flexible waterproof adhesive.

1. Face Sheet Thickness: 0.021 inch (0.53 mm) uncoated base metal thickness.
2. Medium-Density Fiberboard Core: 7/16 inch (11 mm) thick; with manufacturer's standard moisture-barrier backing.
3. Laminating Adhesive: Manufacturer's standard moisture-resistant thermoplastic type.

## 2.11 TACKBOARD PANELS

A. Tackboard Panels:

1. Facing: [1/8-inch- (3-

- C. Natural-Cork Sheet: Seamless, single-layer, compressed fine-grain cork sheet; bulletin board quality; face sanded for natural finish with surface-burning characteristics indicated.
- D. Plastic-Impregnated-Cork Sheet: Seamless, homogeneous, self-sealing sheet consisting of granulated cork, linseed oil, resin binders, and dry pigments that are mixed and calendared onto fabric backing; with washable vinyl finish and integral color throughout with surface-burning characteristics indicated.
- E. Vinyl Fabric: Mildew resistant, washable, complying with FS CCC-W-408D, Type II, [**burlap weave**] <Insert texture or pattern>; weighing not less than 13 oz./sq. yd. (440 g/sq. m); with surface-burning characteristics indicated.
- F. Polyester Fabric: Nondirectional weave, 100 percent polyester; weighing not less than 15 oz./sq. yd. (508 g/sq. m); with surface-burning characteristics indicated.
- G. Composite Wood Products: Products shall be made without urea formaldehyde.
- H. Hardboard: ANSI A135.4, tempered.
- I. Particleboard: ANSI A208.1, Grade M-1.
- J. Medium-Density Fiberboard: ANSI A208.2, Grade 130.
- K. Fiberboard: ASTM C 208 cellulosic fiber insulating board.
- L. Clear Tempered Glass: ASTM C 1048, Kind FT, Condition A, Type I, Class 1, Quality Q3, with exposed edges seamed before tempering.
- M. Extruded Aluminum: ASTM B 221 (ASTM B 221M), Alloy 6063.
- N. Adhesives for Field Application: Mildew-resistant, nonstaining adhesive for use with specific type of panels, sheets, or assemblies; and for substrate application; as recommended in writing by visual display unit manufacturer.
  - 1. Adhesives shall have a VOC content of 50 g/L or less.

## 2.13 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
  - 1. Protective covering shall not be removed from finished surface until final certificate of occupancy is granted. Protective covering shall be removed per the manufacturers recommendations.
- C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.



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B. Field-Assembled Visual Display Board Assemblies: Coordinate field-assembled units with grounds, trim, and accessories indicated. Join parts with a neat, precision fit.

1. Make joints only where total length exceeds maximum manufactured length. Fabricate with minimum number of joints, balanced around center of board, as acceptable to Architect.
2. Where size of visual display board assemblies or other conditions require support in addition to normal trim, provide structural supports or modify trim as indicated or as selected by Architect from manufacturer's standard structural support accessories to suit conditions indicated.

C. Factory-Fabricated Visual Display Board Assemblies: Attach concealed clips, hangers, and grounds to wall surfaces and to vibal18.4(y)]TJ 0 Tc 0 Tw 3.337y718.4(y)]TJ 692sursto vi rctacesuiyyeng(r)-6.4

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3.4 CLEANING AND PROTECTION

- A. Clean visual display units according to manufacturer's written instructions. Attach one removable cleaning instructions label to visual display unit in each room.
- B. Touch up factory-applied finishes to restore damaged or soiled areas.
- C. Cover and protect visual display units after installation and cleaning.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain motorized, sliding visual display units.

**END OF SECTION 10 1100**

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