



## Facilities Planning and Construction Design and Construction Standards

### **Division 10 – Specialties**

#### **10 11 00 Visual Display Units**

##### **GENERAL**

This section includes porcelain enamel markerboards, glass marker boards, and tackboards.

Glass markerboards are the preferred over porcelain markerboards or chalkboards at all TTUS campuses.

Chalkboards may only be used in special cases if approved by the component institution and TTUS FP&C.

For each type of product indicated, submit construction details, material descriptions, dimensions of individual components and profiles, finishes for visual display surfaces, and maintenance instructions. Obtain each type of visual display surfaces from single source from single manufacturer.

Locations, mounting heights and sizes should be clearly shown on the drawings and elevations and coordinated with adjacent building elements.

Visual Display Surfaces shall be Class A fire-rated and meet ASTM E84.

Specify all accessories for visual display boards: marker trays, erasers, magnets, etc.

Tackboards and bulletin boards located in public areas shall be specified with lockable glass doors for security.

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated

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subcontractor, and representatives of other trades or subcontractors affected by the installation.

## PRODUCTS

All visual display boards shall be made of non-ghosting material.

Submit samples of each visual display surface type and color for approval. Samples must be a minimum of 6"x6". Include trim samples, minimum of 12" in length. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated on drawings and in finish schedules.

All glass markerboards shall be magnetic unless otherwise specified.

Porcelain-enamel Markerboard Assembly:

1. Description: Balanced, high-pressure, factory-laminated markerboard assembly of three-ply construction consisting of backing sheet, core material, and porcelain-enamel face sheet with high gloss finish.
2. Porcelain-Enamel Face Sheet: Meet ASTM A424 requirements, with enameling-grade steel, uncoated thickness indicated; with exposed face and edges coated with primer, 1.7-to-2.5-mil thick ground coat, and color cover coat; and with concealed face coated with primer and 1.7-to-2.5-mil thick ground coat.
3. Gloss-Finish Cover Coat: Gloss as indicated; dry-erase markers wipe clean with dry cloth or standard eraser. Minimum 3.0-to-4.0-mil thick cover coat. Cover and ground coats shall be fused to steel at manufacturer's standard firing temperatures but not less than 1475 deg F.
4. Laminating adhesive: Manufacturer's standard, moisture-resistant thermoplastic type.

## EXECUTION

Do not deliver or install visual display surfaces until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

Comply with manufacturer's written instructions for surface preparation.

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Build mockups for typical classroom and conference room installations indicating mounting height, accessory placement, etc. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

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



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#### **10 14 19 – 10 14 23 Dimensional Letter & Panel Signage**

##### **GENERAL**

All room signage shall be in compliance with the Americans with Disabilities Act (ADA) guidelines.

All building and project naming shall comply [Texas Tech University System Regents' Rules Chapter 13](#).

Please see each component institution's interior and exterior signage standards below.

##### **Angelo State University:**

[Campus Signage Guidelines](#)

##### **Texas Tech University:**

Interior Signage: [Operating Policy 61.20: Interior Signs on Buildings and Facilities](#)

Exterior Signage: [Operating Policy 61.22 Exterior Signs on Buildings and Facilities](#)

Room Numbering: [Operating Policy 61.21: Room Numbering Standards](#)

##### **Texas Tech University Health Sciences Center:**

Interior Signage: Interior room signage is fabricated and installed by TTUHSC.

Exterior Signage: [Operating Policy 61.05: Freestanding Exterior Signs](#)

##### **Texas Tech University Health Sciences Center El Paso:**

Interior Signage: Please contact Facilities Planning & Construction.

Exterior Signage: [Operating Policy 61.05: Freestanding Exterior Signs](#)

##### **Midwestern State University:**

Interior Signage: Please contact Facilities Planning & Construction.

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Exterior Signage: Please contact Facilities Planning & Construction.

Requests for other types of exterior signs on buildings and facilities that do not conform to the specifications above shall be submitted to the FP&C design team for approval. A rendering of the new signage will be necessary for approval.

Obtain each sign type indicated from one source from a single manufacturer.

Comply with applicable provisions in ADA-ABA Accessibility Guidelines and TAS (Texas Accessibility Standards).

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated subcontractor, and representatives of other trades or subcontractors affected by the installation.

## **PRODUCTS**

Submit full-size samples of each signage type and color for approval. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated on drawings and in finish schedules.

Aluminum Castings to be in compliance with ASTM B 26/B 26M, of alloy and temper recommended by sign manufacturer for casting process used and for use and finish indicated.

Aluminum Sheet and Plate to be in compliance with ASTM B 209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of Alloy 5005-H32.

Aluminum Extrusions to be in compliance with ASTM B 221, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of Alloy 6063-T5.

High Pressure Laminate to be in compliance with ASTM E 162 Flammability.

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Acrylic Sheet to be in compliance with ASTM D 4802, Category A-1 (cell-cast sheet) and be Type UVA (UV absorbing).

Applied Vinyl to be in compliance with die-cut characters from vinyl film of nominal thickness of 3 mils with pressure-sensitive adhesive backing and is suitable for exterior applications.

Produce cast characters with smooth flat faces, sharp corners, and precisely formed lines and profiles, free of pits, scale, sand holes, and other defects. Cast lugs into back of characters and tap to receive threaded mounting studs. Alloy and temper recommended by sign manufacturer for casting process used and for use and finish indicated.

Provide cutout characters with square-cut, smooth, beveled edges. Building plaques to be owner provided and Contractor installed.

Interior Panel Signs to be smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner, complying with the following requirements:

1. Acrylic Sheet: 0.080 inch thick.
2. Laminated Sheet: High-pressure engraved stock with contrasting color face laminated to acrylic core in finishes and color combinations as selected by Architect from manufacturer's full range.
3. Edge Condition: Squared.
4. Corner Condition: Rounded.
5. Mounting: Unframed.
  - a. Wall mounted with two-faced tape.
6. Color: As selected by Architect from manufacturer's full range.
7. Tactile Characters: Characters and Grade 2 Braille raised 1/32 inch above surface with contrasting colors.

Provide manufacturer's standard signs of configurations indicated.

1. Welded Connections: Comply with AWS standards for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or

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- discoloration of exposed side. Clean exposed welded surfaces of welding flux and dress exposed and contact surfaces.
2. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
  3. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.
  4. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.
  5. For signs mounted on brick, fabricate signs and letters so that fasteners are located in mortar joints.

Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating metal finishes.

Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

Clear anodic finish to be manufacturer's standard Class 1 clear anodic coating, 0.018 mm or thicker, over a satin (directionally textured) mechanical finish, complying with AAMA 611.

## **EXECUTION**

Submit manufacturer's standard warranty form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within a five-year warranty period. Failures include, but are not limited to the following:

1. Deterioration of metal and polymer finishes beyond normal weathering.
2. Deterioration of embedded graphic image colors and sign lamination.

Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

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After installation, clean soiled sign surfaces according to manufacturer's written instructions.  
Protect signs from damage until acceptance by Owner.





## Facilities Planning and Construction Design and Construction Standards

### **Division 10 – Specialties**

#### **10 21 13.15, 10 21 13.19, 10 21 16.19 Toilet Compartments**

##### **GENERAL**

Toilet compartments and urinal screen materials will be determined by the Project Design Team.

Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities" and TAS (Texas Accessibility Standards) for toilet compartments designated as accessible.

Comply with requirements in GSA's CID-A-A-60003, "Partitions, Toilets, Complete."

Partitions or stalls shall be floor mounted and constructed of solid plastic or stainless steel unless other materials or mounting scenarios are approved by the Owner.

Real wood toilet compartments will rarely be considered and are only appropriate for applications within high-end buildings or areas.

Provide at least (1) coat hook in each stall, located on the partition (not the door). Hooks in accessible stalls shall be ADA compliant.

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated subcontractor, and representatives of other trades or subcontractors affected by the installation.

##### **PRODUCTS**

Submit for each type of product indicated: construction details, material descriptions, dimensions of individual components and profiles, and finishes.

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Submit shop drawings for toilet compartments including plans, elevations, sections, details, and attachments to other work.

1. Show locations of cutouts for compartment-mounted toilet accessories.
2. Show locations of reinforcements for compartment-mounted grab bars.
3. Show locations of centerlines of toilet fixtures.
4. Show overhead support or bracing locations.

For overhead-braced units, provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.

For urinal-screen posts, provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment at bottoms of posts. Provide shoes and sleeves (caps) at posts to conceal anchorage.

Door sizes and swings, unless otherwise indicated, to be 24-inch-wide, in-swinging doors for standard toilet compartments and 36-inch-wide, out-swinging doors with a minimum 32-inch-wide, clear opening for compartments designated as accessible.

Submit samples of each compartment type and color for approval. Samples must be a minimum of 6"x6". Include trim samples (minimum of 12" in length) and accessories. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated on drawings and in finish schedules.

## **EXECUTION**

Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

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Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.

Protect installation until conclusion of construction. Clean thoroughly per manufacturer's written instructions.



## Facilities Planning and Construction Design and Construction Standards

### **Division 10 – Specialties**

#### **10 21 23 Cubicle Curtains and Tracks**

##### **GENERAL**

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated subcontractor, and representatives of other trades or subcontractors affected by the installation.

##### **PRODUCTS**

Submit shop drawings for cubicle curtains including plans, elevations, sections, details, and attachments to other work.

1. Show track locations and attachment points.
2. Show length of cubicle curtains and clearance from ceiling to top of curtain and floor to bottom of curtain.

Materials shall be inherently flame resistant and pass the NFPA 701 Small Scale Test, Standard Methods of Fire Testing for Flame Resistant Textiles and Films.

Cubicle curtains specified for showers shall be made of vinyl and include a clear liner.

Curtains shall be specified to width of track plus a minimum of additional 15% fullness.

Submit samples of each cubicle curtain type and color for approval. Samples must be a minimum of 12"x12". Include hardware and trim samples, minimum of 12" in length. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated on drawings and in finish schedules.

##### **EXECUTION**

Field verify all necessary dimensions prior to fabrication.

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Curtains installed in showers shall be installed a minimum of 1" AFF to avoid puddling.

Install mockups for typical installations indicating mounting height and clearances. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.



## Facilities Planning and Construction Design and Construction Standards

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#### **10 26 00 Wall and Door Protection**

##### **GENERAL**

Wall protection shall be considered in any areas where it may reduce damage from occupant use, carts, routine cleaning, or where infection control or moisture is a concern.

Wall protection chair rails shall be considered for all conference rooms where wall are subject to damage from seating.

Corner guards shall be specified and installed for all exposed corners in high-impact or high-traffic areas. Size, type, finish, and installation method shall all be considered so that corner guards are an integral part of the design package.

For each impact-resistant wall protection unit showing locations and extent. Include sections, details, and attachments to other work.

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated subcontractor, and representatives of other trades or subcontractors affected by the installation.

##### **PRODUCTS**

Provide wall protection meeting ASTM E 84, NFPA 255, or UL 723.

Submit samples for each type of wall and door protection and accessory required showing the full range of color, texture, and pattern variations expected. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated on drawings and in finish schedules. Sample sizes should be as follows:

- Wall and Corner Guards: 12 inches long. Include examples of joinery, corners, end caps, top caps, and field splices.

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- Handrails: 12 inches long. Include examples of joinery, corners, and field splices.
- Impact-Resistant Wall Covering: 6 by 6 inches square.
- Door-Surface Protection: 6 by 6 inches square.
- Door-Edge and –Frame Protectors: 12 inches long.
- Door-Knob and –Lever Protectors: Full-size unit of each type.

**EXECUTION**

Do not install wall protection or corner guards until after painting and finishing work is completed.

Install impact-resistant wall protection level, plumb, and without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work.

Protect installed product until conclusion of construction.

For each wall protection type, include maintenance manuals, recommended cleaning methods, and recommended cleaning frequency.



## Facilities Planning and Construction Design and Construction Standards

### **Division 10 – Specialties**

#### **10 28 00 Toilet, Bath and Laundry Accessories**

##### **GENERAL**

Toilet accessories vary across each institution and shall be specified as required by each component institution. Verify all accessories with the component institution during Design Development.

All toilet accessories must be selected and installed to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the Texas Accessibility Standards (TAS).

Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

Submittals shall include construction details, material descriptions, dimensions of individual components and profiles, and finishes. Include anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated subcontractor, and representatives of other trades or subcontractors affected by the installation.

##### **PRODUCTS**

Provide a schedule of all specified toilet accessories and designate locations and quantities in the contract documents.

Moveable trash receptacles for restrooms will be specified within the FF&E package.



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Submit full-size samples of each accessory specified for approval. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated in the contract documents. Approved full-size Samples will be returned and may be used in the Work.

**EXECUTION**

Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.

Remove temporary labels and protective coatings.

Clean and polish exposed surfaces according to manufacturer's written instructions.

Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner at substantial completion.

Protect accessories from damage until substantial completion.



## Facilities Planning and Construction Design and Construction Standards

### **Division 10 – Specialties**

#### **10 51 13 – 10 51 23 Metal, Wood, and Plastic-Laminate-Clad Lockers**

##### **GENERAL**

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated subcontractor, and representatives of other trades or subcontractors affected by the installation.

Provide the required quantity of ADA lockers.

All locks shall be ADA compliant.

Coordinate keying scheme and labeling of lockers with Owner.

Coordinate needs for interior shelving, rods, and hooks with Owner.

##### **PRODUCTS**

Minimum metal locker construction requirements:

- a. Frame and door: Minimum 16 gage galvanized steel, welded joints.
- b. Sides, tops, and back: Minimum 18 gage galvanized steel.
- c. Ends, sloped tops, and filler panels: Minimum 20 gage galvanized steel.

Metal lockers shall be steel with baked enamel finish.

Plastic laminate lockers shall be constructed of high-pressure laminate with high density particle board substrate. All exposed edges shall be faced with matching PVC.

Specify lockers with sloped tops when necessary.

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Submit samples of each locker type and color for approval. Samples must be a minimum of 6"x6". Include hardware and lock samples. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated on drawings and in finish schedules. Any approved full-size samples will be returned and may be used in the Work.

**EXECUTION**

Install in accordance with manufacturer's instructions and approved Shop Drawings.

Install lockers prior to flooring.

Set plumb, level, and aligned.

Attach lockers to supporting construction with anchors best suited to substrate conditions.

Bolt adjacent locker units together to provide rigid installation.

Install end panels and filler panels as needed.

Adjust doors and latches to operate correctly.

Touch up minor scratches and abrasions to match factory finish.



## Facilities Planning and Construction Design and Construction Standards

### **Division 10 – Specialties**

#### **10 56 13 Metal Storage Shelving**

##### **GENERAL**

Contractor shall hold a pre-installation meeting prior to commencement of preparation work and installation. The meeting shall include the Owner, Architect, the Contractor, the designated subcontractor, and representatives of other trades or subcontractors affected by the installation.

Provide the required quantity of ADA lockers.

All locks shall be ADA compliant.

Coordinate keying scheme and labeling of lockers with Owner.

Coordinate needs for interior shelving, rods, and hooks with Owner.

##### **PRODUCTS**

Minimum metal locker construction requirements:

- a. Frame and door: Minimum 16 gage galvanized steel, welded joints.
- b. Sides, tops, and back: Minimum 18 gage galvanized steel.
- c. Ends, sloped tops, and filler panels: Minimum 20 gage galvanized steel.

Metal lockers shall be steel with baked enamel finish.

Plastic laminate lockers shall be constructed of high-pressure laminate with high density particle board substrate. All exposed edges shall be faced with matching PVC.

Specify lockers with sloped tops when necessary.

Division 10 – Specialties

Submit samples of each locker type and color for approval. Samples must be a minimum of 6"x6". Include hardware and lock samples. Label each sample with manufacturer's name, material description, color, pattern, and designation indicated on drawings and in finish schedules. Any approved full-size samples will be returned and may be used in the Work.

**EXECUTION**

Install in accordance with manufacturer's instructions and approved Shop Drawings.

Install lockers prior to flooring.

Set plumb, level, and aligned.

Attach lockers to supporting construction with anchors best suited to substrate conditions.

Bolt adjacent locker units together to provide rigid installation.

Install end panels and filler panels as needed.

Adjust doors and latches to operate correctly.

Touch up minor scratches and abrasions to match factory finish.