

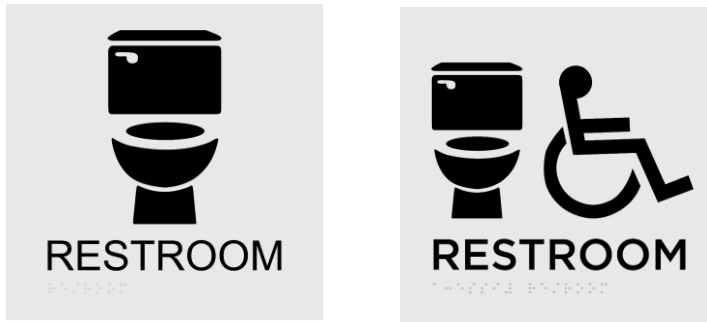
SECTION 101400 - SIGNAGE

PART 1 - GENERAL

1.1 M.S.U. ISSUES

- A. It is the objective of the University to provide all necessary signage to provide information for occupants, visitors, and emergency, but to avoid unnecessary signs. Interior signage is provided and installed by M.S.U. Infrastructure Planning and Facilities – Building Services. Exterior signage is provided and installed by M.S.U. Infrastructure Planning and Facilities – Landscape Services. Each project design will contain a budget for interior signage that has been coordinated with Building Services.
- B. Planning, Design and Construction (PDC) will assign all room numbering systems.
 - 1. Every room will have a different number. Numbering direction will be counterclockwise starting at the main entrance to the building. Numbering within rooms and spaces will be counterclockwise.
 - 2. All rooms within rooms will have a room number with a letter suffix immediately following the number. Room numbers identified by a wing of a building will be identified with a letter prefix and a blank space or a hyphen (maintaining consistency with any existing signs within the building).
 - 3. Any room with a door having a lock shall have a number. Any space that could have a door with a lock will have a number, and larger spaces or rooms that could be subdivided in the future will have an appropriate amount of numbers held in reserve to preclude the necessity for future renumbering of whole floors or buildings.
- C. Permanent room numbers shall be used on construction documents.
- D. Engraved plastic signs will be used in all new buildings and major additions. Raised letter metal signs will be used to match existing unless it is more economical to replace an entire suite or floor of room signs. If new signs are needed within an existing building, they should be chosen to blend with the style and color of existing signs. If signs are being changed for an entire building or a large portion of a building, the selection should be coordinated with PDC.
- E. Engraved plastic room and number signs will be 2 1/2” high X 8” long in a Helvetica or Optima medium (multiline) letter style. The proportions of letters and stroke width will be in accordance with the barrier free code. Provide longer or taller signs as required by words included. Letters will be 3/4” high and numbers will be 1” high. Characters and background must have a non-glare finish and characters must contrast with their background, light on dark or dark on light per ADA compliancy. A particular color is not specified for accessibility signage, it can be consistent with signage in the building, however must meet the high contrast requirement.
- F. Raised letter metal room name and number signs will be a die-raised aluminum with a textured finish background and no borders. Letters and numbers will be 7/8” high in a block gothic style. Most existing signs have a black background, but existing signs must be field checked.

- G. Pictograms for signs shall comply with current ADA standards. Pictogram for single occupant restrooms shall be depicted as shown:



1.2 SUMMARY

- A. This Section includes the following:
1. Panel signs.
 2. Cast-metal plaques.
 3. Signage accessories.
- B. Related Sections include the following:
1. Division 14 Sections for code-required elevator signage.
 2. Division 26 Section EMERGENCY LIGHTING for illuminated exit signs.

1.3 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of sign.
- B. Shop Drawings: Include plans, elevations, and large-scale sections of typical members and other components. Show mounting methods, grounds, mounting heights, layout, spacing, reinforcement, accessories, and installation details.
1. Provide message list for each sign, including large-scale details of wording, lettering, and Braille layout.
- C. Samples for Verification: For each type of sign, include the following Samples to verify color selected:
1. Panel Signs: Full-size Samples of each type of sign required.
 2. Casting: Show representative texture, character style, spacing, finish, and method of attachment.
- D. Maintenance Data: For signage cleaning and maintenance requirements to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain each sign type through one source from a single manufacturer.
- B. Regulatory Requirements: Comply with the latest Michigan Building Code and ICC/ANSI A117.1 barrier free design requirements.

PART 2 - PRODUCTS

2.1 PANEL SIGNS

- A. General: Provide panel signs that comply with requirements indicated for materials, thicknesses, finishes, colors, designs, shapes, sizes, and details of construction.
 - 1. Produce smooth panel sign surfaces constructed to remain flat under installed conditions within tolerance of plus or minus 1/16 inch measured diagonally.
- B. Plastic Laminate: Provide high-pressure laminate engraving stock with face and core plies.
- C. Aluminum Sheet and Plate: ASTM B 209 (ASTM B 209M), alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of 5005-H15.
- D. Graphic Content and Style: Provide sign copy that complies with requirements indicated for size, style, spacing, content, mounting height and location, material, finishes, and colors of signage.
- E. Engraved Copy: Machine engrave letters, numbers, symbols, and other graphic devices into panel sign on face indicated to produce precisely formed copy, incised to uniform depth.
 - 1. Engraved Plastic Laminate: Engrave through exposed face ply of plastic-laminate sheet to expose contrasting core ply.

2.2 CAST-METAL PLAQUES

- A. General: Provide castings free from pits, scale, sand holes, and other defects. Comply with requirements specified for metal, border style, background texture, and finish and in required thickness, size, shape, and copy.
- B. Aluminum Castings: Provide aluminum castings of alloy and temper recommended by sign manufacturer for casting process used and for use and finish indicated.
- C. Background Texture: Manufacturer's standard textured finish.

2.3 ACCESSORIES

- A. Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or

lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

2.4 FINISHES, GENERAL

- 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 strippable, temporary protective covering before shipping.

2.5 ALUMINUM FINISHES

- A. Cast-Metal Plaque Finishes:
 - 1. Raised Areas: Hand-tool and buff borders and raised copy to produce manufacturer's standard satin finish.
 - 2. Background Finish: Painted as appropriate to match existing signs. Most existing metal signs have a black background.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Verify that items, including anchor inserts provided under other sections of Work are sized and located to accommodate signs.
- C. Examine supporting members to ensure that surfaces are at elevations indicated or required to comply with authorities having jurisdiction and are free from dirt and other deleterious matter.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Locate signs and accessories where indicated, using mounting methods of types described and in compliance with manufacturer's written instructions.
 - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free from distortion and other defects in appearance.
 - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.

- B. Wall-Mounted Panel Signs: Attach panel signs to wall surfaces using methods indicated below:
1. Mechanical Fasteners: Use oval head tamper-resistant screws placed through predrilled holes. Attach signs with fasteners and anchors suitable for secure attachment to substrate as recommended in writing by sign manufacturer.
- C. Cast-Metal Plaques: Mount plaques using standard fastening methods recommended in writing by manufacturer for type of wall surface indicated.
1. Face Mounting: Mount plaques using oval head tamper-resistant screws attached through face of plaque into wall surface.

3.3 CLEANING AND PROTECTION

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

3.4 SIGN SCHEDULE

<u>TYPE OF ROOM</u>	<u>NAME ON SIGN</u>	<u>ROOM NUMBER</u>
Broadband Communications Room	COMM	YES
Classrooms	**	YES
Communication Room	COMM	YES
Conference Room	**	YES
Corridors	None	YES*
Custodian Locker Room	CUST	YES
Custodian Storage	CUST	YES
Department Office	**	YES
Electric Closets	ELEC	YES
Electric Vault	ELEC	YES
Elevator Equipment Room	none	YES
Incinerator	none	YES
Custodial Closets	CUST	YES
Laboratories	**	YES
Mechanical Equipment Room	MECH	YES
Offices of Educators	**	YES
Offices (other)	**	YES
Receiving	**	YES
Shop	**	YES
Stair	FLOOR #	YES*
Storage	**	YES
Telephone Equipment Room	TEL	YES
Toilet Rooms:		
Men	MEN***	YES

Women	WOMEN***	YES
All single occupant and family restrooms	RESTROOM ****	YES

- * Required in areas with a security system installed.
- ** Usually left to individual departments to decide if a sign is desired and what it should say.
- *** All restrooms that are accessible shall be signed with an accessible pictogram, even if the entire building is accessible.
- **** See pictogram for single occupant/family restrooms in Section 1.1G of this Standard.

END OF SECTION 101400