An Illustrated Comparison of the IBC (2015) and NFPA 101 (2012) Requirements for Photoluminescent EGRESS PATH Markings.

I. Similarities

A. Both codes require (non-electrical) Luminous EGRESS PATH Markings in order to provide an additional means for ensuring that occupants can safely egress a building during an emergency, even if (electrical) general and emergency lighting fail.

B. Both codes require a minimum illumination in the exit stairs of 1 ft-c, when measured at the walking surface, at all times the part of the building, served by that exit stair, is occupied.

C. Neither code specifies a minimum required durability (resistance to wear from walking or rolling traffic) or a suitability of a sign or marking for use on a smooth or rough installation surface.

D. Both codes require uniformity of signs and markings within the same exit stair.

E. The intent of both codes, so far as what must be marked and signed in the exit stairs of high rise buildings, is essentially the same.

1) Continuous markings 1 – 2 inches wide.
   i. Stair nosings.
   ii. Perimeter of landings.
   iii. Perimeter of exit passageways & ramps.
   iv. Handrails.
   v. Obstacles projecting more than 4 inches into the egress path.
   vi. For the grade level exit discharge door(s), mark the door frame.
   vii. For the grade level exit discharge door(s), mark the door handle or push bar.
   viii. For markings listed to UL1994, the requirement for minimum 1 inch wide markings can be ignored for some installation surfaces. (UL1994 has a test method for evaluating the luminance performance of more narrow markings.)
2) Signs.
   i. Emergency Exit Symbol (ISO Running Man) on the middle of the door slab within 18 inches of the walking surface.
   ii. Stairway Identification Signs must be a minimum 12x18 inches and include a tactile and Braille legend.
   iii. Directional markers if the egress path down the exit stairs is not obvious.
   iv. Directional markers up the exit stairs if the grade level exit discharge is above the floor(s) the occupant(s) are on.
3) Code approved photoluminescent signs and markings must meet either of the following performance requirements.
   i. UL1994 – tests for luminance and slip resistance for markings used on walking surfaces. Does not allow for listing (field applied) paints.
   ii. ASTM E2072 (2014) – tests for luminance. Allows for the testing of (field applied) paints.

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II. Differences

A. The IBC specifies that Approved LUMINOUS EGRESS PATH Markings shall be installed in high rise buildings of Group A, B, E, I, M and R-1. (The IBC-2018 specifies Group A, B, E, I-1, M and R-1.) NFPA 101 specifies that LUMINOUS EGRESS PATH Markings shall be applied only where required in Chapters 11 – 43.

B. NFPA 101 does not allow the use of tape, plastic or aluminum strips on walking surfaces (stair nosings, perimeter of landings, etc.) if fastened to the installation surface with only adhesive. Mechanical fasteners must (also) be used. Mechanically fastened or imbedded stair nosings are acceptable. Paint is also acceptable because that cannot lift and become a tripping hazard. The intent is to install only markings which can be considered an integral part of the walking surface.

C. NFPA 101 has greater restrictions on the use of lighting controls in the exit stairs.

D. The codes have different requirements for the legend on Stairway Identification Signs.

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EverGlow offers Photoluminescent EGRESS PATH Markings designed for use on specific installation surfaces.

To bring the most value to your customer, you should use the most durable and long lasting products. EverGlow provides those products!

EverGlow signs and markings are designed for use on specific installation surfaces. All EverGlow photoluminescent signs and markings are designed for ease of installation on concrete, steel, masonry and wall board surfaces.

- **Stair Nosings.**

Extruded Aluminum Stair Nosings & Treads.

- Most durable for use in areas with heavy traffic.
- Can be adhered and screwed to the installation surface or imbedded in the newly cast concrete.

TL300 Epoxy Coating.

- Designed for use on horizontal surfaces.
- Suitable for use in areas with medium – heavy traffic.
- Most suitable for use on textured surfaces where stair nosings are not appropriate.

Aluminum Strips with a Ceramic Wear Layer.

- Suitable for use in areas with light – medium traffic.
- Most often adhered (only); can be screwed down as required.

- **Perimeter of Landings.**

TL300 Epoxy Coating.

- Designed for use on horizontal surfaces.
- Suitable for use in areas with medium – heavy traffic.
- Most suitable for use on textured surfaces where stair nosings are not appropriate.

Aluminum Strips with a Ceramic Wear Layer.

- Suitable for use in areas with light – medium traffic.
- Most often adhered (only); can be screwed down as required.

Tamper Resistant Tape.

- Suitable for use in areas with zero to light traffic, also for use on the wall over the base mold.
- Designed for use on smooth, clean and dry installation surfaces.

- **Handrails and Obstacles.**

Tamper Resistant Tape.

- Conformable, for use on handrails and water pipes.
- Designed for use on smooth, clean and dry installation surfaces.

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- **Exit Discharge Door and Push/Panic Bar.**

Tamper Resistant Tape.

- Conformable, for use on handrails and water pipes.
- Designed for use on smooth, clean and dry installation surfaces.

Screen Printed Aluminum Sign.

- Adheres to the door slab.
- Variety of designs available to meet code and egress requirements.

- **Walls.**

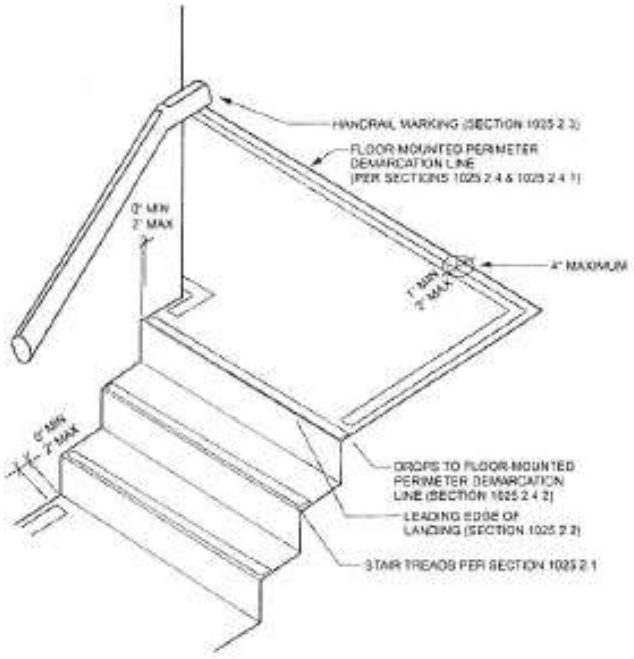
Stairway Identification Signs.

- 1-piece molded construction. Will not delaminate or peel.
- Custom design. Minimum 12 x 18 inches.
- Glow background & black legend or glow legend and decorative background.

Screen Printed Aluminum Signs & Directional Markers.

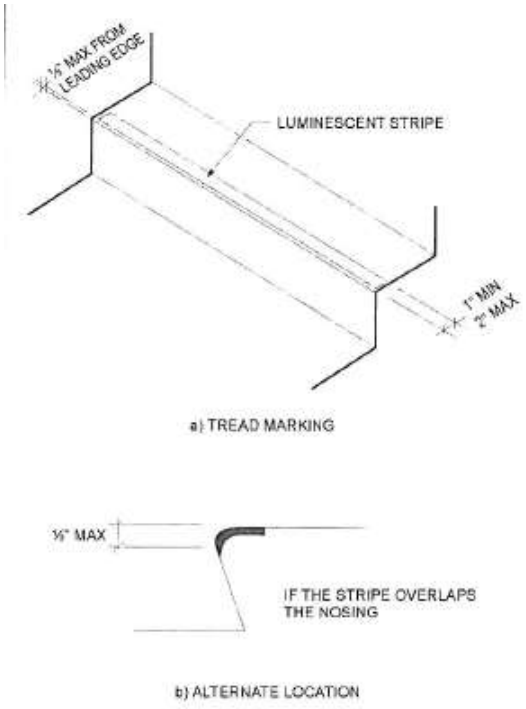
- Adheres to most interior wall surfaces.
- Can be mechanically fastened, as necessary.
- Many standard designs available for immediate delivery.

Marking Stair Nosings & Perimeter of Landings :



For SI: 1 inch = 25.4 mm.

Figure 1025.2.4.1
PERIMETER DEMARCATION LINES—
FLOOR-MOUNTED OPTION



For SI: 1 inch = 25.4 mm.

Figure 1025.2.1
LEADING EDGE OF STEP AND LANDING

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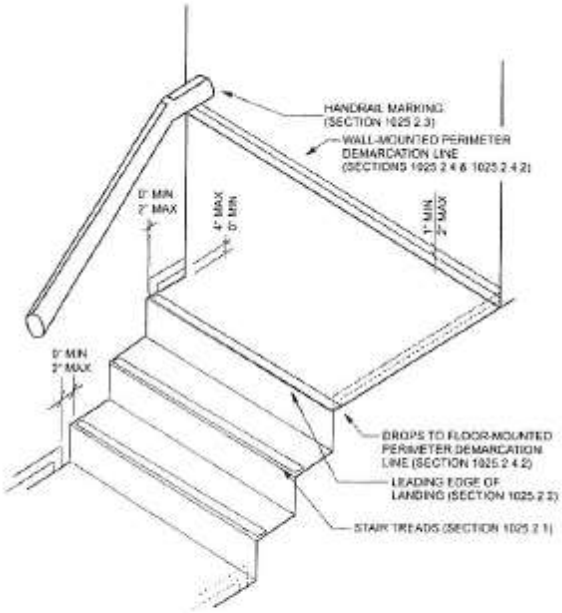
Marking the Perimeter of Landings : Note that exit access doors are signed an marked to indicate an exit to the outside of the building. The perimeter markings for the landings are placed in front of the exit access doors to discourage occupants from leaving the exit stair before reaching the grade level exit discharge.



For SI: 1 inch = 25.4 mm.

Figure 1025.2.4.2
PERIMETER DEMARCATION LINES—
WALL-MOUNTED OPTION

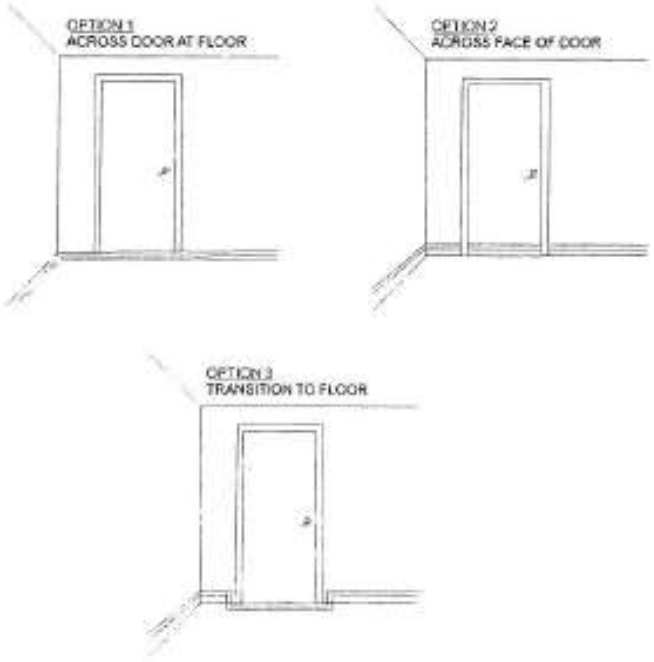


Figure 1025.2.4.3
PERIMETER DEMARCATION LINES—
OPTIONS AT DOORS INTO EXIT ENCLOSURES

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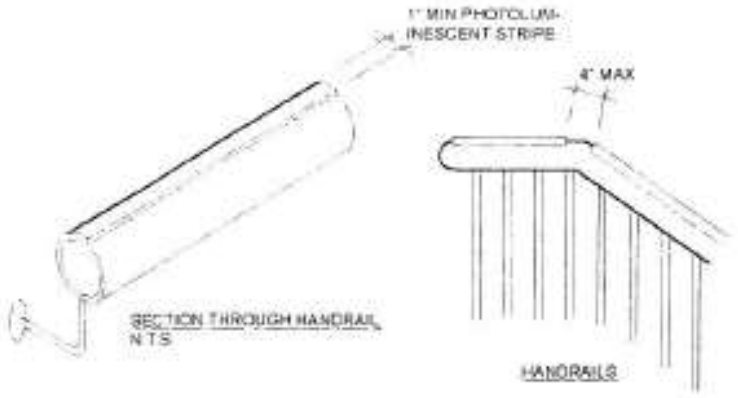
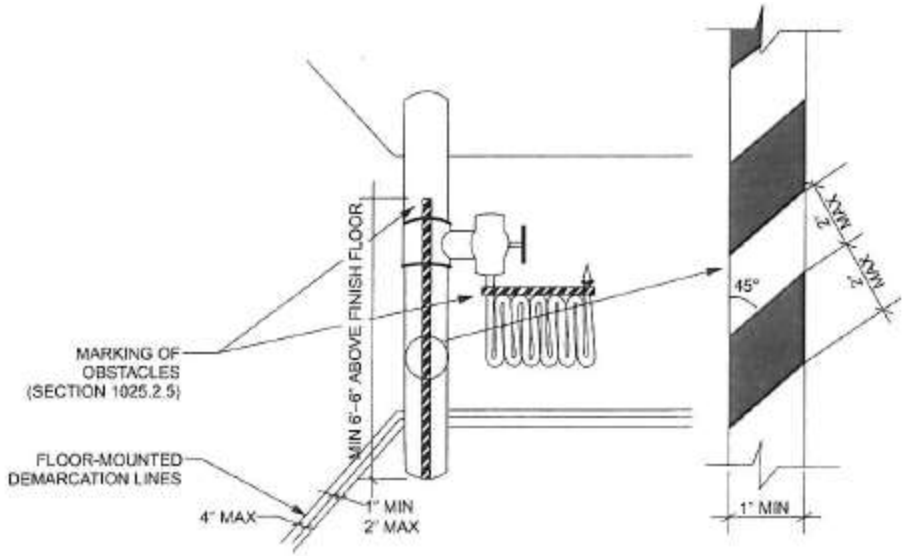
Marking Handrails and Obstacles:



For SI: 1 inch = 25.4 mm.

Figure 1025.2.3
HANDRAIL MARKINGS



For SI: 1 foot = 304.8 mm, 1 inch= 25.4 mm;
1 degree = 0.01745 rad.

Figure 1025.2.5
OBSTACLE MARKINGS

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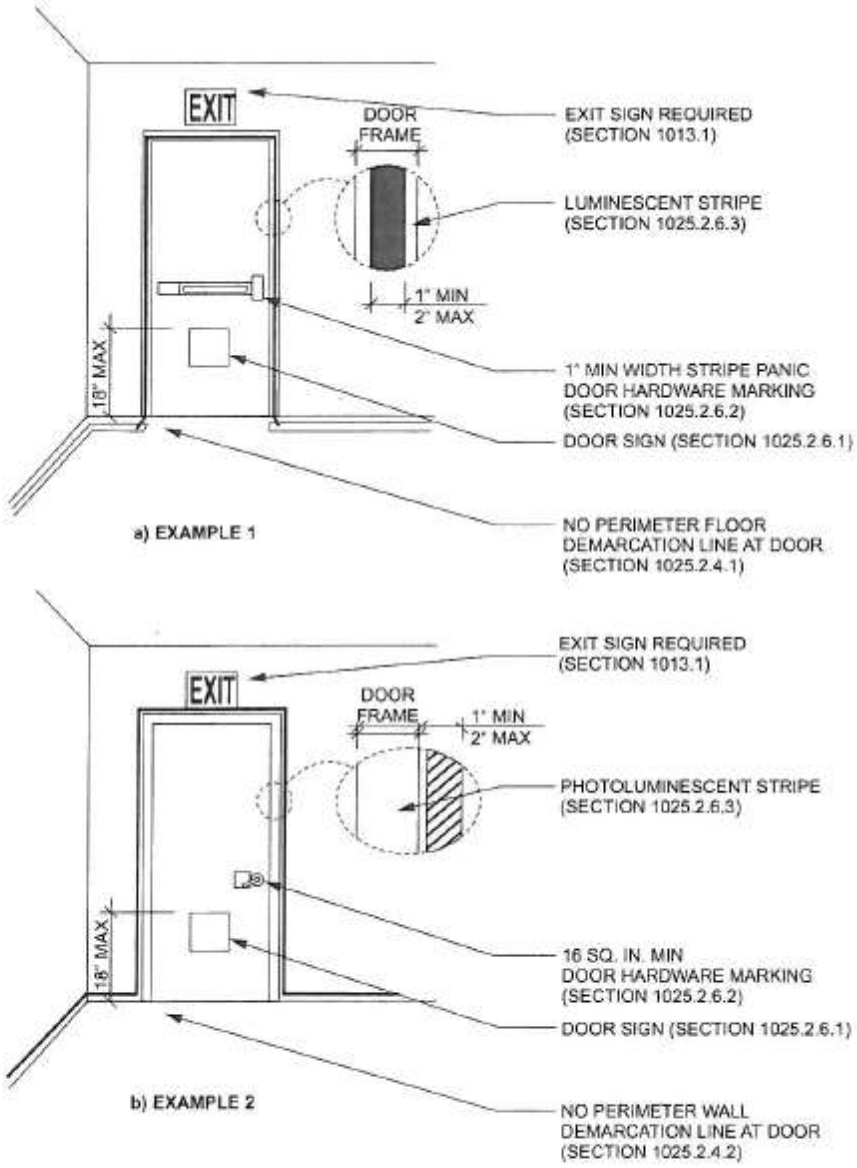
Marking & Signing the Grade Level Exit Discharge Door(s):



For SI: 1 inch = 25.4 mm,
1 square inch = 645.16 mm.

Figure 1025.2.6
EXAMPLES OF EXIT DOOR TO EXTERIOR OPTIONS

For SI: 1 inch = 25.4 mm.

Figure 1025.2.6.1
EMERGENCY EXIT SYMBOL

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LUMINOUS EGRESS PATH MARKINGS

Stairway Identification Signs:

Figure 1023.9.1
STAIRWAY IDENTIFICATION SIGN

IBC requires less information.

FIGURE A.7.2.2.5.4 Example of a Stairway Marking Sign.

NFPA 101 requires more information.

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