



Standard Guide for Evacuation Route Diagrams¹

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1. Scope

1.1 This standard is intended to provide minimum guidelines for the design and placement of evacuation route diagrams (ERDs) used in buildings. It covers the evacuation of building occupants when directed by emergency response authorities in emergencies such as fire, windstorm, earthquake, hazardous materials release, and other events anticipated in the geographic area of the facility.

NOTE 1—Evacuation from the facility is not appropriate in all emergencies. For example, a tornado may require sheltering within the building. This diagram standard is intended to be used in conjunction with a facility emergency plan and instructions on appropriate actions from building management, or emergency response authorities, or both.

2. Referenced Documents

2.1 ASTM Standards:²

E2072 Specification for Photoluminescent (Phosphorescent) Safety Markings

2.2 Other Standards:

NFPA 101 Life Safety Code® (Safety to Life from Fire in Buildings and Structures)³

UL 924 Standard for Emergency Lighting and Power Equipment⁴

ICC/ANSI A117.1 Standard for Accessible and Usable Buildings and Facilities⁵

¹ This guide is under the jurisdiction of ASTM Committee E34 on Occupational Health and Safety and is the direct responsibility of Subcommittee E34.40 on Hazard Communications.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101.

⁴ Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.

⁵ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

3. Significance and Use

3.1 Evacuation route diagrams are informational signs used to advise building occupants, be they employees, residents, patients, or visitors, of the best route(s) to egress the building, or to temporary shelter from their location. It is a pictorial representation of the building/floor layout showing the closest such route from a given point in the building. This standard will provide guidelines that can be used to provide uniformity in the development and use of these signs. Consistency in design and placement of these signs can serve to increase familiarity and comprehension as well as reduce confusion, thus improving the ability of occupants to egress from the facility more easily and quickly in an emergency.

3.2 Occupancies where standardization of ERDs would be most beneficial include those which frequently have occupants unfamiliar with the facility, such as hotels, places of assembly, offices, healthcare facilities, and multiple occupancy buildings.

4. Terminology

4.1 Definitions:

4.1.1 *area of refuge*—An area that is either (1) a story in a building where the building is protected throughout by an approved, supervised automatic sprinkler system and has not less than two accessible rooms or spaces separated from each other by smoke-resisting partitions; or (2) a space located in a path of travel leading to a public way that is protected from the effects of fire, either by means of separation from other spaces in the same building or by virtue of location, thereby permitting a delay in egress travel from any level.

NOTE 2—An area of refuge is intended for use by impaired persons awaiting rescue by trained emergency personnel in the event of fire. It is not necessarily designed for use in emergencies requiring the use of substantial construction, such as windstorm.

4.1.2 *assembly points*—Area(s) outside of the building that has been predetermined as a meeting point for building occupants to gather and be accounted.

4.1.3 *path of egress*—The way(s) out of a building, consisting of the exit access, exit, and exit discharge.

4.1.4 *dead end*—A path that leads to no exit.

5. Format and Content

5.1 *Format.* The overall format of ERDs should be simple. To be quickly read and understood by those unfamiliar with the building layout, ERDs should contain only the information necessary for the occupant to become oriented to and locate the egress path(s) from their location. The diagram should show the closest (primary) egress path and an alternate (secondary) egress path.

5.1.1 *Area Covered.* To minimize confusion, ERDs should only cover the area/floor of the facility that contains the primary and secondary exits and an area of refuge (if present). The top of the ERD should display a title indicating the floor number (see Fig. 1).

5.1.2 *Color.* Optimally, signs should be provided in color to more easily distinguish primary and secondary routes.

5.1.3 *Current Location.* The current location should be indicated by a solid red circle at least ¼ in. in diameter, and labeled “YOU ARE HERE” in capital letters.

5.1.4 *Exits.* Exits should be marked by a rectangle marked “EXIT” in red capital letters. The primary path of egress should be in solid red, secondary in dashed blue.

5.1.5 *Temporary Shelter.* Temporary shelters should be marked by dashed double red lines, shaded in gray, and labeled “TEMPORARY SHELTER” in capital letters.

5.1.6 *Paths.*

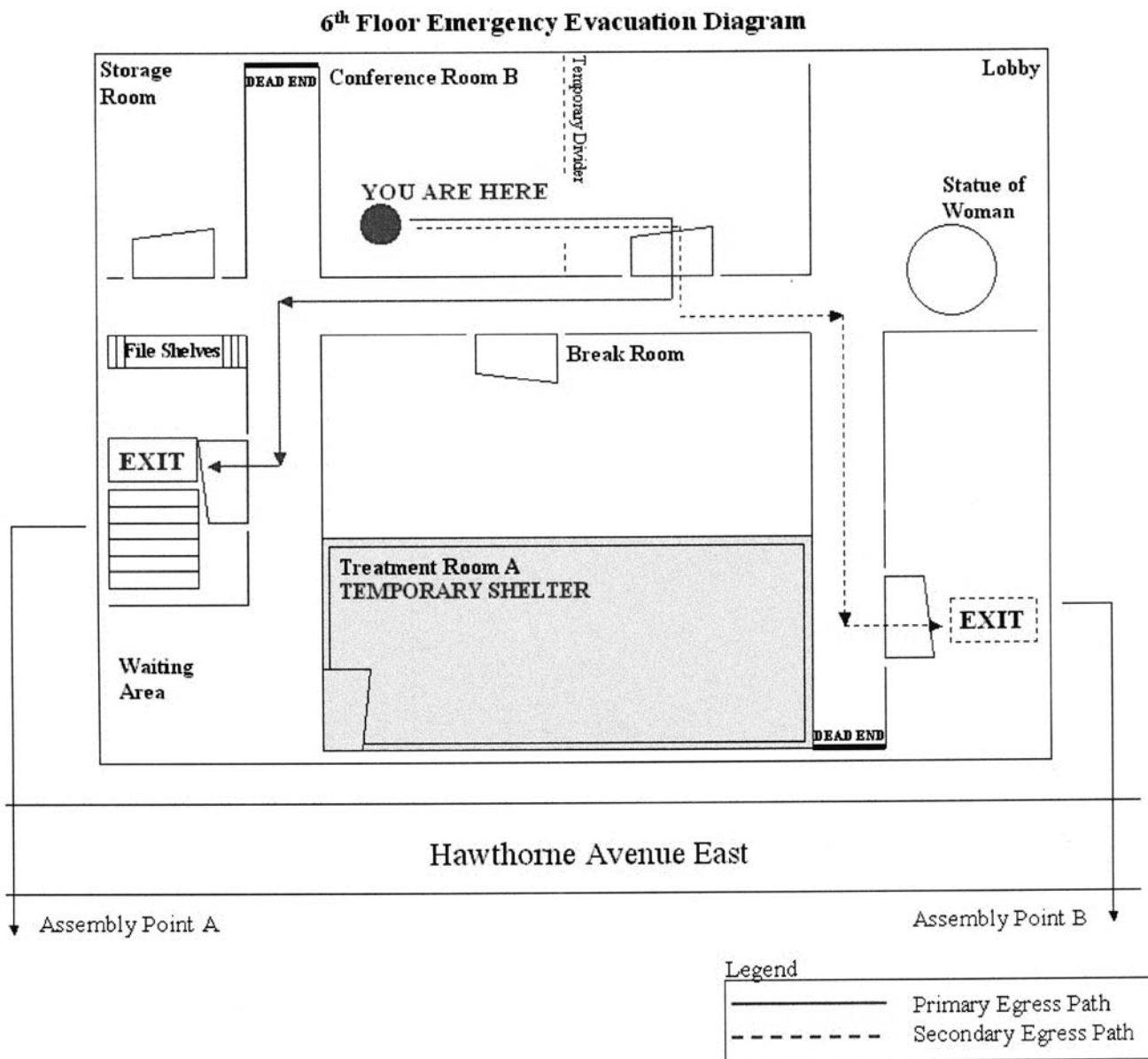


FIG. 1 Sample Evacuation Diagram