DECODED:

Egress Terminology



From the well-known blog idighardware.com, Lori Greene brings some much-needed clarity to codes.

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IN LAST MONTH'S COLUMN I EXPLAINED HOW TO CALCULATE THE REQUIRED

egress width based on the occupant load and how to determine the number of occupants that a door opening will accommodate. The formulas used to calculate those values are consistent between the *International Building Code* (IBC) and NFPA 101, *Life Safety Code*, although the egress capacity factors vary slightly.

So if you know the occupant load and the number of occupants accommodated by each door, it's simple math to decide whether you have enough egress doors, right? Well...no.

As I mentioned in my previous column, there are other factors that affect the quantity and location of egress doors beyond the general requirements for two, three or four exits, depending on the occupant load. For example, doors used for egress need to be located remotely from each other, and there are limitations on the distance a building occupant must travel to reach an exit.

To understand these requirements, there is terminology that you should be familiar with.

- Means of Egress This is the path between any occupied portion of the building and the public way. It must be continuous and unobstructed and may include elements of vertical and horizontal travel (e.g., stairs, ramps and corridors). The means of egress has three parts:
 - Exit Access This segment of the means of egress is between the occupied portion of the building and the exit. If you imagine a typical school, the corridor that leads from the classrooms to a stair enclosure would be an exit access corridor. The path that you would travel through the classroom to reach the corridor would also be part of the exit access.

Exit passageways are sometimes confused with exit access corridors, but an exit passageway is separated from the rest of the building by fire-resistance-rated construction and is part of the exit, not part of the exit access. Exit passageways often extend from the end of the exit stair to the exterior when the stair doesn't discharge directly to the exterior.

- **Exit** We often use the word *exit* as it is defined by the general definition—"a way out." But in code terminology, an exit is the portion of the means of egress between the exit access and the exit discharge or public way. Some components that may be an exit are stairways and ramps, horizontal exits (often a double-egress pair of fire doors), exit passageways, and exterior exit doors at the level of exit discharge. In the school example, the enclosed stairway would be an exit.
- **Exit Discharge** The portion of a means of egress between the end of the exit and the public way is the exit discharge, which typically begins when building occupants reach the exterior of the building at or near grade level. If you reached the exterior door at grade level in the school example, the exit discharge might include a sidewalk leading from the exterior door to the street (the public way).

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The exit access corridor is the portion of the means of egress that leads from the occupied portion of the building to the exit.

The exit discharge extends from the termination of the exit to the public way.



The exit provides a protected path of travel between the exit access and the exit discharge.

Other Terminology

When determining the quantity and location of egress doors, you will often find limitations that are imposed on the route.

Travel Distance – The travel distance to an exit is measured on the floor along the natural path of travel, beginning at the most remote point, curving around corners or obstructions with a 12-inch clearance from the object, and ending at the beginning of the exit. The travel distance from a school classroom would be measured by starting in the most remote corner of the room, following the natural path to the door, traveling down the corridor, and ending at the stair door (the beginning of the exit).

The IBC limits this distance in an Educational occupancy to 200 feet for unsprinklered buildings and 250 feet for sprinklered buildings. NFPA 101 allows a maximum of 150 feet for unsprinklered Educational occupancies and 200 feet for sprinklered Educational occupancies.

Common Path of Egress Travel – This is the distance that a building occupant must travel before two separate egress paths to two exits are available. In a classroom with one egress door, the common path of egress travel would be the path from the most remote location within the classroom out into the corridor where two paths become available—down the corridor to the left or to the right. The common path of egress travel ends where that choice becomes available.

In an Educational occupancy, the IBC limits the length of the common path of egress travel to 75 feet. The maximum allowed by NFPA 101 for Educational occupancies is 75 feet for unsprinklered buildings and 100 feet for sprinklered buildings. Dead-End Corridors – Where more than one exit or exit access doorway is required, the length of dead-end corridors (corridors with no outlet) is limited by the IBC and NFPA 101. For Educational occupancies, the limit on the length of dead-end corridors is 20 feet for unsprinklered buildings and 50 feet for sprinklered. In the IBC, the length of dead-end corridors is not limited when the length of the dead-end corridor is less than 2.5 times the width.

Another issue to consider when evaluating egress is the remoteness of exits. When two exits are required, they must be remote from each other, since two exits located in the same vicinity could become blocked by the same obstruction during an emergency.

To determine the minimum distance between exits, take the longest diagonal measurement of the area served by the exits. The distance between the exits must be at least onehalf of the diagonal measurement for unsprinklered buildings and at least one-third of the diagonal measurement for sprinklered buildings.

This article is not intended to be an in-depth study of each of these concepts; rather, it is an introduction to some of the egress-related terms that may affect the door openings serving an egress route. For additional information, refer to the code or standard that has been adopted in your jurisdiction.

The allowable lengths discussed in this article for travel distance, common path of egress travel, and dead-end corridors are based on the 2015 editions of the IBC and NFPA 101. Values required by other editions may vary.

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