

# **Elevator Firefighters' Emergency Operation (FEO) and Elevators for Use by Firefighters (Firefighters' Elevator)**

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## **Firefighters' Emergency Operation (FEO)**

The adoption of the B44-07 Elevator Code made Firefighters' Emergency Operation (FEO) mandatory for most new passenger elevators regardless of the height or occupancy of the building. Firefighters' Emergency Operation consists of two parts: Phase I – Emergency Recall and Phase II – Emergency In-car Operation.

Phase I – Emergency Recall exists to protect the occupants of a building. If people are in an elevator when a Fire Alarm Initiating Device (FAID) activates, the elevator will automatically move to a safe floor, away from the fire, and shut down with the doors open. The elevator will then remain unavailable for normal use until it is reset.

Phase II – Emergency In-car Operation then comes into effect, which allows firefighters to use an elevator during fire operations by maintaining control from inside the elevator car.

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## **Elevators for Use by Firefighters (or Firefighters' Elevator)**

A Firefighters' Elevator is different from FEO Phase II. A Firefighters' Elevator is one that has been upgraded to a higher fire rating level using more flame resistant components and has additional building safety requirements such as positively pressurized elevator shafts and full generator power. A Red Hat symbol on the main floor level doorjamb identifies an Elevator for Use by Firefighters.

The determination of an elevator requires the Firefighters' Elevator designation is based the Building Code "High Building" classification. This depends on multiple factors such as building Group and Division, building occupancy, and building height.

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## **Universal Requirements**

Once FEO is enabled, the elevator must respond to the FAID emergency condition unencumbered by any security provisions in effect. This has introduced a new mode of operation for elevators with security provisions: The elevator microprocessor must over-ride the security system when FEO is enabled. Regardless of whether the building only has FEO or has a Firefighter's Elevator as well, **all** elevator shafts must have a pit drain capable of removing 3,000 USGPH of water **per** elevator.

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## **A Final Word**

Since both the Building Code and the B44-07 Elevator Code include specific requirements that affect the emergency operation of elevators, it becomes a relatively complex matter. Ideally, emergency operation issues should be addressed early in the project design phase in order to avoid extra costs to comply with the regulations later in the process.

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***Call Delta if you have questions regarding FEO or Firefighters' Elevator requirements – we would be pleased to work with you to ensure your emergency operation needs are properly met!***