CHAPTER 30
ELEVATORS AND CONVEYING SYSTEMS

SECTION 3001
GENERAL

3001.1 Scope. The provisions of this chapter shall govern the design, construction, installation and maintenance of elevators and conveying systems.

Note: Other administrative and programmatic provisions may apply. See the Department of Business and Professional Regulation [DBPR] Chapter 399, Florida Statutes.


The division may grant exceptions to the Elevator Safety Code as authorized by the Elevator Safety Code.

The requirements of this chapter apply to equipment covered by s.1.1 of the Elevator Safety Code.

3001.1.2 Accessibility. Passenger elevators shall comply with Chapter 11.

3001.1.3 Design, installation, and alteration of elevators
1. Each elevator shall comply with the Elevator Safety Code that was in effect at the time of receipt of application for the construction permit for the elevator.
2. Each alteration to, or relocation of, an elevator shall comply with the Elevator Safety Code that was in effect at the time of receipt of the application for the construction permit for the alteration or relocation.

SECTION 3002
DEFINITIONS

3002.1 As used in this chapter, the term:

Alteration means any change or addition to the vertical conveyance other than maintenance, repair, or replacement.

Certificate of competency means a document issued by the division which evidences the competency of a person to construct, install, inspect, maintain, or repair any vertical conveyance.

Certificate of operation means a document issued by the department which indicates that the conveyance has had the required safety inspection and tests and that fees have been paid as provided in this Chapter 399, FS.

Conveyance means an elevator, dumbwaiter, escalator, moving sidewalk, platform lift and stairway chairlift.

Department, for the purpose of this section, means the Department of Business and Professional Regulation.

Division for the purpose of this section, means the Division of Hotels and Restaurants of the Department of Business and Professional Regulation.

Elevator means one of the following mechanical devices:
(a) A hoisting and lowering mechanism, equipped with a car and platform that moves in guide rails and serves two or more landings to transport material or passengers or both.
(b) An escalator, which is a power-driven, inclined continuous stairway used for raising or lowering passengers.
(c) A dumbwaiter, which is a hoisting and lowering mechanism equipped with a car of limited size which moves in guide rails and serves two or more landings.
(d) A moving walk, which is a type of passenger-carrying device on which passengers stand or walk and in which the passenger-carrying surface remains parallel to its direction of motion and is uninterrupted.
(e) An inclined stairway chairlift, which is a device used to transport physically handicapped persons over architectural barriers.
(f) An inclined or vertical wheelchair lift, which is a device used to transport wheelchair handicapped persons over architectural barriers.

Exceptions to this definition are as follows:
Personnel hoists and material hoists within the scope of ASME A10.
Man lifts within the scope of ASME A90.1.
Mobile scaffolds, towers, and platforms within the scope of ANSI A92.
Powered platforms and equipment for exterior and interior maintenance within the scope of ASME A120.1.
Conveyors and related equipment within the scope of ASME B20.1.

Cranes, derricks, hoists, hooks, jacks, and slings within the scope of ASME B30.
Industrial trucks within the scope of ASME B56.
Portable equipment, except for portable escalators that are covered by this Code.
Tiered or piling machines used to move materials to and from storage located and operating entirely within one story.
Equipment for feeding or positioning materials at
Elevator company means any person who constructs, installs, inspects, maintains or repairs any elevator.

Escalator means an installation defined as an escalator in the Florida Building Code.

Existing installation means an installation defined as an "installation, existing" in the Florida Building Code.

Private residence means a separate dwelling or a separate apartment in a multiple dwelling which is occupied by members of a single family.

Temporary dormant conveyance means a conveyance whose power has been disconnected by removing fuses and placing a padlock on the mainline disconnect switch in the "OFF" position. The car is parked and the hoistway doors are in the closed and latched position. A wire seal is installed on the mainline disconnect switch by a certificate of competency elevator inspector. This installation may not be used again until it has been put in safe running order and is in condition for use. Annual inspections shall continue for the duration of the temporary dormant status by a certificate of competency elevator inspector. The temporarily dormant status is renewable on an annual basis and may not exceed a 5-year period. The inspector shall file a report with the chief elevator inspector describing the current conditions. The wire seal and padlock may not be removed for any purpose without permission from the elevator inspector.

SECTION 3003 ELEVATORS

3003.1 Elevator enclosures

3003.1.1 All openings in elevator shafts shall be protected as required by ASME A17.1 and Addendum A17.1a, and they shall not in any case be less than the requirements of 705.2 of this code.

3003.1.2 When there are three or fewer elevator cars in a building, they may be located within the same hoistway enclosure. When there are four elevator cars, they shall be divided in such a manner that at least two separate hoistways enclosures are provided. When there are more than four elevators, not more than four elevator cars shall be located within a single hoistway enclosure. Hoistway enclosures shall be protected in accordance with Table 705.1.2.

3003.1.3 Where an elevator is installed in a blind hoistway or on the outside of a building, there shall be installed in the blind portion of the hoistway or blank face of the building, an emergency door at every third floor but not more than 36 ft (11 m) apart at least 30 inches (762 mm) wide and 78 inches (1981 mm) high conforming to the requirements of 705.1.5 and ASME A17.1, Rule 110.1.

3003.1.4 Elevators shall not be in a common enclosing shaft with a stairway, and the path of travel from one flight of stairs to the next shall not pass directly in front of elevator doors.

3003.1.5 Elevator lobbies shall have access to at least one exit. Such exit access shall not require the use of a key, tool, special knowledge or effort.

3003.1.6 Doors other than the hoistway door and the elevator car door shall be prohibited at the point of access to an elevator car.

Exception: Doors which are readily openable from the car side without a key, tool, special knowledge or effort.

3003.1.7 Construction at top and bottom of hoistway

3003.1.7.1 Where a hoistway extends into the top floor of a building, fire resistant or machinery space enclosures, where required, shall be carried to the underside of the roof if the roof is of fire-resistant construction, and at least 3 ft (914 mm) above the top surface of the roof if the roof is of nonfire-resistant construction.

3003.1.7.2 Where a hoistway does not extend into the top floor of a building, the top of the hoistway shall be enclosed with fire-resistant construction having a fire resistance rating at least equal to that required for the hoistway enclosures.

3003.1.7.3 Pits extending to the ground shall have non-combustible floors and shall be designed to prevent entry of groundwater into the pit. The pit floor of any hoistway not extending to the ground shall be of fire-resistant construction having a fire-resistance rating at least equal to that required for the hoistway enclosure.

Exception: Partitions between fire-resistant hoistways and machine rooms having fire-resistant enclosures and which are located at a side of or beneath that hoistway, may be of unperforated non-
3003.1.8 A metal or concrete floor shall be provided at the top of the hoistway.

Exceptions: Floors are not required below:
1. Secondary and deflecting sheaves of traction-type machines located over the hoistway.
2. Overhead sheaves, governors and other equipment where the elevator machine is located below or at the side of the hoistway, provided that:
   1. Means of access for inspection and servicing of governors is provided from outside the hoistway, conforming to the requirements of Rule 101.3c, ASME A17.1.
   2. Sheaves and other equipment (except governors) may be inspected and serviced from the top of the car, or means of access from outside the hoistway may be provided conforming to the requirements of Rule 101.3c, ASME A17.1.

3003.1.9 Floors may be of concrete or may be of metal construction with or without perforations. Metal floors shall conform to the following:
1. If of bar-type grating, the openings between bars shall reject a 3/4-inch (19 mm) diameter ball.
2. If of perforated sheet metal or of fabricated openwork construction, the openings shall reject a 1-inch (25.4 mm) diameter ball.

Each enclosed elevator lobby and each elevator machine room shall be provided with an approved smoke detector located in the lobby ceiling in accordance with NFPA 72. Smoke detectors may be installed in any hoistway, and shall be installed in hoistways which are sprinklered. When the smoke detector is activated, all affected elevators shall operate in conformance with NFPA 72, Rule 3-8.15.

3003.2 Emergency exit. Every elevator shall have an emergency exit as required by ASME A17.1.

3003.3 Signs. A permanent sign shall be installed immediately above each hall push button station on each floor reading: IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS. This sign shall be letters not less than 1/2 inch (12.7 mm) high.

3003.4 Stretcher requirements

3003.4.1 In all structures that are more than three stories high or in which the vertical distance between the bottom terminal landing and the top terminal landing exceeds 25 feet (7.6 m) must be constructed to contain at least one passenger elevator that is operational and will accommodate an ambulance stretcher 76 inches (1931 mm) long and 24 inches (610 mm) wide in the horizontal position. This elevator shall be identified.

Exception: In buildings where one elevator does not serve all floors, two or more elevators may be used. Each elevator shall be identified as to which floors are served.

3003.4.2 Elevator accessibility requirements for the physically handicapped.

(1) Each elevator must be made accessible to physically handicapped persons with the following requirements:

(a) In a building having any elevators that do not provide access to every floor level, elevator hallway call buttons on all main levels of ingress and on any floor that is commonly served by more than one group of elevators must be marked with Arabic and braille symbols that indicate floor levels to which access is provided. The symbols must be placed directly above each call button.

(b) Each elevator car interior must have a support rail on at least one wall. All support rails must be smooth and have no sharp edges and must not be more than 11/2 inches (38 mm) thick or 21/2 inches (63 mm) in diameter. Support rails must be continuous and a minimum length of 42 inches (1067 mm) overall. The inside surface of support rails must be 11/2 inches (38 mm) clear of the car wall. The distance from the top of the support rail to the finished car floor must be at least 31 inches (787 mm) and not more than 33 inches (838 mm). Padded or tufted material or decorative materials such as wallpaper, vinyl, cloth or the like may not be used on support rails.

(c) Each elevator covered by this section must be available to be used at any time to assist the physically handicapped in an emergency evacuation. The requirements of the latest revision of s.211 of the American Society of Mechanical Engineers standard ASME A17.1 must be complied with to meet the requirements of this paragraph.

(d) Interior surface of car enclosures must be of fire-resistant material, and walls must be surfaced with nonabrasive material. All materials exposed to the car interior must conform to the standards of the Elevator Safety code.

(e) A bench or seat may be installed on the rear wall of the elevator car enclosure, if the bench or seat does not protrude beyond the vertical plane of the elevator car enclosure wall when folded into a recess provided for the bench or seat and, when not in use, the bench or seat automatically folds into the recess. The bench or seat must be capable of supporting a live load of at least 250 pounds (113.4 kg) on any 12-inch by 12-inch (305 x 305 mm) area. A
3003.5 Standby power. In all buildings or structures where standby power is required or furnished to operate an elevator, the operation shall be as follows:

1. Where only one elevator is installed, the elevator shall transfer to standby power within 60 seconds after failure of normal power.

2. Where two or more elevators are controlled by a common operating system, all elevators may transfer to standby power within 60 seconds after failure of normal power; or if the standby power source is of insufficient capacity to operate all elevators at the same time, all elevators shall transfer to standby power in sequence, return to the designated landing and discharge their load. After all elevators have been returned to the designated landing, at least one elevator shall remain operable from the standby power source.

3. Where the passage is over a sloping roof having a maximum slope exceeding 15 degrees (0.26 rad) from the horizontal, an unobstructed, permanent and substantial walkway not less than 24 inches (610 mm) wide, equipped on at least one side with a standard air. Noncombustible ducts shall be permitted to pass through the elevator machine room provided proper clearances are maintained for the elevator equipment. Vents which require the use of noncombustible ducts located directly outside the hoistway or machine room area shall be provided with the same fire protection rating as required for the hoistway.

3003.6.3 The area of the vents shall be not less than 31/2% of the area of the hoistway nor less than 3 sq ft (0.28 m²) for each elevator car, whichever is greater.

Exceptions: Where mechanical ventilation providing equivalent venting of the hoistway is provided, the required vent area may be reduced subject to the following:

1. The building is not a hotel, apartment house, hospital or similar building with overnight sleeping quarters.
2. The hoistway or machine room is so located that it has no outside exposure.
3. The hoistway does not extend to the top of the building.
4. The hoistway or machine room exhausted fan is automatically reactivated by thermostatic means.

3003.6.4 Holes in the machine room floor for the passage of ropes, cables or other elevator equipment shall be limited to a 1 1/2 inch (38 mm) clearance on all sides.

3003.7 Access to machine rooms and machinery spaces

3003.7.1 General. A permanent, safe and convenient means of access to elevator machine rooms and overhead machinery spaces shall be provided for authorized persons. The means of access shall not be through restrooms, dressing rooms or tenant (including owner-occupied) spaces.

3003.7.2 Access across roofs. Where means of access includes passage over roofs, all of the following requirements shall be met:

1. A stairway shall extend through and serve the roof. Roof hatches are not permitted.
2. A stairway with a swinging type door and platform at the top level, conforming to 1012 shall be provided from the top floor of the building to the roof level. An interior landing 36 x 44 inches (914 x 1118 mm) minimum is required at the roof level. The door shall swing onto the roof. An 8 inch (203 mm), maximum, curb shall be permitted.
3. Where the passage is over a sloping roof having a slope exceeding 15 degrees (0.26 rad) from the horizontal, an unobstructed, permanent and substantial walkway not less than 24 inches (610 mm) wide, equipped on at least one side with a standard...
guardrail not less than 42 inches (1067 mm) high, shall be provided from the building exit door at the roof level to the means of access to the machine room or machinery spaces. Guardrails shall conform to the requirements of 1015.

3003.8 Serial numbers. Each elevator shall have a serial number assigned by the division painted on or attached to the elevator car in plain view and also to the driving mechanism. This serial number shall be shown on all required certificates and permits.

(4) Certificates of operation must be posted in a conspicuous location in the elevator and shall contain the text of s. 823.12, relating to the prohibition against smoking in elevators. The certificate must be framed with a transparent cover.

(5) In addition to section (3), the designation "NO SMOKING" along with the international symbol for no smoking shall be conspicuously displayed within the interior of the elevator in the plain view of the public.

(6) The following rules of ASME A17.1, are hereby amended to read as follows:

(a) Rule 111.10 Access to Hoistways for Emergency Purposes. Hoistway door unlocking devices conforming to Rules 111.9(1) and (3) shall be provided for all hoistway doors.

(b) Rule 101.3a of the ASME A17.1, which is amended to read as follows: "Rule 101.3a General Requirements. A permanent, safe and convenient means of access to elevator machine rooms and overhead machinery spaces shall be provided for authorized persons. The key to the machine rooms and overhead machinery spaces shall be kept on the premises at all times and readily available for use by state elevator inspectors."

(c) Rule 211.8 Switch Keys, of ASME A17.1, is amended to read as follows: "The switches required by Rule 211.2 through 211.5, for all elevators in a building, must be operable by the same keys. This key must not be part of a building master key system. There must be a key for the designated level switch and for each elevator in the group. These keys must be kept on the premises at all times in a location readily accessible to authorized personnel, and state elevator inspectors, but not where the key is available to the general public. NOTE: RULE 211.8: Local authorities may specify a uniform keyed lock box to contain the necessary keys."

(d) Rule 805.1a Starting Switch of ASME A17.1, is amended to read as follows: "Starting switches must be of the key-operated type and must be located so that the escalator steps are within sight. Automatic starting by any means is prohibited. The key for the starting switches must be kept on the premises at all times in a location readily available to authorized personnel and state elevator inspectors, but not where the key is available to the general public."

(e) Rule 106.1b(3). Drains connected directly to sewers shall not be installed in elevator pits. Where drains are not provided to prevent the accumulation of water, a sump of adequate size and depth to accommodate a pump shall be provided, with or without a pump.

3003.9 Electrolysis Protection for Underground Hydraulic Elevator Cylinders. All newly installed underground hydraulic pressure cylinders shall be encased in outer plastic containment to minimize electrolytic corrosion between the metal cylinder and ground cathode.

(1) The plastic casing shall be capped at the bottom, and all joints must be solvent or heat welded to insure watertightness.

(2) The plastic casing shall be constructed of polyethylene or polyvinyl chloride (PVC). The plastic pipe wall thickness must not be less than 0.125 inch (3.175 mm).

(3) The neck of the plastic casing shall have a means of inspection provided to monitor the annulus between the pressurized hydraulic cylinder and the protective plastic casing.

(4) Replacements of existing hydraulic cylinders shall be protected by the aforementioned method where existing physical dimensions permit.

3003.10 615C-5.004 Bulletin Boards. (1) Bulletin boards and frames used in elevator cars shall not create any conditions which will be unsafe for users of the elevator car. Users shall include:

(a) Disabled persons;
(b) Persons confined to wheelchairs; and
(c) All other persons who may operate the elevator car in its normal course of use.

(2) Bulletin boards shall not protrude more than 1 inch (25.4 mm) beyond the vertical line of the car wall. They shall not encroach on any clearances required to be maintained in the elevator by Chapter 399, Florida Statutes, and ASME A17.1.

(3) Bulletin boards shall be framed and all edges must be smooth and rounded. No sharp edges of any kind shall protrude.

(4) A glass or plastic cover shall be provided. Glass, if used, must meet the following requirements:
(a) Be laminated;
(b) Meet the requirement for laminated glass as set forth in ANSI Z97.1;
(c) The cover shall be securely held in place by the frame.
(5) The frame and bulletin board shall be permanently fastened to the car wall in such a manner so that all parts including the cover in place will withstand any and all tests required of the elevator.
(6) All materials used shall be fire resistive equal to the requirements of the cab enclosure.
(7) The bottom of the bulletin boards shall not be less than 5 feet (1524 mm) above the cab floor, and the total area shall not exceed 4 square feet (0.37 m²).

3003.11 Alterations to Electric and Hydraulic Elevators and Escalators. (1) In addition to the alterations set forth in Rule 1003.3 and Rule 1006.3, ASME A17.1, the following alterations require, in addition to a construction permit, that inspections and tests be performed to determine conformance with ASME A17.1, rules cited below:

**ALTERATIONS**

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<tr>
<th>ALTERATIONS</th>
<th>Electric Elevators</th>
<th>Hydraulic Elevators</th>
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<tr>
<td>(a) Addition of elevator to existing hoistway (new installation)</td>
<td>1201.1b</td>
<td>1201.1b</td>
</tr>
<tr>
<td>(b) Brake (replacements of existing drive, machine brake by a new brake)</td>
<td>208-210.8</td>
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<tr>
<td>(c) Buffer (addition of oil buffer)</td>
<td>1202.2</td>
<td>1203.2b</td>
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<tr>
<td>(d) Driving machine (replacement of)</td>
<td>1202.9a</td>
<td>1203.3</td>
</tr>
<tr>
<td>(e) Freight elevator converted to passenger service</td>
<td>1202.8a</td>
<td>1203.2b</td>
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<tr>
<td>(f) Rope, replacement in size or number of ropes</td>
<td>1200.4d</td>
<td>1200.4d</td>
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<td>(g) Sheave, driving machine (replacement in size)</td>
<td>1209.a</td>
<td>1209.a</td>
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(2) The following alterations require, in addition to a construction permit, that inspections be performed to determine conformance with ASME A17.1, rules cited below:

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<tr>
<td>(a) Access Switch (addition of)</td>
<td>1201.11d</td>
<td>1203.1k</td>
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<tr>
<td>(b) Automatic transfer device (addition of)</td>
<td>1205</td>
<td>1205</td>
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<td>(c) Car, door or gate (addition of car door or gate electric contacts)</td>
<td>1202.5</td>
<td>1203.2c</td>
</tr>
<tr>
<td>(d) Car enclosure</td>
<td>1202.5</td>
<td>1203.2c</td>
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<tr>
<td>(e) Car leveling device (addition of) and (trucking device)</td>
<td>1202.4a</td>
<td>1203.8b</td>
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3003.12 Change in use. Any change in use of an elevator, freight to passenger, passenger to freight, or from one freight class to another, shall not be made without the approval of the enforcing authority. Said approval shall be granted only after it is demonstrated that the installation conforms to the requirements of Part XII of ASME A17.1.

**SECTION 3004 MANLIFTS**

Manlifts shall be installed in accordance with ANSI A90.1.