

(b) Other stepwells and doorways, including doorways in which lifts or ramps are installed, shall have, at all times, at least 2 foot-candles of illumination measured on the step tread, or lift or ramp, when deployed at the vehicle floor level.

(c) The vehicle doorways, including doorways in which lifts or ramps are installed, shall have outside light(s) which, when the door is open, provide at least 1 foot-candle of illumination on the street surface for a distance 3 feet (915 mm) perpendicular to the bottom step tread or lift outer edge. Such light(s) shall be shielded to protect the eyes of entering and exiting passengers.

[56 FR 45756, Sept. 6, 1991, as amended at 63 FR 51697, 51702, Sept. 28, 1998]

§ 38.33 Fare box.

Where provided, the farebox shall be located as far forward as practicable and shall not obstruct traffic in the vestibule, especially wheelchairs or mobility aids.

§ 38.35 Public information system.

(a) Vehicles in excess of 22 feet in length, used in multiple-stop, fixed-route service, shall be equipped with a public address system permitting the driver, or recorded or digitized human speech messages, to announce stops and provide other passenger information within the vehicle.

(b) [Reserved]

§ 38.37 Stop request.

(a) Where passengers may board or alight at multiple stops at their option, vehicles in excess of 22 feet in length shall provide controls adjacent to the securement location for requesting stops and which alerts the driver that a mobility aid user wishes to disembark. Such a system shall provide auditory and visual indications that the request has been made.

(b) Controls required by paragraph (a) of this section shall be mounted no higher than 48 inches and no lower than 15 inches above the floor, shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2 N).

§ 38.39 Destination and route signs.

(a) Where destination or route information is displayed on the exterior of a vehicle, each vehicle shall have illuminated signs on the front and boarding side of the vehicle.

(b) Characters on signs required by paragraph (a) of this section shall have a width-to-height ratio between 3:5 and 1:1 and a stroke width-to-height ratio between 1:5 and 1:10, with a minimum character height (using an upper case "X") of 1 inch for signs on the boarding side and a minimum character height of 2 inches for front "headsigs", with "wide" spacing (generally, the space between letters shall be 1/16 the height of upper case letters), and shall contrast with the background, either dark-on-light or light-on-dark.

Subpart C—Rapid Rail Vehicles and Systems

§ 38.51 General.

(a) New, used and remanufactured rapid rail vehicles, to be considered accessible by regulations in part 37 of this title, shall comply with this subpart.

(b) If portions of the vehicle are modified in a way that affects or could affect accessibility, each such portion shall comply, to the extent practicable, with the applicable provisions of this subpart. This provision does not require that inaccessible vehicles be retrofitted with lifts, ramps or other boarding devices.

(c) Existing vehicles which are retrofitted to comply with the "one-car-per-train rule" of § 37.93 of this title shall comply with §§ 38.55, 38.57(b), 38.59 of this part and shall have, in new and key stations, at least one door complying with §§ 38.53 (a)(1), (b) and (d) of this part. Removal of seats is not required. Vehicles previously designed and manufactured in accordance with the accessibility requirements of part 609 of this title or the Secretary of Transportation regulations implementing section 504 of the Rehabilitation Act of 1973 that were in effect before October 7, 1991, and which can be entered and used from stations in which they are to be operated, may be

§ 38.53

used to satisfy the requirements of § 37.93 of this title.

§ 38.53 Doorways.

(a) *Clear width.* (1) Passenger doorways on vehicle sides shall have clear openings at least 32 inches wide when open.

(2) If doorways connecting adjoining cars in a multi-car train are provided, and if such doorway is connected by an aisle with a minimum clear width of 30 inches to one or more spaces where wheelchair or mobility aid users can be accommodated, then such doorway shall have a minimum clear opening of 30 inches to permit wheelchair and mobility aid users to be evacuated to an adjoining vehicle in an emergency.

(b) *Signage.* The International Symbol of Accessibility shall be displayed on the exterior of accessible vehicles operating on an accessible rapid rail system unless all vehicles are accessible and are not marked by the access symbol. (See Fig. 6.)

(c) *Signals.* Auditory and visual warning signals shall be provided to alert passengers of closing doors.

(d) *Coordination with boarding platform—(1) Requirements.* Where new vehicles will operate in new stations, the design of vehicles shall be coordinated with the boarding platform design such that the horizontal gap between each vehicle door at rest and the platform shall be no greater than 3 inches and the height of the vehicle floor shall be within plus or minus $\frac{5}{8}$ inch of the platform height under all normal passenger load conditions. Vertical alignment may be accomplished by vehicle air suspension or other suitable means of meeting the requirement.

(2) *Exception.* New vehicles operating in existing stations may have a floor height within plus or minus $1\frac{1}{2}$ inches of the platform height. At key stations, the horizontal gap between at least one door of each such vehicle and the platform shall be no greater than 3 inches.

(3) *Exception.* Retrofitted vehicles shall be coordinated with the platform in new and key stations such that the horizontal gap shall be no greater than 4 inches and the height of the vehicle floor, under 50% passenger load, shall

49 CFR Subtitle A (10–1–11 Edition)

be within plus or minus 2 inches of the platform height.

§ 38.55 Priority seating signs.

(a) Each vehicle shall contain sign(s) which indicate that certain seats are priority seats for persons with disabilities, and that other passengers should make such seats available to those who wish to use them.

(b) Characters on signs required by paragraph (a) of this section shall have a width-to-height ratio between 3:5 and 1:1 and a stroke width-to-height ratio between 1:5 and 1:10, with a minimum character height (using an upper case “X”) of $\frac{5}{8}$ inch, with “wide” spacing (generally, the space between letters shall be $\frac{1}{16}$ the height of upper case letters), and shall contrast with the background, either light-on-dark or dark-on-light.

§ 38.57 Interior circulation, handrails and stanchions.

(a) Handrails and stanchions shall be provided to assist safe boarding, on-board circulation, seating and standing assistance, and alighting by persons with disabilities.

(b) Handrails, stanchions, and seats shall allow a route at least 32 inches wide so that at least two wheelchair or mobility aid users can enter the vehicle and position the wheelchairs or mobility aids in areas, each having a minimum clear space of 48 inches by 30 inches, which do not unduly restrict movement of other passengers. Space to accommodate wheelchairs and mobility aids may be provided within the normal area used by standees and designation of specific spaces is not required. Particular attention shall be given to ensuring maximum maneuverability immediately inside doors. Ample vertical stanchions from ceiling to seat-back rails shall be provided. Vertical stanchions from ceiling to floor shall not interfere with wheelchair or mobility aid user circulation and shall be kept to a minimum in the vicinity of doors.

(c) The diameter or width of the gripping surface of handrails and stanchions shall be $1\frac{1}{4}$ inches to $1\frac{1}{2}$ inches or provide an equivalent gripping surface and shall provide a minimum $1\frac{1}{2}$