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(On or after April 1, 1977, and before October 1, 1988)**

Secs. 14-275b-1—14-275b-69.

Repealed, May 2, 2007.

(On or after October 1, 1988)

Secs. 14-275b-70—14-275b-131.

Repealed May 2, 2007.

**Standards for Vehicles Used for Transportation of
Students Who Are Mobility Impaired**

Sec. 14-275b-132. Purpose. Effective date. Scope

The purpose of this regulation is to establish standards for vehicles used for the transportation of students who are mobility impaired. The standards in Sections 14-275b-133 through 14-275b-149, inclusive, apply to all vehicles which are manufactured or are converted to carry students who are mobility impaired on or after July 1, 1993. For purposes of this section, the word “converted” shall mean making significant changes to a vehicle which has not previously been used to carry students or persons with mobility impairments.

(Effective December 18, 1992)

Sec. 14-275b-133. Definitions

As used in sections 14-275b-133 to 14-275b-149, inclusive:

(a) “Bus” means a motor vehicle with motive power, except a van-type vehicle or trailer, designed for carrying more than ten (10) persons;

(b) “Carrier” means any local or regional school district, any educational institution providing elementary or secondary education or any person, firm or corporation under contract to such district or institution engaged in the business of transporting school children;

(c) “Commissioner” means the commissioner of motor vehicles or his authorized representative;

(d) “Department” means the Department of Motor Vehicles;

(e) “Inspect” means to view closely and critically in order to ascertain, in accordance with accepted inspection standards, if the vehicle is in proper mechanical condition and all manufactured systems, including safety features, are intact;

(f) “Maintain” means to preserve from operational failure or decline; to keep in a state of repair and good working order;

(g) “Operate” means in the possession, control and use of the carrier, regardless of whether the vehicle is owned by the carrier;

(h) “Repair” means to restore by replacing a part or putting together what is torn, broken or otherwise malfunctioning;

(i) “School Bus” means any motor vehicle so defined in Section 14-275 (a) of the General Statutes, as amended, which meets the construction standards set forth in regulations of the Department of Motor Vehicles;

(j) “Scooter” means a type of wheelchair with a removable seat on a pedestal and/or handle bars, and a foot platform located between the front and rear wheels;

(k) “Student Transportation Vehicle (STV)” means any motor vehicle other than a registered school bus used by a carrier for the transportation of students, including children requiring special education;

(l) “Student with a Mobility Impairment” means a person who has a temporary or permanent physical disability limiting normal movement as determined by a licensed physician;

(m) “Vehicle” means any school bus or student transportation vehicle;

(n) “Wheelchair” means a wheeled seat frame for the support and conveyance of a person who is mobility impaired, comprising at least a frame, seat and wheels, including a scooter type wheelchair.

(Effective September 24, 1993)

Sec. 14-275b-134. Classification of vehicles

As used in sections 14-275b-135 to 14-275b-149, inclusive, of the Regulations of Connecticut State Agencies, the following vehicle classes will have the following meanings:

<u>CLASS OF VEHICLE</u>	<u>VEHICLE TYPE</u>
HS	A school bus.
HS-1	A Type I school bus equipped to accommodate students with mobility impairments.
HS-2	A Type II school bus equipped to accommodate students with mobility impairments.
HB	A bus other than a school bus equipped to accommodate students with mobility impairments.
HV	A van-type vehicle.
HV-1	A van-type vehicle without modifications to the headroom of a manufactured body equipped to accommodate students with mobility impairments.
HV-2	A van-type vehicle with modifications to the headroom of a manufactured body equipped to accommodate students with mobility impairments.
HP	A passenger vehicle with a minimum wheelbase specified in Section 14-275a of the Connecticut General Statutes equipped to accommodate students with mobility impairments.

(Effective December 18, 1992)

Types of Equipment

Sec. 14-275b-135. Seating systems

All seating systems for students with mobility impairments shall meet the following requirements:

(a) **For class HS vehicles:**

(1) Conventional seating shall meet the requirements of Federal Motor Vehicle Safety Standard (FMVSS) #222, as amended;

(2) Special seating arrangements shall meet the requirements of Section 14-275c-31 (c) of the Regulations of Connecticut State Agencies;

(3) Wheelchair anchorages shall meet the requirements of Section 14-275b-138 of the Regulations of Connecticut State Agencies and any FMVSS that may subsequently be adopted.

(b) For classes of vehicles other than class HS:

(1) Conventional seating shall meet the requirements of the test procedures of FMVSS #207, as amended;

(2) Special seating arrangements shall meet the requirements of Section 14-275c-31 (c) of the Regulations of Connecticut State Agencies;

(3) Wheelchair anchorages shall meet the requirements of Section 14-275b-138 of the Regulations of Connecticut State Agencies.

(c) The seating systems for all classes of vehicles shall be forward facing unless otherwise specifically allowed under FMVSS #222 as amended.

(d) The padding and seating materials for all classes of vehicles required in accordance with subsections (a) and (b) of this section shall meet the flammability requirements of FMVSS #302.

(Effective December 18, 1992)

Sec. 14-275b-136. Lifts

All lift platforms on vehicles used to transport students with mobility impairments shall meet the following requirements and shall be able to lift a maximum weight of eight hundred (800) pounds on HS and HB vehicles and seven hundred fifty (750) pounds on all other classes of vehicles:

(a) For class HS, HB and HV vehicles:

(1) The lift platforms shall have a minimum usable width of thirty (30) inches and a minimum usable length of forty-two (42) inches when measured two (2) inches above the platform surface, and shall have a minimum usable width of twenty-eight and one-half (28¹/₂) inches and a minimum usable length of forty (40) inches when measured at the platform surface as shown in figure 1. The platform surface shall be skid resistant and shall be equipped with protective curbing on each side no less than one and one-half (1¹/₂) inches above the platform surface. The platform slope shall not exceed ten percent (10%) in the passage direction when loaded with six hundred (600) pounds evenly applied in a thirty by thirty (30 x 30) inch square at the center of the platform. A self-adjusting steel or equivalent strength ramp transition plate shall be provided to allow smooth wheelchair passage from ground level onto the lowered lift platform. The transition plate shall raise to a position perpendicular to the platform plus or minus twenty degrees ($\pm 20^\circ$) and shall latch in order to provide a roll-off barrier or end flap for the wheelchair.

(2) In order to prevent a wheelchair located on the lift platform from tipping or inadvertently rolling or falling from the lift platform, the lift platform shall incorporate either:

(A) a raised end flap as provided in subdivision (1) of this subsection extending a minimum of three and one-half (3¹/₂) inches in height, together with an adjustable restraint belt installed between the lift handrails or otherwise positioned across the open side(s) of the lift platform; or

(B) a raised end flap extending at least eight (8) inches in height from the lift platform floor along the open side(s) of the platform.

When required, the restraint belt shall be connected electrically or mechanically to the lift mechanism to prevent raising or lowering of the lift unless the restraint belt is properly latched. Both the raised end flap and/or restraint belt shall be installed in a manner to minimize risk to wheelchair occupants while on the lift platform. All electrical controls and wiring shall be weatherproof. The electrical system of

the vehicle shall be capable of supporting the electrical requirements of the lift without significantly reducing the electrical supply to the remainder of the vehicle.

(3) A manual backup system shall also be provided for use in the event of power loss. The backup system shall be capable of repeatedly lowering and raising the platform in no more than two (2) minutes per complete cycle and shall be operable from inside the vehicle.

(b) For all classes of vehicles other than classes HS, HB or HV, the lift platforms shall conform to the requirements of Section 14-275c-31 (a) of the Regulations of Connecticut State Agencies.

(c) Controls shall be provided that enable the operator to activate the lift from either the inside or outside the bus. There shall be a means for preventing the lift platform from falling while in operation due to a power failure or a single component mechanical failure.

(d) The lift platform shall be equipped with two (2) handrails which shall be not less than twenty-five (25) inches in height and eighteen (18) inches in length and designed to fold when in stowed position so as not to add to overall lift projection into the vehicle.

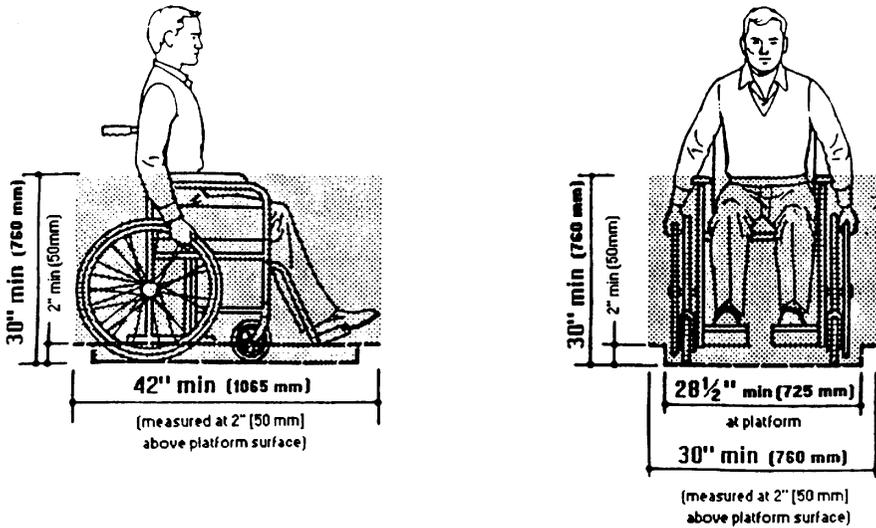
(e) An appropriate sized circuit breaker shall be installed between the power source and lift motor if electrical power is used.

(f) Lift design shall prevent excessive pressure that could damage the lift system when the platform is fully lowered or raised, or that could jack the vehicle.

(g) The lift mechanism shall be designed to prevent folding or stowing of the lift when the lift platform is occupied.

(h) Any lift platform which does not provide a clear opening of at least thirty (30) inches when folded or stowed shall provide a mechanical emergency release which allows the platform to be unfolded in the event of electrical or hydraulic failure.

(i) Notwithstanding any other provision of this section to the contrary, any lift platform on a vehicle used to transport students with mobility impairments and which meets the requirements of The Americans with Disabilities Act of 1990, Public Law 101-336, July 26, 1990, 104 Stat. 327, shall be deemed to meet the requirements of this section.

Figure 1. Minimum Clearance on Lifts

(Effective June 26, 1995)

Sec. 14-275b-137. Ramps

For all classes of vehicles, ramps shall meet the requirements of Section 14-275c-31 (b) of the Regulations of Connecticut State Agencies, except that ramps not used for emergency exit purposes shall have a slope not exceeding ten (10) percent. Any ramp shall be stowed in a manner to protect it from the weather and so that it will not present a hazard.

(Effective December 18, 1992)

Sec. 14-275b-138. Wheelchair and appliance anchorages (tiedowns)

(a) All wheelchair and appliance anchorage straps, or an equivalent floor to appliance flexible anchorage, when not in use, shall not be located on the floor of the vehicle but shall be securely retained or placed in a secure, clean, dry storage container so as not to present a hazard. Anchorage straps without a manufacturer's label shall not be used. Belts and anchorages shall be attached to the vehicle in accordance with the strength requirements of FMVSS #210. All vehicle mounted portions of anchorages shall be installed so that when in use they will not obstruct the movement of other passengers or present a hazard to persons or property.

(b) For wheelchairs occupied during vehicle motion, wheelchair anchorages shall comply with the requirements of Section 14-275c-31 (d) of the Regulations of Connecticut State Agencies. Anchorage labels shall be marked to indicate the maximum wheelchair weight for which the anchorages have been tested. The anchorages shall have passed impact testing using a deceleration of twenty (20) g's from 30 MPH. In no case shall the elongation of the anchorage tested exceed that of the passenger restraint. Placement of such anchorages shall allow a minimum clear space of thirty (30) inches wide by fifty-three (53) inches long.

(c) For wheelchairs not occupied during vehicle motion, anchorages for empty chairs shall maintain the position of the empty wheelchairs so as to prevent contact with occupants during a sudden stop or collision and shall comply with the strength requirements of subsection (d).

(d) Appliance anchorages shall be provided for other apparatus for the occupants including but not limited to crutches and walkers. Appliance anchorages for apparatus in this subsection shall be composed of and installed using materials capable of withstanding a force equal to twenty (20) times the weight of the heaviest appliance to be restrained, and shall be marked to indicate the maximum weight capable of being restrained.

(e) Bulky, heavy or frangible portable items used by wheelchair bound individuals such as oxygen bottles, radios, lap-top computers or the like must be firmly attached to the persons' wheelchair and shall meet the requirements of subsection (d) of this section.

(f) Instructions for use and installation of wheelchair or appliance anchorages shall be located so as to be readily visible upon removal of the anchorages from their stored location. The instructions shall be in explanatory words and/or symbols, the text portion of the instructions having a minimum height of one eighth (1/8) inch on a contrasting background. The instructions shall be protected with clear durable laminate.

(g) All wheelchair or appliance anchorages not permanently attached shall be a "positive latch" type to prohibit accidental disconnecting. All anchorages designed to be connected or disconnected frequently shall be accessible and operable without the use of tools or other mechanical assistance.

(Effective December 18, 1992)

Sec. 14-275b-139. Passenger restraints

(a) All occupants of a vehicle used exclusively or customarily to transport students with mobility impairments shall be provided with at least one (1) restraint complying with FMVSS #209 and #210, and labeled as so complying. Any additional restraint(s) necessary to safely maintain the seating position of an impaired occupant of the vehicle shall also be provided.

(b) Occupants of wheelchairs shall be provided with a Type 2 occupant securement system complying with FMVSS #209 and #210, and labeled as so complying. The occupant securement system shall be designed to be attached to the vehicle body either directly or in combination with the wheelchair securement system by a method which prohibits the transfer of weight or force from the wheelchair to the occupant in the event of an impact.

(Effective December 18, 1992)

Sec. 14-275b-140. Modifications to vehicle headroom

(a) No modification from the manufactured standard shall be made to the vehicle headroom in class HS or class HB vehicles.

(b) Class HV-2 vehicles may be modified in accordance with the following standards:

(1) Raised roofs of such vehicles shall be equipped with at least three (3) roll bars with side stringers and gussets or equivalent structural reinforcement independent of the added rooftop;

(2) Lowered floors of such vehicle shall be constructed of ten (10) gauge or stronger steel with lateral reinforcing joists, and the floors shall be fully sealed to prevent entry of liquid gas into the vehicle. Body lift kits used in conjunction with lowered floors shall be installed with bolts at least as strong as SAE grade five (5) or the strength used by the vehicle manufacturer, whichever is stronger, and at least equal in diameter to the bolts used by the vehicle manufacturer.

(Effective December 18, 1992)

Sec. 14-275b-141. Interior construction

(a) All interior surfaces of a vehicle shall be free from sharp edges and protruding surfaces presenting a hazard to occupants. Any fiberglass materials added to vehicles shall be covered with a smooth or cushioning interior liner so that no fiberglass strands are visible or protruding. Ceiling and walls must be constructed or reinforced to withstand a static pull of at least three thousand (3000) pounds and floors must be constructed to withstand a static pull of at least five thousand (5000) pounds at restraint attachment points.

(b) Insulation shall be added to the vehicle as needed to maintain the temperature level in the interior of the vehicle within acceptable limits in all weather conditions that may reasonably be encountered.

(c) Lighting within the vehicle shall comply with Section 14-275c-30 (a) of the Regulations of Connecticut State Agencies.

(d) Flooring within the vehicle shall adequately support the weight of occupants up to the manufacturer's recommended weight limit. Floor covering shall be skid resistant and fire resistant, and shall be securely bonded to the floor.

(e) In class HS vehicles, air conditioning shall be provided if requested by the local or regional board of education, and if provided shall maintain acceptable interior temperature and airflow while the vehicle is stationary.

(f) In class HB, HV and HP vehicles, air conditioning shall be provided whenever the ambient outside temperature exceeds 74°F. The equipment shall comply with the requirements of Section 14-106 of the General Statutes.

(g) Any auxiliary equipment extending into the interior of the vehicle shall be configured, mounted and/or protected to minimize the potential for injuries to occupants of the vehicle at all times.

(h) Any modifications to the vehicle from its manufactured configuration to create or enlarge door openings shall include headers, framing and/or other structural reinforcements attached to the original structure. Any such modifications shall be attached such that there shall be no reduction in structural strength of the vehicle from the original manufactured vehicle. All class HS vehicles shall also have seat and floor level rub rails attached to any such structural reinforcements or their necessary extensions.

(i) Emergency equipment shall comply with Section 14-275c-30, subsections (b), (c), and (d), of the Regulations of Connecticut State Agencies, except that items (5) and (6) of subsection (c) are not required, and the flashlight of item (9) of subsection (c) shall be of a size that has at least two (2) size "D" batteries.

(1) A belt cutter shall be carried for use in emergencies. It shall be designed to eliminate the possibility of the operator or others being cut during use, and shall be secured in the first aid kit or other easily accessible compartment.

(2) A body fluids clean-up kit shall be provided, the contents of which shall include, but not be limited to, latex gloves, absorbent material, disinfectant, a scoop, plastic bags and ties.

(3) A fire blanket may be carried for emergency purposes, including evacuation.

(j) When fully loaded with passengers, equipment or both, the GVWR and the gross axle weight rating of a vehicle as determined by the manufacturer shall not be exceeded.

(k) In all vehicles there shall be a heater operable when the ambient temperature is below 70°F and having sufficient capacity to maintain the vehicle interior at a comfortable temperature when the ambient temperature is 0°F.

(Effective December 18, 1992)

Sec. 14-275b-142. Signs

(a) Special signs for vehicles other than class HS shall be constructed and attached in accordance with the provisions of Section 14-280 (b) of the General Statutes and any regulations enacted thereunder. Signs and markings for class HS vehicles shall conform to the provisions of Section 14-275 of the General Statutes and any regulations enacted thereunder.

(b) All vehicles used customarily to transport students with mobility impairments shall display universal handicapped symbols. Such symbols shall be white on blue background, shall not exceed twelve (12) inches in size, and shall be of reflectorized material meeting U.S. DOT FHWA FP-85 standards. One symbol shall be located below the windowline to the left of the service door, and one shall be located below the windowline on the rear of the vehicle.

(Effective December 18, 1992)

Sec. 14-275b-143. Communication

For each vehicle equipped to carry students with mobility impairments, two-way communications shall be provided from and to the vehicle by means of electromagnetic devices. Such devices shall be capable of remaining in contact with a base at all times.

(Effective December 18, 1992)

Sec. 14-275b-144. Access

(a) All classes of vehicles equipped to carry wheelchair bound students with mobility impairments shall provide two (2) means of egress from the vehicle.

(b) All classes of vehicles except HP shall provide at least one (1) means of egress from the vehicle having a useable width of at least thirty-six (36) inches and equipped with a lift or ramp meeting the requirements of Section 14-275b-136 of the Regulations of Connecticut State Agencies. A second means of egress shall be provided on class HS and HB vehicles with a width of at least thirty (30) inches and equipped with mounts for a portable ramp which shall be carried and available for emergency use only. Mounts for portable ramps when not in use shall meet the requirements of Section 14-275b-138 (d) of the Regulations of Connecticut State Agencies.

(c) Class HS vehicles shall have a lift service door with a clear opening at least forty-eight (48) inches high and thirty-nine (39) inches wide equipped with illuminating devices sufficient for loading during hours of darkness.

(d) Wheelchair service doors shall be weather sealed and shall have positive fastening devices to hold doors in the open position.

(e) When manually operated dual doors are provided, the rear side door or left rear door shall have at least a one-point fastening device to the header. The forward mounted side door or right rear door shall have at least three-point fastening devices, one to the header, one to the floor line of the body, and the other into the rear side or left rear door. The door and hinge mechanism shall be of a strength that is equivalent to or greater than the emergency exit door.

(f) Doors shall be equipped with a device that will actuate an audible or visible signal located in the driver's compartment when a door is not securely closed and the ignition is in the "on" position.

(g) A switch shall be installed to prevent the lifting mechanism from operating when the lift platform door is closed.

(h) Doors shall be equipped with padding at the top edge of the door opening. Pads shall be not less than three (3) inches wide and one (1) inch thick and shall extend the full width of the door opening.

(i) Class HS vehicles shall maintain a thirty (30) inch aisleway to both required exits from all occupied wheelchair seating positions.

(Effective December 18, 1992)

Sec. 14-275b-145. Inspection, maintenance and records

(a) All vehicles meeting the definitions of school bus or student transportation vehicle shall be subject to the requirements of Sections 14-275c-36 through 14-275c-43 of the Regulations of Connecticut State Agencies, as amended.

(b) All other vehicles, if used by or on behalf of a regional or local school board of education to transport students requiring special education or with mobility impairments, shall comply with the following:

(1) Each vehicle shall be inspected by the department prior to being placed into service, and at least once during each school year thereafter; and

(2) All records pertaining to the maintenance and repair of each such vehicle shall be retained and made available at the request of the department. A separate record shall be maintained for each vehicle, and shall identify the vehicle by year, make, model, registration number and vehicle identification number (VIN). Routine maintenance shall be conducted in accordance with the schedule recommended by the manufacturer.

(Effective December 18, 1992)

Sec. 14-275b-146. Wheelchair batteries

On or after July 1, 1995, no wheelchair containing other than a gell type of battery may be transported in any school bus or student transportation vehicle.

(Effective December 18, 1992)

Sec. 14-275b-147. Operator's license

Each person operating a vehicle used by or on behalf of a regional or local board of education and transporting students with mobility impairments shall possess a valid public passenger transportation permit and, if required by law, a commercial driver's license.

(Effective December 18, 1992)

Sec. 14-275b-148. Operation

All vehicles used by or on behalf of a regional or local board of education for the transportation of students with mobility impairments shall adhere to the following:

(a) No operator or passenger shall smoke or carry a lighted smoking implement in the vehicle;

(b) The operator shall require each passenger to remain seated and use appropriate available restraining devices or anchorages while the vehicle is moving;

(c) Scooter type wheelchairs shall not be occupied while the vehicle is moving unless the anchorage manufacturer provides instructions for restraining such scooter;

(d) Each vehicle shall stop at all railroad crossings as required by Section 14-250 of the General Statutes. Signs or lettering stating that the vehicle stops at railroad crossings may be provided on the back of each vehicle in letters not to exceed two (2) inches;

(e) No STV shall be operated with unsecured wheelchairs or appliances.

(Effective December 18, 1992)

Sec. 14-275b-149. Conflicting regulations

If there is a conflict between any provision of Sections 14-275b-132 through 14-275b-148 of the Regulations of Connecticut State Agencies, and Sections 14-275c-16 through 14-275c-33 of the Regulations of Connecticut State Agencies relating to motor vehicles used to transport special education students, the provisions of Sections 14-275b-132 through 14-275b-148 of these regulations shall prevail.

(Effective December 18, 1992)