



Date: January 11, 2007

Docket 2007-1 [RIN 3014-AA38]
Office of Technical and Informational Services
Architectural and Transportation Barriers and Compliance Board
1331 F Street NW
Suite 1000
Washington, D.C. 20004-1111
C/O

Dear Sir/Madam:

Re: Docket 2007-1/ RIN number 3014-AA38
Proposed changes to ADA Accessibility Guidelines for Over-the-road Buses

The Architectural and Transportation Barriers and Compliance Board (“Access Board”) has published a second draft revision to the Americans with Disabilities Act (“ADA”). These comments are provided as requested in response to the draft revisions of the ADA Accessibility Guidelines for Buses and Vans, November 19, 2008.

Daimler Buses North America Inc. (DAIMLER BUSES) manufactures and distributes various bus models throughout United States, including city transit buses, Over-The-Road (OTR) Buses, and shuttle buses. DAIMLER BUSES supports the efforts of the Access Board to improve the functionality of buses to accommodate all passengers. The following comments are provided with respect to the second draft ADA revisions.

DAIMLER BUSES suggests that the Access Board issue drawings and technical data that it relied on to develop the suggested ADA revisions. This will assist all parties, including vehicle manufacturers, in the analysis of the feasibility of the proposed changes.

DAIMLER BUSES suggests that, where possible, the Access Board issue background information that describes the technical issue that each proposed revision is attempting to overcome. This information will assist in allowing the industry to understand the extent of the problem, and propose alternatives if the revision is not feasible from a design perspective.

As requested these E-mail comments are sent to **cannon@access-board.gov** with the following full name and address of the sender in the text.

Joe Labonte
Product Safety and Compliance Officer
Daimler Buses North America
350 Hazelhurst Road
Mississauga, Ontario
L5J 4T8
Joe.Labonte@DCBUSNA.com

Daimler Buses North America
c/o Setra of North America Inc.
6012-B High Point Road
Greensboro, North Carolina 27407
Phone: 336.878.5400
Fax: 336.878.5410
www.dcbusna.com



In particular, the following issues are noted:

Definitions. Removal of definition of “Common Wheelchair”

- A. The removal of the definition results in the loss of a maneuverability template that allows for the establishment of design parameters, and demonstration of compliance. The definition and diagrams provided in the ADA have been integral to understanding the accessibility requirement. Rather than eliminating this information, additional detail on the maneuverability requirement should be provided. The definition should not be removed but detailed for the purposes of creating a demonstrable compliance specification.

T203.7 Handrails, Stanchions, and Handholds. Handrails and stanchions complying with T505 shall be provided at passenger doorways, at fare collection devices where provided on vehicles, and along all circulation paths. On vehicles more than 6.7m (22 feet) in length, handholds or stanchions shall be provided on the backs of forward and rear facing seats.

- A. Due to certain seating configurations and the consideration for seatbelts, handholds on the backs of seats may not be possible with current seat designs. We request clarification if the proposal refers to all seats or only isle seats for pathway handholds. We request that the manufacturer of buses have the option to provide overhead handholds where possible.

T203.12 Automated Route Announcement Systems. And T203.13 Automated Stop Announcement Systems.

- A. Specifications are required to prove compliance. Specifications for number announcements, length of announcements, audio quality, and description of the automated feature is required for acquiring and proving compliance of these devices.

Advisory T302.1 General.

Regarding lifts manufactured to meet FMVSS 403:

T302.2. Design Load. The design load must be 300 kg (660 pounds) minimum. Load carrying components that are subject to wear must have a design safety factor of at least six, and other components must have a design safety factor of at least three.

- A. FMVSS design load is 600 lbs not 660lbs
- B. Other government agencies cannot preempt a FMVSS regulation. The access board can propose changes to the FMVSS regulation.



T302.4 Manual Operation. Doors which must be opened to allow the lift to operate must have interior and exterior manual releases

- A. A new design would be required for inside and outside manual releases. Specifications are required to define manual operation.
- B. An exterior release must be lockable due to the nature of passenger use of OTR tourist use buses. Often passenger valuables are left in the bus and the bus is locked while tourists are away from the bus.
- C. FMVSS does not require inside and outside releases.

T302.5.1 Surfaces and T802.3 Openings. Openings in lift platform surfaces must not allow the passage of a sphere more than 13 mm (½ inch) diameter. Elongated openings must be placed so that the long dimension is perpendicular to the dominant direction of travel. Cut-outs are permitted for lift platforms that are folded and stowed manually.

- A. FMVSS allow for a clearance test block for gaps of 5/8 inch.
- B. Smaller gaps would require redesigning the lift. Gaps smaller than 5/8 are subject areas where debris can get caught and cause components to jam making the lift inoperable.
- C. Other government agencies cannot preempt a FMVSS regulation. The access board can propose changes to the FMVSS regulation.

T303.8.1 General. Ramps and bridgeplates shall have slopes not steeper than 1:6 (17 percent) when deployed to boarding and alighting areas without station platforms and to the roadway.

- A. The lift structure cannot be lowered due to the structure to lift the required load.
- B. A longer lift ramp creates difficulty when deploying due to the bus stopping location obstructions and causes the bus to stop further from the curb. To reach the 1:6 proposed slope the ramp would need to be longer.

T402.4.2 Side Approach. Securement location length is increased to 60 inches from 48 inches.

The impact of this change will be as follows:

- A. Eliminate up to two rows of seats (4 seats).
- B. Increase the hazard for those walking to seating location due to addition distance to reach a seatback handhold.
- C. Movable seats can be placed in the securement location. Movable seats may or may not require additional unlocking devices to create the required space as required.

T403.1 General. Securement systems, including attachments, shall comply with T403. Securement systems shall be capable of securing wheelchairs and mobility aids that can enter and maneuver within an accessible vehicle. Securement systems shall be automatic or easy to operate by a trained person.

- A. New requirement for “automatic or easy to operate by a trained person” require specifications that can demonstrate compliance.



T403.2.1 Large Vehicles. On vehicles with a gross vehicle weight rating of 13,608 kg (30,000 pounds) or more, securement systems shall restrain a force in the forward longitudinal direction of up to 20 N (2,000 pounds) for each attachment or clamping mechanism, and 39 N (4,000 pounds) minimum for each wheelchair or mobility aid.

And

T403.2.2 Small Vehicles. On vehicles with a gross vehicle weight rating of less than 13,608 kg (30,000 pounds), securement systems shall restrain a force in the forward longitudinal direction of up to 24 N (2,500 pounds) for each attachment or clamping mechanism, and 49 N (5,000 pounds) minimum for each wheelchair or mobility aid.

- A. FMVSS 210 anchorages for occupant restraints require only 3000 lbs. We request statistics and studies that determined what attachment force requirement would be required. The NHTSA crash testing found that a bus g forces for a bus are less than that for passenger cars from which the FMVSS 210 is only applicable to.
- B. Cost for such specialty securement systems may be cost prohibited in place of using mass produced restraint systems found in passenger cars.

***Advisory T403.5 Padded Head Rest.** The padded head rest is intended to reduce the possibility of whiplash in a sudden stop. The padded head rest must be positioned approximately in line with the plane of the wheelchair or mobility aid backrest, and the bottom edge of the head rest is required to be above the approximate height of the backrest. Many wheelchair users have backpacks on their wheelchairs. If the bottom edge of the padded head rest is below the top of the backrest, the head rest may encounter the backpack and prevent the wheelchair from being positioned close to the head rest.*

- A. This has strong language that may cause liability issues. Various mobility devices cannot be accommodated due to their configuration and parcel carriages.
- B. Specifications are required to define padded head injury criteria (HIC) tests, zones, size and location requirements.
- C. This section should specifically state that it relates to rear facing mobility device securement headrests.

T502.3 Features on Circulation Paths. Features on circulation paths connecting wheelchair spaces to doorways shall be located so as to not interfere with the maneuvering of wheelchairs and mobility aids. Stanchions located directly behind the driver seat shall terminate at the surface of aisle facing seats where provided, or shall be turned away from the circulation path below the driver seat. Where provided on vehicles, fare collection devices shall be located as close to the dashboard as possible.

- A. A demonstration specification is required to prove compliance.



The ADA needs to clearly indicate that any changes are prospective and do not impact vehicles manufactured prior to the implementation date. Changes should be effective relative to the magnitude of the development efforts and after the year 2010.

DAIMLER BUSES' assessment is that the draft changes cannot be incorporated into the current bus, and that significant changes would have to be implemented. Consideration should also be given to the fact that engineering resources throughout the industry are being applied to extensive engine emission regulation changes for 2007, 2010 and 2013. In conclusion, these proposed changes will require significant time, costs and effort to consider if a redesigned bus can meet the requirements.

Yours truly,

DAIMLER BUSES NORTH AMERICA

A handwritten signature in blue ink, appearing to read "Joe Labonte". The signature is fluid and cursive, written over the printed name.

Joe Labonte
Product safety and Compliance Officer

.cc American Public Transportation Association, Access Committee