



July 14, 2020

Gretchen Jacobs  
Acting Executive Director  
Architectural and Transportation Barriers Compliance Board  
1331 F Street, NW, Suite 1000  
Washington, DC 20004

Re: Advance Notice of Proposed Rulemaking, Accessibility Guidelines for Rail Vehicles  
ATBCB-2020-0002 filed electronically at Regulations.gov

Dear Ms. Jacobs,

The National Disability Rights Network (NDRN) appreciates the opportunity to comment in response to the Board's Advance Notice of Proposed Rulemaking (ANPRM) to update the Accessibility Guidelines for Transportation Vehicles: Rail Vehicles, initially published by Access Board on February 14, 2020 with comments originally due on May 14, 2020. The Board extended the Comment Period to July 14, 2020.

NDRN is the non-profit membership association of Protection and Advocacy (P&A) agencies that are located in all 50 States, the District of Columbia, Puerto Rico, and the United States Territories (American Samoa, Guam, Northern Mariana Islands, and the United States Virgin Islands. In addition, there is a P&A affiliated with the Native American Consortium which includes the Hopi, Navajo and San Juan Southern Paiute Nations in the Four Corners region of the Southwest. P&A agencies are authorized under various federal statutes to provide legal representation and related advocacy services, and to investigate abuse and neglect of individuals with disabilities in a variety of settings. The P&A System comprises the nation's largest provider of legally-based advocacy services for persons with disabilities.

Accessibility of public transportation has long been an important area of concern for both NDRN and the P&A agencies we represent. P&As have represented individuals with disabilities in transportation access issues ranging from paratransit eligibility to systemic failures of transit agencies to meet the requirements of the Americans with Disabilities Act (ADA) for paratransit service to the inaccessibility of Amtrak stations.

NDRN and its member P&As surveyed stations in the Amtrak system and created a report<sup>1</sup> released in October 2013 which led to the U.S. Department of Justice issuing a Letter of Findings on June 15, 2015<sup>2</sup> regarding Amtrak's failure to comply with the ADA particularly regarding accessibility of its stations.

An NDRN volunteer and NDRN staff were also members of in the Access Board's Rail Vehicle Accessibility Advisory Committee (RVAAC) in 2013-2015 that led to the RVAAC Report Recommendations. NDRN and several P&As have continued to advocate for both more accessible new rail vehicles based on the RVAAC Report Recommendations with both Amtrak and state Departments of Transportation. NDRN and P&As have also engaged in advocacy with rail transportation providers regarding accessibility policies and other equipment procurement.

In the ANPRM, the Access Board asked 25 questions which are listed below with NDRN's answers. We have also attached as an addendum a short Power Point that includes photographs of existing or planned rail vehicles to provide additional information about some of the answers we have provided.

*Question 1: Would it be feasible for remanufactured rail cars to meet the accessibility requirements recommended in the RVAAC Report?*

As noted in NDRN's answer to Question 2, a significant portion of the rolling stock used in intercity rail (Amtrak) pre-dates original DOT ADA Rail Vehicle Accessibility Standards. Because of the narrow doors and vestibules of those cars and their advanced age, NDRN believes that remanufacturing rail vehicles that do not meet the original ADA standards would be too costly because of the need to reconstruct end doors and vestibules and to possibly install car borne lifts. Given their age, NDRN believes remanufacturing any pre-1990 ADA compliant intercity and commuter rail vehicles would likely be not economically feasible.

Similarly, in NDRN's view, older rapid rail (subway) cars like those in the New York, Boston and San Francisco BART systems that predate the ADA should not be considered for remanufacturing given their age.

Remanufacturing rail vehicles compliant with the 1990 standards could be feasible because many rail operators and transit agencies have included many of the recommendations in the RVAAC Report to railcars that have undergone a mid-life refurbishment in the recent past. For example, basic LED (light emitting diode) variable message "next stop" signs were added to the 2000 and 3000

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1 All Aboard (Except for People with Disabilities) Amtrak's 23 Years of ADA Compliance Failure, available at: [https://www.ndrn.org/images/Documents/Media/Publications/NDRN\\_Amtrak\\_Report.pdf](https://www.ndrn.org/images/Documents/Media/Publications/NDRN_Amtrak_Report.pdf)

2 DOJ June 9, 2015 Letter of Findings to Amtrak, available at: [https://www.ada.gov/amtrak/amtrak\\_letter\\_of\\_findings.pdf](https://www.ada.gov/amtrak/amtrak_letter_of_findings.pdf)

series D.C. Metro cars when they were refurbished. The New Mexico Rail Runner system added video display screens providing next station and other information to its ADA Bombardier Bilevel coaches which did not originally have variable message signs. See photos of both examples in attached Power Point.

Similarly because restrooms on intercity and commuter rail cars are modules, providing a new restroom that provides a 36 inch turning circle should be feasible and must be part of any remanufacturing of existing restroom-equipped cars.

The RVAAC Report's best practice of providing 32 inch wide leaf double sliding doors, if made a requirement, probably would not be able to be feasible for remanufactured rapid rail (subway) cars because it would likely require re-engineering the entire structure of the car.

NDRN does not have the expertise to provide a definitive answer, but in our view and from our experience from the RVAAC and other discussions with rail operators, we think 32 inch wide door leafs are only feasible in newly designed rapid rail (subway) cars.

*What would be the challenges and costs of applying the RVAAC's proposed accessibility requirements to remanufactured rail cars?*

As noted in the answer to Question 1, most of the RVAAC Proposed accessibility requirements should be able to be accomplished because they typically are being done now as rail vehicles are being refurbished. NDRN does not have the expertise to provide any cost information.

*Question 2: What is the typical lifespan of different types of rail vehicles?*

The typical lifespan of rail vehicles is often **many** years longer than the operators or manufacturers of intercity, commuter or rapid rail system operators originally planned. The New York City subway system still operates subway cars 48 to 55 years old with replacements not expected for another 3 to 5 years.

*How often is each type of existing rail vehicle replaced with a new or remanufactured vehicle?*

Almost all subway and commuter cars undergo a mid-life refurbishment which may or may not be a "remanufacturing" under the ADA statutory language.

While the following examples of rail vehicles have been refurbished, at least once, some still have not been replaced nor have replacement contracts. It is likely that many, if not most, of the Amfleet I cars will be still be operating in 2025, 50 years after they were built.

- Metra is still using some cars that were originally built in the 1960s and 1970s.

- Amtrak's Amfleet I cars entered service in 1975.
- Amtrak's Superliner I cars entered service in 1979.
- Amtrak's Amfleet IIs entered service in 1982.
- Amtrak's Horizon coaches entered service 1988.
- New York City Subway operates R32 cars built in 1964-1965 that will remain in service for several more years.
- New York City Subway system and the entire Staten Island Railway operate R44 cars built in 1971-1973 that will remain in service for several more years.
- The BART system still operates cars from its original order of cars built between 1968-1975 although new cars are being delivered.
- MBTA still has in service some Orange Line subway cars that were built in 1969-1970 though they will be replaced in the next year or two.

Therefore the new Access Board standards need to reflect the reality that many rail vehicles, with a mid-life refurbishing or rebuilding often operate for well over 40 and sometimes more than 50 years.

*Question 3: We are not aware of any small governmental jurisdictions that currently operate rail transportation systems covered by the ADA. With respect to small businesses, are there any specific issues or concerns that the Access Board should consider when developing any proposed regulatory updates to its existing accessibility guidelines for rail vehicles?*

NDRN does not have any expertise to answer this question other than to note that one small city operates a unique fixed guideway transportation system, the Johnstown, PA Funicular. But since many of the RVAAC Recommendations are for intercity, commuter, light and rapid rail cars and they would not apply to a funicular.

#### *B. Communication Access*

*Question 4: What solutions or technologies are commercially available that, if implemented, would be capable of providing access to public communications onboard rail vehicles?*

NDRN is not familiar with specific commercially available systems but notes that both variable message signs and real time route map tracking are already included in almost all new rapid rail vehicle procurements such as the MBTA Orange Line cars, new BART cars, D.C. Metro 7000 series cars and New York City's R143 subway cars as well as the new R211 car designs. Variable message signs, but not real time route maps, are routinely provided in new commuter rail cars such as the NJ Transit & MARC Bombardier multilevel cars. See pictures in addendum.

*Question 5: What solutions or technologies are commercially available that, if implemented on rail vehicles, would provide accessible emergency information to passengers in real-time?*

Timely and accurate emergency information is critical to all passengers and deaf and hard of hearing passengers should have equal access to any audio emergency announcements made by train crews. NDRN is not aware of any speech-to-text technology that works in the noisy environment of subways and trains that can provide accurate text emergency messages from spoken language.

NDRN recommends that the Access Board Guidelines require that variable message electronic sign systems provide emergency messages with multiple pre-recorded text messages and include the capability for train crew to type in fill-in the blank messages. The systems should also permit ad hoc messages for unanticipated emergency events as well as have the capability to accept speech to text messages if the technology advances to permit accurate speech to text emergency messages.

*Question 6: What are the design and cost impacts of the RVAAC's proposed requirement for variable messaging systems on rail cars?*

NDRN believes the design and cost impacts of the proposed requirement for variable messaging systems on rail cars will be negligible because they have been included in the procurement of new rail vehicles even in the absence of a regulatory requirement because variable messaging systems and real time route map tracking are useful to all passengers.

The MBTA Orange Line cars now entering service, the Miami Metro cars that entered service within the last two years, the D.C. Metro 7000 series cars all include variable message signs, video displays and moving map displays.

*Question 7: What are the design and cost impacts of the RVAAC's proposed requirement for hearing induction loops on rail cars?*

While NDRN cannot provide any information on the cost impacts, NDRN staff recall during the RVAAC meetings that industry representatives kept insisting that hearing loops on railcars were an unknown and they did not know if it was feasible.

NDRN has learned that the new cars for the BART system include hearing loops to provide access in the middle of their new cars.<sup>3</sup> NDRN suggests that the Access Board consult with BART about the costs.

NDRN also suggests that when the Access Board publishes the NPRM, it

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<sup>3</sup> BART's webpage describing the new cars, available at: <https://www.bart.gov/about/projects/cars>

specifically seek comments from BART riders who use hearing aids about their experience with the hearing loops on the BART cars since their experiences on the only system that currently has hearing loops could be valuable information for the Final Rule.

### *C. Boarding and Alighting*

*Question 8: Please identify research studies or data that address the impact of car-borne ramps, bridge plates, or lifts on rail vehicle operation, maintenance, or rider safety.*

NDRN is not aware of any research studies or data but fully supports full-length level boarding wherever possible supported by bridge plates or car-borne ramps if necessary.

*Question 9: What would be the cost implications if ramps, bridge plates, and lifts were required to be mounted on rail vehicles instead of being based at stations?*

NDRN does not have expertise answer this question but supports the mounting of ramps, bridge plate and lifts on rail vehicles rather than station-based lifts to maximize access, speed boarding and alighting and to end the non-inclusive spectacle of passengers boarding rail vehicles on 20<sup>th</sup> Century technology platform-based lifts.

### *2. Lift Design Load*

*Question 10: What would be the design and cost impacts if the design load requirement for rail vehicle-based lifts was increased to 800 pounds minimum?*

NDRN does not have expertise answer this question but supports an increased weight design load to maximize access to rail vehicles.

*Are there any types of rail vehicles requiring a lift to board for which an 800-pound minimum design load would not be feasible?*

NDRN does not have expertise answer this question but supports an increased weight design load to as many types of rail vehicles as possible to maximize access to rail vehicles.

*Question 11: What is the current design load of newly manufactured lifts used for rail vehicles?*

NDRN has been told that the design load of car-borne lifts produced by some manufacturers is 800 pounds but NDRN does not have specifics.

### *3. Platform Lift Service Size*

*Question 12: What would be the design impacts on rail vehicles if the required size of platforms on rail vehicle-based lifts was increased to a clear width of 32 inches minimum and clear length of 54 inches minimum?*

NDRN does not have expertise answer this question.

### *4. Bi-Parting Side Doors*

*Question 13: How prevalent is the situation where a single leaf of a bi-parting side door on a rail vehicle fails to open, thereby restricting the clear width to less than 32-inches?*

NDRN conducted an informal survey of the state P&As that have cities with heavy rail (subway) systems. NDRN got responses from riders of BART, the Chicago CTA “El,” Philadelphia SEPTA Broad Street & Market-Frankfort lines, PATCO, the New York City Subway, Staten Island Railway, LIRR and the Los Angeles Purple and Red lines. Most riders said that door leaf opening failures are not frequent but do happen. The responses indicate the failures are somewhat more common with older cars on some systems and sometimes seem to be more or less common during different stretches of time, possibly to maintenance backlogs.

The small sample size of two regular riders of the LA subway system have said they have never seen a door leaf fail to open. Similarly the sample size of one PATCO rider indicated never having seen a door leaf fail to open in over 10 years of riding PATCO. Riders of the New York City subway and the Philadelphia subways indicated it was more frequent than the other systems surveyed.

*Question 14: What would be the design implications of a requirement that one leaf of bi-parting doors on rail vehicles provide a clear width of 32 inches minimum?*

NDRN recalls strong opposition to the requirement for 32 inch door leafs from NY MTA as being structurally challenging and a potential maintenance challenge. However, NDRN notes that the New York City Subway has decided that wider door opening spaces were better for the boarding and alighting of all passengers. The New York City Subway has specified 58 inch door openings (which provides a 29 inch door leaf) for their R211 cars compared to its previous standard of 50 inch door opening spaces in their current rolling stock. Toronto Metro system has cars with wider door openings though NDRN does not believe that they are 32 inch leafs.

MBTA has incorporated 32 inch doors leafs on their Orange Line cars.

NDRN believes the only downside from a disability perspective is that 32 inch wide leafs and thus 64 inch door openings leave less wall space in a car for seating but the existing ADA requirement for designated seating for passengers with disabilities largely ameliorates that concern.

### *5. Between-Car Barriers*

*Question 15: What data or other evidence supports a need for between-car barriers on rail vehicles used for intercity or high-speed rail service, if any?*

While the D.C. Metro system's 7000 cars are not intercity or high speed trains, they share the characteristics of high level platforms and level boarding. The D.C. Metro system's 7000 service cars were equipped with a rubber flap between-car-barrier that included a gap. A blind passenger fell between the cars and the D.C. Metro system ended up retrofitting the cars with traditional chain between cars barrier with no gap.<sup>4</sup>

In response to an NDRN FOIA request for the number of what Amtrak classifies as "platform gap accidents" from 2019 to present at Washington, D.C. Union Station, Philadelphia 30<sup>th</sup> Street Station and New York Penn Station, Amtrak reported 296 incidents. Most of the incidents involve the gap between the car and the platform and not the space between the cars but a few incidents seem to describe falls between two cars because Amtrak cars do not have between-car-barriers. None of the incidents provided in response to the FOIA request resulted in a fatality. But because of these incidents and the modest increase in stations that provide level boarding of Amtrak trains throughout the system and the exclusive use of level boarding on high speed trains, NDRN believes that between-car-barriers are essential.

*Question 16: If requirements for between-car barriers were extended to rail vehicles used for intercity or high-speed rail service, should there be a specified minimum between-car gap that would trigger application of such a requirement?*

Yes.

*If so, what size gap should be used to trigger any such requirement?*

NDRN believes that a gap larger than 6 inches should trigger the requirement for between-car-barriers based on the passenger falling between cars incident

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<sup>4</sup> WAMU News article:

[https://wamu.org/story/16/10/05/these\\_barriers\\_between\\_7000\\_series\\_metro\\_cars\\_pose\\_safety\\_risk\\_say\\_blind\\_riders/](https://wamu.org/story/16/10/05/these_barriers_between_7000_series_metro_cars_pose_safety_risk_say_blind_riders/)

WTOP News article: <https://wtop.com/tracking-metro-24-7/2018/05/fridays-incident-suggests-metro-cars-still-pose-risk-visually-impaired/>

involving the D.C. Metro 7000 series cars.

*Question 17: What would be the cost of requiring between-car barriers on rail vehicles used for intercity or high-speed rail service?*

NDRN believes the costs will be minimal, since between-car-barriers are already required and provided in new commuter and heavy rail cars such as the Bombardier multilevel commuter rail cars used by NJ Transit and MARC and the M7, M8 and M9 LIRR, New Haven and Metro North cars and newer cars on other level boarding systems. Both NJ Transit and MARC operate in on a system with a combination of high level and low level platform systems similar to Amtrak with no known difficulties.

#### *D. On Board Accessibility*

*Question 18: What would be the effect on the design and operation of rail cars if the required size of mobility aid seating locations were increased from 48 inches by 30 inches to a requirement of (1) 54 inches by 32 inches where the space is confined on no more than two sides and (2) 59 inches by 32 inches where the space is confined on three sides?*

It is possible that an increase in mobility aid seating location and size may impact the number of available seats. But not increasing the spaces could lead to some wheelchair using passengers being unable to locate their wheelchairs in the designated spaces creating more difficulties for all passengers. Careful car design including thinner seat backs may ameliorate the issue.

## *2. Vertical Access*

*Question 19: Should vertical access be required on new intercity bi-level lounge cars?*

YES, vertical access in new intercity bi-level lounge cars is necessary to provide an equal opportunity to enjoy the entire train travel experience.

*If so, should such a requirement apply only to certain types of intercity bi-level cars (such as those that provide a viewing dome on the upper level)?*

NDRN believes that newly constructed bi-level intercity cars, including dining cars, if dining cars are still ordered in the future and a percentage of coach cars should provide vertical access. Accessible sleeping cars need not have vertical access because NDRN believes providing an upper level sleeping compartment is not necessary to provide equal access for the activity of sleeping as opposed to viewing scenery from a lounge, coach, or dining car.

*Question 20: Is it technically feasible for platform lifts to serve the upper levels of bi-level rail cars?*

NDRN is unclear what the Access Board is asking in this question. Is the Board asking about station based platform lifts providing access at station stops for transferring passenger who cannot use stairs to transfer from the lower level of a bi-level car to the upper level? If that is the question, NDRN has been told by a portable platform lift manufacturer that they have a portable platform lift that can elevate a passenger 6 feet or 72 inches. Depending on platform height, use of a platform lift to serve upper levels may or may not be technically feasible.

However, NDRN believes on-board vertical access should be provided to allow an equal opportunity to use the features of a bi-level car throughout a trip and in all weather conditions. An on-board lift will also avoid the spectacle of a wheelchair or scooter user or other passenger unable to climb stairs having to use a station-based platform lift.

*Question 21: What are the likely costs, including both one-time equipment installation costs and ongoing maintenance, if vertical access was required on intercity bi-level rail cars?*

NDRN does not have expertise to answer this question.

### *3. Handrails and Stanchions for Onboard Circulation*

*Question 22: Are additional types of handholds, handrails, or stanchions needed on rapid, light rail, intercity or commuter rail vehicles beyond those currently required?*

NDRN believes that additional handholds, handrails and stanchions are useful for passengers with disabilities especially on rapid and light rail vehicles that make frequent stops and operate on tighter curves. On intercity and commuter rail cars, NDRN believes that handholds on seats by the aisles provide passengers with balance or mobility disabilities places to hold which often were not provided in the past on intercity and many commuter rail cars.

*If so, please describe.*

NDRN is submitting photographs of examples of handholds, handrails and stanchions on newer light and rapid rail vehicles as well as intercity and commuter rail cars. The primary requirement for handholds, handrails and stanchions should be to provide ample places for passengers with a range of heights to hold. Another key design goal should be to provide clear toe space for wheelchair users and unobstructed space for service animals. Clear floor space also allows some additional space for packages and luggage for all passengers.

*Question 23: Are handholds, handrails, or stanchions for rail vehicles currently designed with visual contrast?*

The new MBTA Orange line cars and the NYCTA new R211 car mockup have yellow handholds and stanchions. The Toronto Rocket subway cars have stanchions in red. See attached PowerPoint for photos of the R211 mockup.

*Question 24: Is there a need for visual contrast on handholds, handrails, or stanchions?*

NDRN believes that visual contrast could make it easier for passengers to quickly locate handholds and handrails.

*If so, please explain.*

NDRN believes that visual contrast on handholds, handrails, or stanchions would be useful for all passengers but particularly passengers with low vision.

#### *E. Dining Cars*

*Question 25: What would be the advantages and disadvantages of having convertible/readily removable seating in dining cars on rail vehicles to accommodate passengers using wheelchairs.*

NDRN strongly believes that providing convertible/readily removable seating in both intercity dining cars and intercity coach cars will help accommodate groups of wheelchair users and avoid the situation Access Living and Amtrak experienced in January 2020.<sup>5</sup>

A simple and easy to use design, possibly similar to the seats on tracks use in making over-the-road accessible for wheelchair users, the should be able to avoid the issue of the convertible spaces making a spectacle of the arrival of a passenger using a wheelchair. Other designs should also be considered.

Thank you for the opportunity to comment on the ANPRM on Accessibility Guidelines for Rail Vehicles.

If you have any questions, please contact Kenneth Shiotani, Senior Staff Attorney at the National Disability Rights Network by email at: [Kenneth.Shiotani@ndrn.org](mailto:Kenneth.Shiotani@ndrn.org). Because of

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5 NPR news article about Amtrak charging a passenger with a disability \$25,000 for a ticket:  
<https://www.npr.org/2020/01/17/797355136/amtrak-asks-two-people-in-wheelchairs-to-pay-25-000-for-a-ride>

the ongoing COVID-19 pandemic, NDRN staff are not working regularly in the office and are mostly working remotely.

Sincerely,



Curtis Decker  
Executive Director  
National Disability Rights Network

Attached: Power Point with rail car features photos