



Oversight Procedure 35 – ADA Review (Level Boarding and Between-Car Barriers for Commuter Rail)

1.0 PURPOSE

The purpose of this Oversight Procedure is to describe the review, analysis, recommendation procedures and reporting requirements expected by the Federal Transit Administration (FTA) from the Project Management Oversight Contractor (PMOC) regarding recipients' compliance with the level-boarding and between-car barrier provisions of the regulations issued by the U.S. Department of Transportation implementing the transportation provisions of the Americans with Disabilities Act (ADA) of 1990 (49 CFR Parts 27, 37 & 38).

2.0 BACKGROUND

An operator of a commuter, intercity, or high-speed rail system must ensure, at stations that are approved for entry into Engineering or that begin construction or alteration of platforms on or after February 1, 2012, that the following performance standard is met:

Individuals with disabilities, including individuals who use wheelchairs, must have access to all accessible cars available to passengers without disabilities in each train using the station (49 CFR § 37.42(a)).

For new or altered stations serving commuter, intercity, or high-speed rail lines or systems, in which no track passing through the station and adjacent to platforms is shared with existing freight rail operations, this performance standard must be met by providing level-entry boarding to all accessible cars in each train that serves the station (49 CFR § 37.42(b)).

For new or altered stations serving commuter, intercity, or high-speed rail lines or systems, in which track passing through the station and adjacent to platforms is shared with existing freight rail operations, the railroad operator may comply with this performance standard by use of one or more of the following means (49 CFR § 37.42(c)):

- Level-entry boarding;
- Car-borne lifts;
- Bridge plates, ramps or other appropriate devices;
- Mini-high platforms, with multiple mini-high platforms or multiple train stops, as needed, to permit access to all accessible cars available at that station; or
- Station-based lifts.

Where vehicles operate in a high-platform, level-boarding mode, and where between-car bellows are not provided, devices or systems shall be provided to prevent, deter or warn individuals from inadvertently stepping off the platform between cars. Appropriate devices include, but are not limited to, pantograph gates, chains, motion detectors or other suitable devices (49 CFR § 38.109).

3.0 OBJECTIVES

The objective of this review is to ensure compliance with the level-boarding and between-car barrier provisions of the DOT regulations implementing the ADA during each phase of the project in advance of receipt of a construction grant agreement to revenue service operation.

4.0 REFERENCES

The following are the principal, but by no means the only, references to Federal legislation, regulation and guidance with which the PMOC should have a good understanding as related to the recipient's project work being reviewed under this OP:

4.1 Regulations

49 CFR Parts 27, 37, 38, & 39: U.S. Department of Transportation regulations implementing the transportation provisions of the ADA (<https://www.transit.dot.gov/regulations-and-guidance/civilrights-ada/americans-disabilities-act>). Of particular importance to commuter rail projects is 49 CFR § 37.42, which governs service in an integrated setting for passengers at intercity, commuter, and high-speed rail station platforms.

4.2 Guidance

- FTA Circular 4710.1, “*Americans with Disabilities Act: Guidance*” (www.transit.dot.gov/regulations-and-guidance/fta-circulars/americans-disabilities-act-guidance-pdf)
- U.S. Department of Transportation Commuter and Regional Rail Guidance (<https://www.fra.dot.gov/Page/P0175>):

4.3 Reference Documents

- Association of American Railroads (AAR) Manual of Standards and Recommended Practices – Plate E – Clearance diagram that defines the clearance envelopes for limited interchange service (www.aar.org);
- AAR Manual of Standards and Recommended Practices – Plate L – Locomotive Diagram for Interchange Service. (Diagram defines the clearance envelopes for freight locomotives intended for interchange service) (www.aar.org);
- U.S. Department of Defense Strategic Rail Corridor Network (STRACNET) clearance envelope diagram (<https://www.sddc.army.mil/sites/TEA/Functions/Deployability/TransportabilityEngineering/MODES/RailTransport/Pages/CONUS.aspx>).

5.0 RECIPIENT SUBMITTALS

The PMOC shall obtain from the recipient the following information:

- Verification that the entity will provide access to persons with disabilities, including wheelchair users, to every accessible car in the train.
- If level boarding is to be provided, and the horizontal gap is more than 3” and the vertical gap exceeds +/- 5/8” measured when the vehicle is at rest, verification that the gaps will be mitigated by a ramp, bridge plate, or other suitable device consistent with 49 CFR § 38.95(c) and § 38.125(c).
- If level boarding is not provided, a copy of the written approval from FTA and/or FRA of the railroad’s proposed means of providing access to persons with disabilities, including wheelchair users, to every accessible car in the train in an integrated, safe, timely, and reliable manner.
- If level boarding is to be provided, and the railcars are not equipped with between-car bellows, verification that the railcars or the platform will be equipped with between-car barriers to prevent, deter, or warn individuals with vision disabilities from mistaking the gap between railcars for an open door.
- Verification that any obstructions on a platform, including mini-high platforms, are set back at least six feet from the platform edge. If the six-foot clearance is not feasible, barriers must be used to prevent the flow of pedestrian platforms through these narrower areas.

6.0 SCOPE OF WORK

6.1 During Project Development

The PMOC is to verify and assess the design for station platforms and between-car barriers through review of the station site and building designs and the vehicle design as directed in Section 6.4. Acceptance of the proposed level-boarding approach is required prior to FTA’s approval of the project into Engineering. The PMOC will notify FTA immediately if the level-boarding design does not seem to comply with the DOT regulations.

The PMOC is to verify that the necessary approvals have been granted, in writing, from FTA and/or FRA for any boarding method other than level boarding prior to entry into Engineering.

The PMOC is to verify that the platform design meets Departmental guidance issued June 16, 2015 for minimum platform width (<https://www.fra.dot.gov/eLib/Details/L17053>).

6.2 During Engineering, Full Funding/Small Starts Grant Agreement, Construction, and Revenue Operations

The PMOC will review the project plans and specifications that pertain to station platforms and between-car barriers, and conduct site visits during Engineering, construction, and revenue operations to verify compliance in the construction and operations as directed in Section 6.4.

6.3 General Information

Where subsequent events have resulted in a need to alter station plans in a manner that is likely to affect the ability of the project to achieve level boarding and/or meet the requirement for between-car barriers, the PMOC will notify FTA immediately upon learning of such information. Subsequent review by FTA program, legal, and civil rights staff may be necessary, and additional input from FRA and OST may be required.

6.4 Scope of Review

6.4.1 Level-Entry Boarding

For projects that propose to use a means other than level-entry boarding, the PMOC must ensure that the recipient meets the following requirements before constructing or altering a platform at a station in which track passing through the station and adjacent to platforms is shared with existing freight rail operations (49 CFR § 37.42(d)):

- An operator of a commuter, intercity, or high-speed rail system must ensure, at stations that are approved for entry into Engineering or that begin construction or alteration of platforms on or after February 1, 2012, that the following performance standard is met:
 - Individuals with disabilities, including individuals who use wheelchairs, must have access to all accessible cars available to passengers without disabilities in each train using the station (49 CFR § 37.42(a)).
- If the recipient not using level-entry boarding chooses a means of meeting the performance standard other than using car-borne lifts, it must perform a comparison of the costs (capital, operating, and life-cycle costs) of car-borne lifts and the means chosen by the recipient, as well as a comparison of the relative ability of each of these alternatives to provide service to individuals with disabilities in an integrated, safe, timely, and reliable manner. The recipient

must submit a copy of this analysis to FTA at the time it submits the plan required by the next bulleted paragraph.

- The recipient must submit a plan to FTA describing its proposed means to meet the performance standard of 49 CFR § 37.42(a) at that station. The plan must demonstrate how boarding equipment or platforms would be deployed, maintained, and operated; and how personnel would be trained and deployed to ensure that service to individuals with disabilities is provided in an integrated, safe, timely, and reliable manner.
- Before proceeding with constructing or modifying a station platform using a means other than level-entry boarding, the recipient must obtain approval from FTA.
- For stations serving commuter, intercity, or high-speed rail lines or systems, in which no track passing through the station and adjacent to platforms is shared with existing freight rail operations, the recipient must ensure that individuals with disabilities, including individuals who use wheelchairs, must have access to all accessible cars available to passengers without disabilities in each train using the station by providing level-entry boarding to all accessible cars in each train that serves the station. (49 CFR § 37.42(b))
- For stations serving commuter, intercity, or high-speed rail lines or systems, in which track passing through the station and adjacent to platforms is shared with existing freight rail operations, the recipient may ensure that individuals with disabilities, including individuals who use wheelchairs, must have access to all accessible cars available to passengers without disabilities in each train using the station by either providing level-entry boarding to all accessible cars in each train that serves the station or by some other means. (49 CFR § 37.42(c))
- For purposes of this OP, level-entry boarding means a boarding platform design in which the horizontal gap between a car at rest and the platform is no more than 10 inches on tangent track and 13 inches on curves and the vertical height of the car floor is no more than 5.5 inches above the boarding platform. Where the horizontal gap is more than 3 inches and/or the vertical gap is more than 5/8 inch, measured when the vehicle is at rest, the horizontal and vertical gaps between the car floor and the boarding platform must be mitigated by a bridge plate, ramp, or other appropriate device consistent with 49 CFR § 38.95(c) and § 38.125(c). (49 CFR § 37.42(f))

6.4.2 Platform Obstructions and Platform Width

In any situation using a combination of high and low platforms, a commuter or intercity rail operator may not employ a solution that has the effect of channeling passengers into a narrow space between the face of the higher-level platform and the edge of the lower platform. (49 CFR § 37.42(e))

- Any obstructions on a platform (mini-high platforms, stairwells, elevator shafts, seats etc.) must be set at least six feet back from the edge of a platform. (49 CFR § 37.42(e)(1))
- If the six-foot clearance is not feasible (e.g., where such a clearance would create an insurmountable gap on a mini-high platform or where the physical structure of an existing station does not allow such clearance), barriers must be used to prevent the flow of pedestrian traffic through these narrower areas. (49 CFR § 37.42(e)(2))

Platforms must meet Departmental minimum platform width requirements for the type of platform to be constructed or altered (<https://www.fra.dot.gov/eLib/Details/L17053>).

6.4.3 Between-car barriers

Where vehicles operate in a high-platform, level-boarding mode, and where between-car bellows are not provided, the PMOC must ensure that the recipient provides devices or systems to prevent, deter or warn individuals from inadvertently stepping off the platform between cars. Appropriate devices include, but are not limited to, pantograph gates, chains, motion detectors or other suitable devices. (49 CFR § 38.109). Note that if “other suitable devices” are to be used, it may be necessary for the recipient to demonstrate their effectiveness in meeting the “prevent, deter, or warn” requirement.

7.0 REPORT, PRESENTATION, RECONCILIATION

The PMOC shall provide FTA with a written report of its findings, analysis, recommendations, professional opinions, and a description of the review activities undertaken. After FTA approval, the PMOC will share the report with the recipient.

The report formatting requirements of OP 01 apply. When necessary, the PMOC shall perform data analysis and develop data models that meet FTA requirements using Microsoft Office products such as Excel and Word and use FTA templates when provided. The PMOC may add other software as required, but documentation and report data shall be made available to FTA.

APPENDIX A

Acceptable Quality Level

| | DESIRED OUTCOME | PERFORMANCE REQUIREMENT | CHECK LIST | ACCEPTABLE QUALITY LEVEL | PERFORMANCE MEASURE | MONITORING METHOD |
|---|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 1 | PMOC shall review, analyze and recommend to FTA regarding commuter rail project compliance with Level Boarding Requirements of ADA. | R1a. The PMOC shall develop and document a process for review and analysis of Recipient's Level Boarding Provisions. | | Q1a. Process exists and has been followed. | M1a. Evidence of a documented process. | MM1a. Periodic review by FTA or its agent. |
| | | R1b. The PMOC shall use its process to analyze the level of compliance with ADA Level Boarding and assist in bringing non-compliant projects into compliance. | | Q1b. Review must be made and the PMOC provides internal verification that the process as documented was followed. | M1b. Documented assessment of project compliance with Level Boarding Provisions of ADA and assistance in curing non-compliance. | MM1b. Periodic review by FTA or its agent. |
| 2 | The PMOC shall assist Recipient through review of Level Boarding Package and other documents in satisfying ADA Level Boarding requirements. | R2a. The PMOC shall request and review all appropriate project submittals, including the Level Boarding Package, and analyze for compliance with ADA Level Boarding. | | Q2a. Professional opinion of Level Boarding Package and other supporting documentation. | M2a. Documented evidence of a thorough review by PMOC of the Level Boarding Proposal and Package and other pertinent documents, supported by professional opinion. | MM2a. Periodic review by FTA or its agent. |
| | | R2b. Project Development: The PMOC shall verify and assess the planning for level boarding as part of preferred alternative process and that level boarding design is reflected in submittals for entry into Project Development. | | Q2b. Professional opinion and review of level boarding planning and presence of level boarding in PE submittals. | M2b. Documented evidence of verification and assessment of planning for level boarding and reflection of level boarding in PE submittals, supported by professional opinion. | MM2b. Periodic review by FTA or its agent. |
| | | R2c. During Project Development: The PMOC shall verify and assess the design for level boarding through review of station and vehicle design, and shall notify FTA immediately if, in its opinion, the level boarding design does not comply with applicable DOT regulations. | | Q2c. Professional opinion and evaluation of station and vehicle designs for level boarding compliance. | M2c. Documented evidence during PE of verification and assessment of station and vehicle designs for level boarding, supported by professional opinion. | MM2c. Periodic review by FTA or its agent. |
| | | R2d. Full Funding/Small Starts Grant Agreement: The PMOC shall, from GA and through Revenue Operations, review project plans and specifications pertaining to level boarding and conduct site visits during construction and revenue operations to verify compliance with level boarding. | | Q2d. Professional opinion, review of documents and site visits, as required. | M2d. Documented evidence after entry into FD of review of plans and specifications and necessary site visits, supported by professional opinion. | MM2d. Periodic review by FTA or its agent. |
| 3 | The PMOC shall document its findings, professional opinions, and recommendations in a report to the FTA. | R3. The PMOC shall present its findings, conclusions, analysis and recommendations to FTA and, after FTA approval, reconcile those recommendations with the Recipient to the extent possible when so directed by FTA. | | Q3. Reports and presentations are professional, clear, concise, and well written. The findings and conclusions have been reconciled with other PMOC reports and have been reconciled with Recipient to the extent possible. | M3. PMOC's findings conclusions, recommendations, and presentation. | MM3. Periodic review by FTA or its agent. |