



Oversight Procedure 35 — Americans with Disabilities Act (ADA) Review

1.0 PURPOSE

The purpose of this Oversight Procedure (OP) 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 all relevant requirements of the regulations issued by the U.S. Department of Transportation (U.S. DOT) implementing the transportation provisions of the Americans with Disabilities Act (ADA) of 1990 (49 CFR Parts 27, 37, and 38) for major transit investment projects. This OP is directed at PMOCs and recipients of FTA funds (recipients) that are planning a major capital project involving fixed guideway: large facility expansions, such as creating or extending a bus rapid transit (BRT) line or light, rapid, or commuter rail line. Large capital projects also include facilities such as rail stations and bus transfer centers. Specifically, 49 CFR section 633.5 states:

Except as provided in Section 633.19, Major capital project means a project that:

Involves the construction, expansion, rehabilitation, or modernization of a fixed guideway that:

(i) Has a total project cost of \$300 million or more and receives Federal funds of \$100 million or more; and

(ii) Is not exclusively for the acquisition, maintenance, or rehabilitation of vehicles or other rolling stock; or

(2) The Administrator determines to be a major capital project because project management oversight under this part will benefit the Federal government or the recipient, and the project is not exclusively for the acquisition, maintenance, or rehabilitation of rolling stock or other vehicles. Typically, this means a project that:

(i) Involves new technology;

(ii) Is of a unique nature for the recipient; or

(iii) Involves a recipient whose past record indicates the appropriateness of extending project management oversight under this part.

The PMOC review should start with conceptual plans, along with subsequent architectural drawings and vehicle specifications and diagrams.

While this OP focuses on Capital Investment Grant (CIG) projects, which have specific requirements by law, it also applies to all capital projects. FTA will issue Implementation Plans (IPs) to clarify the specific reviews and expected deliverables based on the project types.

The remainder of this OP includes the following information and discussion:

Section 2: Background, overview of topics covered

Section 3: Objectives of this oversight procedure

Section 4: References

Section 5: Recipient submittals: more details on ADA requirements for facility and vehicles

Section 6: PMOC's scope of work

Section 7: Reporting requirements for PMOCs

2.0 BACKGROUND

The ADA is a comprehensive civil rights statute that prohibits discrimination based on disability.

The U.S. Department of Transportation is responsible for issuing regulations governing the transportation provisions of the ADA for both public and private entities.

FTA is charged with ensuring public transit providers comply with the U.S. DOT regulations implementing the transportation-related provisions of the ADA and Section 504 of the Rehabilitation Act of 1973, as amended. The regulations in 49 CFR Parts 27, 37, 38, and 39 set specific requirements that surface transportation providers must follow to ensure their services, vehicles, and facilities are accessible to and usable by individuals with disabilities.

The ADA applies to almost all providers of transportation service, whether private or public, regardless of whether an entity receives Federal financial assistance. The purpose of this OP is to provide guidance to PMOCs concerning requirements of the U.S. DOT ADA regulations that are relevant to major transit investment projects.

The following paragraphs of this section present the organization of the requirements and standards in this OP, along with citations for where one may find the detailed requirements and standards, primarily in 49 CFR Parts 37 and 38 or the 2006 ADA Standards for Transportation Facilities (DOT 2006 Standards), issued by the United States Access Board and adopted by U.S. DOT and U.S. Department of Justice. In addition, this OP refers to the FTA Circular 4710.1, "Americans with Disabilities Act: Guidance" (FTA ADA Circular). The FTA ADA Circular does not have the force of regulation or law but provides detailed discussion of the regulations and DOT 2006 standards.

For any project, please note that only certain requirements and standards will apply. For example, in a suburban bus transfer hub, requirements and standards related to fare gates and grade crossings will not be relevant, and in a downtown rail station, requirements and standards related to parking facilities or passenger loading zones may not apply.

2.1 Transit Facilities

When constructing a new facility or altering an existing facility, a recipient must make the facility accessible to individuals with disabilities. For new facilities, 49 CFR section 37.41(a) states:

A public entity shall construct any new facility to be used in providing designated public transportation services so that the facility is readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs. This requirement also applies to the construction of a new station for use in intercity or commuter rail transportation. For purposes of this section, a facility or station is "new" if its construction begins (i.e., issuance of notice to proceed) after January 25, 1992, or, in the case of intercity or commuter rail stations, after October 7, 1991.

For altered facilities, 49 CFR section 37.43(a)(1) states:

When a public entity alters an existing facility or a part of an existing facility used in providing designated public transportation services in a way that affects or could affect the usability of the facility or part of the facility, the entity shall make the alterations (or ensure that the alterations are made) in such a manner, to the maximum extent feasible, that the altered portions of the facility are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, upon the completion of such alterations.

Section 5 provides further details of the requirements that a recipient must follow. Please also see the “Optional Facilities Checklist for New Construction and Alterations” from the FTA ADA Circular.

See Figure 2.1 for potential elements for the accessible routes of the interior and exterior of a rail facility (reproduced from of the FTA ADA Circular, page 3A-5).

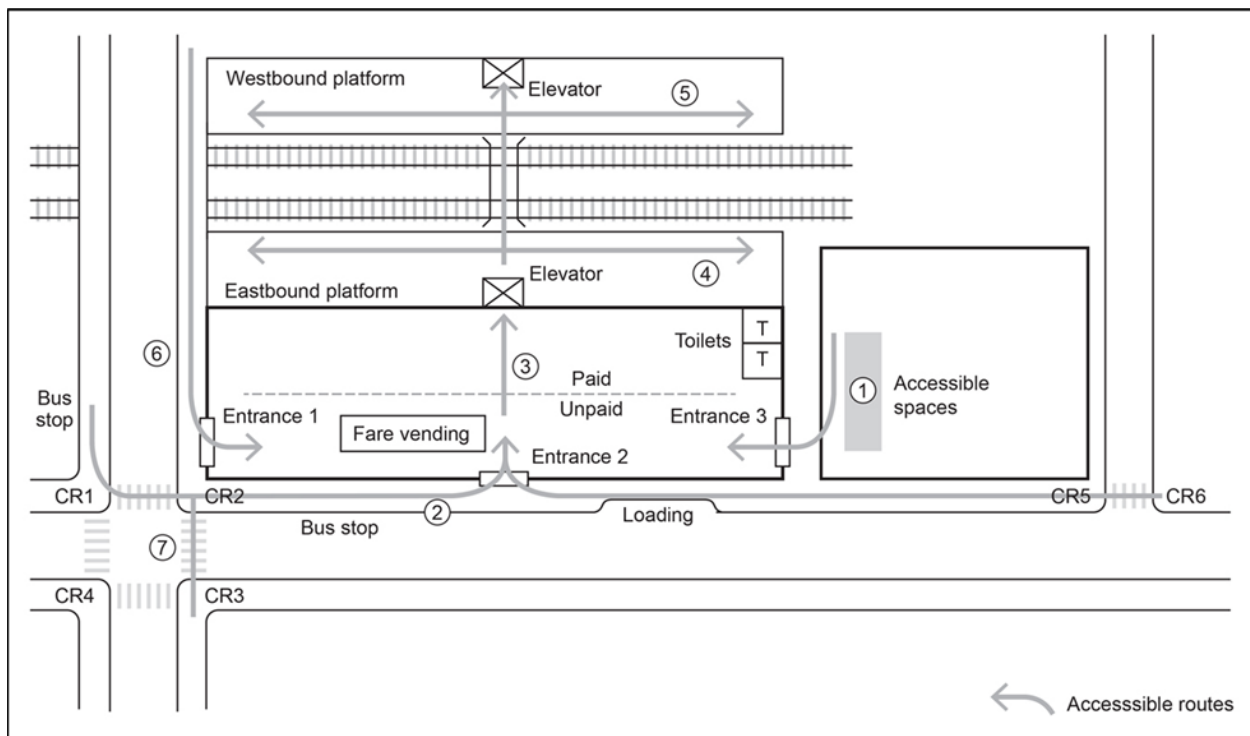


Figure 2.1: Sample Drawing of Accessible Routes to Below-Grade Rail Station (from FTA ADA Circular)

2.1.1 Common Facility Components

The following components may be part of rail or bus facilities, both inside and outside.

Accessible Route. Five sections of the DOT 2006 Standards set forth the requirements for an accessible route (which includes several other elements, discussed separately: curb ramp, doorway, ramp, stairs, elevator, escalator, platform lift).

Section 206 defines when an accessible route is required and the location of an accessible route. *Section 302* and *Section 403* cover requirements for walking surfaces. *Section 307* covers

minimum vertical and horizontal clearance. *Section 402* covers the components of an accessible route.

Curb Ramp. *Section 406* of the DOT 2006 Standards sets forth the requirements for curb ramps.

Doorway. *Section 404* of the DOT 2006 Standards sets forth the specifications for accessible doors, doorways, and manual gates.

Elevator. Three sections of the DOT 2006 standards set forth the requirements for elevators. *Section 206.6* provides scoping requirements for elevators. *Section 407* includes the detailed specifications for elevators. *Section 703* provides specifications for elevator signage and car controls.

Entrance. *Section 206* of the DOT 2006 Standards set forth the requirements for the availability of accessible entrances.

Entrances also encompass signage, which is discussed separately.

Escalator. *Section 810.9* of the DOT 2006 Standards set forth certain requirements for escalators. In addition, escalators must also comply with certain sections of the American Society of Mechanical Engineers (ASME) standard A17.1.

Fare Gate. *Section 404.2* of the DOT 2006 Standards sets forth the requirements for fare gates.

Grade Crossing. *Section 810.10* of the DOT 2006 Standards provide the allowable exceptions for an accessible route that crosses tracks.

Parking. Two sections of the DOT 2006 Standards set forth the requirements for parking facilities and individual parking spaces.

Section 208 specifies the minimum number of accessible parking spaces, based on the total number of spaces in a parking facility. *Section 502* sets forth the specifications for an accessible parking space.

Passenger Loading Zone. This includes drop-off and pickup locations for sedans (taxis and kiss and ride). Two sections of the DOT 2006 Standards set forth the requirements for passenger loading zones.

Section 209.2 specifies the minimum number of passenger loading zones, based on the total loading zone space. *Section 503* sets forth the specifications for an accessible passenger loading zone.

Platform Lift. Two sections of the DOT 2006 Standards set forth the requirements for platform lifts.

Section 206.7 specifies the conditions for when a platform lift may be a component of an accessible route. *Section 410* sets forth the specifications for an accessible platform lift.

Ramp. Two sections of the DOT 2006 Standards set forth the requirements for ramps.

Section 405 provides the specifications for ramps and associated components (e.g., handrails, edge protection). *Section 505* provides the specifications for handrails for ramps.

Signage. Two sections of the DOT 2006 standards set forth the requirements for accessible signage. Signs are usually not isolated elements within a facility but are a component of other facility elements.

Section 216 specifies when and where accessible signage must be provided. *Section 703* sets forth the specifications for accessible signs.

Stairs. Three sections of the DOT 2006 standards set forth the requirements for stairs.

Section 302 provides requirements for the surface of stairs. *Section 504* provides the specifications for stairs. *Section 505* provides the specifications for handrails for stairs.

Ticketing, Fare Vending. Six sections of the DOT 2006 Standards set forth the requirements for ticketing and automated fare vending.

Section 206 sets requirements for the location of ticketing and fare vending on an accessible route. *Section 220* provides scoping requirements for fare vending machines. *Section 305* sets forth the requirements for clear space adjacent to fare vending machines. *Section 308* sets forth the specifications for fare vending machine reach ranges. *Section 707* sets forth the specifications for fare vending machines. *Section 904* sets forth the specifications for manual ticket vending areas.

2.1.2 Rail Platforms

The following components and requirements apply to rail platforms.

Level Entry Boarding. In general, stations are required to have level boarding. This includes rapid rail (49 CFR section 38.53), light rail (49 CFR section 38.73(d)(1) and 49 CFR section 38.85), and commuter rail service (49 CFR section 37.42, 49 CFR section 38.93(d) and 49 CFR section 38.109). There are exceptions for light rail and commuter rail.

Light rail vehicles designed for, and operated on, pedestrian malls, city streets, or other areas where level boarding is not practicable must provide wayside or car-borne lifts, mini-high platforms, or other means of access and must comply with 49 CFR section 38.73(d)(1) and 49 CFR section 38.85.

Commuter, intercity, and high-speed rail platforms are covered by 49 CFR section 37.42, which governs where and when alternatives to level boarding can be used.

Narrow Paths and Obstructions. Two specific issues for the accessible routes on commuter, intercity, and high-speed rail platforms occur when there is a combination of high and low platforms (49 CFR section 37.42(e)); and when there are obstructions on a platform, e.g. (mini-high platforms, stairwells, elevator shafts, seats etc. (49 CFR section 37.42(e)(2)).

Between-Car Barriers. For rapid rail service, 49 CFR section 38.63 covers the requirements for between-car barriers when platform screens are not provided to prevent, deter, or warn individuals from inadvertently stepping off the platform between cars. For light rail service, this requirement is covered in 49 CFR section 38.85. For commuter rail service, this requirement is covered in 49 CFR section 38.109.

Detectable Warnings. Two sections of the DOT 2006 Standards set forth the requirements for detectable warnings.

Section 705 sets forth the specifications for detectable warnings. *Section 810.5.2* sets forth when rail platforms must have detectable warnings.

Area of Refuge. *Sections 207.1* and *207.2* of the DOT 2006 Standards set forth the requirements for accessible areas of refuge. In turn, the specific requirements are presented in the 2003 International Building Code (IBC 2003), section 1007.

2.1.3 Bus Stops and Facilities

The following components and requirements apply to facilities that include bus loading and alighting areas.

Boarding and Alighting Area. Three sections of the DOT 2006 Standards set forth the requirements for a bus boarding and alighting area (bus stop).

Section 209.2.2 defines the areas that are subject to the requirements for an accessible bus stop. *Section 206.2.1* requires an accessible route between the bus stop and the transit facility (if there is a facility). *Section 810.2* sets forth these requirements.

Shelter. *Section 810.3* of the DOT 2006 Standards sets forth the requirements for a bus stop shelter, with references to *Section 305*.

2.2 Vehicles

U.S. DOT's ADA regulations set forth a path for all public transportation vehicles to be accessible. Since 1990, recipients have been required to acquire vehicles that are "readily accessible to and usable by individuals with disabilities," as defined by U.S. DOT. In particular, 49 CFR Part 38 provides the detailed specifications and timelines (and occasional exceptions) for the acquisition of accessible vehicles.

Section 5 provides further details of the requirements that a recipient must follow. As related to major transit investment projects, bus rapid transit and rail vehicles are more likely to be part of such projects. Transit buses and vans are less likely to be included in a major transit investment project. This oversight procedure includes the ADA requirements for all types of vehicles that recipients procure.

The following paragraphs identify the requirements for each type of vehicle.

2.2.1 Buses, Vans, and Systems

Subpart B of 49 CFR (sections 38.21–38.39) sets forth the accessibility specifications for buses, vans, and related systems.

Please also see the FTA ADA Circular, Attachment 4-1, for an "Optional Vehicle Acquisition Checklist for Buses and Vans."

2.2.2 Bus Rapid Transit and Systems

See "Buses, Vans and Systems."

2.2.3 Rapid Rail Vehicles and Systems

Subpart C of 49 CFR (sections 38.51-38.63) sets forth the accessibility specifications for rapid rail cars and related systems. This includes requirements for the vertical and horizontal gaps between platform and car (38.73(d)) and for between-car barriers (38.63).

2.2.4 Light Rail Vehicles and Systems

Subpart D of 49 CFR (sections 38.71-38.87) sets forth the accessibility specifications for light rail cars and related systems. This includes requirements for the vertical and horizontal gaps between platform and car (38.53(d)) and for between-car barriers (38.85) where level boarding is provided, as well as requirements for lifts and ramps where boarding occurs from sidewalk or street level. Streetcars are a form of light rail.

2.2.5 Commuter Rail Cars and Systems

Subpart E of 49 CFR section 38.91-38.109 sets forth the accessibility specifications for commuter cars and related systems. This includes requirements for the vertical and horizontal gaps between platform and car (38.93(d)) and for between-car barriers (38.109).

2.2.6 Other Vehicles and Systems

Subpart H of 49 CFR Part 38 covers the accessibility requirements for certain other vehicle types and their related systems.

Section 38.173 covers the requirements for automated guideway transit (AGT) vehicles and related systems. This includes platform gaps and requirements for when open platforms are not protected by platform screens (38.173(c)).

Section 38.175 covers the requirements for high-speed rail cars, monorails, and related systems. This includes platform gaps and requirements when open platforms are not protected by platform screens (38.173(c)). Where such systems are operated on dedicated rail (i.e., not used by freight trains) or guideway, they must be designed for high-platform, level boarding and comply with specific provisions found in the standards for intercity rail cars and systems. Maximum horizontal and vertical gaps are specified that must be met at rest under all normal passenger load conditions.

Regulations in 49 CFR Part 39 address accessibility requirements for passenger vessels. These regulations cover nondiscrimination and access to services, information for passengers, accessibility of landside facilities, assistance to passengers with disabilities, and vessel-related complaint procedures.

The U.S. Access Board, which has the statutory responsibility to develop and issue accessibility guidelines for the construction and alteration of passenger vessels covered by the ADA, is developing these guidelines. As of the effective date of this operating procedure, the Access Board had not yet issued these guidelines.

Section 38.171(c) accounts for vehicles and systems not otherwise covered in 49 CFR Part 38. Accessibility standards must be addressed jointly by U.S. DOT and the Access Board on a case-by-case basis.

3.0 OBJECTIVE

The objective of this review is to ensure compliance with all relevant requirements of the U.S. DOT regulations implementing the ADA and the DOT 2006 Standards during each phase of the project.

4.0 REFERENCES

The PMOC shall become familiar with the following references to Federal legislation, regulation, and guidance before reviewing the project sponsor's work. These are the principal references, but this list is not exhaustive:

4.1 Regulations

- [49 CFR Part 27](#), Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance
- [49 CFR Part 37](#), Transportation Services for Individuals with Disabilities (ADA)
- [49 CFR Part 38](#), Americans with Disabilities Act (ADA) Accessibility Specifications for Transportation Vehicles
- [49 CFR Part 39](#), Transportation for Individuals with Disabilities: Passenger Vessels
- [49 CFR Part 633](#), Project Management Oversight

4.2 Circulars

- [C 4710.1](#), Americans with Disabilities Act: Guidance

4.3 Guidance

- U.S. DOT [Americans with Disabilities Act \(ADA\) Standards for Transportation Facilities](#) (2006)
- U.S. Department of Transportation, General Counsel:
 - [What Is the Minimum Width for Non-Level Boarding?](#) (2015)
 - [What Are the Obligations of a Public Entity that Owns and Controls Track?](#) (2012)
 - [When Does Section 37.42 Begin to Apply?](#) (2011)
 - [What Constitutes an Alteration to a Platform?](#) (2011)
 - [What Happens if Private Entity Objects to Level Boarding Platform?](#) (2011)
 - [Other Circumstances an Approach Other than Level Boarding Is Allowable?](#) (2011)
 - [What Does Rule Mean by Existing Freight Operations?](#) (2012)
 - [Performance Standard on a Station-by-Station Basis?](#) (2011)
 - [Must Rail Platforms Be at Least 8 Inches above Top of Rail \(ATR\)?](#) (2011)
 - [Which Cars Does a Railroad Operator Have to Make Available to Passengers with Disabilities?](#) (2012)
- Access Board, [Guidance on Use of the International Symbol of Accessibility Under the Americans with Disabilities Act and the Architectural Barriers Act](#) (2017)

4.4 Reference Documents

- International Code Council, [International Building Code](#) (2003)
- Federal Railroad Administration [Americans with Disabilities Act of 1990 \(ADA\) Intercity and High-Speed Rail Platform Construction Guidance Lessons Learned](#)
- [U.S. Access Board Guide to the ADA Accessibility Standards](#)
- U.S. Department of Justice [ADA Compliance Brief: Restriping Parking Spaces](#) (2020)

5.0 RECIPIENT SUBMITTALS

This section of the OP identifies the potential components of a project for which a PMOC must obtain information from the recipient to verify compliance with ADA regulations and standards.

The PMOC will request documents from the recipient to perform a desk review at the PMOC office, or the PMOC will perform a site review of documents as necessary to support the work scope described in **Section 6.0, Scope of Work**. The PMOC will make these requests directly with the recipient and will arrange appropriate site visits with the recipient and third parties.

These elements are presented in the following groups:

- Common facility components;
- Rail facility platform;
- Bus facility; and
- Vehicles.

Not all projects will include all components. For facilities, verification of compliance may come in the form of review of one or more of the following documents:

- Drawings, diagrams, or photographs of components from the facility designer that show dimensions, shapes, or images that demonstrate compliance with the relevant specifications (for example, a ramp's running and cross slopes are not greater than the maximum allowable slopes); or
- Discussion of performance for components from the facility designer with performance specifications (for example, the surface of an accessible route is "stable, firm, and slip resistant").

For vehicles, verification of compliance may come in the form of one or more of the following:

- Manufacturer diagrams or photographs of components that show dimensions, shapes, or images that demonstrate compliance with the relevant specifications (for example, the length and width of a wheelchair lift are at least the minimum required dimensions); or
- Discussion of performance for components with performance specifications from the manufacturer (for example, the capacity of a wheelchair lift is at least the minimum required weight).

This OP is intended to assist the PMOC and recipient in recognizing the range of elements that include requirements related to the ADA. The OP provides citations to the regulations and DOT 2006 standards, but does not, for the most part, provide the detailed technical specifications.

5.1 Common Facility Components

5.1.1 Accessible Route

Five sections of the DOT 2006 Standards set forth the requirements for an accessible route (which includes several other elements, discussed separately: curb ramp, doorway, ramp, stairs, elevator, escalator, platform lift).

Section 206 defines when an accessible route is required and the location of an accessible route. *Section 302* and *Section 403* cover requirements for walking surfaces. *Section 307* covers

minimum vertical and horizontal clearance. *Section 402* covers the components of an accessible route.

206 Accessible Routes

The PMOC must verify that the recipient has designed all accessible routes such that:

Each accessible route “must be in the same area” as general circulation path. If general circulation path is interior, accessible route shall be interior. Transportation facility elements “shall be placed to minimize the distance which wheelchair users and other persons who cannot negotiate steps may have to travel compared to the general public” (DOT 2006 Standards §206.3).

307 Protruding Objects

The PMOC must also verify that the recipient has designed all accessible routes to meet all specifications for protruding objects.

302 Floor or Ground Surfaces

The PMOC must also verify that recipient has designed all accessible routes to meet all specifications for the floor or ground surfaces:

- Stable, firm, and slip resistant; and
- Minimal openings.

403 Walking Surfaces

The PMOC must also verify that the recipient has designed all walking surfaces on accessible routes that comply with DOT 2006 Standards for the following characteristics:

- Maximum running and cross slopes;
- Maximum changes in level;
- Minimum clear width along straight paths and turns; and
- Compliant handrails, if required or provided.

402 Accessible Routes

The PMOC must also verify that the recipient has designed all components of accessible routes to meet specifications (discussed below):

- Doorways;
- Ramps;
- Curb ramps;
- Elevators; and
- Platform lifts.

5.1.2 Signage

Two sections of the DOT 2006 standards set forth the requirements for accessible signage. Signs are usually not isolated elements within a facility but are a component of other facility elements.

Section 216 specifies when and where accessible signage is required. *Section 703* sets forth the specifications for accessible signs.

216 Signs (Where Required)

Where signs are required, the PMOC must verify that the recipient has provided signs that comply with specifications in *Section 703* of the DOT 2006 standards.

- Exit doors;
- Areas of refuge;
- Signs that provide direction to or information about interior spaces and facilities of the site;
- Accessible parking spaces; and
- If not all entrances are accessible, signs that identify accessible entrances and signs at non-accessible entrances directing to accessible entrances.

703 Signs (Specifications)

Where signs are provided, the PMOC must also verify that the recipient has designed signs that comply with these specifications:

- Raised characters;
- Braille characters;
- Height and location of sign;
- Visual characters;
- Pictograms; and
- Symbols of accessibility.

An important issue for the PMOC to verify is use of the proper International Symbol of Accessibility (ISA). According to a 2017 guidance from the Access Board, “a symbol other than the ISA will not comply with the ADA standards unless it satisfies the ‘equivalent facilitation’ provision (section 103).” Furthermore, the recipient would have to follow the process for approval for equivalent facilitation set forth in 49 CFR section 37.9(d).

5.1.3 Parking

Two sections of the DOT 2006 Standards set forth the requirements for parking facilities and individual parking spaces.

Section 208 specifies the minimum number of accessible parking spaces, based on the total number of spaces in a parking facility. *Section 502* sets forth the specifications for an accessible parking space.

208 Parking Spaces (Number of Accessible Spaces)

The PMOC must obtain verification that, if the rail station has a parking facility, the recipient has created at least the minimum number of accessible parking spaces, based on the Table 208.2 in the DOT 2006 Standards. The minimum number of accessible parking spaces is based on the sum of the minimum number of spaces for each parking facility; if a rail station has more than one parking facility, the minimum number applies to each parking facility, not the total number of overall spaces serving the station. Furthermore, the PMOC must verify that at least one of every six accessible parking spaces (rounded up) is van accessible.

The PMOC must also obtain verify that the accessible parking spaces are distributed among all accessible station entrances.

502 Parking Spaces (Specifications)

The PMOC must also verify that all parking spaces designated as accessible comply with specifications:

- Minimum width;
- Access aisle minimum width for standard and van-accessible spaces;
- Vertical clearance for van-accessible spaces;
- Maximum cross slope;
- Acceptable surface treatment;
- Signage: information, location, height; and
- Relationship to accessible route.

5.1.4 Passenger Loading Zone

This includes drop-off and pickup locations for sedans (taxis and kiss and ride). Two sections of the DOT 2006 Standards set forth the requirements for passenger loading zones.

Section 209.2 specifies the minimum number of passenger loading zones, based on the total loading zone space. *Section 503* sets forth the specifications for an accessible passenger loading zone.

209.2 Type (Passenger Loading Zones)

The PMOC must verify that the recipient has designed loading all loading zones for a minimum of one accessible loading zone per 100 linear feet of loading zone space (rounded up).

503 Passenger Loading Zones

The PMOC must also verify that the recipient is aware of and has designed loading zones to comply with all relevant specifications, including:

- Minimum width;
- Minimum length;
- Vertical clearance;
- Access aisle;
- Appropriate markings;
- Acceptable surface treatment; and
- Minimum vertical clearance.

5.1.5 Curb Ramp

Section 406 of the DOT 2006 standards sets forth the requirements for curb ramps.

The PMOC must verify that the recipient has designed all curb ramps to meet the following specifications:

- Maximum counter slope;
- Maximum (slope and size) curb ramp side flares;

- Minimum landing length and width (top and bottom);;
- Location relative to other components: traffic, parking spaces, access aisles
- Properly aligned diagonal curb ramps;
- Curb ramps within islands;
- Use of detectable warnings; and
- Within the confines of the crosswalk.

5.1.6 Entrance

Section 206 of the DOT 2006 Standards set forth the requirements for the availability of accessible entrances.

The PMOC must verify that the recipient has designed the facility such that its entrances meet these specifications:

- Minimum of 60 percent of public entrances are accessible;
- Accessible route between facility and all parking facilities (both lots and structures);
- Accessible entrance for each fixed route or group of fixed routes; and
- Accessible entrance between facility and all other connecting commercial, retail, or other facilities.

5.1.7 Doorway

Section 404 of the DOT 2006 Standards sets forth the specifications for accessible doors, doorways, and manual gates.

Where there are doors or manual gates, the PMOC must verify that the recipient has designed the doors and gates to comply with the specifications in *Section 404*:

- Depending on configuration of doors or gates relative to approach direction, and whether there may be doors in series, minimum clear spaces as presented in:
 - Figure 404.2.3, Figure 404.2.4.1, Figure 404.2.4.2, Figure 404.2.4.3; and
Figure 404.2.6 of DOT 2006 Standards
- Maximum threshold;
- Minimum clear width;
- Automatic and power-assisted doors and gates that comply with American National Standards Institute (ANSI) standards; and
- Door operation: hardware specifications for location, ease of use, and minimum closing time.

5.1.8 Grade Crossing

Section 810.10 of the DOT 2006 Standards provide the allowable exceptions for an accessible route that crosses tracks.

When circulation paths serving platform cross tracks, the PMOC must verify that the recipient has designed grade crossings to meet specifications.

- Maximum width of 2.5 inches for horizontal opening (flangeway) when crossing track.

5.1.9 Ramp

Two sections of the DOT 2006 standards set forth the requirements for ramps.

Section 405 provides the specifications for ramps and associated components (e.g., handrails, edge protection). *Section 505* provides the specifications for handrails for ramps.

405 Ramps

The PMOC must verify that the recipient has designed all ramps to meet these specifications:

- Minimum width between handrails;
- Maximum running slope;
- Maximum cross slope;
- Maximum vertical rise between landings;
- Minimum landing length and width (top and bottom);
- Other landing specifications;
- Acceptable surface treatment; and
- Edge protection.

505 Handrails

The PMOC must also verify that the recipient has designed all ramp handrails to meet these specifications:

- Availability where required;
- Location of handrail; and
- Handrail specifications.

Stairs. Three sections of the DOT 2006 standards set forth the requirements for stairs.

Section 302 provides requirements for the surface of stairs. *Section 504* provides the specifications for stairs. *Section 505* provides the specifications for handrails for stairs.

Where there are stairs, the PMOC must verify that the recipient designed the stairs to comply with the specifications.

302 Floor

- “Stable, firm, and slip resistant.”

504 Stairways

- Treads and risers; and
- Stair nosings.

505 Handrails

The PMOC must also verify that the recipient has designed all ramp handrails to these meet specifications:

- Availability where required;
- Location of handrail; and

- Handrail specifications.

5.1.10 Elevator

Three sections of the DOT 2006 standards set forth the requirements for elevators.

Section 206.6 provides scoping requirements for elevators. *Section 407* includes the detailed specifications for elevators. *Section 703* provides specifications for elevator signage and car controls.

Where the facility has elevators, the PMOC must verify that the recipient designed the elevators to comply with the specifications for all the following elements.

206 Accessible Routes

- All new elevators must comply with all specifications for accessible routes.
- If an elevator is part of an accessible route, it must be located near a general circulation path.

407 Elevators

- Hoistway signage;
- Hall call buttons;
- Hall signals;
- Door operations;
- Interior car controls;
- Interior car position indicators;
- Elevator surface;
- Elevator illumination;
- Emergency communications;
- Interior dimensions, width, and depth: depending on location of door and (set forth in Table 407.4.1 of DOT 2006 Standards); and
- Minimum door clear width: depending on location of door (presented in Figure 407.4.1 of DOT 2006 Standards).

703 Signs

- Hoistway signage; and
- Interior car controls.

5.1.11 Escalator

Section 810.9 of the DOT 2006 Standards set forth certain requirements for escalators. In addition, escalators must also comply with certain sections of the ASME standard A17.1.

Where the facility has escalators, the PMOC must verify that the recipient designed the escalators to comply with the specifications.

- Escalator width;
- Top and bottom treads; and

- Slip resistant treads.

5.1.12 Platform Lift

Two sections of the DOT 2006 Standards set forth the requirements for platform lifts.

Section 206.7 specifies the conditions for when a platform lift may be a component of an accessible route. *Section 410* sets forth the specifications for an accessible platform lift.

Where the facility has platform lifts that are part of an accessible route, the PMOC must verify that the recipient designed the lifts to comply with the specifications.

206.7.5 Existing Site Constraints (Allowing Platform Lift as Part of Accessible Route)

- “Platform lifts shall be permitted where existing exterior site constraints make use of a ramp or elevator infeasible.”

410 Platform Lifts

- Floor surface characteristics:
 - Stable, firm, and slip resistant; and
 - Minimal openings;
- Maximum running and cross slopes;
- Maximum changes in level;
- Clear floor space: see DOT 2006 Standards, *Section 305*;
- Maximum gap of 1.25 inches between platform sill and landing;
- Operable parts: see DOT 2006 standards, *Section 309*;
- Doors and gates: minimum clear width (depending on alignment of door) and minimum opening time; and
- Must be independently operable (no staff or personal care attendant required).

5.1.13 Ticketing, Fare Vending

Six sections of the DOT 2006 Standards set forth the requirements for ticketing and automated fare vending.

Section 206 sets requirements for the location of ticketing and fare vending on an accessible route. *Section 220* provides scoping requirements for fare vending machines. *Section 305* sets forth the requirements for clear space adjacent to fare vending machines. *Section 308* sets forth the specifications for fare vending machine reach ranges. *Section 707* sets forth the specifications for fare vending machines. *Section 904* sets forth the specifications for manual ticket vending areas.

The PMOC must verify that the recipient designs manual ticketing locations and automated fare vending devices (including fare adjustment devices) that comply with specifications.

206 Accessible Routes

- Ticketing and fare vending are located on accessible route near the general circulation path.

220 Automatic Teller Machines and Fare Machines (Scoping)

- At least one accessible fare vending device at each location with a fare vending device.

305 Clear Floor or Ground Space

- Minimum clear space for accessible fare vending device.

308 Reach Ranges

- Maximum reach ranges for automated fare vending device, depending on the direction of approach.

707 Automatic Teller Machines and Fare Machines (Communications Elements and Features)

Specifications for elements of automated fare vending device include the following:

- Operable parts;
- Providing privacy to user;
- Speech output;
- Input devices, e.g., keypad, function keys and buttons, tactile symbols;
- Display screen; and
- Braille instructions.

904 Check-Out Aisles and Sales and Service Counters

- Maximum counter height for manual ticket vending.

5.1.14 Fare Gate

Section 404.2 of the DOT 2006 Standards sets forth the requirements for fare gates.

Where the facility has fare gates, the PMOC must verify that the recipient has designed the fare gates to comply with the specifications.

Depending on configuration of gates relative to approach direction, minimum clear spaces as presented in Figure 404.2.4.1 of the DOT 2006 Standards.

Fare gate specifications include the following:

- Minimum width;
- Kick plate height and dimensions;
- Minimum and maximum height of operable parts; and
- Maximum force needed for opening.

5.2 Rail Platform

5.2.1 Level-Entry Boarding

The PMOC must work with the recipient to address the following requirements for level boarding between railcars and station platforms.

The PMOC must verify that the recipient designed new intercity, commuter, or high-speed rail stations to meet the following performance standard: 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 section 37.42(a)). As discussed previously in Section 2.1 of OP 35, 49 CFR section 37.41 states that:

... a facility or station is “new” if its construction begins (i.e., issuance of notice to proceed) after January 25, 1992, or, in the case of intercity or commuter rail stations, after October 7, 1991.

The PMOC must verify that the recipient designed new or altered stations in which no track passing through the station and adjacent to platforms is shared with existing freight rail operations to meet the performance standard by providing level-entry boarding to all accessible cars in each train (49 CFR section 37.42 (b)). 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 three inches 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 sections 38.95(c) and 38.125(c) (49 CFR section 37.42(f)).

The PMOC must verify that the recipient designed new or altered stations in which track passing through the station and adjacent to platforms is shared with existing freight rail operations to meet the performance standard by providing level-entry boarding or using one or more of the following means: car-borne lifts; bridge plates, ramps, or other appropriate devices; mini-high platforms; or station-based lifts (49 CFR section 37.42(c)).

Before the recipient proceeds with constructing or modifying a station platform using a means other than level-entry boarding, the PMOC must ensure that the recipient obtains approval from FTA. The PMOC must ensure that the recipient provides a copy of the written approval from FTA or FRA (where applicable) of the recipient’s proposed means of providing access to individuals with disabilities, including individuals who use wheelchairs, to every accessible car in the train in an integrated, safe, timely, and reliable manner (49 CFR section 37.42(d)).

If the recipient not using level-entry boarding chooses a means of meeting the performance standard other than using car-borne lifts, the PMOC must ensure that the recipient performs 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 discussed below.

The PMOC must ensure that the recipient submits a plan to FTA describing its proposed means to meet the performance standard set forth at 49 CFR section 37.42(a). 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.

For light rail vehicles intended to be confined entirely to a dedicated right-of-way, the PMOC must verify that the vehicles and stations provide level boarding and comply with 49 CFR section 38.73(d)(1) and 49 CFR section 38.85 (49 CFR section 38.71(b)(1)).

The PMOC must ensure that light rail vehicles designed for, and operated on, pedestrian malls, city streets, or other areas where level boarding is not practicable shall provide wayside or car-borne lifts, mini-high platforms, or other means of access in compliance with 49 CFR section 38.83 (49 CFR section 38.71(b)(2)).

For rapid rail systems, the PMOC must verify that the platform-to-railcar gap does not exceed the specifications provided in 49 CFR section 38.53(d). No exceptions are permitted for rapid rail.

5.2.2 Narrow Paths and Obstructions

For commuter, intercity, and high-speed rail, the PMOC must verify that in any situation using a combination of high and low platforms, a commuter 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 section 37.42€).

The PMOC must verify that 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 section 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), the PMOC must verify that the recipient designed the platform with barriers to prevent the flow of pedestrian traffic through these narrower areas (49 CFR section 37.42(e)(2)).

5.2.3 Between-Car Barriers

49 CFR Part 38 sets forth the requirements for all rail modes for between-car barriers when platform screens are not provided to prevent, deter, or warn individuals from inadvertently stepping off the platform between cars. For rapid rail service, see 49 CFR section 38.63. For light rail service, see 49 CFR section 38.85. For commuter rail service, see 49 CFR section 38.109.

When level boarding is provided and the railcars are not equipped with between-car barriers (or bellows, in the case of commuter rail cars), the PMOC must verify that the recipient has equipped the platform or the railcars with between-car barriers.

5.2.4 Detectable Warning

Two sections of the DOT 2006 Standards set forth the requirements for detectable warnings.

Section 705 sets forth the specifications for detectable warnings. *Section 810.5.2* sets forth conditions that require detectable warnings on rail platforms.

Where detectable warnings are required, the PMOC must verify that the recipient has planned to install detectable warnings that comply with the specifications.

810.5.2 Detectable Warnings

- “Platform boarding edges not protected by platform screens or guards shall have detectable warnings.”

705 Detectable Warnings (Characteristics)

- Dome size, spacing, color contrast; and
- Width and location of detectable warning surfaces.

5.2.5 Area of Refuge

Sections 207.1 and 207.2 of the DOT 2006 standards set forth the requirements for accessible areas of refuge. In turn, the specific requirements are presented in the 2003 International Building Code (IBC 2003), Section 1007.

Where the facility has areas of refuge, the PMOC must verify that the recipient has designed the areas of refuge to comply with the following specifications:

- Minimum number of wheelchair spaces;
- Minimum clear space for exit width;
- Minimum stairway width;;
- Signage directing to areas of refuge; and
- Communications devices and instructions for devices.

5.3 Bus Stops and Facilities

5.3.1 Boarding and Alighting Area

Three sections of the DOT 2006 Standards set forth the requirements for a bus boarding and alighting area (bus stop).

Section 209.2.2 defines the areas that are subject to the requirements for an accessible bus stop. *Section 206.2.1* requires an accessible route between the bus stop and the transit facility (if there is a facility). *Section 810.2* sets forth these requirements. *Section 209.2.3* states that on-street bus stops “shall comply with Section 810.2 to the maximum extent practicable.”

Where the facility has a bus boarding and alighting area that is under control of the recipient, the PMOC must verify that the recipient has designed this area to comply with specifications. Where a bus boarding and alighting area is not under the control of the recipient, the PMOC must obtain verification that the controlling entity has prohibited the recipient from designing this area to comply with specifications.

206.2.1 Site Arrival Points

- There is an accessible route connecting bus stop and other elements of transit facility.

810.2 Bus Boarding and Alighting Areas

- Accessible route connecting bus stop to streets, sidewalks, or other pedestrian paths;
- Firm, stable surface;
- Minimum width (parallel to roadway) and depth (perpendicular to roadway); and
- Maximum cross slope and running slope.

5.3.2 Bus Shelter

Section 810.3 of the DOT 2006 Standards sets forth the requirements for a bus stop shelter, with references to *Section 305*.

Where the facility has a shelter that is under control of the recipient for a bus boarding and alighting area, the PMOC must verify that the recipient designed this shelter to comply with specifications.

810.3 Bus Shelters

- Connected accessible route to boarding and alighting area.

305 Clear Floor or Ground Space

- Minimum clear space and minimum width to approach; and
- Minimum clear floor space within shelter.

5.4 Vehicles

Subpart D of Part 37 (“Acquisition of Accessible Vehicles by Public Entities”) provides the original scope of the requirement for acquisition of accessible vehicles by a recipient, and when the regulations permitted exceptions.

Section 5.4 of this OP provides further details of the requirements that a recipient must follow. The following paragraphs identify the requirements for each type of vehicle.

5.4.1 Buses, Vans and Systems

In general, all buses and vans must meet the accessibility requirement of 49 CFR Part 38, Subpart B.

Since August 25, 1990, all new buses and vans acquired by a recipient (whether purchased or leased) have had to meet the requirements of 49 CFR Part 38, Subpart B.

Since August 25, 1990, all used buses and vans acquired by a recipient (whether purchased or leased) have had to meet the requirements of 49 CFR Part 38, Subpart B. Given that most buses manufactured since 1990 are now accessible, it is highly unlikely that a recipient would be unable to obtain an accessible vehicle. However, a recipient may acquire an inaccessible used vehicle only after exhausting a “demonstrated good faith effort to obtain an accessible vehicle” (49 CFR section 37.73(d)). “Good faith effort” includes (49 CFR section 37.73):

(c) Good faith efforts shall include at least the following steps:

(1) An initial solicitation for used vehicles specifying that all used vehicles are to be lift-equipped and otherwise accessible to and usable by individuals with disabilities, or, if an initial solicitation is not used, a documented communication so stating;

(2) A nationwide search for accessible vehicles, involving specific inquiries to used vehicle dealers and other transit providers; and

(3) Advertising in trade publications and contacting trade associations.

There is another exception to these requirements for donated vehicles (see Appendix D to 49 CFR section 37.73). In the rare circumstance that someone wishes to donate a vehicle to a recipient, the ADA does not prevent the recipient from accepting a gift. Not all “zero dollar” transfers are donations, however. Soliciting donations of inaccessible vehicles is not permitted. For any donations of inaccessible rapid rail vehicles, FTA will review the recipient’s documentation and decide.

Since, August 25, 1990, a fixed route bus or van that has been remanufactured must be made accessible to the maximum extent feasible. According to 49 CFR section 37.75(c):

... it shall be considered feasible to remanufacture a bus or other motor vehicle so as to be readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, unless an engineering analysis demonstrates that including accessibility features required by this part would have a significant adverse effect on the structural integrity of the vehicle.

Similar to the case of used vehicles, remanufacturing of inaccessible buses has become rarer over time.

For remanufactured buses and vans that are part of a fixed route operation in the National Register of Historic Places, Section 37.75(d) states:

... if making a vehicle of historic character used solely on such segment readily accessible to and usable by individuals with disabilities would significantly alter the historic character of such vehicle, the public entity has only to make (or purchase or lease a remanufactured vehicle with) those modifications to make the vehicle accessible which do not alter the historic character of such vehicle, in consultation with the National Register of Historic Places.

The PMOC and recipient should note that the exception applies only in the case when the bus or van of historic character is used only on the segment of fixed route operation in the National Register of Historic Places.

For demand responsive systems, all vehicles must be accessible; inaccessible vehicles can only be used “[i]f the system, when viewed in its entirety, provides a level of service to individuals with disabilities, including individuals who use wheelchairs, equivalent to the level of service it provides to individuals without disabilities” (37.77(b)). The criteria for “equivalent service” are set forth in Section 37.77(c). Prior to any acquisition of inaccessible vehicles, a Certification of Equivalent Service must be submitted to FTA (see 49 CFR Part 37, Appendix C).

For a major capital project, the use of demand responsive service may come into play if such service is used at a rail station and/or bus transfer center to provide feeder service (“first mile/last mile”) to or from the station or transfer center. Note that using an app to summon a fixed route vehicle does not make the service demand responsive.

Subpart B of 49 CFR Part 38 (38.21-38.39) sets forth the accessibility specifications for buses, vans, and related systems.

The PMOC must verify that the buses and vans that the recipient obtains comply with the following regulatory requirements.

38.23 Mobility Aid Accessibility

If a bus or van is equipped with a lift, the lift must meet the specifications for the following elements:

- Design load;
- Controls;
- Emergency operation;
- Power or equipment failure;

- Platform barriers;
- Platform surface;
- Platform gaps;
- Platform entrance ramp;
- Platform deflection;
- Platform movement;
- Boarding direction;
- Use by standees; and
- Handrails.

If a bus or van is equipped with a ramp, the ramp must meet the specifications for the following elements:

- Design loads;
- Ramp surface;
- Ramp threshold;
- Ramp edge barriers;
- Slope;
- Attachment to vehicle;
- Stowage when not in use; and
- Handrails.

The wheelchair securements for the bus or van must meet the specifications for the following elements:

- Design load;
- Location and size;
- Types of mobility aids accommodated;
- Orientation;
- Maximum movement;
- Stowage when not in use; and
- Seat belt and shoulder harness.

38.25 Doors, Steps, and Thresholds

A bus or van must meet the specifications for doors, steps, and thresholds:

- Slip resistance;
- Color contrast; and
- Door height.

38.27 Priority Seating Signs

A bus or van must meet the specifications for signs for priority seating:

- Identifying priority seats;

- Identifying securement areas; and
- Signage for priority seats and securement areas.

38.29 Interior Circulation, Handrails, and Stanchions

A bus or van must meet the specifications for interior circulation, handrails, and stanchions:

- Location of for sufficient clearance;
- Dimensions and surface of handrails and stanchions; and
- Minimum interior height.

38.31 Lighting

A bus or van must meet the specifications for lighting:

- Minimum lighting at stepwells and doorways: front and rear.

38.33 Farebox

A bus or van must meet the specifications for a farebox, where provided:

- Location of for farebox for sufficient clearance.

38.35 Public Information System

A bus or van must meet the specifications for a public information system:

- Audio announcement system for vehicles greater than 22 feet.

38.37 Stop Request

A bus or van must meet the specifications for stop request controls:

- Stop request system for vehicles greater than 22 feet; and
- Passenger controls for stop request system.

38.39 Destination and Route Signs

A bus or van must meet the specifications for destination and route signs, where provided:

- Illuminated signage; and
- Signage dimensions.

5.4.2 Bus Rapid Transit and Systems

Bus rapid transit vehicles are buses. Please refer to the information above concerning buses and vans.

5.4.3 Rapid Rail Vehicles and System

In general, all rapid rail vehicles must meet the accessibility requirement of 49 CFR Part 38, Subpart C.

Since August 25, 1990, all new rapid rail vehicles acquired by a recipient (whether purchased or leased) have had to meet the requirements of 49 CFR Part 38, Subpart C.

Since August 25, 1990, all used rapid rail vehicles acquired by a recipient (whether purchased or leased) have had to meet the requirements of 49 CFR Part 38, Subpart C. Given that nearly all rapid rail vehicles manufactured since 1990 are now accessible, it is highly unlikely that a recipient would be unable to obtain an accessible vehicle. However, a recipient may acquire an inaccessible used vehicle only after exhausting a “demonstrated good faith effort to obtain an accessible vehicle” (37.81(b)). “Good faith effort” is defined in 49 CFR section 37.73, as discussed above in Section 5.4.1.

There is another exception to these requirements for donated vehicles (see Appendix D to 49 CFR section 37.83). In the rare circumstance that someone wishes to donate a vehicle to a recipient, the ADA does not prevent the recipient from accepting a gift. Not all “zero dollar” transfers are donations, however. Soliciting donations of inaccessible vehicles is not permitted. For any donations of inaccessible rapid rail vehicles, FTA will review the recipient’s documentation and decide.

Since, August 25, 1990, a rapid rail vehicle that has been remanufactured must be made accessible to the maximum extent feasible. According to 49 CFR section 37.83(c):

... it shall be considered feasible to remanufacture a rapid or light rail vehicle so as to be readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, unless an engineering analysis demonstrates that doing so would have a significant adverse effect on the structural integrity of the vehicle.

Like the case of used vehicles, remanufacturing of inaccessible rapid rail vehicles has become rarer over time. The most common exception is for historic rapid rail vehicles, described below.

For remanufactured rapid rail vehicles that are part of a segment of fixed route operation included in the National Register of Historic Places, section 37.83(d) states:

... if making a rapid or light rail vehicle of historic character used solely on such segment readily accessible to and usable by individuals with disabilities would significantly alter the historic character of such vehicle, the public entity need only make (or purchase or lease a remanufactured vehicle with) those modifications that do not alter the historic character of such vehicle.

The PMOC and recipient should note that the exception applies only in the case when the rapid (or light) rail vehicles of historic character are used only on the segment of fixed route operation in the National Register of Historic Places.

Subpart C of 49 CFR sections 38.51–38.63) sets forth the accessibility specifications for rapid rail cars and related systems. This includes requirements for the vertical and horizontal gaps between platform and car (section 38.73(d)) and for between-car barriers (section 38.63).

The PMOC must verify that rapid rail cars and related systems that the recipient obtains comply with the following regulatory requirements.

38.53 Doorways

A rapid rail car must meet the specifications for signs for doorways:

- Minimum clear width;
- Placement of International Symbol of Accessibility (ISA);
- Audio and visual signals for closing doors; and

- Maximum vertical and horizontal gaps with respect to boarding platforms.

38.55 Priority Seating Signs

A rapid rail car must meet the specifications for signs for priority seating:

- Identifying priority seats; and
- Signage for priority seats.

38.57 Interior Circulation, Handrails, and Stanchions

A rapid rail car must meet the specifications for handrail and stanchions:

- Location of handrail and stanchions for sufficient horizontal clearance;
- Location of handrail and stanchions for “ensuring maximum maneuverability immediately inside doors;” and
- Dimensions and surface of handrails and stanchions.

38.59 Floor Surfaces

Floor surfaces for rapid rail car “on aisles, places for standees, and areas where wheelchair and mobility aid users are to be accommodated shall be slip-resistant.”

38.61 Public Information System

A rapid rail car must meet the specifications for public information systems:

- Availability of interior audio public address system; and
- Availability of external audio public address system.

38.63 Between-Car Barriers

A rapid rail car must meet the specifications for between-car barriers:

- Suitable devices or systems to prevent, deter or warn individuals from inadvertently stepping off the platform between cars; and
- Between-car barriers are not required where platform screens are provided which close off the platform edge and open only when trains are correctly aligned with the doors.

Refer to Figure 5.1 for one type of between-car barrier (from FTA ADA Circular, Figure 4.5).

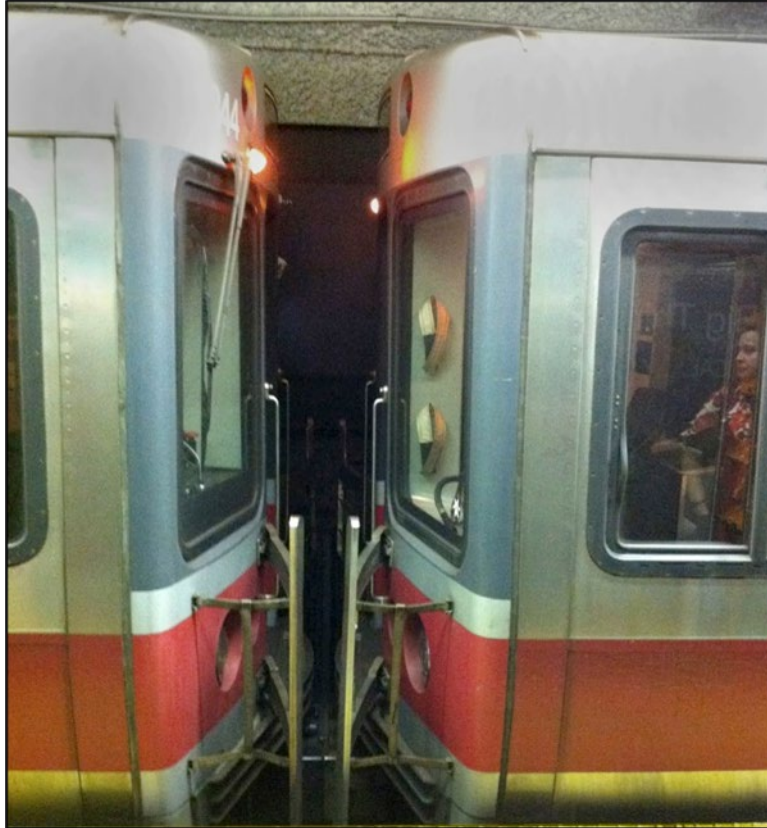


Figure 5.1 Between-Car Barrier (from FTA ADA Circular)

5.4.4 Light Rail Vehicles and Systems

In the context of the DOT ADA regulations, the term “light rail” includes rail vehicles and systems sometimes referred to as “streetcars.”

In general, all light rail vehicles must now meet the accessibility requirement of 49 CFR Part 38, Subpart C.

Since August 25, 1990, all new light rail vehicles acquired by a recipient (whether purchased or leased) have had to meet the requirements of 49 CFR Part 38, Subpart D.

Since August 25, 1990, all used light rail vehicles acquired by a recipient (whether purchased or leased) have had to meet the requirements of 49 CFR Part 38, Subpart D. However, a recipient may acquire an inaccessible used vehicle only after exhausting a “demonstrated good faith effort to obtain an accessible vehicle” (section 37.81(b)). “Good faith effort” is defined in 49 CFR section 37.73, as discussed above in Section 5.4.1.

Given that nearly all light rail vehicles manufactured since 1990 are now accessible, it is highly unlikely that a recipient would be unable to obtain an accessible vehicle.

There is another exception to these requirements for donated vehicles (see Appendix D to 49 CFR section 37.83). In the rare circumstance that someone wishes to donate a vehicle to a recipient, the ADA does not prevent the recipient from accepting a gift. Not all “zero dollar” transfers are donations, however. Soliciting donations of inaccessible vehicles is not permitted.

For any donations of inaccessible rapid rail vehicles, FTA will review the recipient's documentation and decide.

Since, August 25, 1990, a light rail vehicle that has been remanufactured must be made accessible to the maximum extent feasible. Like the case of used vehicles, remanufacturing of inaccessible light rail vehicles has become rarer over time. The most common exception is for historic rapid rail vehicles, described below.

Remanufactured light rail vehicles that are part of a segment of a fixed route operation included in the National Register of Historic Places may not necessarily have to comply with the accessibility requirements. Section 37.83(d) states:

... if making a rapid or light rail vehicle of historic character used solely on such segment readily accessible to and usable by individuals with disabilities would significantly alter the historic character of such vehicle, the public entity need only make (or purchase or lease a remanufactured vehicle with) those modifications that do not alter the historic character of such vehicle.

The PMOC and recipient should note that the exception applies only in the case when the rapid or light rail vehicles of historic character are used only on the segment of fixed route operation in the National Register of Historic Places.

Subpart D of 49 CFR sections 38.71–38.87) sets forth the accessibility specifications for light rail cars and related systems. This includes requirements for the vertical and horizontal gaps between platform and car (section 38.53(d)) and for between-car barriers (section 38.85).

The specifications for light rail vehicles also apply to streetcars.

The PMOC must verify that light rail vehicles and streetcars that the recipient obtains comply with the following regulatory requirements.

38.71 General Requirements

New light rail systems confined entirely to a dedicated right-of-way must have level boarding. Section 38.71(b)(1) states:

Vehicles intended to be operated solely in light rail systems confined entirely to a dedicated right-of-way, and for which all stations or stops are designed and constructed for revenue service after the effective date of standards for design and construction in Secs. 37.21 and 37.23 of this title shall provide level boarding and shall comply with Sec. 38.73(d)(1) and 38.85 of this part.

Section 38.71(b)(2) states that new light rail systems “designed for, and operated on, pedestrian malls, city streets, or other areas where level boarding is not practicable shall provide wayside or car-borne lifts, mini-high platforms, or other means of access in compliance with” Section 38.83.

Section 38.71(c) states that “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.”

Section 38.71(d) states that “Existing vehicles retrofitted to comply with the ‘one-car-per-train rule’ at Sec. 37.93 of this title shall comply with Sec. 38.75, Sec. 38.77(c), Sec. 38.79(a) and Sec. 38.83(a) of this part and shall have, in new and key stations, at least one door which complies with Secs. 38.73 (a)(1), (b) and (d) of this part.”

Note that the allowance for “one car per train” is intended to be an interim requirement. As recipients continue to acquire accessible railcars, the intent is to enable boarding and alighting of all cars by persons with disabilities as time progresses.

Refer to Figure 5.2 for examples of mini-high platforms, platform lifts, and bridge plates (from FTA ADA Circular, Figure 3.6).

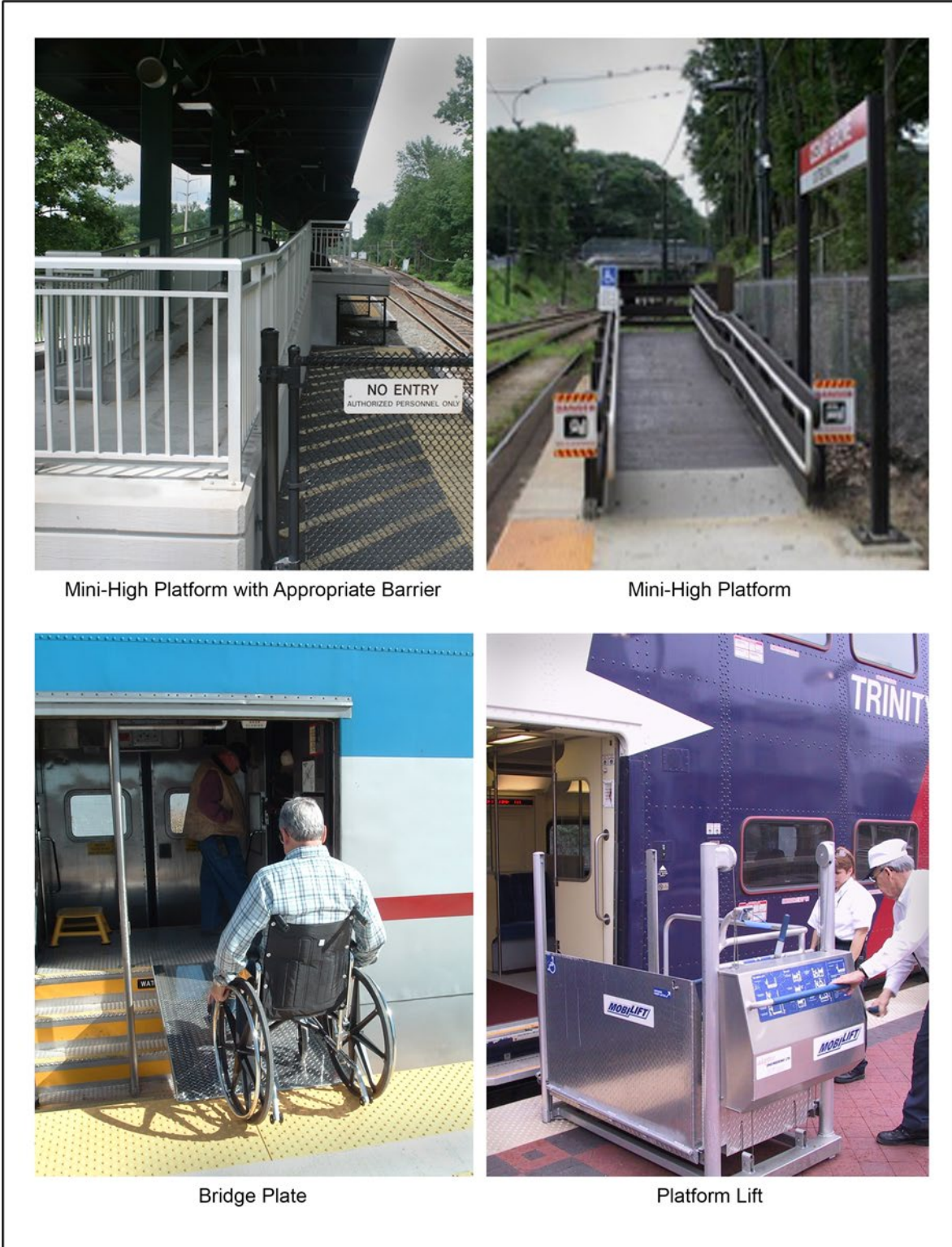


Figure 5.2 Sample Mini-High Platforms, Bridge Plate, and Platform Lift (from FTA ADA Circular)

38.73 Doorways

A light rail car must meet the following specifications for signs for doorways:

- Minimum clear width;
- Placement of ISA;
- Audio and visual signals for closing doors; and
- Maximum vertical and horizontal gaps with respect to boarding platforms.

38.75 Priority Seating Signs

A light rail car must meet the specifications for signs for priority seating:

- Identifying priority seats;;
- Identifying wheelchair or mobility aid seating locations and
- Signage for priority seats and wheelchair or mobility aid seating locations.

38.77 Interior Circulation, Handrails, and Stanchions

A light rail car must meet the following specifications for handrail and stanchions:

- Location of handrail and stanchions for sufficient horizontal clearance and minimum clear space: both level-entry vehicles and entrances with steps;
- Location of handrail and stanchions for “ensuring maximum maneuverability immediately inside doors;” and
- Dimensions and surface of handrails and stanchions.

38.79 Floors, Steps, and Thresholds

A light rail car must meet the following specifications for doors, steps, and thresholds:

- Slip resistance; and
- Color contrast.

38.81 Lighting

A light rail car must meet the specifications for lighting:

- Minimum lighting at stepwells and doorways; and
- Minimum lighting at doorways for vehicles not operating at lighted station platforms.

38.83 Mobility Aid Accessibility

If a light rail car uses a lift to bridge the horizontal or vertical gap between the car and the platform, the lift must meet the specifications for the following elements:

- Design load;
- Controls;
- Emergency operation;
- Power or equipment failure;
- Platform barriers;
- Platform surface;

- Platform gaps;
- Platform entrance ramp;
- Platform deflection;
- Platform movement;
- Boarding direction;
- Use by standees; and
- Handrails.

If a light rail car uses a ramp to bridge the horizontal or vertical gap between the car and the platform, the ramp must meet the specifications for the following elements:

- Design loads;
- Ramp surface;
- Ramp threshold and barriers;
- Slope;
- Attachment to vehicle;
- Stowage when not in use; and
- Handrails.

38.85 Between-Car Barriers

“Where vehicles operate in a high-platform, level-boarding mode, 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.” Refer to Figure 5.3 for examples of between-car barrier for light rail vehicles (from FTA ADA Circular, Figure 4.7).



Figure 5.3 Between-Car Barriers in Light Rail Applications (from FTA ADA Circular)

38.87 Public Information System

A light rail car must have an interior audio public address system.

5.4.5 Commuter Rail Cars and Systems

In general, all commuter rail cars must now meet the accessibility requirement of 49 CFR Part 38, Subpart E.

Since August 25, 1990, all new commuter rail cars acquired by a recipient (whether purchased or leased) had to meet the requirements of 49 CFR Part 38, Subpart E (49 CFR section 37.85).

Since August 25, 1990, all used light rail vehicles acquired by a recipient (whether purchased or leased) have had to meet the requirements of 49 CFR Part 38, Subpart E. However, a recipient may acquire an inaccessible used vehicle only after exhausting a “demonstrated good faith effort to obtain an accessible vehicle” (49 CFR section 37.87). “Good faith effort” is defined in 49 CFR section 87(c):

(c) Good faith efforts shall include at least the following steps:

(1) An initial solicitation for used vehicles specifying that all used vehicles accessible to and usable by individuals with disabilities;

(2) A nationwide search for accessible vehicles, involving specific inquiries to used vehicle dealers and other transit providers; and

(3) Advertising in trade publications and contacting trade associations.

There are additional conditions for short-term leases (up to seven days) that allow a recipient to acquire non-accessible commuter rail cars; these conditions are set forth in section 37.87(d).

There is another exception to the accessibility requirements for donated commuter rail cars (see Appendix D of 49 CFR section 37.89). In the rare circumstance that someone wishes to donate a commuter rail car to a recipient, the ADA does not prevent the recipient from accepting a gift. Not all “zero dollar” transfers are donations, however. Soliciting donations of inaccessible commuter rail cars is not permitted. For any donations of inaccessible commuter rail cars, FTA will review the recipient’s documentation and decide.

Since, August 25, 1990, a commuter rail car that has been remanufactured must be made accessible to the maximum extent feasible. *Section 37.89(c)* cites the criterion for allowing a non-accessible remanufactured commuter rail car:

For purposes of this section, it shall be considered feasible to remanufacture an intercity or commuter rail car so as to be readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, unless an engineering analysis demonstrates that remanufacturing the car to be accessible would have a significant adverse effect on the structural integrity of the car.

The U.S. DOT ADA regulations contain no exceptions for historic commuter rail cars for recipients.

All commuter rail trains must have at least one car that is readily accessible to and usable by individuals with disabilities (49 CFR section 37.93(b)). This requirement applies to all trains, even if a train consists entirely of used rail cars.

Subpart E of 49 CFR section 38.91-38.109) sets forth the accessibility specifications for commuter cars and related systems. This includes requirements for the vertical and horizontal gaps between platform and car (section 38.93(d)) and for between-car barriers (section 38.109). The PMOC must verify that commuter rail cars and related systems that the recipient obtains comply with the following regulatory requirements.

38.93 Doorways

A commuter rail car must meet the following specifications for signs for doorways:

- Minimum clear width;
- Accessible passageway from doorway to seating location for passenger with mobility aid;
- Audio and visual signals for closing doors;
- Maximum vertical and horizontal gaps with respect to boarding platforms; and
- Placement of ISA.

38.95 Mobility Aid Accessibility

If a commuter rail car uses a carborne lift to bridge the horizontal and/or vertical gap between the car and the platform, the lift must meet the specifications for the following elements:

- Design load;
- Controls;
- Emergency operation;
- Power or equipment failure;
- Platform barriers;
- Platform surface;
- Platform gaps;
- Platform entrance ramp;
- Platform deflection;
- Platform movement;
- Boarding direction;
- Use by standees; and
- Handrails.

If a commuter rail car uses a carborne ramp or bridge plate to bridge the horizontal or vertical gap between the car and the platform, the ramp or bridge plate must meet the specifications for the following elements:

- Design loads;
- Ramp surface;
- Ramp threshold and barriers;
- Slope;
- Attachment to vehicle;
- Stowage when not in use; and
- Handrails.

The seating area for passengers using wheelchairs or other mobility aids must meet the specifications for the following elements:

- Clear floor space; and
- Adjoining accessible path.

38.97 Interior Circulation, Handrails, and Stanchions

Where handrails and stanchions are provided on a commuter rail car, the handrails and stanchions must meet the following specifications:

- Location of handrail and stanchions for sufficient turning and maneuvering space;
- "...be sufficient to permit safe boarding, on-board circulation, seating and standing assistance, and alighting by persons with disabilities;"
- Must be provided at entrances with steps, available for passengers to grasp from outside the car and continue to use inside the car; and
- Dimensions and surface of handrails and stanchions.

38.99 Floors, Steps, and Thresholds

A commuter rail car must meet the following specifications for doors, steps, and thresholds:

- Slip resistance; and
- Color contrast.

38.101 Lighting

A commuter rail car must meet the following specifications for lighting:

- Minimum lighting at a stepwell or doorway with a lift, ramp, or bridge plate; and
- Minimum lighting at doorways for vehicles not operating at lighted station platforms.

38.103 Public Information System

A commuter rail car must have an interior audio public address system.

38.105 Priority Seating Signs

A commuter rail car must meet the following specifications for signs for priority seating:

- Identifying priority seats; and
- Signage for priority seats.

38.107 Restrooms

Where a commuter rail car has a restroom for the general public, the restroom must meet the following specifications:

- Minimum clear floor space;
- Height of water closet;
- Availability, location, and dimensions of grab bar;
- Faucet and flush control operation and height; and
- Doorway minimum width, doorway operation.

In addition, the design must meet the requirements for:

- Proximity of restroom to seating area for person using mobility aid; and
- Availability of an accessible route between seating area and restroom.

38.109 Between-Car Barriers

“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.”

5.4.6 Other Vehicles and Systems

Subpart H of 49 CFR Part 38 covers the accessibility requirements for certain other vehicle types and their related systems.

“Other vehicles” include automated guideway transit (AGT) vehicles, high-speed rail cars, monorails, ferries, trams, and similar vehicles.

In addition, standards for vehicles and systems not specifically addressed in Subpart H must be addressed on a case-by-case basis jointly by U.S. DOT and the Access Board (49 CFR section 38.171(c)).

Automated Guideway Transit

In general, to be considered accessible, AGT vehicles must comply with the accessibility requirements of light rail vehicles or rapid rail vehicles, depending on the AGT vehicle design.

Section 38.173 covers the requirements for AGT vehicles and related systems. This includes platform gaps and requirements for when open platforms are not protected by platform screens (section 38.173(c)).

High-Speed Rail Cars and Monorails

In general, to be considered accessible, high-speed rail cars and monorails must comply with the accessibility requirements of intercity rail cars (Subpart F of 49 CFR Part 38).

Section 38.175 covers the requirements for high-speed rail cars, monorails, and related systems. This includes platform gaps and requirements for when open platforms are not protected by platform screens (section 38.173(c)). Where such systems are operated on dedicated rail (i.e., not used by freight trains) or guideway, they must be designed for high-platform, level boarding and comply with specific provisions found in the standards for intercity rail cars and systems. Maximum horizontal and vertical gaps are specified that must be met at rest under all normal passenger load conditions.

Passenger Ferries

The Access Board and U.S. DOT have not yet set the accessibility requirements for passenger ferries. Land-side facilities are addressed in 49 CFR Part 39, Subpart D.

6.0 SCOPE OF WORK

6.1 During Project Development and Engineering

The PMOC will perform desk reviews of requested recipient documents and conduct site visits during project development and engineering, as requested by the COR/ACOR, to verify compliance.

The PMOC will verify the design and specifications for all facilities and vehicles that a recipient constructs, alters, procures, or acquires as part of the major capital project. This will be done

through an appropriate combination of document review and observations and measurements as early in the project development process as possible, based on architectural drawings and concepts, vehicle specifications, and other technical documents.

The PMOC will notify FTA if any design or proposed construction/manufacture does not appear to comply with any U.S. DOT ADA regulation or DOT 2006 Standards.

If the recipient seeks to invoke any of the regulatory exceptions provided for under U.S. DOT ADA regulations, or otherwise claims that the U.S. DOT ADA regulations are not applicable, the PMOC will request that the recipient provide documentation verifying that FTA (or as appropriate, FRA) has approved each exception and resolved any differences prior to entry into engineering.

6.2 During Construction

The PMOC will review the project plans and specifications that pertain to each facility component to be constructed or renovated.

The PMOC will review the specifications for any vehicle type that the recipient is procuring, both new and used.

The PMOC will conduct site visits during construction to verify compliance as requested by the COR/ACOR. During site visits, the PMOC may conduct direct observations and collect data from its own measurements of facilities during construction. The PMOC may use checklists—such as Checklist 1—to collect data on whether facility components comply with the U.S. DOT regulations and DOT 2006 standards. The PMOC may also work cooperatively with the recipient to conduct observations and collect data from measurements.

Similarly, if the PMOC chooses to collect data on the accessibility of vehicles to be procured, it can make use of vehicle checklists. As discussed in Section 2.2.1 of this OP, one such checklist for collecting compliance data on buses and vans is included in the FTA ADA circular.

6.3 Updates to Plans or Designs

Subsequent events may result in a need to adjust facility plans or vehicle designs. If adjustments are likely to lead to noncompliance of a U.S. DOT ADA regulation or DOT 2006 Standards, the PMOC will notify FTA upon learning of such information. If adjustments are designed to the maximum extent feasible meeting or exceeding U.S. DOT ADA regulation or DOT 2006 Standards, the PMOC shall request documentation of such adjustments and notify FTA.

6.4 Scope of Review

The project sponsor will demonstrate to the PMOC that they complied with all regulations and standards for the applicable components that are part of the major transit investment project. For all the facility requirements, the PMOC may use Checklist 1 (referred to in Section 2.1). For more detailed description of the requirements for narrow paths and obstructions on platforms and level-entry boarding on light rail and commuter rail platforms, please refer to Section 5.2.

6.4.1 Common Facility Components

- Accessible Route;
- Detectable Warning;
- Signage;

- Handrails;
- Benches;
- Parking Spaces;
- Passenger Loading Zone;
- Curb Ramp;
- Entrance;
- Grade Crossing;
- Ramp;
- Doorway;
- Stairs;
- Elevator;
- Escalator;
- Platform Lift;
- Ticketing, Fare Vending; and
- Fare Gate.

6.4.2 Rail Platforms

- Level Entry Boarding: Light Rail and Commuter Rail;
- Narrow Paths and Obstructions;
- Between-Car Barriers; and
- Area of Refuge.

6.4.3 Bus Facility

- Boarding and Alighting Area; and
- Shelter.

6.4.4 Vehicles

- Buses, Vans, and Systems;
- Bus Rapid Transit and Systems;
- Rapid Rail Vehicles and Systems;
- Light Rail Vehicles and Systems;
- Commuter Rail Cars and Systems; and
- Other Vehicles and Systems.

7.0 REPORTS, PAPERS, PRESENTATIONS

7.1 Periodic and as Warranted Reporting of Activities and Observations

The PMOC shall provide the COR/ACOR with a written report, formatted in compliance with OP 01, of their findings, analyses, recommendations, professional opinions, and description of the review activities undertaken, as well as other supporting information.

After the COR/ACOR has transmitted formal acceptance of the report, the PMOC should share the report with the project sponsor. If there are differences of opinion between the PMOC and the project sponsor regarding the PMOC's findings, the COR/ACOR may direct the PMOC to reconcile their findings with the project sponsor and provide the COR/ACOR with a report addendum covering the modifications agreed upon by the project sponsor and PMOC.

When directed by the COR/ACOR, 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.

Upon approval by the COR/ACOR, the PMOC may add other software as required, but they should provide the COR/ACOR with documentation and report data when complete.

7.2 Reporting of Urgent Compliance Issues

If the PMOC observes any potential unresolved issues that could potentially lead to a situation of noncompliance, the PMOC shall immediately report these issues and conditions to the COR, ACOR, and FTA Office of Civil Rights via email to FTACivilRightsSupport@dot.gov.

Examples of Urgent Compliance Issues include but are not limited to:

- A recipient or project sponsor is claiming structural infeasibility (e.g., a legacy station); and
- A recipient or project sponsor is planning for or building towards an equivalent facilitation.



APPENDIX A: ACCEPTABLE QUALITY LEVEL

Placeholder.



APPENDIX B: ACRONYMS

Acronym	Term
ACOR	Alternate Contracting Officer's Representative
ADA	The Americans with Disabilities Act
AGC	Associated General Contractors of America
ATC	Alternative Technical Concepts
AVS	Associate Value Specialist
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor and Statistics
BRF	Beta Range Factor
BY	Base Year
CATEX or CE or CX or Exclusion	Categorical Exclusion
CCIP	Contractor Controlled Insurance Program
CE	Categorical Exclusion
CER	Cost Estimating Relationship
CFR	Code of Federal Regulations
CIG	Capital Investment Grant
CLIN	Contract Line Item Number
CM	Construction Manager

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Acronym	Term
CM/GC	Construction Manager/General Contractor
CMAR	Construction Manager at Risk
COR	Contracting Officer's Representative
CPM	Critical Path Method
CPTED	Crime Prevention Through Environmental Design
CR	Constructability Review
CVS	Certified Value Specialists
DB	Design-Build
DBB	Design-Bid-Build
DBE	Disadvantaged Business Enterprise
DBF	Design-Build-Finance
DBFOM	Design-Build-Finance-Operate and Maintain
DBOM	Design-Build-Operate and Maintain
DEIS	Draft Environmental Impact Statement
DF	Designated Function
DHS	Department of Homeland Security
DTS	Department of Transportation Services
EA	Environmental Assessment
EIS	Environmental Impact Statement

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Acronym	Term
EMP	Emergency Management Plan
ENR	Engineering News-Record
EPCM	Engineering/Procurement/Construction Management
ESWA	Early Systems Work Agreement
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FLSSC	Fire/Life Safety and Security Committee
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GAO	Government Accountability Office
GC	General Contractor
GC/CM	General Contractor/Construction Manager
GMP	Guaranteed Maximum Price
HAZMAT	Hazardous Materials
IP	Implementation Plan
LONP	Letter of No Prejudice

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Acronym	Term
LPA	Locally Preferred Alternative
MBE	Minority Business Enterprise
MCC	Management Capacity and Capability
MDBF	Mean Distance Between Failures
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NTE	Not-to-Exceed
NTP	Notice to Proceed
O&M	Operation and Maintenance
OCIP	Owner Controlled Insurance Program
ODCs	Other Direct Costs
OHA	Operational Hazard Analysis
OIG	Office of Inspector General
OMP	Operations and Management Plan
OP	Oversight Procedure
P3	Public Private Partnership
PCMG	Project and Construction Management Guidelines
PD	Project Development
PDM	Project Delivery Method

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Acronym	Term
PHA	Preliminary Hazard Analysis
PMO	Project Management Oversight
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
POP	Project Oversight Plan
PTASP	Public Transportation Agency Safety Plan
QA/QC	Quality Assurance/Quality Control
R&D	Research and Development
RAMP	Real Estate Acquisition Management Plan
RAP	Rail Activation Plan
RCMP	Risk and Contingency Management Plan
RET	Risk Evaluation Tool
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Qualifications
ROD	Record of Decision
ROW	Right-of-Way
RSD	Revenue Service Date
S/DBE	Small/Disadvantaged Business Enterprises

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Acronym	Term
SABCE	Stripped and Adjusted Base Cost Estimate
SABS	Stripped and Adjusted Base Schedule
SAVE	Society of American Value Engineers
SCC	Standard Cost Category
SCIL	Safety Certifiable Items List
SGR	State of Good Repair
SIT	System Integration Testing
SITP	Systems Integration Test Plan
SOP	Standard Operating Procedure
SOW	Scope of Work
SSCVR	Safety Certification Verification Report
SSGA	Small Starts Grant Agreement
SSI	Sensitive Security Information
SSMP	Safety and Security Management Plan
STIP	Statewide Transportation Improvement Program
SYGA	Single Year Grant Agreement
TAR	Travel Authorization Request
TBM	Tunnel Boring Machine
TCC	FTA Office of the Chief Counsel

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Acronym	Term
TCRP	Transit Cooperative Research Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TOD	Transit-Oriented Development
TPE	FTA Office of Planning and Environment
TPM	FTA Office of Program Management
TRB	Transportation Research Board
TSA	Transportation Security Administration
TVA	Threat and Vulnerability Assessment
URA	Uniform Relocation Assistance and Real Property Acquisition Act
U.S.C.	United States Code
VE	Value Engineering
VECP	Value Engineering Change Proposals
WBE	Women Business Enterprise
WBS	Work Breakdown Structure
YOE	Year of Expenditure