

# Appendix C

## Guidance on the August 2023 PROWAG Final Rule

November 2024

### Introduction

#### About this Appendix

The Final Rule on the Public Right-of-Way Accessibility Guidelines (PROWAG)<sup>1</sup> was published in the Federal Register in August 2023. The rule—which had been in development since 2011—initiated a process toward enforcement of the guidelines as standards. This appendix focuses on the PROWAG Final Rule as it applies to transit stops.<sup>2</sup>

The U.S. Department of Transportation (USDOT) has issued a Notice of Proposed Rulemaking (NPRM) to adopt the PROWAG into USDOT’s accessibility standards.<sup>3</sup> The U.S. Department of Justice (USDOJ) will also need to adopt PROWAG in its accessibility standards for PROWAG to become enforceable other than through private right of action. In the meantime, transit agencies and funding partners should become familiar with PROWAG provisions and develop plans in accordance with the guidelines.

This guide was prepared by the Pennsylvania Public Transportation Association (PPTA) in partnership with the Pennsylvania Department of Transportation (PennDOT). The PPTA Planning Committee provided input to the document, based on the experience of practitioners who deal with accessibility issues.

---

<sup>1</sup> <https://www.federalregister.gov/documents/2023/08/08/2023-16149/accessibility-guidelines-for-pedestrian-facilities-in-the-public-right-of-way>

<sup>2</sup> “Transit stop” is used within this appendix instead of “bus stop,” consistent with the terminology used in the PROWAG Final Rule. Provisions related to bus stops may also be applicable to trolleys or light rail stops, such as with the Southeastern Pennsylvania Transportation Authority (SEPTA) and Pittsburgh Regional Transit (PRT) in Allegheny County, particularly when operating on surface highway corridors.

<sup>3</sup> <https://www.federalregister.gov/documents/2024/08/22/2024-18496/transportation-for-individuals-with-disabilities-adoption-of-accessibility-standards-for-pedestrian>



Credit: Centre Area Transportation Authority (CATA)



## Frequently Asked Questions

### What is PROWAG?

The official title is “Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way.” It has been shorted to Public Right-of-Way Accessibility Guidelines, or PROWAG. The rule was issued by the Architectural and Transportation Barriers Compliance Board, also known as the U.S. Access Board.

### What is the U.S. Access Board?

It is “an independent federal agency that promotes equality for people with disabilities through leadership in accessible design and the development of accessibility guidelines and standards. The Access Board is structured to function as a coordinating body among federal agencies and to directly represent the public, particularly people with disabilities.”<sup>4</sup>

### How did PROWAG come about?

The original ADA Accessibility Guidelines for Transportation Facilities were issued in September 1991, as part of implementation of the Americans with Disabilities Act (ADA). Updated ADA guidelines were issued in July 2004. Addi-

tional guidance for buses and vans used for transportation was added in December 2016. The current PROWAG guidelines were published as a Final Rule on August 8, 2023. PennDOT’s regulatory responsibility is triggered through rulemaking by the USDOT and USDOJ.

### Does PROWAG apply to all PA transit stops?

PROWAG is focused on pedestrian facilities in the public right-of-way, but includes language on transit stops, because they serve as access points between pedestrian access routes and the transit vehicle. As pedestrians or bicyclists, transit riders are vulnerable road users (VRUs)<sup>5</sup> at some point in their travel. Changes to a transit facility can substantially change the user’s experience and therefore are within the purview of PROWAG.

With specifically defined exceptions, all new construction must comply with the PROWAG guidance. For transit agencies, pedestrian facilities within vaults, tunnels, and spaces used only by service personnel for equipment maintenance, repair, or monitoring are exempt. Generally, these are not locations in revenue service.

**Generally, all new transit stop construction and most alterations must comply with PROWAG requirements.**

**Regulatory action for PROWAG does not apply to existing transit stops that are not being altered.**

PROWAG does not apply to existing transit stops that are not being altered. A definition of “alteration” is provided on page C-11.

A significant number of transit stops throughout the Commonwealth consists of signs on poles, sometimes with an adjacent sidewalk. These transit stops may be subject to alterations in the future, either initiated by the transit agency or by other parties, that would be subject to the PROWAG Final Rule. **It is recommended that agencies plan for how they will prioritize accessibility improvements at these stops.**

<sup>4</sup> <https://www.access-board.gov/about/>

<sup>5</sup> Refer to the Pennsylvania A-VRU Safety Assessment Report for more information: [https://www.penndot.pa.gov/TravelInPA/Safety/Documents/A-%20VRU%20Safety%20Assessment%20Report%20-%20Single%20Pages\\_Proof%207.pdf](https://www.penndot.pa.gov/TravelInPA/Safety/Documents/A-%20VRU%20Safety%20Assessment%20Report%20-%20Single%20Pages_Proof%207.pdf)







*Credit: Molly Wood, Lehigh and Northampton Transportation Authority (LANta)*

## Appendix Purpose

This appendix is intended to provide guidance to transit agencies and related partners about how to address accessibility at their transit stops. It also is intended to provide tools for inventory and evaluation of improvements, either made by the transit agency or by third parties.

Specifically, this appendix:

- Identifies portions of the PROWAG specific to transit stops or that support access to transit stops.
- Provides tools to confirm that current accessibility is maintained or enhanced when a public or private third party takes action that requires a redesign or relocation of the transit stop.
- Identifies constraints that may preclude full compliance with the PROWAG guidelines and provides a framework for that evaluation.
- Identifies best practices and assists transit agencies in setting up systematic programs to inventory and evaluate transit stops, independent of any proposed alteration.

This document is not intended to provide legal advice on behalf of PPTA, its members, or PennDOT. It cannot account for the specific attributes or issues of any individual transit stop location. It can provide general direction to the transit agency or other stakeholders on what questions to ask and what issues to consider in evaluating transit stops in conjunction with legal and technical experts.

**This document is not intended to provide legal advice.  
It should not be considered an official regulation from  
PennDOT or the Federal Transit Administration (FTA).**



## Supplementing the Original *Building Better Bus Stops* Guide

Much of what was included in the PROWAG Final Rule was either unchanged from the original proposed language or moderately edited to reflect public and stakeholder input. Therefore, much of the content of this appendix is intended to enhance (rather than revise or replace) material from the original *Building Better Bus Stops Resource Guide*.<sup>6</sup> Unless noted otherwise, the original guide remains the primary reference document.

The original *Building Better Bus Stops Resource Guide* had two appendices: model ordinance language and a plan review checklist, described in the following paragraphs. Those appendices remain recommended for use, with the appropriate modifications to spell out municipal and transit agency entities and local conditions. If anything, the provisions of the PROWAG Final

Rule place a higher priority on collaboration between local municipalities and transit authorities that is strengthened when the relationship is codified. Transit agencies are encouraged to regularly share this information with municipalities within their service area, particularly when an issue of accessibility is identified or other opportunities present themselves, or to provide educational resources for new municipal officials. Agencies should also consider access for all (see sidebar) in the development of their operations and capital budgets.

**Appendix A – Model Ordinance Language for Better Bus Stops** addressed zoning ordinances and subdivision and land development ordinances (SALDO) under the Pennsylvania Municipalities Planning Code. Since municipal governments may be either providing regulatory or

### Universal Access

Universal access, or “access for all,” has been an accepted principle of transit service, because documents creating transit agencies specify providing service to all members of the public. Transit service remains subject to prior legislation and regulation, such as Title VI of the Civil Rights Act of 1964, which sets restrictions against discrimination on the grounds of race, color, or national origin. Transit agencies have been subject to provisions of the ADA since it was passed and moved into regulatory language. Requirements include standards for accessible buses and vans that were adopted in 1991 and updated in 2016.

**This appendix is  
intended to enhance  
(rather than revise or replace)  
material from the original guide.**

advisory responses to public or private activities that affect transit stop locations, configurations, and facilities, codifying transit stop language will assist in the coordination process.

**Appendix B – Plan Review Checklist for Better Bus Stops** provided a tool for transit agencies to share with persons responsible for planning, designing, and constructing either new transit stop facilities or adjacent developments with potential impacts on transit stop locations, facilities, and pedestrian access. Because many of the transit agencies either have limited staffing or shared responsibilities for transit stops within operations, planning, and/or engineering departments, they rely on the support and cooperation of third parties to document existing and changing conditions along their routes. The checklist continues to have value in collaborating to provide accessibility for all transit users.

<sup>6</sup> <https://ppta.net/pages/betterbusstops/Complete%20Resource%20Guide.pdf>





## Using this Appendix

Unless otherwise noted, the “Planning and Policy Resources” section of the *Building Better Bus Stops Resource Guide* provides the primary direction and guidance on those areas. The Planning and Policy Resources section of this appendix provides additional guidance for the transit agency on how to engage stakeholders on accessibility issues.

This appendix primarily addresses the “Design Resources” section and consists of the following:

- Additional detail about the definitions and provisions of the PROWAG Final Rule that apply specifically to transit stops. Content includes a glossary of terms from the Final Rule that apply to transit stops and the documents contained within this appendix.
- A sample document for evaluating and documenting conditions where there are identifiable barriers to full compliance with PROWAG. In such a case, quantifying the “maximum extent feasible,” as outlined in the PROWAG Final Rule, should be recorded.<sup>7</sup>
- An accessibility checklist that uses PROWAG terminology has been included for the transit agency to adapt for its use. It provides a process for agencies to conduct desktop and/or field inventories of transit stops. This information could be converted to a digital database format for regular updates. Such a database could assist agencies with capital planning and project prioritization.



**Cetronia Road at St. Luke’s West End Medical Center, South Whitehall Township, Lehigh County:**  
*This transit stop was built in conjunction with the adjacent landowner. There is a tie-in to site access. The design addresses grading changes to accommodate accessibility. Credit: Molly Wood, LANta*

<sup>7</sup> Credit is given to the Lehigh-Northampton Area Transit Authority (LANta) for use of its “Technically Infeasible Form” as a basis for a sample document that is part of this appendix.





# Planning and Policy Resources

Transit agencies operate for the most part on either public or private road networks that are not under their site control for right-of-way or design. As noted on page ii of the *Building Better Bus Stops Resource Guide*, interagency coordination and partnerships are needed for the successful planning and design of transit stops. Some additional considerations are useful to address transit stop accessibility.

## Considerations for Municipalities

Municipalities are encouraged to consider implementing Zoning Ordinance and Subdivision and Land Development Ordinance (SALDO) amendments for transit stops, using the sample ordinance language in the *Building Better Bus Stops Resource Guide* as a starting point. If adopted, SALDO amendments would require applicants to address transit stop accessibility early in development planning and provide tools for local planning commissions and elected boards to use in the approvals process.

Elected and appointed municipal officials can also be champions for improvements that address the needs of all roadway users. This includes transit riders who are also pedestrians as they approach or leave transit stops. Strong relationships between municipalities and transit agencies are valuable in making sure that the principles of PROWAG are implemented in new and retrofit development projects. Municipalities are encouraged to avoid fees or permit requirements that would negatively affect transit agency plans for accessibility improvements.

Planning commissions and professional staff are encouraged to alert a transit agency representative if they have a project in their jurisdiction that may affect the accessibility of an existing or relocated transit stop. They also can foster communication where new stops are being proposed or where new land uses suggest the need for bus service. The Transit-Supportive Development Overlay District, noted on page 1-10 of the *Building Better Bus Stops Resource Guide*, can include criteria and incentives for transit-supportive design.



*Collaboration between transit agencies and municipalities is very important. While the street café provides an attractive urban environment, the planters interfere with transit vehicle access.*



In Pennsylvania, the responsibility for traffic signal operations and maintenance falls predominantly to local municipalities. Therefore, they have an important role in managing pedestrian access from one side of a bus corridor to the other. Transit riders usually make round trips during their day, so roadway crossing controls are important to the safety of those riders. Accessible traffic signals that provide audible or other cues for visually impaired persons should be installed at crosswalks when new signal systems are being designed. The PROWAG Final Rule provides some language about the implementation of those systems but does not give specific requirements due to the nuances involved at any specific location.<sup>8</sup>

In some cases, transit routes may operate on local roadways, in which case the municipality may take on a design role like that noted under “Considerations for PennDOT,” following.

### Considerations for Transit Agencies

The transit agency may take on the responsibility of providing parallel paratransit services for eligible disabled persons if the fixed-route system, including the supportive transit stop facilities, cannot provide access. It is in the agency’s interest that all customers have access “to the maximum extent feasible.” The sample Technically Infeasible Form (TIF) that is part of this

appendix can help determine whether there are barriers to an alteration that would allow full accessibility at a transit stop.

Agencies often generate service planning documents, such as Transit Development Plans (TDPs), that can mesh with capital plans to draw attention to accessibility. Through the TDP development process, accessible corridors and corridors needing improvements can be identified and prioritized.

Transit agencies may have either anecdotal or numerical data to support the need for accessibility at specific locations. In some cases, there may be records of either a wheelchair ramp deployment or a shift of boarding to an alternative location with fewer or no barriers, which would document the need for improvements.

An agreement between a transit agency and a planning agency can assist in tracking development proposals that could affect the location and/or function of transit stops. As an example, the Lehigh and Northampton Transportation Authority (LANta) has developed an agreement with the Lehigh Valley Planning Commission that references both agencies’ existing planning documents as a framework for cooperation. In State College, the Centre Area Transportation Authority (CATA) provides funding support to a staff position at the planning agency to facilitate

**The sample Technically Infeasible Form (TIF) that is part of this appendix can help determine whether there are barriers to an alteration that would allow full accessibility at a transit stop.**



***City of Pittsburgh:** A Technically Infeasible Form could be useful for any future alteration request. A loading pad (“boarding and alighting area” in PROWAG terminology) provides a guiderail break for a rider to stand outside the roadway. There are no adjacent sidewalks. Stairs to a residential area are the only approach from the left, but a crosswalk has been added from the stairs to the transit stop. A required detectable warning surface (DWS), triggered by the presence of the crosswalk, is missing. (Credit: Darcy Cleaver, Pittsburgh Regional Transit)*

<sup>8</sup> The Final Rule references Pedestrian Signal Heads several times. A good starting point is the intent indicated on page 53621.







**Salisbury Township, Lehigh County:** *Because of the grade behind the transit stop, a retaining wall was constructed and a portion of the berm removed to allow for the 5'x 8' loading pad (boarding and alighting area). Credit: Molly Wood, LANta*

land development plan reviews for transit stop impacts.

In addition, a proactive practice for transit agencies would be to identify a point person who can direct information from partners and the public to relevant staff about accessible transit stop issues. That person could be in fixed-route or paratransit operations, planning, government relations, or allied departments. Contact information can be included as part of Title VI documentation posted on vehicles, on agency websites, and at stations/loops/terminals.

### Considerations for PennDOT

Early design coordination, such as that fostered by the PennDOT Connects initiative, is a key to addressing potential barriers to transit stop access. Engineering Districts are encouraged to identify transit agency contacts when a reconstruction or repaving project might affect an existing transit corridor. In the case of new roadway alignments, it is also suggested that the transit agency be contacted early in the design process to confirm if a transit service is anticipated to use that roadway segment.

Roadway designers are encouraged to include improvements to transit stops as part of major roadway projects to the extent possible. There may also need to be coordination with owners of adjacent parcels and/or municipalities re-

garding maintenance of new pedestrian and transit stop facilities. In addition to the final-condition design, engineers are asked to coordinate transit stops and related pedestrian movements as part of maintenance and protection of traffic (MPT) plans. Transit stop access could be temporarily restricted as part of project phasing, which would put the transit agency out of compliance with PROWAG guidance. (Refer to page C-14 for more information on requirements for currently accessible transit stops.) Striping and drainage plans may also assist in determining the efficacy of a particular transit stop location.

Right-of-way availability was removed from the PROWAG Final Rule as an example of an existing physical constraint for technical infeasibility. Engineers should refer to any available follow-up guidance from either the USDOJ or USDOT for further clarification.

**Early design coordination, such as that fostered by the PennDOT Connects initiative, is a key to addressing potential barriers to transit stop access.**





## Considerations for MPOs & RPOs

Staff of metropolitan planning organizations (MPOs) and rural planning organizations (RPOs) are encouraged to monitor projects in their regional transportation plans for accessibility provisions and to direct questions to transit agency representatives. MPOs and RPOs may be able to assist in identifying funding opportunities for improving accessibility. They can sponsor coordination efforts and training sessions on transit accessible design. Coordinated Human Service Transportation plans that are developed by MPOs and RPOs are a potential tool to assist in implementing accessibility projects.

## Considerations for Developers

Developers may be asked to make modifications to roadway frontage or driveway access points to address potential impacts to existing transit stops. Situations may include either a proposed access point that requires a stop to be relocated or where the current stop location would affect intersection clearance, sight distance, crosswalks, or signal permit requirements for pedestrian facilities. In that case, PROWAG considerations may be triggered.

Developers and their design teams are encouraged to coordinate with the transit agency as to whether the transit stop can be relocated or accommodated in some other way. That decision may affect the site plans submitted for the project, as well as Highway Occupancy Permits (HOPs). Often, the development is expected to generate transit trips, in which case a new or altered stop may be requested, either by the transit agency or by an entity responsible for land use decisions.

If PennDOT determines that a development requires a Transportation Impact Study, the applicant “shall identify any existing transit facility that could be affected by the proposed development.”<sup>9</sup> This includes any bus routes within ¼ mile of the development. Changes to driveway access points that affect the placement of transit stops or changes to pedestrian access to the transit stop as part of the development plan would trigger PROWAG consideration.



**City of Allentown:** Because there is no verge area (grass strip) between the sidewalk and the curb face, the transit shelter needed to be set back slightly to provide a clear zone for the bus doors. The fence line allowed the extra space for a narrow shelter. The trash receptacle is on the side of the shelter but can still be reached from the sidewalk.

Credit: Molly Wood, LANta

<sup>9</sup> PennDOT, *Policies and Procedures for Transportation Impact Studies*, July 2017, page 16.







*A person in a wheelchair has a clear zone to board a bus at this location, but could not use the shelter, based on its placement. If an ADA complaint were received or other alterations made, this would need to be corrected.*

Municipalities may request that developers install shelters during a land development application process. If approved, a PennDOT shelter permit would be issued to the municipality. The developer may also be asked to maintain the shelter through an agreement with the municipality holding the permit or to maintain other amenities that are not subject to PennDOT permits.

### Considerations for Planning and Design Professionals

As with transit stops in general, planners, engineers, landscape architects, and other design professionals should be aware of the latest guidance and incorporate accessibility into their plans and submissions.

### Considerations for the Community

Public input is invaluable in identifying priorities for accessible transit stops and pedestrian access. As noted previously, agency planning processes are often a good way to generate consideration of accessibility improvements.

Public input is invaluable in identifying priorities for accessible transit stops and pedestrian access.





# Design Resources

The PROWAG Final Rule includes a Summary of Significant Changes that is beneficial to those considering compliance with PROWAG. As with any guidance document, definitions are an important part of providing understanding. The PROWAG Final Rule does not provide an exhaustive list of definitions but leaves some to what would be considered a common understanding. Some of the more important terms that are defined are listed below. It is suggested that users of this document reference the Final Rule for other terms.

**Alterations and Maintenance:** “Facilities and portions of facilities that are ‘added’ to an existing, developed public right-of-way are considered to be ‘alterations.’” An alteration is defined as “a change to or an addition of a pedestrian facility in an existing developed public right-of-way that affects or could affect pedestrian access, circulation, or usability.” The term “useable” speaks to the capability of being used, as well as convenience and practicality.

Changing the size of a facility, such as enlarging a loading pad or shelter, would constitute an alteration as defined in PROWAG. There is customer and operator benefit to a loading pad larger than the minimum 8 feet perpendicular by 5 feet parallel to the roadway, but such an

alteration would affect access, circulation, and usability as it is defined.

Transit agencies should provide documentation of how they evaluate alterations. The sample checklist entitled “Transit Agency Accessibility – Sample Checklist for Better Bus Stops,” included in this appendix, could be used in that regard.

Alterations to the transit stop would also “include, but are not limited to resurfacing, rehabilitation, reconstruction, historic restoration, or changes or rearrangement of structural parts or elements of a facility.” Resurfacing of the roadway without changes to the transit stop or pedestrian access routes would not trigger PROWAG considerations.

Maintenance is not defined in the PROWAG Final Rule. The Final Rule states that terms not defined “shall be given their ordinarily accepted meaning in the sense that the context implies.” In that context, replacing an element in-kind due to weather damage, upheaval or subsidence, utility-related displacement, vehicle strike, or vandalism could be accepted as maintenance. This would also extend to replacement of shelter advertising, lighting, customer information panels, restoration of bus boxes and painted curbs, and removal or



**Upper Gwynedd Township, Montgomery County:**  
*This typical transit stop could accommodate alteration. The verge area (grass strip) could be traversed by a loading pad to connect the curb face with the existing sidewalk. Conversely the transit stop in the opposite direction without sidewalk or curb would require more detailed design and possibly right-of-way to alter.*





**Hanover Township, Lehigh County:** If a curb were present (3-9 inches above roadway level), the bus could more easily deploy a ramp for wheelchair passengers. In lieu of a curb, it has a blended transition. If it were located at a crosswalk, it would require a detectable warning surface (DWS). In this case, it is specifically designated to access the boarding location, so a DWS is not required.

Credit: Molly Wood, LANta

maintenance of adjacent vegetation. A replacement of 50% or more of a loading pad (boarding and alighting area) or pedestrian access routes would be considered an alteration by PennDOT.

Future guidance documents issued by USDOJ and USDOT may provide additional clarity. A previous technical assistance document<sup>10</sup> focused on curb ramps gave a definition for maintenance that could provide some direction to the transit agency. In that document, examples of maintenance include crack filing and sealing, joint repairs, and pavement patching. Undertaking two or more maintenance activities could rise to the level of alteration. That document recommended being proactive in getting clarification from local and state agencies and consistently applying policy. Federal Transit Administration (FTA) Region III coordination may also be required. PennDOT's Design Manual (Publication 13M, Part 2, Highway Design) is also a resource.

**Slope:** Page 2-21 of the *Building Better Bus Stops Resource Guide*, under ADA Loading Pad, states that the maximum cross slope is 1:48. That figure is confirmed in the PROWAG Final Rule, which also references 2.1%, which is equivalent to 1:48.

<sup>10</sup> <https://archive.ada.gov/doi-fhwa-ta.htm> and <https://archive.ada.gov/doi-fhwa-ta-supplement-2015.html>





## Glossary of Other Key Terms from PROWAG Final Rule

While transit agencies and other stakeholders may have their own understanding of the meaning of these terms, the definitions provided here are taken directly from Section R104 of the PROWAG Final Rule and have specific meaning related to transit service. Interested parties should consult the Federal Register or the U.S. Access Board website for additional definitions.

**Accessible Pedestrian Signal:** A device that communicates information about pedestrian signal timing in non-visual formats such as audible tones or speech messages, and vibrating surfaces.

**Blended Transition:** A wraparound connection at a corner, or a flush connection where there is no curb to cut through, other than a curb ramp.

**Boarding Platform:** A platform raised above standard curb height used for transit vehicle boarding and alighting.

**Crosswalk:** That part of a roadway that is located at an intersection included within the connections of the lateral lines of the pedestrian circulation paths on opposite sides of the highway measured from the curbs, or in the absence of curbs, from the edges of the traversable roadway, and in the absence of a pedestrian circulation path on one side of the roadway, the part of a roadway included within the extension of the lateral lines of the pedestrian circulation path at right angles to the center line; or at any portion of a roadway at an intersection or elsewhere distinctly indicated as a pedestrian crossing by pavement marking lines on the surface. Crosswalks at intersections may be marked or unmarked.

**Curb Ramp:** A sloped connection that is cut through or built up to a curb. Curb ramps may be perpendicular or parallel to the curb or to the street they serve or be a combination thereof.

**Passenger Loading Zone:** An area that is specifically designed or designated for loading and unloading passengers, but that does not primarily serve vehicles on a fixed or scheduled route.

**Pedestrian:** A person on foot, traveling by wheelchair or other mobility device, on skates, or on a skateboard.

**Pedestrian Access Route:** An accessible, continuous, and unobstructed path of travel for use by pedestrians with disabilities within a pedestrian circulation path.

**Pedestrian Facility:** A structure, route, or space for pedestrian circulation or use located in the public right-of-way.

**Pedestrian Hybrid Beacon:** A special type of hybrid beacon used to warn and control traffic at an unsignalized location to assist pedestrians in crossing a street at a marked crosswalk.

**Pedestrian Signal Head:** A device containing the walking person symbol (symbolizing “walk”) and the upraised hand symbol

(symbolizing “don’t walk”), that is installed to direct pedestrian traffic at a crosswalk.

**Public Right-of-Way:** Public land acquired for or dedicated to transportation purposes, or other land where there is a legally established right for use by the public for transportation purposes.

**Sidewalk:** That portion of a highway between the curb line, or the lateral line of a roadway, and the adjacent property line, or on easements of private property, that is paved or improved and intended for use by pedestrians.

**Standard Curb Height:** The typical height of a curb according to local standards for a given road type, but usually between 3 inches (75 mm) and 9 inches (230 mm) high relative to the surface of the roadway or gutter.

**Transit Shelter:** A structure provided at a transit stop to provide passengers protection from the weather.

**Transit Stop:** An area that is designated for passengers to board or alight from buses, rail cars, and other transportation vehicles that operate on a fixed route or scheduled route, including bus stops and boarding platforms. This definition does not include intercity rail except where a stop is in the public right-of-way.



## Scenarios for Transit Agencies to Consider

**What happens if a currently accessible transit stop is affected by construction?** (Refer to PROWAG Final Rule R204.)

- **If the transit stop is not itself under construction,** maintenance operations, or other similar conditions, but the Pedestrian Access Route is affected:
  - If an alternate Pedestrian Access Route that meets accessibility requirements can be provided, the transit stop can be maintained.<sup>11</sup> The *Manual of Uniform Traffic Control Devices* (MUTCD) states in its section on Temporary Traffic Control that “access to transit stops should be maintained.” Roadway and site design engineers are asked to consider this in advance of projects that affect transit stops.
  - If an alternate Pedestrian Access Route cannot be provided, an Alternate Transit Stop that complies with accessibility provisions shall be provided. Refer to p. 2-21 of the *Building Better Bus Stops Resource Guide* under “ADA Loading Pad” for minimum requirements that also apply to the alternative transit stop.
  - Surfaces shall be “stable, firm, and slip resistant.”
- **If the transit stop itself is under construction,** maintenance operations, or other similar conditions:
  - An “Alternate Transit Stop” that complies with accessibility provisions shall be provided. Refer to p. 2-21 of the *Building Better Bus Stops Resource Guide* under “ADA Loading Pad” for minimum requirements that also apply to the alternative transit stop.
  - Accommodating this requirement can be a challenge if the pathway to that alternate transit stop is not itself accessible, or if adjacent transit stops are deficient in accessibility. The transit agency should collaborate with other stakeholders to determine the most feasible alternative that maintains accessibility.
  - It is possible that temporary approval of complementary paratransit service for an eligible rider could be issued during the construction or maintenance period.
  - Another alternative would be to document conditions using a Technically Infeasible Form like that found in this appendix. The use of such a form does not automatically certify infeasibility but shows that the agency conducted due diligence in evaluating conditions. Discontinuing the transit stop on a temporary or permanent basis could have other implications.

---

<sup>11</sup> *Manual of Uniform Traffic Control Devices* (MUTCD), Federal Highway Administration, 11th Edition, December 2023, pages 778-779.





### What happens if a transit stop access or location is altered, and the transit agency is not consulted during the planning process?

- In the short term, operators may have to identify a safe location where a person with disabilities could board or alight the vehicle. Research has indicated that wheelchair ramps cannot always be deployed at an appropriate angle when passengers must board or alight at street level.<sup>12</sup>
- The agency may need to consider eligibility for complementary paratransit service as an alternative for any persons who cannot access the stop. Depending upon the structure of the service, it may be less timely and flexible for the customer, although delivery models that combine paratransit with emerging microtransit technologies, where offered, may help overcome those inconveniences.
- Requirements for access to the fixed-route transit system underscore the value of collaboration between transit agencies and governmental agencies responsible for land use and roadway design planning and decision-making. As noted previously, cooperative agreements between transit agencies and entities with land use authority can allow the transit agency to anticipate how to address accessibility needs and manage risk.
- Designers and developers are encouraged to consider PROWAG at the concept level (or at least pre-final) and consult with the affected transit operators about how their needs fit into design.

---

<sup>12</sup> There are several research articles on this topic, including a University of Louisville study: Bertocci, Frost, and Smalley, "Public Transit Bus Ramp Slopes Measured in situ," *Disability and Rehabilitation Assistive Technology*, May 2014.

### PROWAG appears to be focused on transit stop facilities and access, but passenger information is important at the transit stop as well. How is this handled in the Final Rule?

Section R410, starting on page 53661 of the Final Rule, provides guidance on transit stop sign finishes, contrasts, fonts, and character heights, among other items.



## How can transit agencies be prepared to address transit stop accessibility?

- Transit agencies must understand their responsibilities under PROWAG:
  - For new transit stops, PROWAG shall apply. When the agency is designing the stop, it shall design it in compliance with PROWAG.
  - For existing transit stops, PROWAG provisions apply for alterations, whether made by the transit agency or other parties with site control.
  - Transit agencies are encouraged to develop a transit stop accessibility program. Agencies can be proactive by conducting regular inventories of their stops, identifying access and maintenance challenges, and sharing information with planning partners who can identify funding and engage third parties who may have a bearing on existing or proposed conditions.
- Transit agencies should raise awareness among stakeholders about the provisions under PROWAG that address the ability to maintain and improve accessibility, providing for all users.
- Transit agencies should be aware that fare vending machines and operable parts must comply with PROWAG R210 and R403.



*This shelter, installed by an advertising company, is not PROWAG-compliant, because there is no accessible path connecting to the boarding area at the curb. The bus operator may not be able to extend the wheelchair ramp to reach the shelter pad. This would need to be addressed only if the transit stop were altered in the future or if a complaint were filed.*





# Case Study: Centre Area Transportation Authority (CATA)



*CATA is unique in Pennsylvania in that one of the major customer bases for its fixed-route service is students, faculty, and support staff for Penn State's University Park campus.*  
Credit: CATA

**Background:** CATA is a joint authority, established to serve the residents and businesses of the Borough of State College and four surrounding townships. CATA is unique in Pennsylvania in that one of the major customer bases for its fixed-route service is students, faculty, and support staff for Penn State's University Park campus. Like many PA transit agencies, CATA has a mix of urban and ex-urban bus stops, some of which have amenities and some of which do not.

**Program Opportunity:** CATA has been working for several years to identify accessibility improvements. Implementation, starting in 2024, was moved forward by the CEO's interest in accessibility. CATA is taking a phased approach:

- Phase 1: Refresh bus stop signs, solar lighting on shelters, and posted information in conjunction with a change to CATA's regular schedule.
- Phase 2: Develop standards and inventory bus stops for conditions and amenities, including taking measurements and photos. The standards will be established by CATA staff, but the inventory will likely be done by a third party.
- Phase 3: Implement improvements on a priority basis, according to transfer activity and ridership (on and off).

Senior staff indicated that this initiative had an internal impetus—CATA leadership believed that bus stop acces-



## Case Study: Centre Area Transportation Authority (CATA), continued

sibility improvements needed to be undertaken. CATA has an ADA advisory group that meets quarterly. Staff also connects with social service agencies that support the needs of disabled persons. CATA considers its bus stop accessibility program to be a work in progress and welcomes additional input, which could also come from bus operators who bring their field experience.

**Working Together:** Collaboration with other agencies is a key part of the program. Centre County has a single-county MPO (Centre County Metropolitan Planning Organization - CCMPO) that works closely with CATA to track land development projects that affect bus operations and stops. CATA provides partial funding for a staff person at CCMPO, partly for this purpose. The MPO staff also supports efforts to identify funding for CATA's accessible bus stop initiative. Because of the joint authority status CATA also has close relationships with the professional staff of the member governments.

CATA also has a strong relationship with the PennDOT District 2 office. This coordination is important because CATA's routes traverse U.S. 322 Business (Atherton Street) and PA Route 26 (College Avenue and portions of Beaver Avenue), which are owned and maintained by PennDOT. Many other roads with CATA service



**CATA bus stop at The Yards, Ferguson Township, Centre County:** While the agency uses standard shelter configurations, it has sized the location to reflect peak rider demand by adding a second shelter.  
*Credit: Lori Miller, CATA*

are maintained by local municipalities, requiring continued coordination.

**Benefits:** CATA believes that it is good business to enable as many riders as possible to use the fixed-route system instead of having to rely on CATARide paratransit service. It is also good citizenship to provide better facilities for all us-

ers and to accommodate persons with disabilities as part of the fixed-route customer base.

**Challenges:** Staffing to support the accessible bus stops initiative is CATA's biggest implementation challenge, followed by available funding to steadily implement improvements over time.





# Sample ADA Technically Infeasible Form (TIF)

[Agency Name]

## Related to Transit Stops for Fixed-Route Transit Services

*This form is used by [agency name] to address alterations to pedestrian infrastructure associated with transit stops, where the alterations involve pedestrian infrastructure that is outside of the transit agency's jurisdiction or control.*

*This form should be used if the infrastructure may not be in full compliance with the minimum Department of Transportation ADA Standards for Transportation Facilities (2006) or the Public Right-of-Way Accessibility Guidelines (PROWAG) Final Rule (2023) due to existing physical or site constraints. Completion does not assume regulatory agency approval that "maximum extent possible" has been achieved, as outlined in PROWAG.*

*This form also documents (agency name) coordination with the owner of the transportation infrastructure regarding potential improvements.*

### Location and Project Information

Transit Stop ID (if available)		Latitude/Longitude	
Roadway Name (Number)		Nearby Intersecting Roadway Name (Number), if applicable	
Direction of Travel		Transit Routes Served at the Location	
Municipality		Location Description (if needed)	

Does the agency own or control the sidewalk, pedestrian path, or roadway associated with access to the transit stop?	<input type="checkbox"/> Yes	Owner(s) of the sidewalk or pedestrian path	
	<input type="checkbox"/> No	Owner(s) of the roadway	
Shelter Agreement(s) (if present)			
Description of Proposed Transit Stop Alterations			



Pedestrian Infrastructure Evaluation

Select all that apply:

- ☐ Bus boarding and alighting area (i.e., ADA loading pad)
- ☐ Pedestrian Access Route (PAR) connecting the ADA loading pad and the sidewalk, street, or pedestrian path
- ☐ Pedestrian Access Route (PAR) connecting the ADA loading pad and the bus shelter
- ☐ Bus shelter or pad
- ☐ Other (describe)

Describe any non-compliant element(s) within the infrastructure:

Element (e.g., Width, Length, Cross Slope)	Target Value	Achievable Value





## Proposed Justification for Non-compliant Element(s)

Design constraints or reasons for technical infeasibility:\*

<input type="checkbox"/> Underlying terrain	<input type="checkbox"/> Environmentally designated or protected areas	<input type="checkbox"/> Existing utilities
<input type="checkbox"/> Stormwater / Drainage	<input type="checkbox"/> Impacts a “qualified historic building or facility”**	<input type="checkbox"/> Buildings, structures, vaults
<input type="checkbox"/> Other (describe)		

\* Per PROWAG Final Rule, Federal Register, Vol. 88, No. 151, August 8, 2023, page 53608, “right-of-way availability” is no longer an example of an existing physical constraint.

\*\* As defined in PROWAG Final Rule, page 53652.

Description (if needed)	
----------------------------	--

Design alternatives considered:

Design Alternative	Alternative Selection	Selection Justification
	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Supporting Information: ☐ Attached ☐ None available



## Coordination with Sidewalk, Pedestrian Path, or Roadway Owner(s)

Describe coordination with the entity that owns or controls the non-compliant element of the sidewalk, pedestrian path, or roadway. Additional documentation may be attached.

Supporting Information: ☐ Attached ☐ None available

## Form Preparation and Review

Form Submission			
Prepared by			
Title			
Organization			
Email		Phone	
Date			

Agency Review			
Reviewed by			
Title			
Organization			
Email		Phone	
Date			
Describe any Follow-up			





# Transit Agency Accessibility Sample Checklist for Better Bus Stops

This checklist is intended to assist the transit agency in identifying existing conditions at a bus stop ("transit stop"\* is used in the PROWAG Final Rule) as part of a general, corridor, or individual inventory process. In implementing accessibility improvements, the agency should understand the existing conditions as a baseline for formulating options. The checklist can be stored as an attachment to a database and updated periodically.

LOCATION/TRANSIT SERVICES					
Observation Date	Month:	Day:	Year:		
Transit Stop ID (if provided)					
Street/Road					
Closest Cross Street or Address					
Municipality/ County					
GPS Location (if known)					
Street/Road Ownership					
Route(s) Serving Location					
Type of Services Provided at This Location (select all that apply)	<input type="checkbox"/> Local fixed-route	<input type="checkbox"/> Express fixed-route	<input type="checkbox"/> Deviated fixed-route or microtransit	<input type="checkbox"/> Paratransit	<input type="checkbox"/> Other
Average Boardings	Weekday:		Saturday:	Sunday/Holiday:	
Average Alightings	Weekday:		Saturday:	Sunday/Holiday:	
Wheelchair Lift Requests at Location	<input type="checkbox"/> Yes (specify frequency)			<input type="checkbox"/> No	<input type="checkbox"/> No data

\*Refer to PROWAG Final Rule for definition.



LOCATION/TRANSIT SERVICES, cont'd.					
<b>Direction(s) Served</b>	<input type="checkbox"/> North	<input type="checkbox"/> South	<input type="checkbox"/> East	<input type="checkbox"/> West	<input type="checkbox"/> Multiple
<b>Configuration</b>	<input type="checkbox"/> Near side	<input type="checkbox"/> Far side	<input type="checkbox"/> Mid-block	<input type="checkbox"/> Other	
<b>Other Notes Related to Stop Use or Function</b>					
<b>Diagram</b>					





TRANSIT STOP FUNCTION				
Front door boarding & alighting area	<input type="checkbox"/> Compliant (min 5' wide x 8' deep)		<input type="checkbox"/> Non-compliant	<input type="checkbox"/> Not present
Rear door boarding & alighting area	<input type="checkbox"/> Present	<input type="checkbox"/> Not present		
Paving material (if present)	<input type="checkbox"/> Concrete	<input type="checkbox"/> Asphalt	<input type="checkbox"/> Other (describe)	<input type="checkbox"/> N/A
Boarding height	<input type="checkbox"/> Street level	<input type="checkbox"/> Standard curb height*		<input type="checkbox"/> Boarding platform (requires DWS)*
Detectible Warning Surface	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Clear zone for rear door	<input type="checkbox"/> Present	<input type="checkbox"/> Not present		
Obstructions (describe)				
Sidewalk present?	<input type="checkbox"/> Yes, full movement		<input type="checkbox"/> Yes, but incomplete	<input type="checkbox"/> No
Sidewalk condition	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor	<input type="checkbox"/> Varies
Shelter present?	<input type="checkbox"/> Yes (provide ID number)			<input type="checkbox"/> No
Bench in shelter	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Is there an alternative	<input type="checkbox"/> Yes (describe)			<input type="checkbox"/> No
Can a wheelchair fit and maneuver in	<input type="checkbox"/> Yes (describe)		<input type="checkbox"/> No (describe)	<input type="checkbox"/> N/A
Are there any other accessibility issues for the shelter?	<input type="checkbox"/> Yes (describe)		<input type="checkbox"/> No (describe)	<input type="checkbox"/> N/A
Lighting	<input type="checkbox"/> In shelter	<input type="checkbox"/> Adjacent to stop	<input type="checkbox"/> Ambient	<input type="checkbox"/> None
Other notes related to function				

\*Refer to PROWAG Final Rule for definition.



ACCESS					
Paired bus stop on opposite side?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Stop serves both directions of travel	<input type="checkbox"/> On one-way street	
Posted speed of primary roadway					
Pedestrian Access Route to roadway crossing (for opposite side boarding/alighting)	<input type="checkbox"/> Good condition	<input type="checkbox"/> Fair/poor condition (describe)			<input type="checkbox"/> Not present
Crosswalk markings	<input type="checkbox"/> Good condition	<input type="checkbox"/> Fair/poor condition (describe)	<input type="checkbox"/> Unmarked	<input type="checkbox"/> N/A	
Perpendicular Curb Ramp (across service corridor)	<input type="checkbox"/> Good condition	<input type="checkbox"/> Fair/poor condition (describe)	<input type="checkbox"/> Not present		
Crossing controls to opposing stop	<input type="checkbox"/> Traffic signal	<input type="checkbox"/> Pedestrian hybrid beacon*	<input type="checkbox"/> Roundabout	<input type="checkbox"/> Stop sign	<input type="checkbox"/> No traffic control
Signalization of crossing	<input type="checkbox"/> Pedestrian signal head*	<input type="checkbox"/> With countdown timer	<input type="checkbox"/> Accessible pedestrian signal	<input type="checkbox"/> N/A	
Pedestrian refuge island*	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A		
Pedestrian Access Route to adjacent uses	<input type="checkbox"/> Good condition	<input type="checkbox"/> Fair/poor condition (describe)			<input type="checkbox"/> Not present
Parallel Curb Ramp (across side street or driveway)	<input type="checkbox"/> Good condition	<input type="checkbox"/> Fair/poor condition (describe)			<input type="checkbox"/> Not present
Other notes related to access					

\*Refer to PROWAG Final Rule for definition.



POTENTIAL ALTERATIONS*			
Site <u>currently under</u> construction?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Entity Name			
Contact Name			
Contact Address			
Contact Phone	Cell:	Office:	
Nature of construction			
Material impact on transit stop location	<input type="checkbox"/> Yes (describe)		<input type="checkbox"/> No (describe)
Material impact on transit stop access	<input type="checkbox"/> Yes (describe)		<input type="checkbox"/> No (describe)
Proposed mitigation to retain current or improve accessibility?			
Please document any communication with the responsible entity separately and attach to form.	<input type="checkbox"/> Documentation attached	<input type="checkbox"/> N/A	

\*Refer to PROWAG Final Rule for definition.





POTENTIAL ALTERATIONS,* cont'd.			
Site <u>proposed for</u> redesign or construction?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Entity Name			
Contact Name			
Contact Address			
Contact Phone	Cell:	Office:	
Nature of construction			
Material impact on transit stop location	<input type="checkbox"/> Yes (describe)		<input type="checkbox"/> No (describe)
Material impact on transit stop access	<input type="checkbox"/> Yes (describe)		<input type="checkbox"/> No (describe)
Proposed mitigation to retain current or improve accessibility?			
Status of approvals			
Other notes related to current or proposed alterations			
Please document any communication with the responsible entity separately and attach to form.	<input type="checkbox"/> Documentation attached	<input type="checkbox"/> N/A	

\*Refer to PROWAG Final Rule for definition.

