

GTFS Wheelchair Accessibility Data

Making wheelchair
accessibility of our transit
systems explicit.

CAL

ITP

Updated Sept 2024



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Why?

1. **Your customers!**
2. **ADA (US)**
3. **Unruh Civil Rights Act (CA)**
4. **CA Transit Data Guidelines**

ADA

Requires that agencies make reasonable accommodations to ensure services are provided to people with disabilities “comparable to the level of designated public transportation services provided to individuals without disabilities using such system.”

All transit agencies are required to adhere to ADA Title II or III

Case law against LACMTA establishes that failure to provide adequate trip planning services is a violation of ADA for “failing to provide paratransit services comparable to its regular public transportation”.

It could be reasonably assumed that failure to provide a comparable trip planning experience would be interpreted of being in violation of ADA as well.

Unruh Civil Rights Act

“All persons within the jurisdiction of this state are free and equal, and no matter what their sex, race, color, religion, ancestry, national origin, **disability, medical condition**, genetic information, marital status, sexual orientation, citizenship, primary language, or immigration status are **entitled to the full and equal accommodations, advantages, facilities, privileges, or services in all business establishments of every kind** whatsoever.”

[CA Civil Code Section 51](#)

[Website Accessibility Case Law](#)

Likely applicable to

- Traveller information and travel planning tools
- Provision of explicit wheelchair access information, language translations and DRT trip planning

California Transit Data Guidelines

“Include complete wheelchair_boarding data for both stops.txt and trips.txt”

“Include sufficient data instops.txt, pathways.txt, and levels.txt to navigate to, from, and between any boarding zone to street level with varying physical abilities including pathway_mode and num_stairs where applicable. This includes but is not limited to any stops that use parent_station in stops.txt as well as all significant or named transit facilities where an infrequent visitor may be concerned about accessibility.”

[CA Transit Data Guidelines v2](#)



Explicit Wheelchair Accessibility Data:

- The wheelchair_boarding field has a valid, non-null value for every entry in stops.txt.
- The wheelchair_accessible field has a valid, non-null value for every entry in trips.txt.
- **Where applicable**, sufficient data is included within stops.txt, pathways.txt, and levels.txt to navigate to, from, and between any boarding zone to street level with varying physical abilities

[CA Transit Data Guidelines v3 Release Candidate](#)

What does it look like?

To your customers



What Does Accessibility Look Like?

The screenshot displays the Google Maps interface for a route from Ronald Reagan Washington National Airport to the National Mall. The map shows the Potomac River, the Washington National Cathedral, and the National Mall. The route is highlighted in blue, and the National Mall is marked with a red pin. The interface includes a sidebar with route options and a map view.

Route options

Prefer

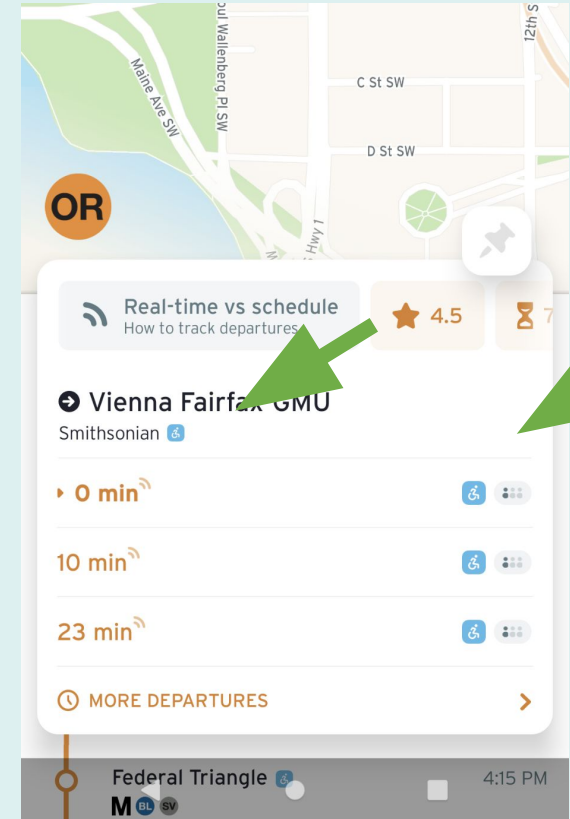
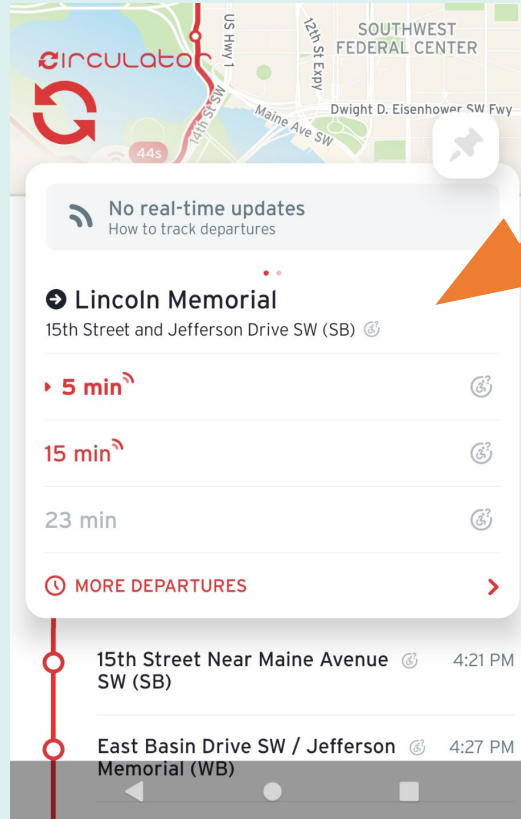
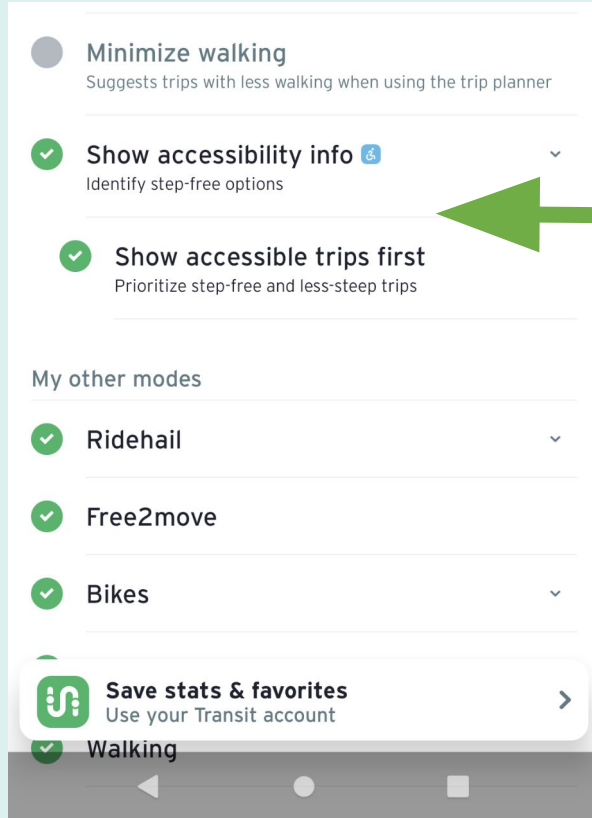
- ☐ Bus
- ☐ Subway
- ☐ Train
- ☐ Tram and light rail

Routes

- ☒ Best route
- ☐ Fewer transfers
- ☐ Less walking
- ☐ Wheelchair accessible

A green arrow points to the "Wheelchair accessible" option in the "Routes" section.

What Does Accessibility Look Like?



Source: TransitApp

Where can we specify wheelchair Accessibility

...in GTFS



For Trips

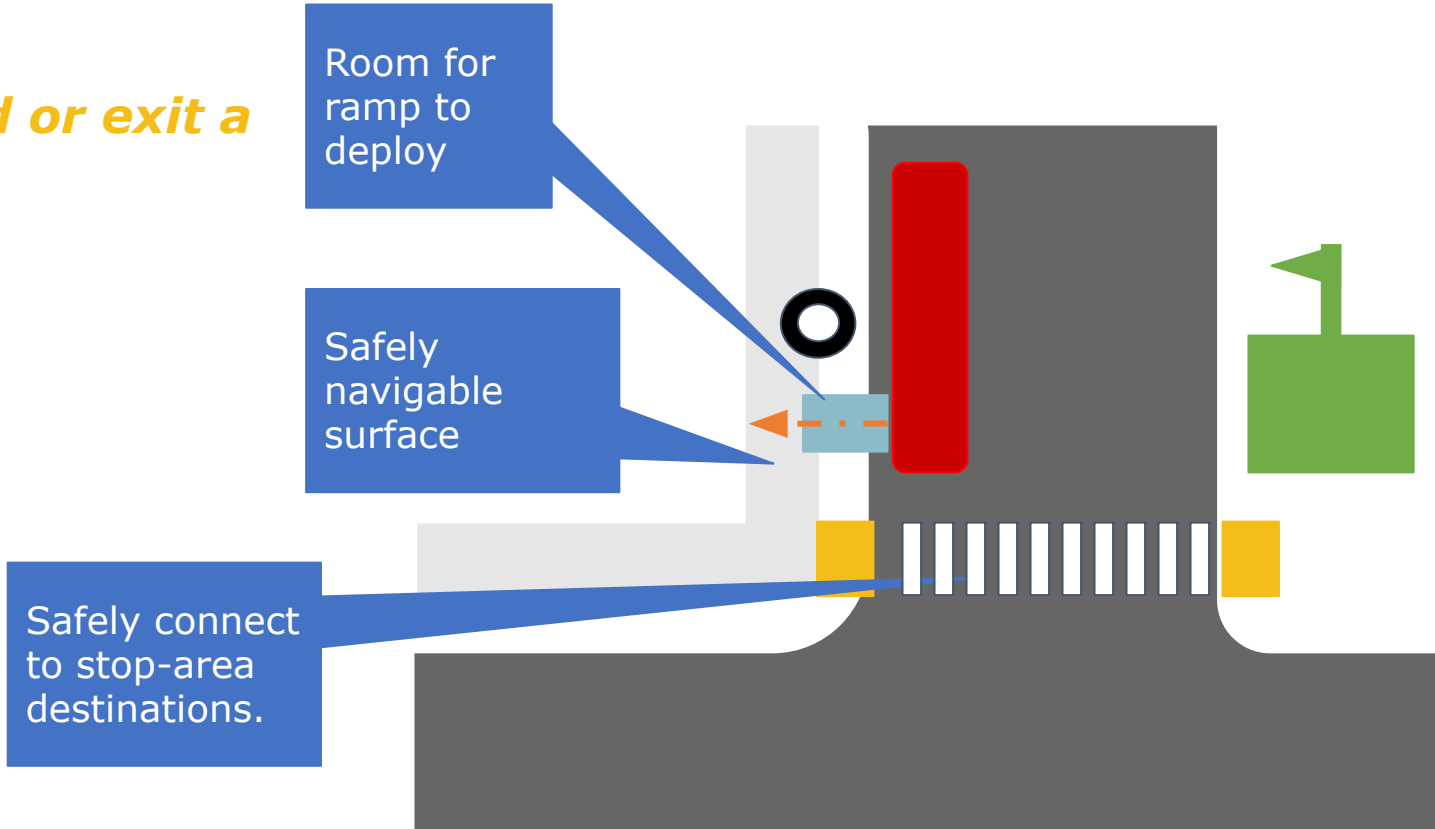
*Should I use this
route/trip?*



www.rodjonesphotography.co.uk, CC BY 2.0, via
Wikimedia Commons

Simple Stops

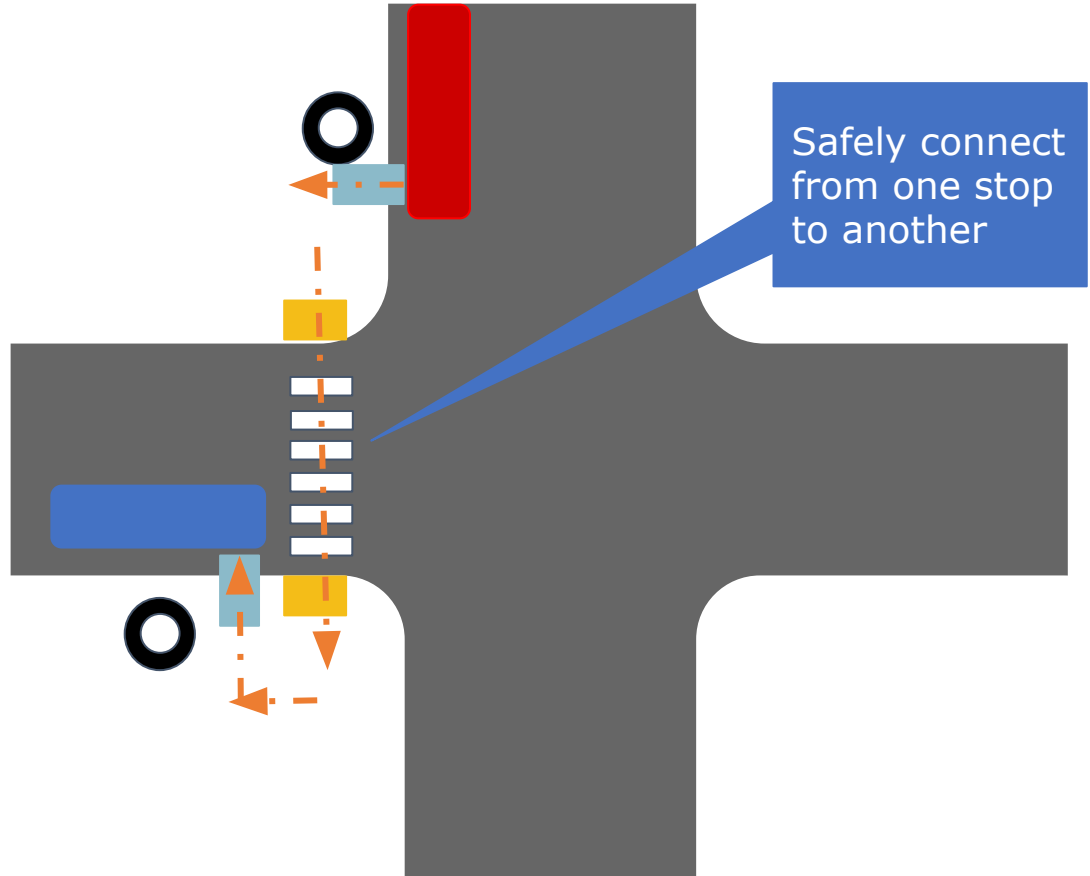
Should I board or exit a vehicle here?



Stop Groups

*Is this a place I
should transfer?*

What is the route?

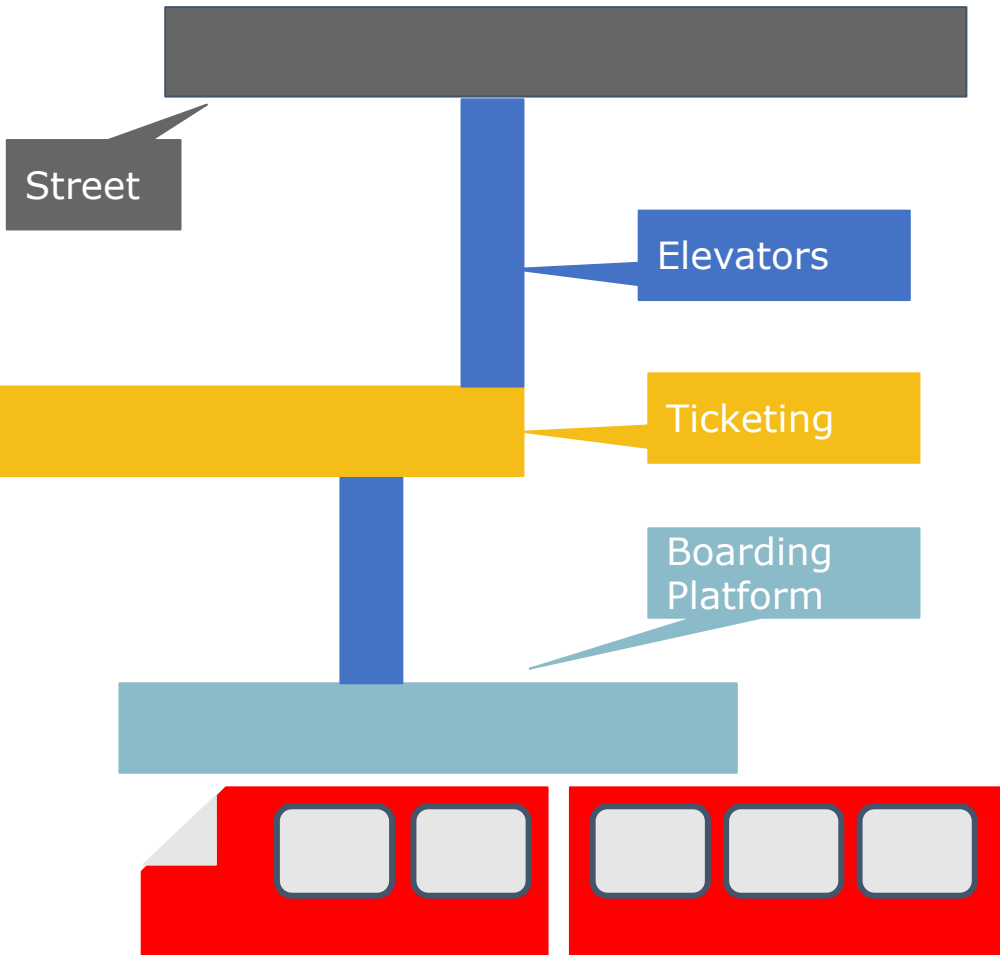


Complex Stations

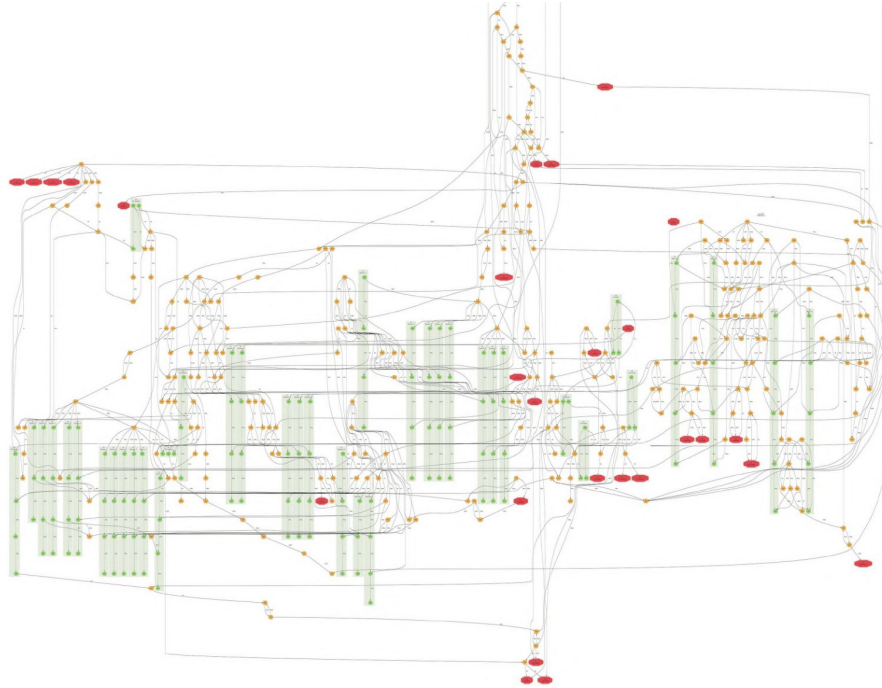
How should I get to

Platform B in my

wheelchair?



Very Complex Stations



California Transit Data Guidelines

What is "where applicable" for needing Pathways?

1. **Stop serves rail**
2. **Stop access requires entry/exit into a building**
3. **Stop requires different access path for wheelchair users**

How do we add it?

...in GTFS



For Trips

Use wheelchair_accessible field in trips.txt

Should be specified in GTFS Schedule for planning ahead, but should also updated in GTFS Realtime if it changes.

0 or empty - No accessibility information for the trip.*

1 - Vehicle being used on this particular trip can accommodate at least one rider in a wheelchair.

2 - No riders in wheelchairs can be accommodated on this trip.

** Goal is to minimize the # of stops with this value.*

For Simple Stops

Use wheelchair_boarding field in stops.txt

0 or empty - No accessibility information for the stop.*

1 - Some vehicles at this stop can be boarded by a rider in a wheelchair.

2 - Wheelchair boarding is not possible at this stop.

** Goal is to minimize the # of stops with this value.*



For Stop Groups

Use wheelchair_boarding field in stops.txt

Use pathways.txt to describe routes between stops.

Defined by: pathway_id, from_stop_id, to_stop_id

pathway_mode: e.g. walkway, stairs, escalator, elevator

stair_count: specify if there are any grade separations

max_slope: specify if not easily navigable by wheelchair



For Complex Stations

1. Plan the effort* by consulting resources like:
 - a. [Kisio Pathways Data Collection Guide](#)
2. Leverage tooling like:
 - a. [GTFS Station Builder](#)
3. Validate accuracy visually with graph visualization tools like:
 - a. [GTFS Station Builder](#)

**If can't do it all at once, plan a phasing which adds detail or specific stations over time - prioritizing most important information first.*

Who is already publishing?



In California

	Wheelchair Boarding	Pathways
Bay Area 511	✓	✓
San Diego MTS	✓	
Monterey Salinas	✓	
NCTD	✓	
Nevada County Connects	✓	
Torrance	✓	
Eastern Sierra	✓	

Nationally

	Wheelchair Boarding	Pathways
WMATA	✓	✓
MBTA	✓	✓
LIRR	✓	
DART	✓	
MARTA	✓	
NYC DOT Ferry	✓	
Maryland Transit Administration	✓	
Metro Transit (MN)	✓	

Concerns

Liability

Protections:

1. Usage License and Terms of Use

See [recommended text](#)

2. Caveats at UX level



← from Nationals Park
to National Mall

26 min (1.3 miles)



via Half St SE and Washington Ave SW



Use caution—walking directions may not always
reflect real-world conditions



Nationals Park

1500 S Capitol St SE, Washington, DC 20003

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UX Caveats


4:09 PM - 4:24 PM
(15 min)




4:13 PM from M St SE & S Capitol SE
5 min every 20 min

 [Add to Calendar](#)

 Use caution—wheelchair-accessible directions may not always reflect real-world conditions

- 4:09 PM
- 

Nationals Park
1500 S Capitol St SE, Washington, DC 20003
- 

Walk



Temporarily Inaccessible

If a stop is usually wheelchair accessible, but becomes temporarily unavailable, you can either or both of:

1. Update and re-publish stops.txt or pathways.txt with updated wheelchair_accessibility or steps (*preferred if long-term*)
2. Add an alert for a specific time range to the stop with the type: ACCESSIBILITY_ISSUE and optionally the severity level (*necessary if unplanned*)



Note: There are proposed improvements to the realtime component to pathways. If interested, contact hello@calitp.org