GTFS Wheelchair Accessibility Data

Making wheelchair accessibility of our transit systems explicit.

Updated Sept 2022
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2. What does it look like to customers?
3. Where do we specify it?
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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
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.”

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 v2

CA Transit Data Guidelines v3 Release Candidate
What does it look like?

To your customers
What Does Accessibility Look Like?

- Ronald Reagan Washington National Airp
- National Mall

Route options:
- Prefer:
  - Bus
  - Subway
  - Train
  - Tram and light rail
- Routes:
  - Best route
  - Fewer transfers
  - Less walking
  - Wheelchair accessible

Google Maps
What Does Accessibility Look Like?

Source: TransitApp
Where can we specify wheelchair Accessibility...in GTFS
For Trips

Should I use this route/trip?
Simple Stops

Should I board or exit a vehicle here?

- Room for ramp to deploy
- Safely navigable surface
- Safely connect to stop-area destinations.
Stop Groups

Is this a place I should transfer?

What is the route?

Safely connect from one stop to another.
Complex Stations

How should I get to Platform B in my wheelchair?
Very Complex Stations

Source: Kisio GTFS Pathways Methodology Book
California Transit Data Guidelines

What is “where applicable” for needing Pathways?

1. Stop serves rail
2. Stop record has parent or is a parent
3. Stop is close to another stop (<~300’)
4. Stop is far from roadway ROW (>~10’)
5. Stop name contains "transit center" or "station"
How do we add it?

...in GTFS
For Trips

Use `wheelchair_accessible` field in `trips.txt`

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.

Should be specified in GTFS Schedule for planning ahead, but should also updated in GTFS Realtime if it changes.
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?
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<td>Eastern Sierra</td>
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## Nationally

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</table>
Concerns
Liability

Protections:
1. Usage License and Terms of Use
   See recommended text
2. Caveats at UX level

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

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
  0.2 mi in 3 min
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