



Accessibili-T

**Making Boston's Public Transit
Easier on Those with Disabilities**

Kit TeSelle, CAS '23

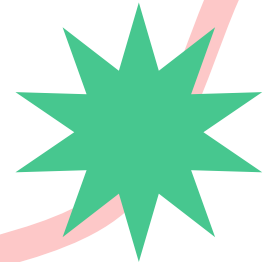
Contents

- 01** The project in a nutshell
- 02** Why is a new app necessary?
- 03** What are the features of the app?
- 04** Feedback & What's Next

01



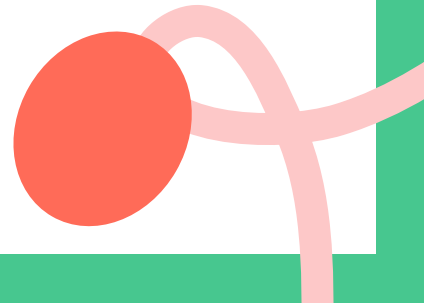
The project in a nutshell



MBTA's current accessibility info available online

- ✱ Trip Planner
- ✱ Public transportation trainings
- ✱ "How-to" videos

**All of which require extensive preparation,
all just to ride the bus or train!**



You cannot use these resources to

01

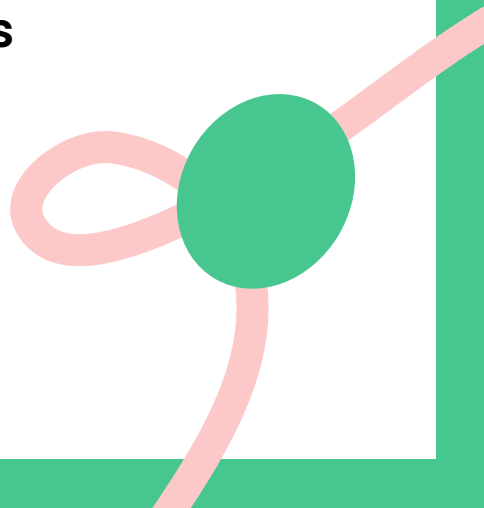
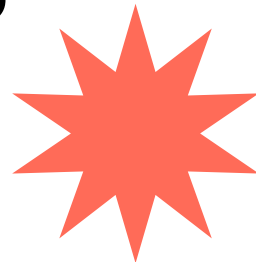
Check station statuses on a whim

02

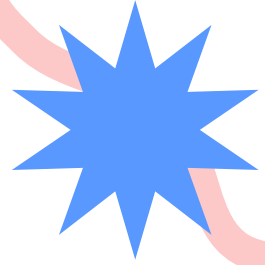
Get real-time updates about your local stops

03

**See arrival times in the same place as
accessibility resources**



The aim of Accessibili-T



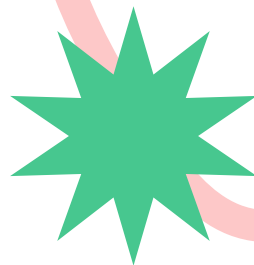
- ✱ Keep useful resources in one easily reachable place
- ✱ Receive feedback from riders that may be facing accessibility issues on their commute
- ✱ Assist out of town visitors in navigating stations and seamlessly utilizing Boston's public transit system
- ✱ One-step reporting that can be done right from a user's mobile device
- ✱ Promote quicker resolution of issues by the MBTA



02

**Why is a new app
necessary?**

People want to be in-the-loop



Sarah Jo @sarahjosmith · Mar 28



@MBTA how is it not an ADA violation to have both the escalator AND elevator out of service at Kendall?



3



2



8



471



BradyBeagle @BradyBeagle · Mar 29



@mbta day 2. NO elevator, NO escalator at Kendall outbound side. NO announcement, NO help from MBTA staff. Clearly ongoing, yet no alert on the website. 🙄🙄🙄. Well done MBTA. Well done



1



1



3



311





Michael Moxley @BostonMoxley · Feb 1, 2022

Annual shout out to the @MBTA for their abandoned and vandalized bench which I have to shovel around because they don't. #jamaicaplain



1



6



LM @literalllily · Mar 20

This is ridiculous @MBTA 20+ minute waits at Oak Grove and not a single indoor seat at this brand new station. Pathetic.



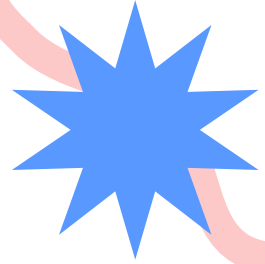
1



312

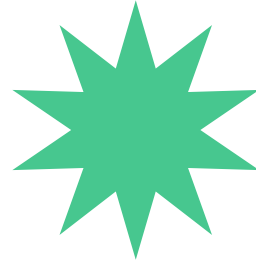


Disability is a spectrum

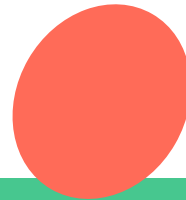


- ✱ Most of MBTA's accessibility efforts are geared towards those with wheelchairs or other mobility issues
- ✱ Even then, many stops do not have benches, escalators, or stair railings
- ✱ People with non-mobility-related disabilities (blind, HOH, elderly individuals) may have trouble determining if a stop is accessible to them

03



**What are the features
of the app?**



Primary Features



Self-reporting

Station features

Bus stop grading system

Customizable routes

Station maps

Self-Reporting on Accessibility-T

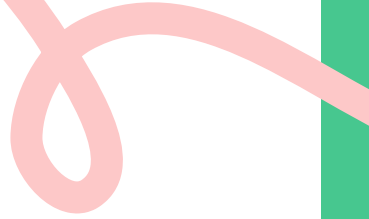


- * Broken amenities (benches, auditory/visual signaling, elevators)
- * Unplowed snow (bus stops)
- * Slippery floors/stairs
- * Noise levels (both speakers AND crowd noise)
- * Users may contact 311 or MBTA Maintenance Control Center (MCC) with a form embedded in the app itself

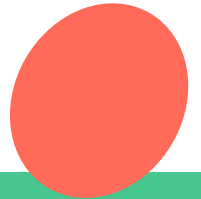
Station features

- ✱ Users may choose which amenities they are interested in seeing for all stops (i.e. a user with hearing impairment may want to know which stops have visual signalling)
- ✱ Users may see self-reported updates (i.e. "14 hours ago: broken elevator reported by Accessibili-T user")
- ✱ Reports non-accessibility-related amenities such as shelter coverings and trash cans

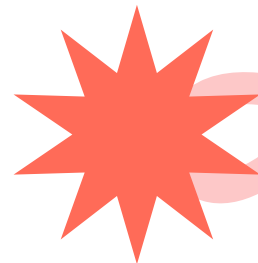
Bus stop grading system



- * Top graded stops (A) have benches, shelter, a map, and lighting
- * Mid graded stops (B-D) may have one of two of the above amenities
- * Low graded stops (F) only contain a sign indicating which buses pick-up at the given stop



Customizable routes



- ✱ Users may input their commute or other regular routes from one location to another
- ✱ Notifications alert the user at a chosen time if there are any station alerts or self-reports on their route
- ✱ The app may suggest different routes based on accessibility needs that may not be met by certain stops

Station Maps

- * Station maps would provide out of town visitors with disabilities some assistance in getting around a new city
- * It may be daunting for someone not familiar with the MBTA to get around using public transit, whether they are disabled or not



K.B @KB81676104 · Mar 29



The MBTA does not offer human to human assistance for helping disabled folks plan trips. Hi everyone, I'm a disabled out of state MBTA newbie planning my first trip to Boston - any advice or resources would be much appreciated! :)



3



5



5



1,972

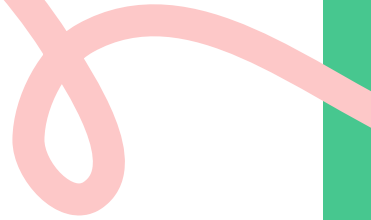




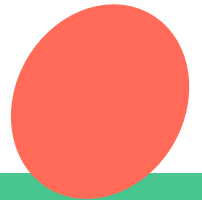
04

Feedback & What's Next?

My meeting with MBTA System-Wide Accessibility



- ✳ On April 4, 2023, I met with three individuals that work with accessibility on the MBTA with my main contact being **Jennifer Ross, Deputy Director of Customer Engagement**
- ✳ Several suggestions regarding “self-reporting” feature
- ✳ Involvement of 311 and MBTA’s Maintenance Control Center (MCC)
- ✳ Discussed the lack of an official MBTA app and endorsement of third-party apps
- ✳ Concerns surrounding user participation



Response to Critique

- ✱ Self-reported issues would first be pushed to 311 or MBTA MCC and shown in the app as an issue that is pending repair
- ✱ Reporting kiosks at stations are a long term goal for solving user participation
- ✱ Users would receive an update when their reported issue is resolved



What's next?



- ✱ I am unable to complete this project on my own since I am not an app developer nor do I have experience doing so
- ✱ EE538: Research for Environmental Agencies is taught every semester at BU
- ✱ Today, I leave this project unfinished, but with the hope that one day a future EE538 student may bring it to fruition

Thanks!

Do you have any questions?

kteselle@bu.edu

+1 714 322 6230

[linkedin.com/in/kaileyteselle](https://www.linkedin.com/in/kaileyteselle)

