

Data-Driven Decision Making at MTA

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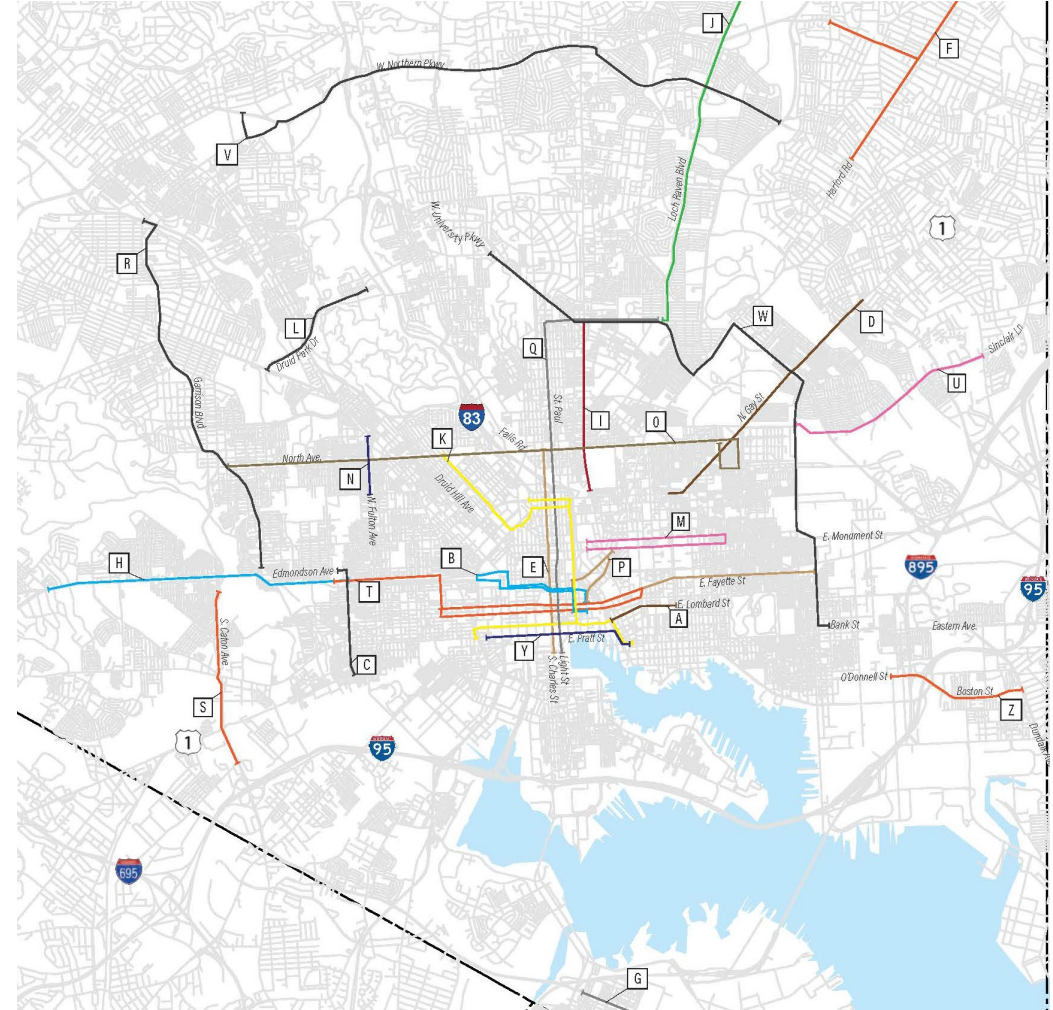
Current/Recent Efforts

- Improved bus tracking
- GPS data for service planning
- Capital projects investment
- North Avenue Rising
- Annihilator program
- Real-time ridership
- Priority Corridors



Using Data to Prioritize Transit Investment

- Goal is to work with local jurisdictions to improve bus reliability, speed, and safety
- Key datasets include ridership, speed, and dwell
- Examination and identification of priority corridors along frequent network for investment
- Gay St and Belair Rd corridor identified



Key Dataset - Ridership

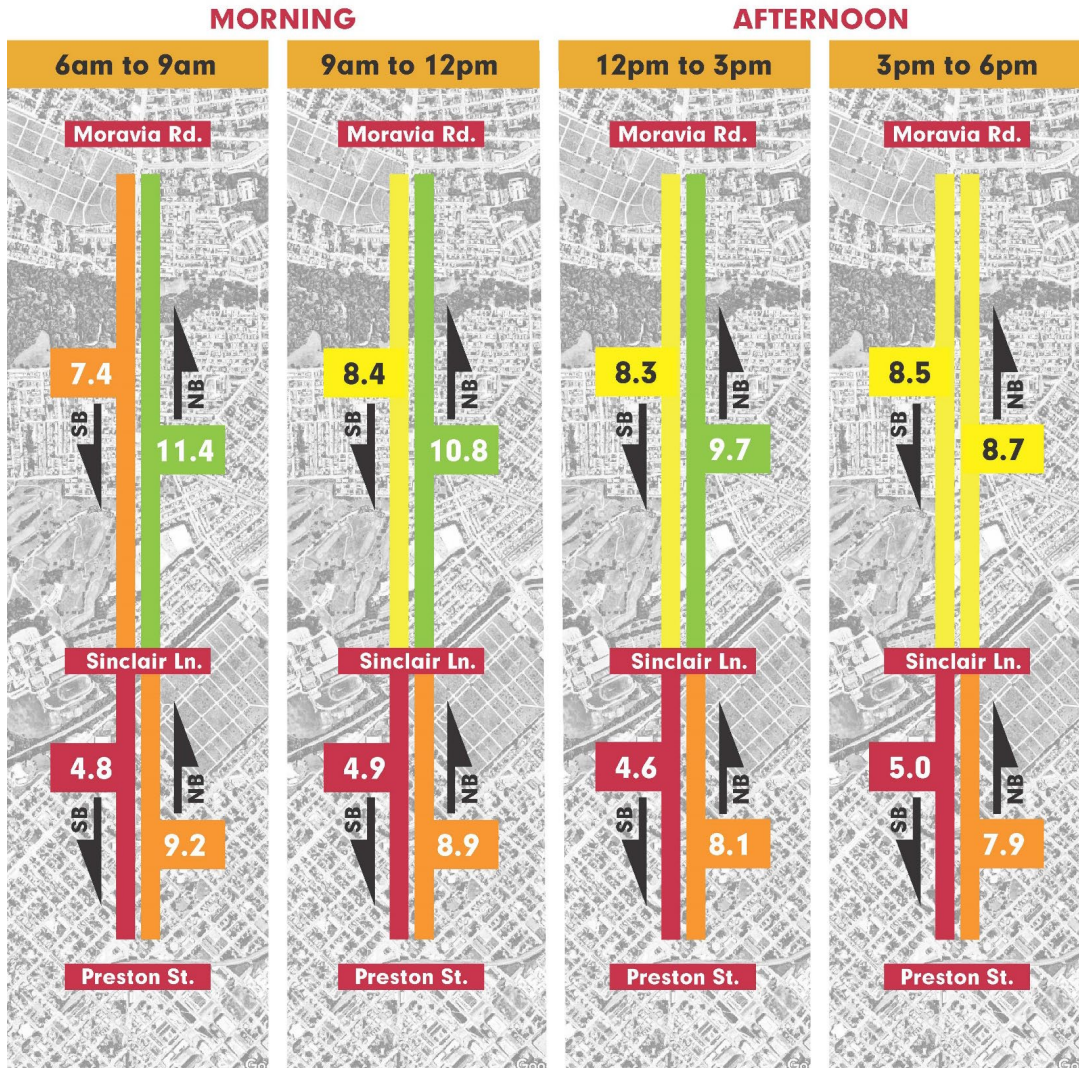


- Ridership measures how many individuals are boarding and alighting at each bus stop
- Collected by APC system (Automated Passenger Counter)
- Highest ridership at North Ave and Erdman Ave – transfer points

Weekday Ridership by Stop (Boardings + Alightings):

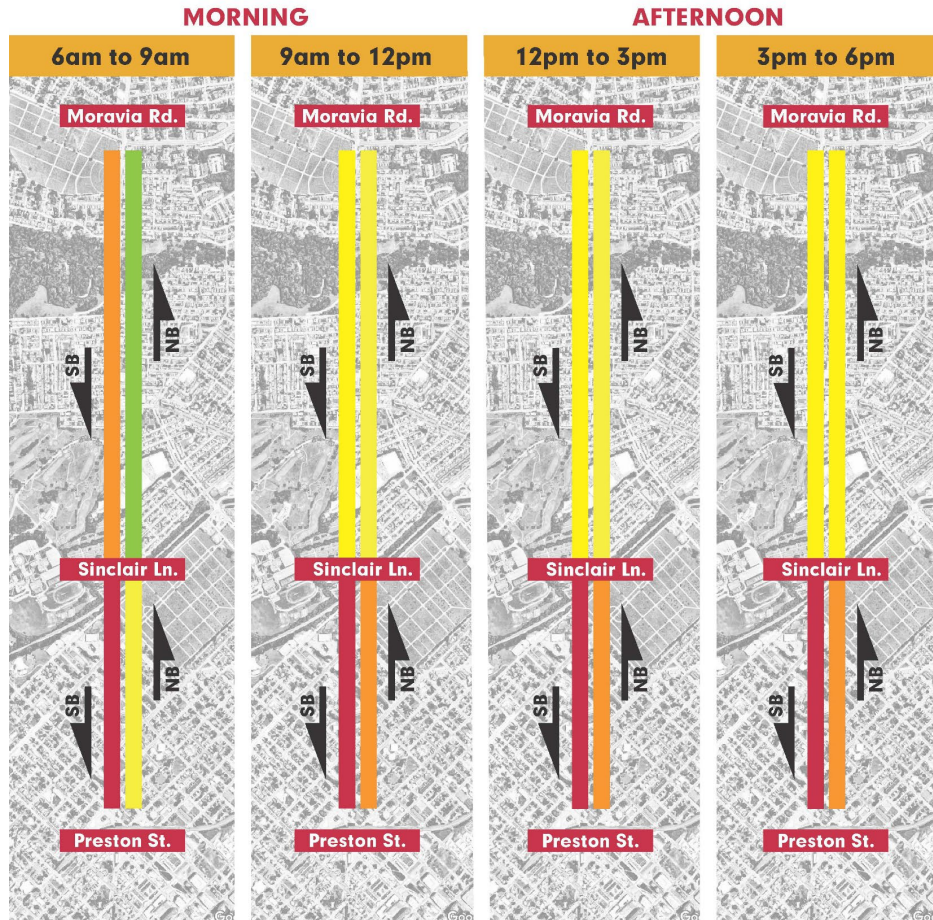
- 1 to 25
- 25 to 50
- 50 to 100
- 100 to 250
- 250 and up

Key Dataset - Speed



- The average speed of a bus (mph) traveling between two points
- Raw data is stop-to-stop speed
- Slowest travel southbound between Sinclair Ln and Preston St
- Compared to traffic speeds for scoring

Key Dataset – Dwell Time

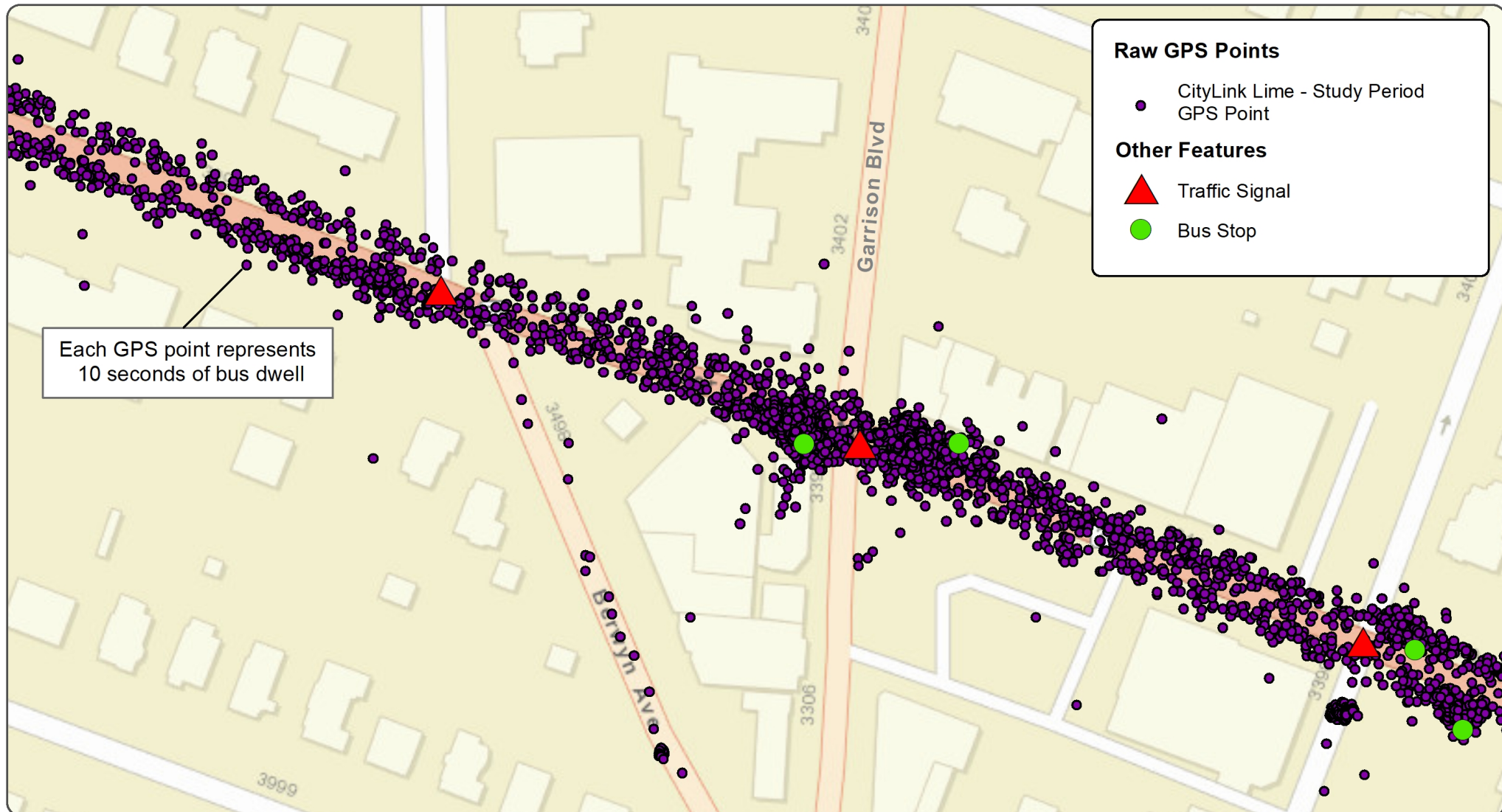


Average Dwell Time per Boarding per Stop in Seconds:

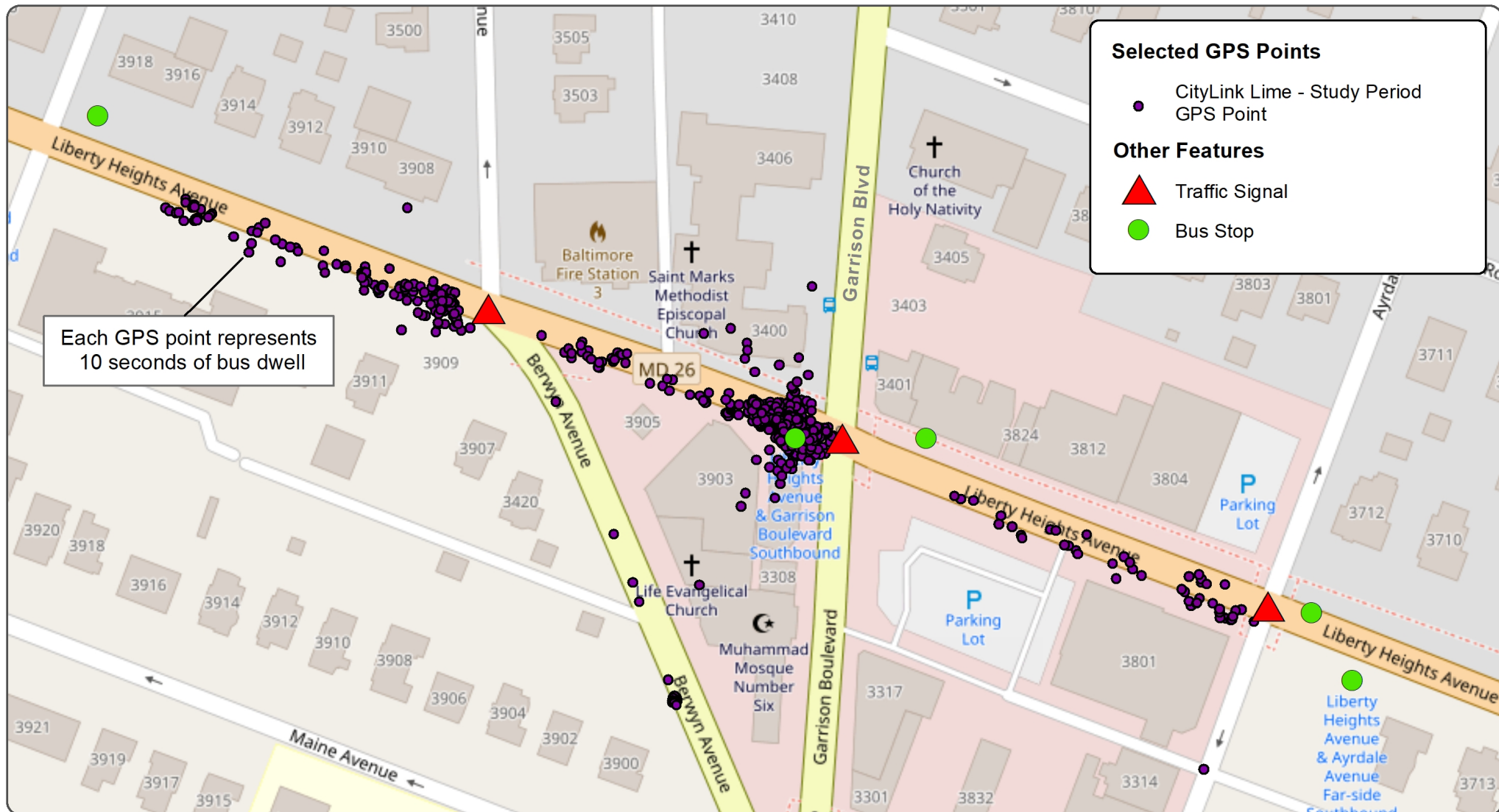
- 2.0 to 3.9
- 4.0 to 5.9
- 6.0 to 7.9
- 8.0 and up

- The time a bus spends at a bus stop picking up or dropping off passengers and re-entering the travel lane
- Normalized by ridership for scoring
- Map shows average dwell time per boarding per stop for segments
- Highest Southbound from Sinclair to Preston

GPS Breadcrumb Data

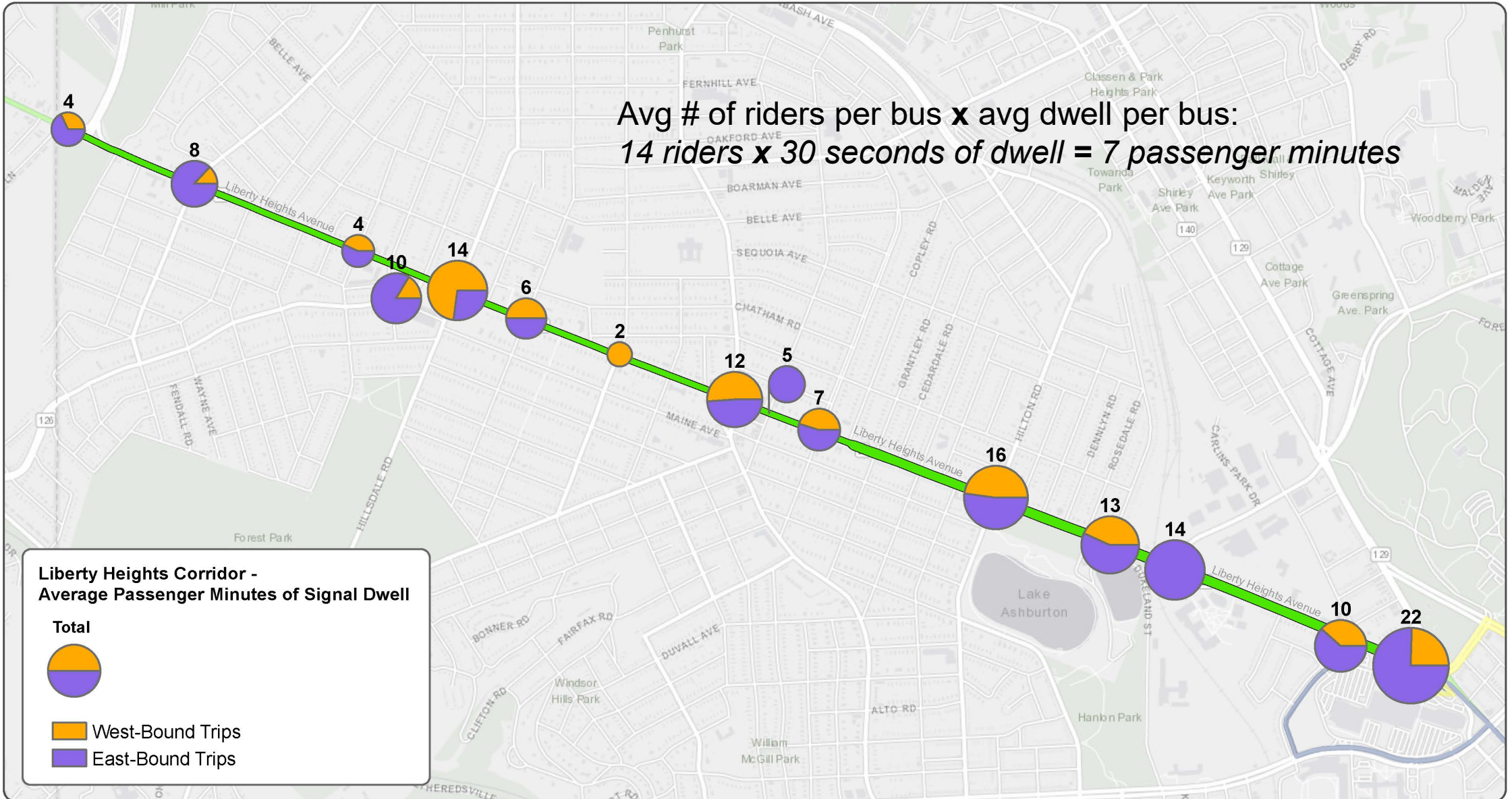


GPS Breadcrumb Data



Bus Dwell + Ridership

Avg # of riders per bus x avg dwell per bus:
 14 riders x 30 seconds of dwell = 7 passenger minutes



Where can I find this data?

- Speed/Dwell times
 - <https://www.mta.maryland.gov/developer-resources>
- Ridership
 - <https://data.imap.maryland.gov/datasets/maryland-transit-mta-bus-stops>
 - ArcGIS Online public account
 - QGIS

Live Poll?

I would like to use _____ data to _____.

Ex: Speed, figure out how fast my bus moves on Gay St

https://www.polleverywhere.com/free_text_polls/KU2jWgEg0V3kLkzFVFtQk