CITY OF CAMBRIDGE | Department of Transportation

Welcome to the January 2026 Transit Advisory Committee Meeting

January 8, 2026 | 6 p.m. - 7:30 p.m.

02. Presentation: Bus Delay and Unreliability Study Background

“The Why”

Cities can make buses travel better by redesigning streets to have dedicated lanes, retiming signals and adding technology that gives buses more time at a traffic signal.

The City's policies and plans direct city staff and departments to make changes that prioritize travel by public transit.

- Cambridge Growth policy (2007)
- Complete Streets (2016) and Vision Zero (2016) policies
- Envision Cambridge citywide plan (2019)
- Cambridge Zero Emission Transportation Plan (2025)
  - Part 1: Pages 1-26
  - Part 2: Pages 26-56 (Action items)

By identifying locations where the city should consider bus priority – dedicated lanes or signal priority – we can envision what changes to consider

In 2014, 2018, and 2022, we studied bus delay and unreliability on most bus routes in Cambridge. We will be updating this study in 2026.

This study's outcome is to produce a "grade" or rating for delay and unreliability at locations along the bus network.

Locations of concern

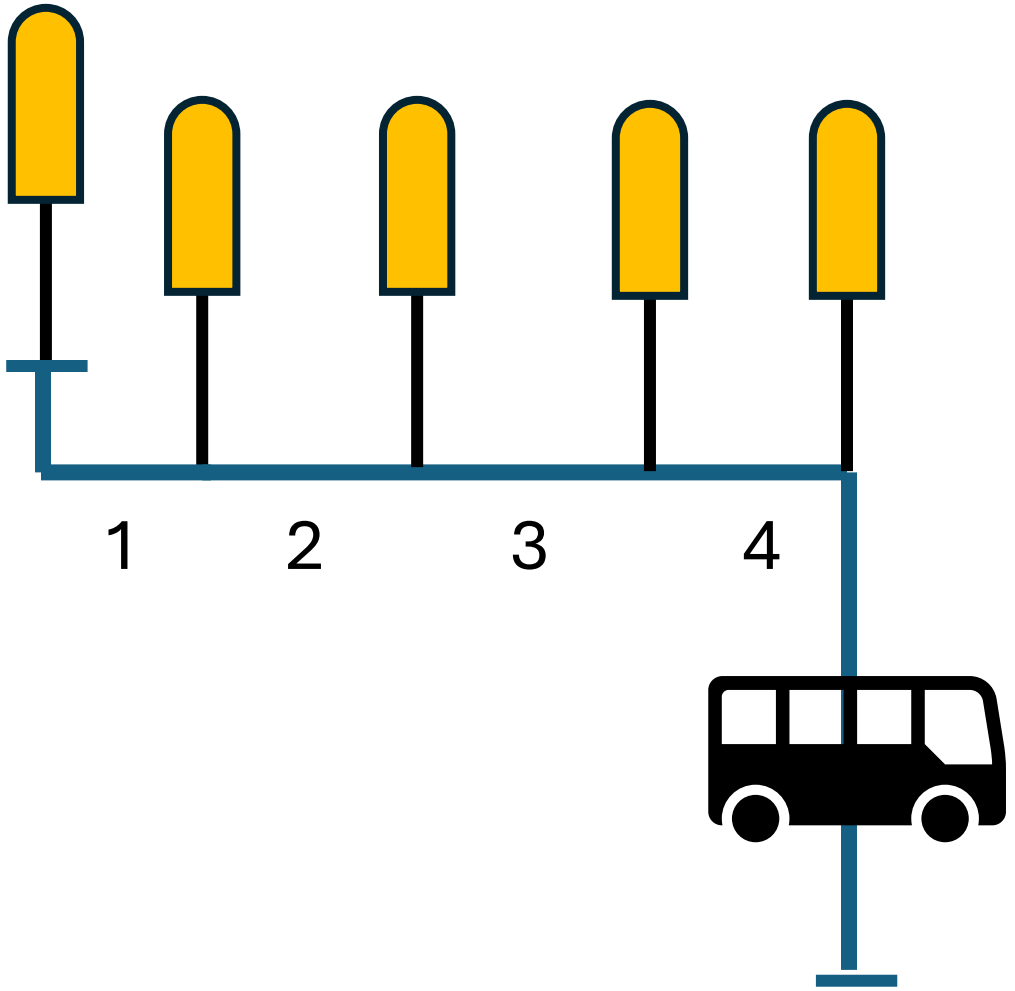
Composite Grade**
Excellent (A)
Good (B)
Satisfactory (C)
Unsatisfactory (D)
Poor (E)
Failing (F)
N/A

How we study bus delay and unreliability?

We have access to *travel time and passenger count* data from the MBTA. (Automated People Counter Data).

For every stop-to-stop segment along the route (locations 1, 2, 3, 4, and so on, on the drawing), we can calculate for certain periods of the day (AM and PM Peak):

- Median travel times
- Variation in travel time
- Average number of passengers riding



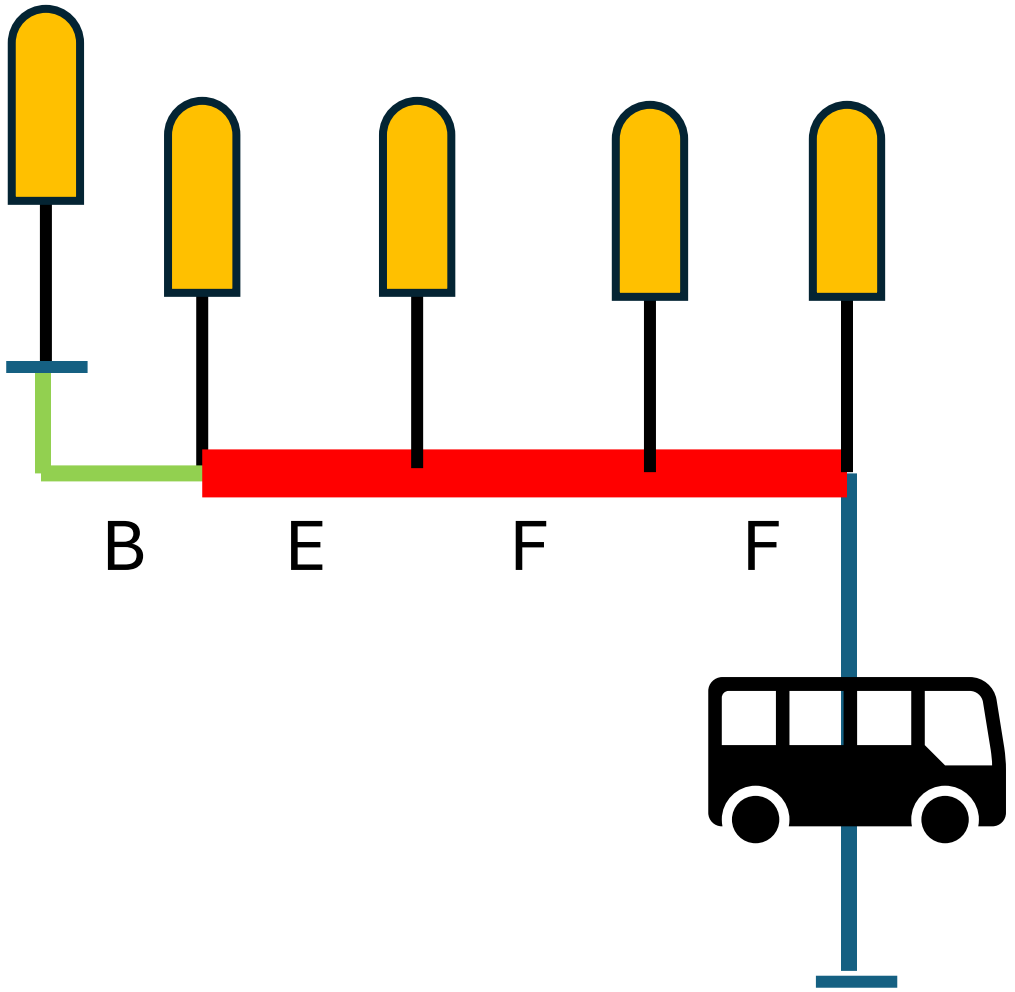
How we study bus delay and unreliability?

By comparing those statistics with minimum travel times, we can measure how those statistics compare with less busy times of day.

This provides information on:

- Delay (median compared to minimum)
- Variability (how different travel time is for trips)
- Calculate how many people are affected

And then calculate a grade for each stop-to-stop segment.



Locations of concern are the places where our studies show we should focus most on bus priority

Dedicated bus lanes and priority at traffic signals for buses are proven measures to improve public transit.

City staff want to deploy those measures at the locations where they are most needed.

The study identified locations where the composite grade was low (that is, Grades D, E, and F) and named them **locations of concern**

Locations of concern

Composite Grade**
Excellent (A)
Good (B)
Satisfactory (C)
Unsatisfactory (D)
Poor (E)
Failing (F)
N/A

Locations of concern are found citywide

North Mass Ave (Harvard to Alewife Brook Parkway)

Charles River Crossings

- JFK Street/Anderson Bridge
- Western Ave and River St Bridges
- BU Bridge
- Mass Ave/Harvard Bridge

Around business districts/major transfer locations

- Harvard Square
- Central Square
- Kendall Square
- Inman Square

Some other locations were identified, but, changes to bus routes mean that we need to update the analysis. (Blanchard Road, Concord Ave, Grove St, Fresh Pond Parkway).

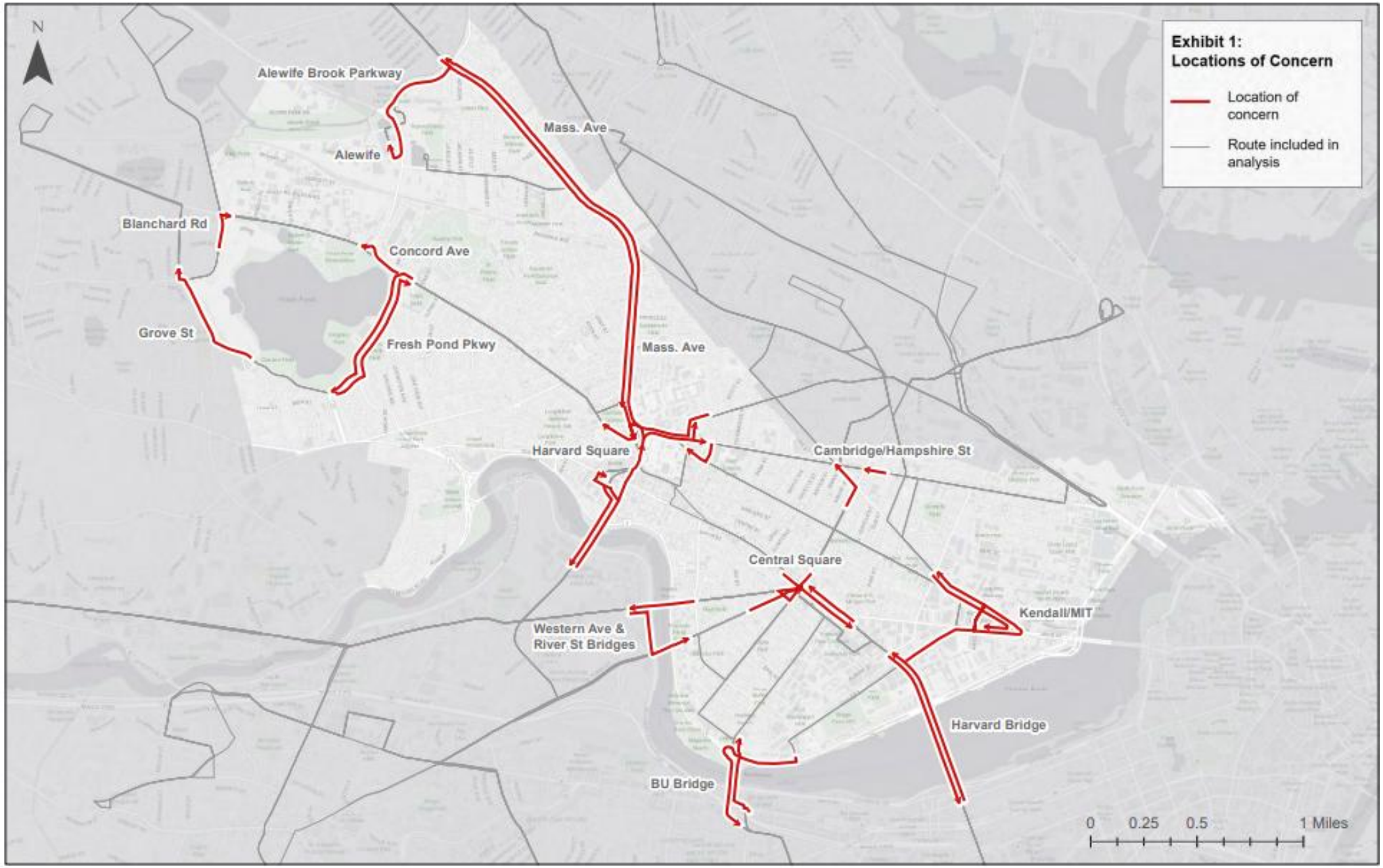

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Exhibit 1:
Locations of Concern
Location of concern
Route included in analysis
Alewife Brook Parkway
Alewife
Mass. Ave
Blanchard Rd
Concord Ave
Grove St
Fresh Pond Pkwy
Mass. Ave
Harvard Square
Cambridge/Hampshire St
Central Square
Kendall/MIT
Western Ave &
River St Bridges
Harvard Bridge
BU Bridge
0
0.25
0.5
1 Miles

Thank you!