



Grand Junction Transportation Study

June 16, 2011

6:30 PM

Morse School, Cambridge

Agenda

- Welcome and Introductions
- Project Purpose
- Study Scope
- Existing Conditions
- Future No-Build Conditions
- Build Alternatives
- Study Schedule and Next Steps
- Questions



Project Purpose

- Commonwealth purchase of CSX rail lines
- Commuter rail demand along Worcester line
- Neighborhoods, businesses, institutions adjacent to Grand Junction



Study Scope

- Examine existing conditions
- Project future conditions
- Develop potential service plans
- Forecast ridership
- Analyze impacts on pedestrians, bicyclists, traffic, other corridor proposals
- Estimate costs
- Recommendations and next steps

Existing Conditions – Worcester Line

- 21 daily round trips from/to South Station
 - Starting from Worcester or Framingham
 - South Station congested, capacity constrained
- 17 station stops



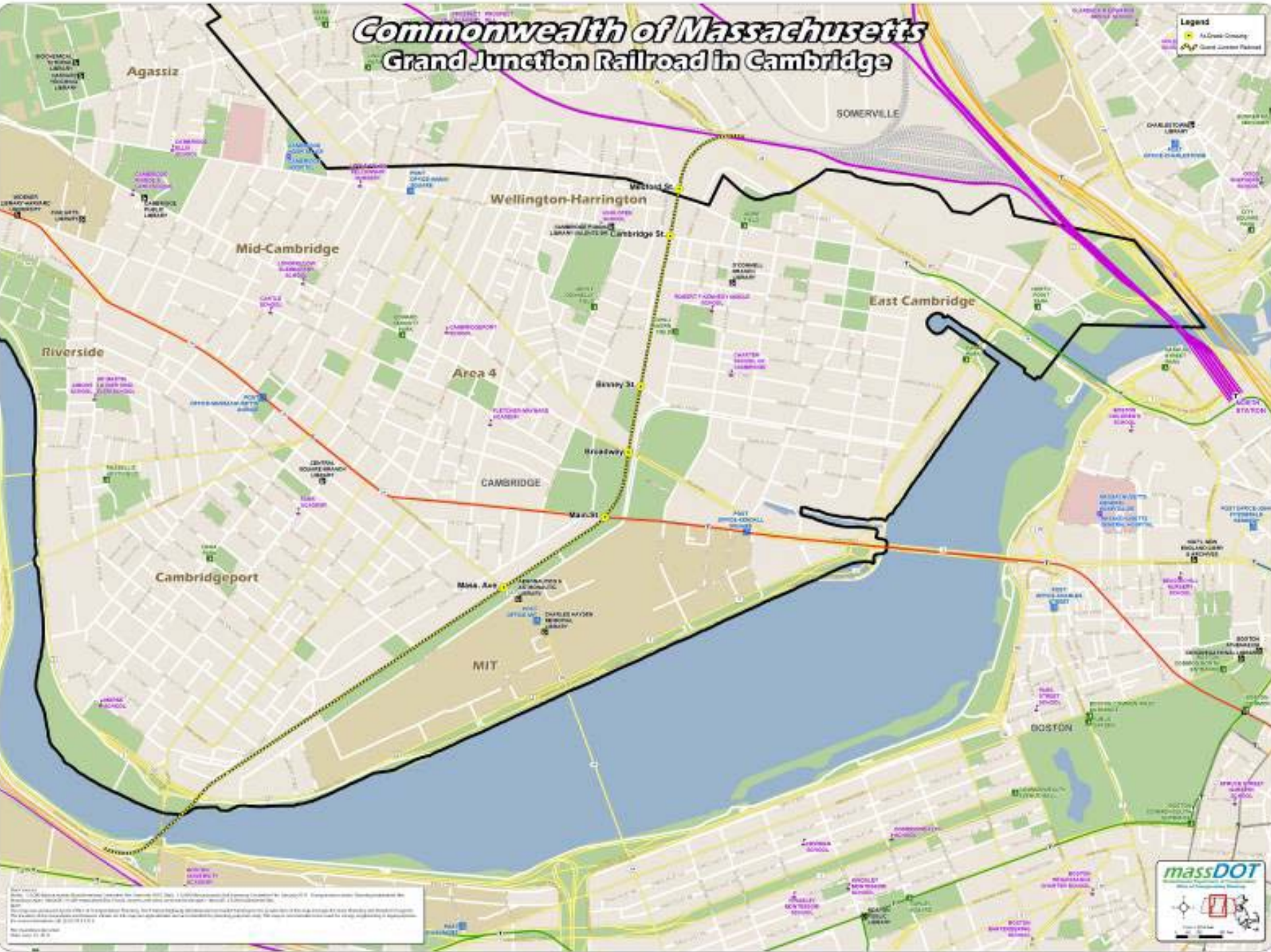
Existing Conditions – Worcester Line

- 6,700 daily inbound boardings
 - 87% capacity of line
- Destinations near North Station
 - 530 riders – 8% of total riders
- Destinations near Kendall/MIT
 - 340 riders – 5% of total riders
- Destinations between North & South Stations
 - 2,410 riders – 35% of total riders



Commonwealth of Massachusetts Grand Junction Railroad in Cambridge

Legend
■ Area Group
■ Grand Junction Railroad



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Existing Conditions - Cambridge

- Grand Junction Railroad connects Beacon Park Railyard and North Station
- Daily train movements over Grand Junction
 - 1 scheduled freight round trip (fruit train to Chelsea Produce Market)
 - MBTA moves to Boston Engine Terminal for repair
 - Amtrak moves from Downeaster to Northeast Corridor
 - Sporadic CSX freight equipment moves

Existing Conditions - Cambridge

- Six roadway grade crossings
- Peak hour traffic volumes (low and high):
 - 500 (Binney St.) – 1600 (Mass. Ave.)
- Peak hour pedestrian volumes:
 - 78 (Medford St.) – 836 (Mass. Ave.)
- Peak hour bicycle volumes:
 - 22 (Binney St.) – 356 (Mass. Ave.)
- Two pedestrian/bike only crossings

Grade Crossings



Grade Crossings

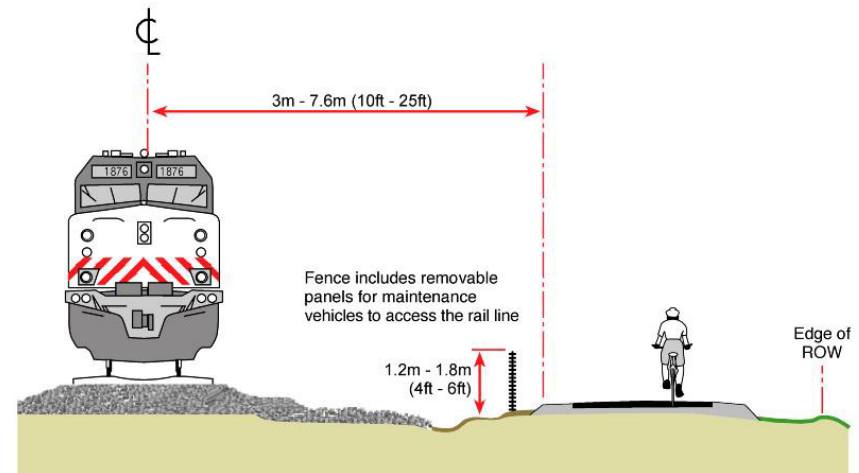


Other Corridor Concepts

- Shared-use path
 - 2006 study by City of Cambridge
 - “Rail-with-Trail”
 - Maintains rail access

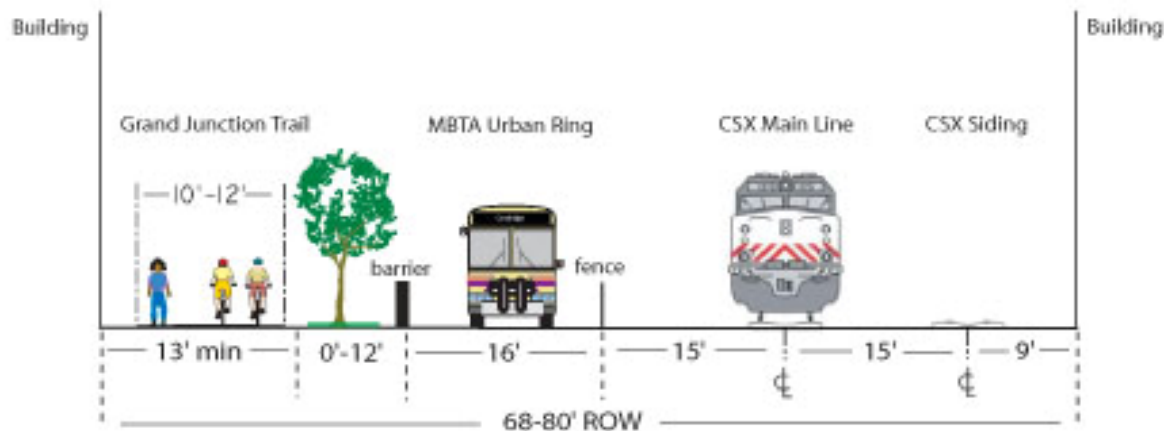
Fencing Location

All rail line types requiring fencing



Other Corridor Concepts

- Urban Ring bus rapid transit service
 - Busway: BU Bridge to Fort Washington Park
 - Urban Ring not included in long-range transportation plan, project inactive



Travel Demand Model

- What is a travel demand model?
- Service plans to be evaluated
 - Future No-Build
 - Future Build – 8 alternatives



Future No-Build – Worcester Line

- Model Year: 2035
- Increased service from/to South Station
 - Increase of 9 trips
 - South Station capacity concerns
- 9,000 daily inbound boardings – 34% increase
- Destination proportions unchanged
 - North Station – 7%
 - Kendall/MIT – 5%

Future No-Build - Cambridge

- Model Year: 2035
- Increased development and land use changes in Cambridge
 - Population
 - Employment
- Based on MAPC demographics



Future Build Service Plans

Variable	Service Plans	1	2	3	4	5	6	7	8
Speed	15 mph	✓	✓			✓	✓		
	30 mph			✓	✓			✓	✓
Frequency	6 trains/day	✓		✓		✓		✓	
	12 trains/day		✓		✓		✓		✓
Station	Yes	✓	✓	✓	✓				
	No					✓	✓	✓	✓



Speed Variable

- Speed refers to maximum speed along Grand Junction
 - Low Speed: 15 mph
 - Gate down 80 seconds
 - High speed: 30 mph
 - Gate down 60 seconds



Frequency Variable

■ Low Frequency

- 6 inbound and 6 outbound trains per day via Grand Junction
- At the peak: ~1 train per hour total (both directions)

■ High Frequency

- 12 inbound and 12 outbound trains per day via Grand Junction
- At the peak: ~1.5 trains per hour total (both directions)



Travel Time Comparison

	Worcester to North Station		Worcester to Kendall		Worcester to South Station
	Existing via Orange Line	Grand Junction	Existing via Red Line	Grand Junction	Existing
Travel Time	1:37	1:28-1:35	1:44	1:18-1:20	1:30
Savings		2 – 9 mins.		24 – 26 mins.	

Schedule & Next Steps

- Meeting Tonight: Existing conditions, alternatives evaluation, stakeholder feedback
- Meeting in Fall: Ridership, impacts, costs, stakeholder feedback
- Final Report: Findings and recommendations, next steps

Questions?

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