

Transportation Recommendations Kendall Square - January 2012



urban design/planning study for
the **central** and **kendall square area**

Current Policy *is Working*

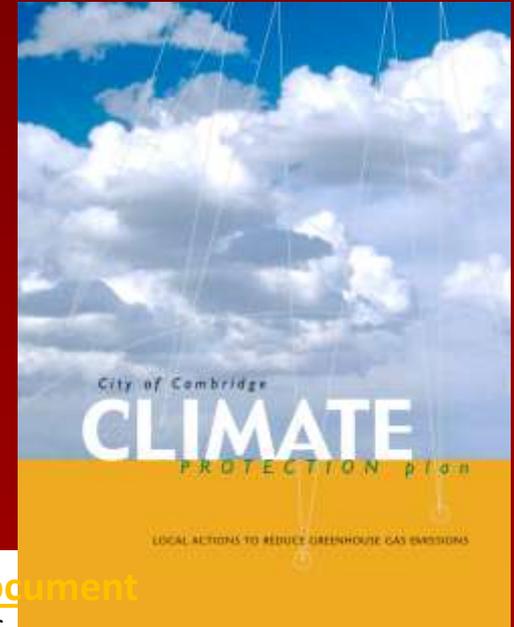
- Responsible growth
 - Vehicle Trip Reduction Ordinance, Growth Policy
 - PTDM Program
 - Climate Action Plan
- Multi-modal approach
 - Ped/Bike Plan
 - Public Transportation/EZ Ride

Policy # 22, Growth Policy Document

Undertake reasonable measures to improve the functioning of the city's street network, without increasing through capacity, to reduce congestion and noise and facilitate bus and other non-automobile circulation.

Policy # 23, Growth Policy Document

Encourage all reasonable forms of nonautomotive travel including, for example, making improvements to the city's infrastructure to support bicycling and walking.

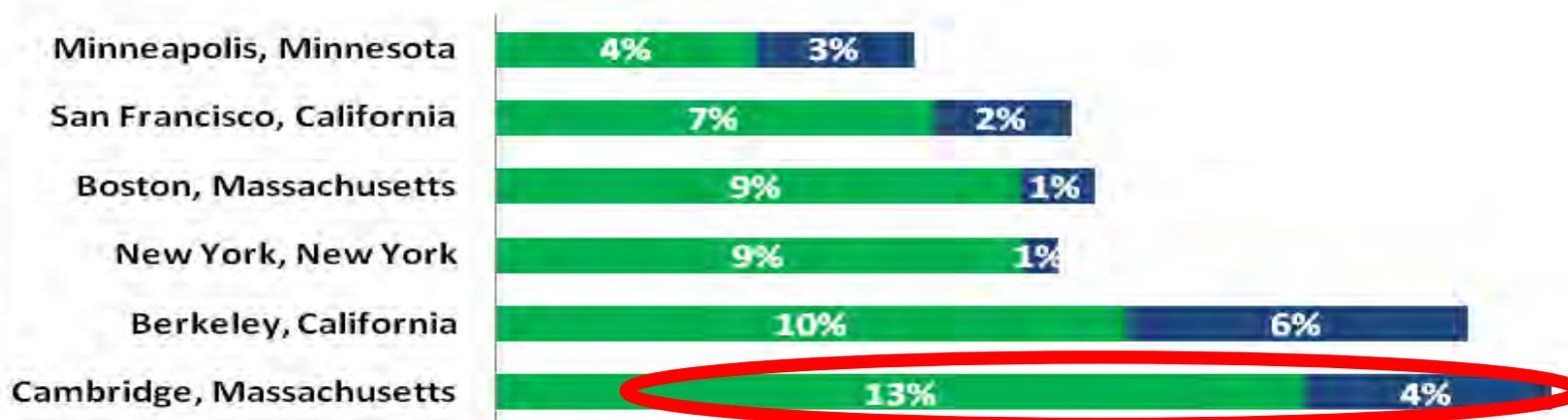


Travel Trends in Cambridge

- Auto ownership is declining
 - Households w/out a vehicle grew from 28% to 32% from 2000 – 2008
- Bicycle growth is strong
 - 150% increase in observed bicycle counts from 2002 – 2010
- America's most walkable city
 - Prevention Mag, 2008

Percentages of Workers who Walk and Bike to Work
in Select US Cities

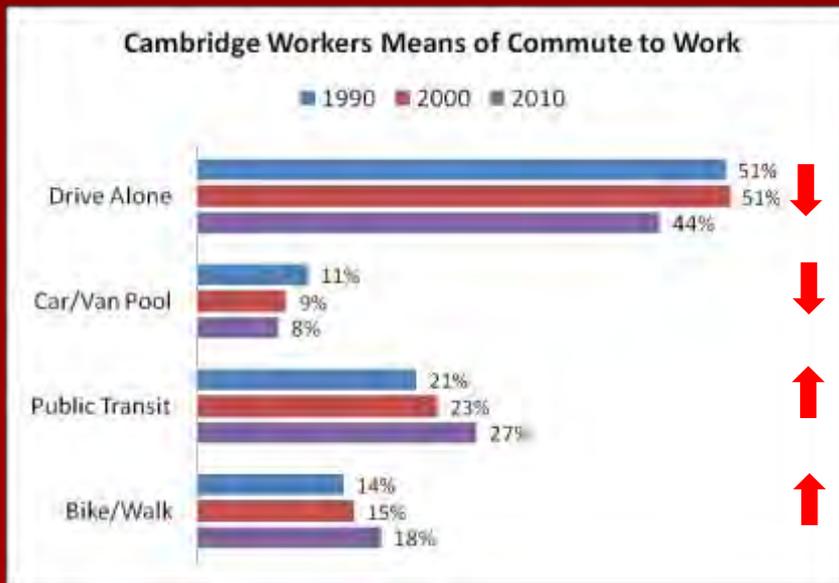
■ Walk ■ Bike



Travel Trends in Cambridge

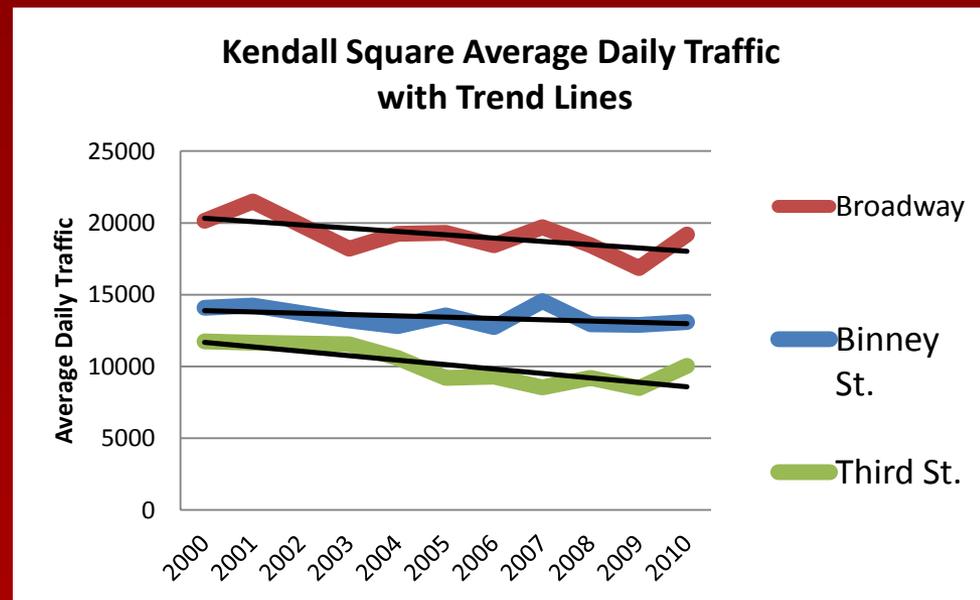
Mode Shifts from SOV

- SOV share reduced from 51% to 44%
- Public Transit grew from 21% to 27%
- Bike/Walk share now 18%



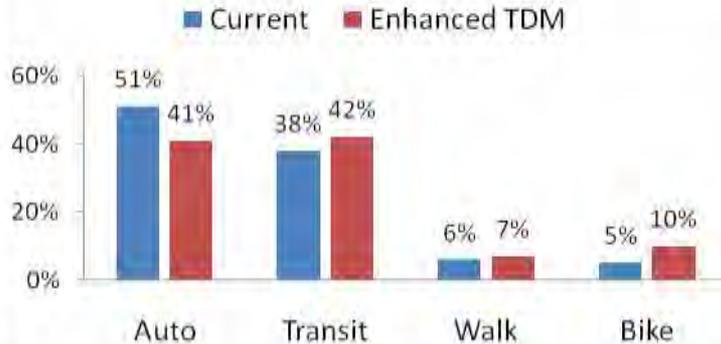
Development vs. Traffic Growth

- 4 mil. sq.ft. development growth from 2000-2010 (37.6%)
- Daily Traffic Volumes remained consistent or been reduced

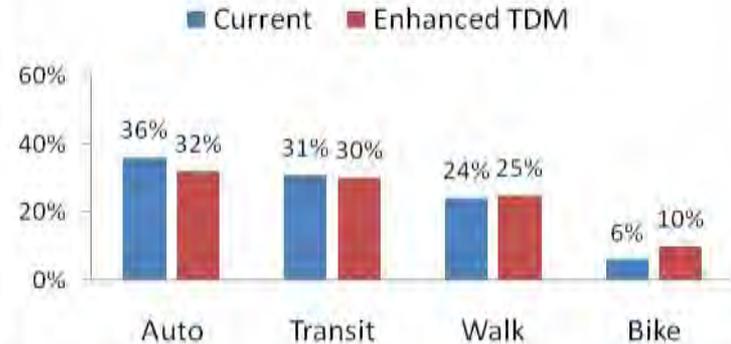


Proposed Enhanced TDM Mode Shares by Land Use

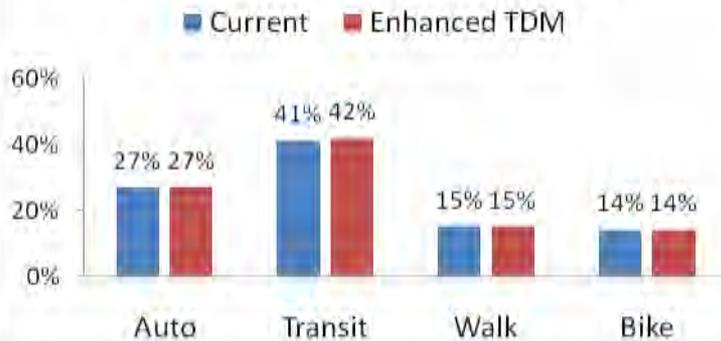
Office and R&D



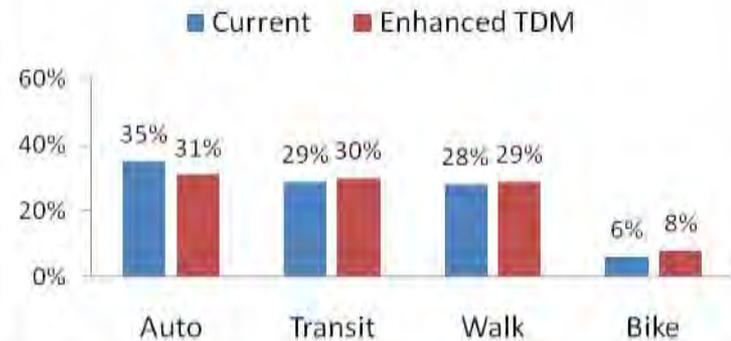
Residential



Academic/Institutional



Retail



Overall Growth: Land Use (K2C2 Scenario)

Land Use Growth (2030 buildout)

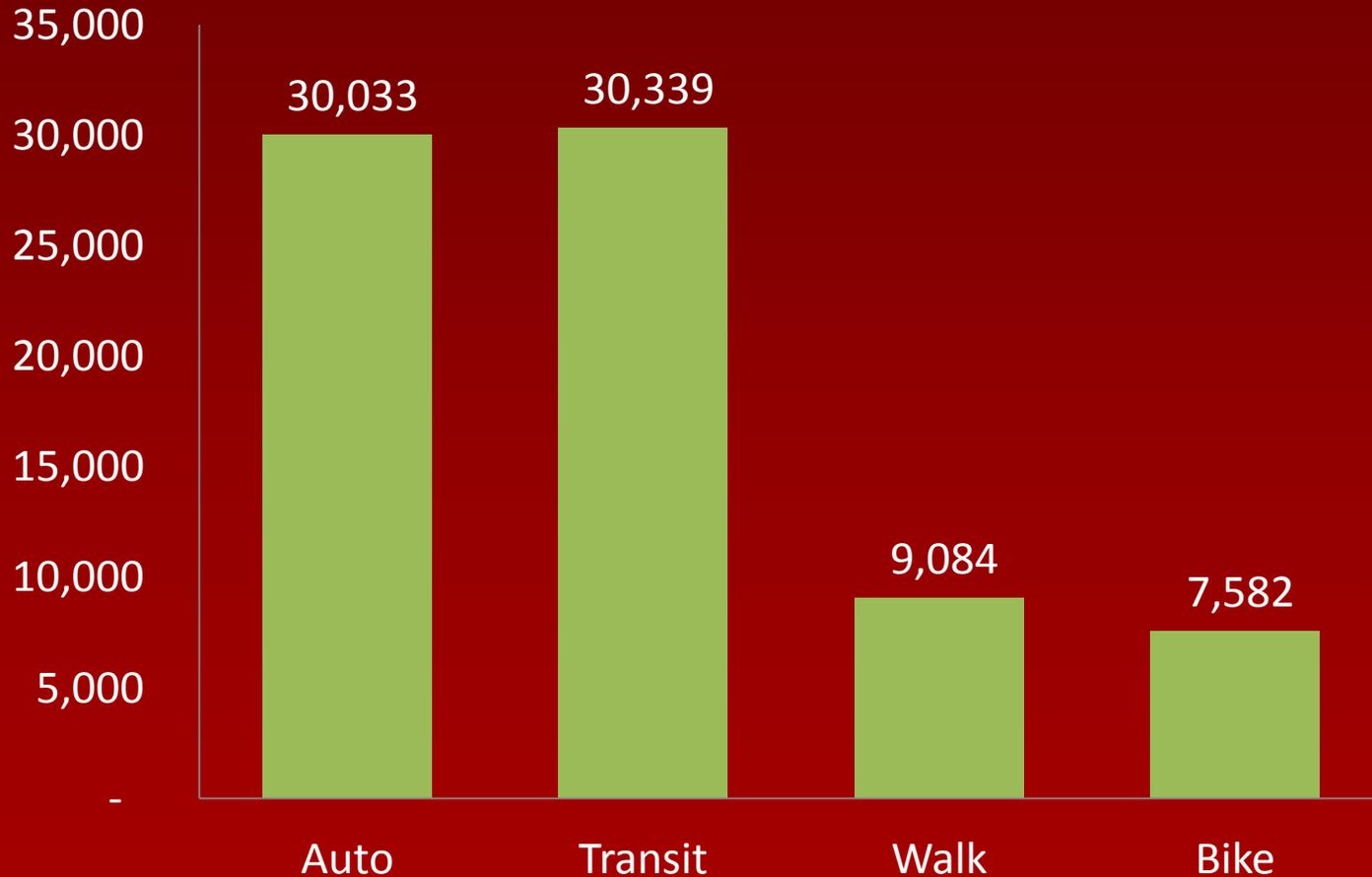
Residential	1.5 mil sq ft
Gen Office	1.2 mil sq ft
R&D	5.6 mil sq ft
<u>Retail</u>	<u>0.2 mil sq ft</u>
TOTAL	8.5 mil sq ft



New Development in 2030 – Daily Trips

Enhanced TDM

Total: 77,507

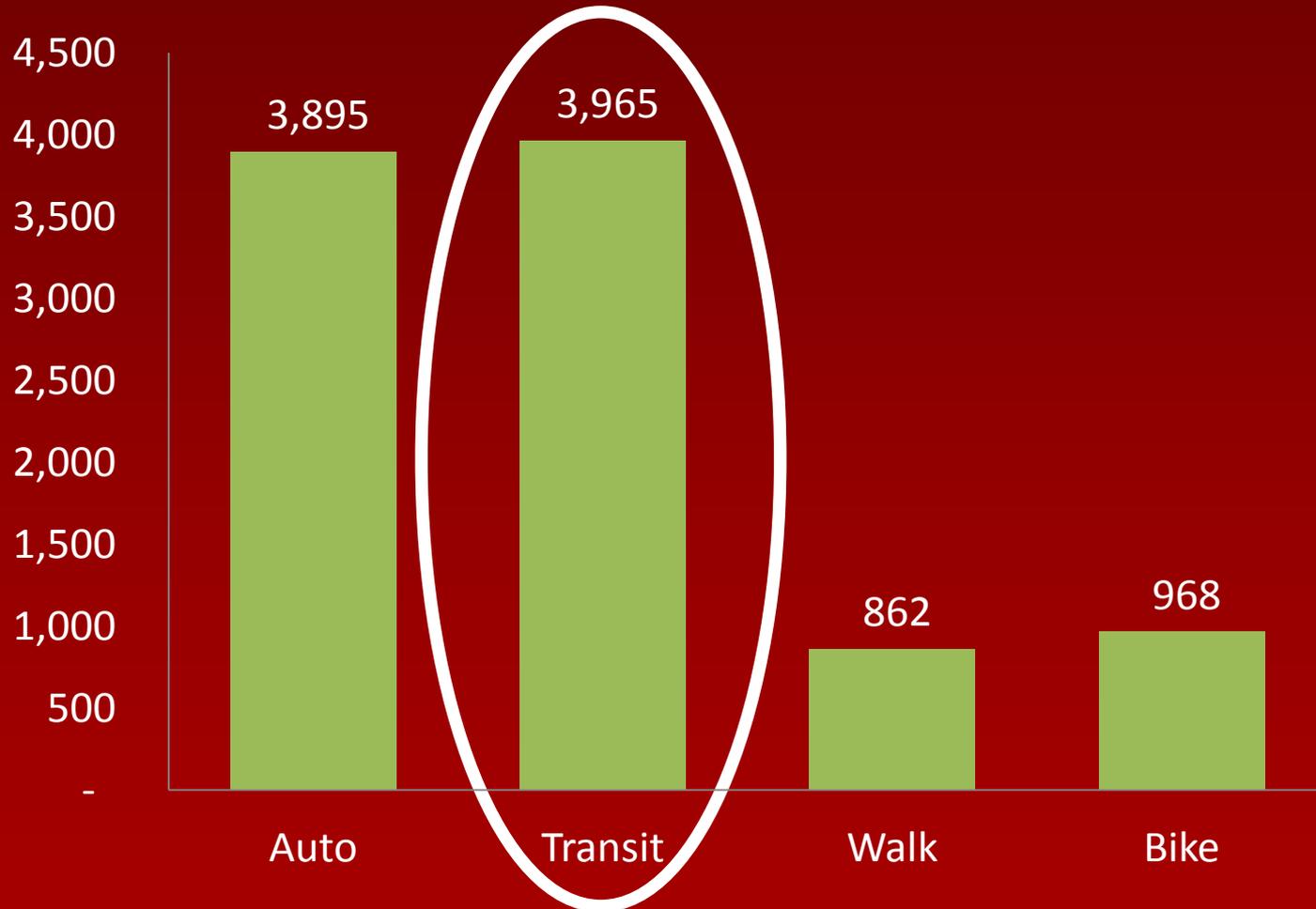


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New Development in 2030 – AM Peak Trips

Enhanced TDM

Total: 9,717



urban design/planning study for
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Existing Conditions: Public Transportation

Daily Boardings at Kendall:

13,975 (7.3% of Red Line total)

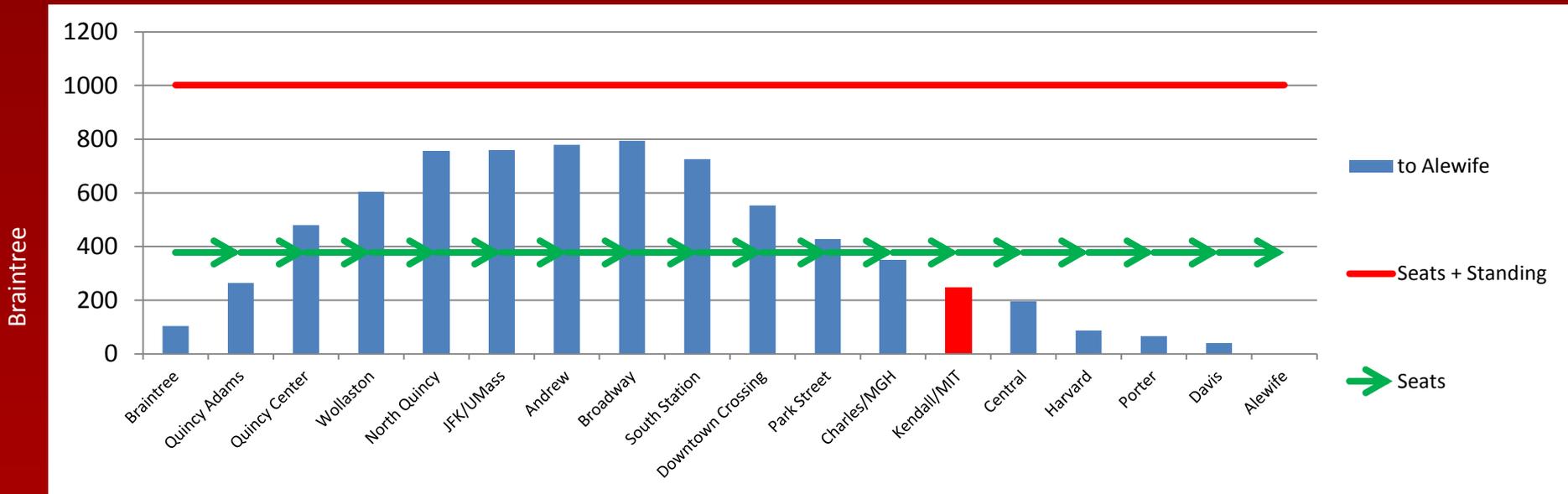
4th busiest on Red Line

Current Hourly Peak Capacity at Kendall:

2,650 seated/7,000 policy

Unused Capacity at Kendall - AM Peak: 1,450 persons/hour

Unused Capacity at Kendall - PM Peak: 2,800 persons/hour



Source: MBTA Ridership Statistics, 2010, CTPS MBTA Blue Book 2010 ed13

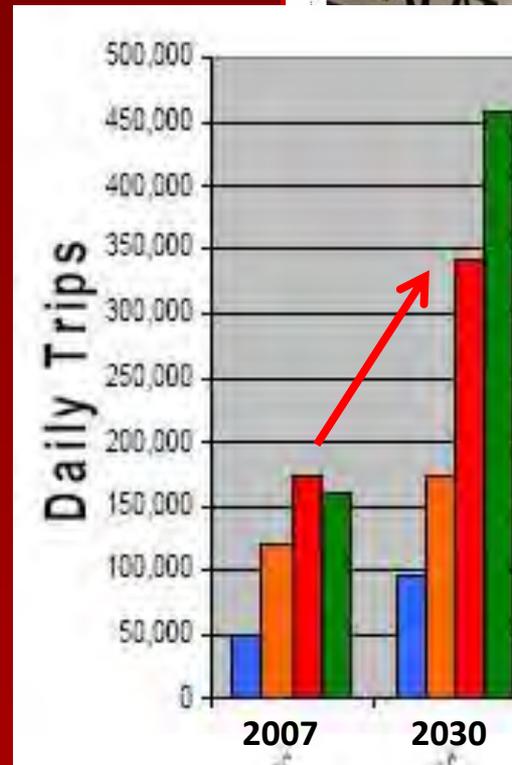
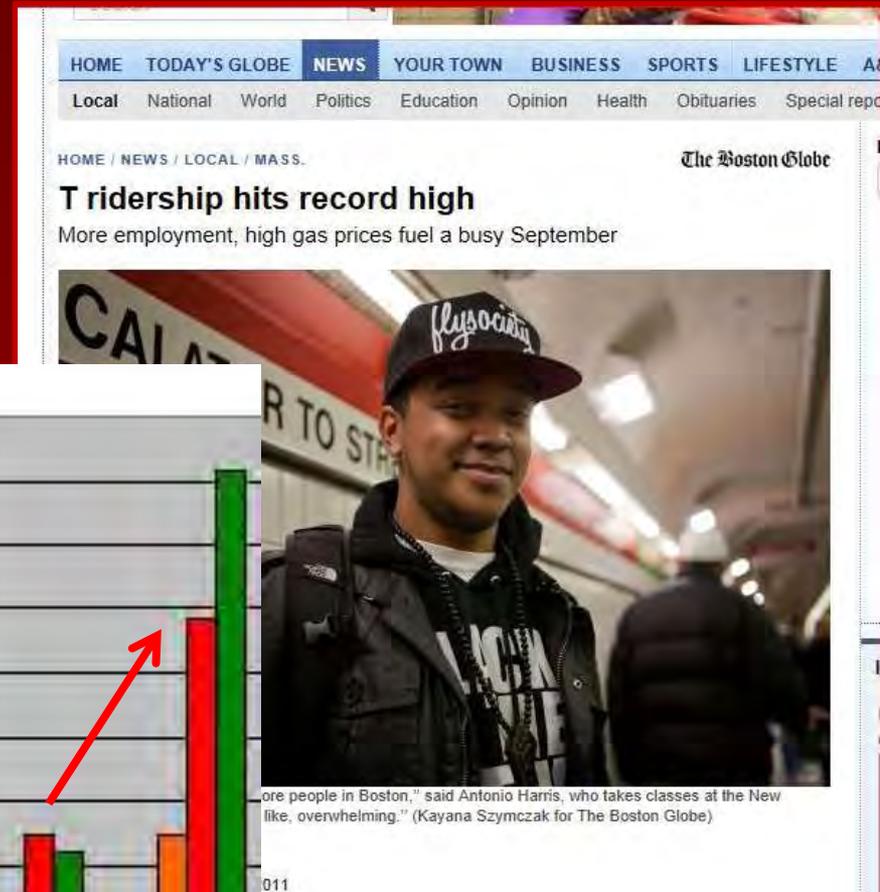
Transit Growth – Trends

MBTA Ridership hitting Record Highs

EZ Ride ridership has been growing 4% per year since 2002

Red Line Ridership forecasted to almost double by 2030

Source: Urban Ring RDEIR, 2008



Boston.com, 11/02/11



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BOSTON & BEYOND. NOW.

METRODESK



MBTA fares could rise as much as 43 percent; ferry, bus, commuter rail cuts also eyed

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By Martin Finucane, Globe Staff

Ready to shell out more for that MBTA ride?

Key Issues/Questions

Summary



	Scenario 1	Scenario 2
Overall Fare Increase (all fare media types)	43%	35%
Current / Proposed Fares		
Bus CharlieCard	\$1.25 / \$1.75	\$1.25 / \$1.50
Rapid Transit CharlieCard	\$1.70 / \$2.40	\$1.70 / \$2.25
RIDE	\$2.00 / \$4.50	\$2.00 / \$3.00
RIDE Premium Territory	\$12.00	\$5.00
Parking	28%	20%
Service Eliminations or Reductions	Commuter rail, bus, light rail, ferry, RIDE service area	Commuter rail, bus, light rail, ferry, RIDE service area
Ridership Impact	34-49 million annual trips	53-64 million annual trips
% of total current ridership	9 to 13%	14 to 17%

Key Issues/Questions - Transit

- Many barriers to expanded transit to Kendall are general **SYSTEMWIDE** service/expansion issues
 - Greater overall frequency
 - Central subway system congestion
 - Need for additional station access (parking, bicycle facilities)
 - Expanded public transportation coverage



Key Issues/Questions - Transit

- Develop transit service to levels comparable to similar employment areas:
 - Financial District
 - Back Bay
 - Longwood Medical Area
- Kendall should be a significant Transit Hub for Cambridge
 - Large Job Center
 - Direct Red Line Connection
 - Improved Street Network
 - Growing Residential Population



Existing Conditions: Bus

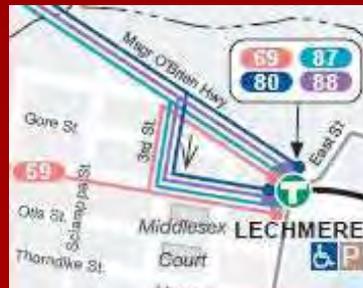
Kendall has the least bus service/capacity of nearby MBTA Transit Hubs



Kendall Square



Lechmere



Central Square



Sullivan Square



Potential Transit Expansion/Enhancement Ideas

Expand/Extend Bus Routes

- Extend Express Buses (and Rte 111) from Haymarket
- Extend Harvard Sq buses to Kendall (Rte 66, 72, 74, 75, 77, 78, 96)
- Rte 39 connection

Corridor Improvements

- Main Street
- Lechmere/Kendall connection – 1st Street or Land Blvd
- Leverett Circle & O'Brien Highway bus priority for EZ ride
- Wadsworth Street

Commuter Rail Connections

- Sullivan Square Commuter Rail
- Worcester to Kendall
- Explore a North Point Station on Commuter Rail/"Greater Lechmere?"
- South Station Expansion



Potential Transit Expansion/Enhancement Ideas

Transit Options

- Red/Blue Connector
- Green Line extension to Rte 16
- Provide a limited Beacon Yard connection to Kendall
- Establish Ferry connection from North Station to Kendall (“EZ Boat”)
- Extended ferry options from Long Wharf & Downtown to Kendall
- Create Direct Express Bus Service to Kendall
 - Woburn – Anderson Center
 - Outside Communities (Northeast & Northwest)

Expanded commuter rail service

- Fitchburg Line Improvements
- Better frequency
- Additional parking

Red Line Enhancement potential

- More “Big Reds”
- Higher frequency
- Extended trains
- Modifying mix of Ashmont/Braintree trains

Expand Alewife parking capacity

- Vehicles
- Bicycles



Proposed Transit Expansion Evaluation - Criteria

Coverage

- Coverage Area
- Travel Time
- Transfers needed

Cost / Implementation

- Timeline
- Operating Cost
- Capital Cost
- Likely Implementation

Operations

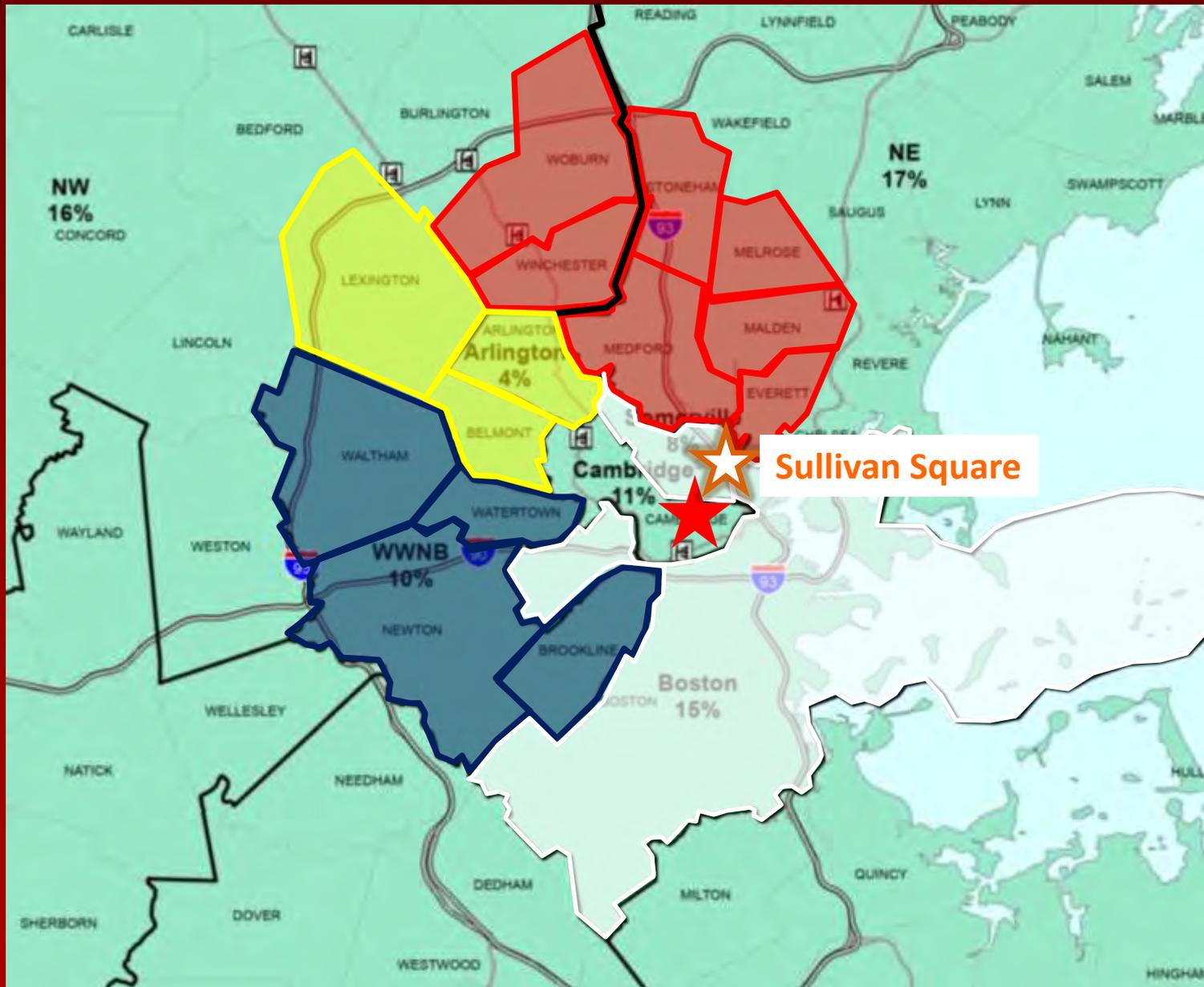
- Service Frequency
- Span of Service

Added Benefits

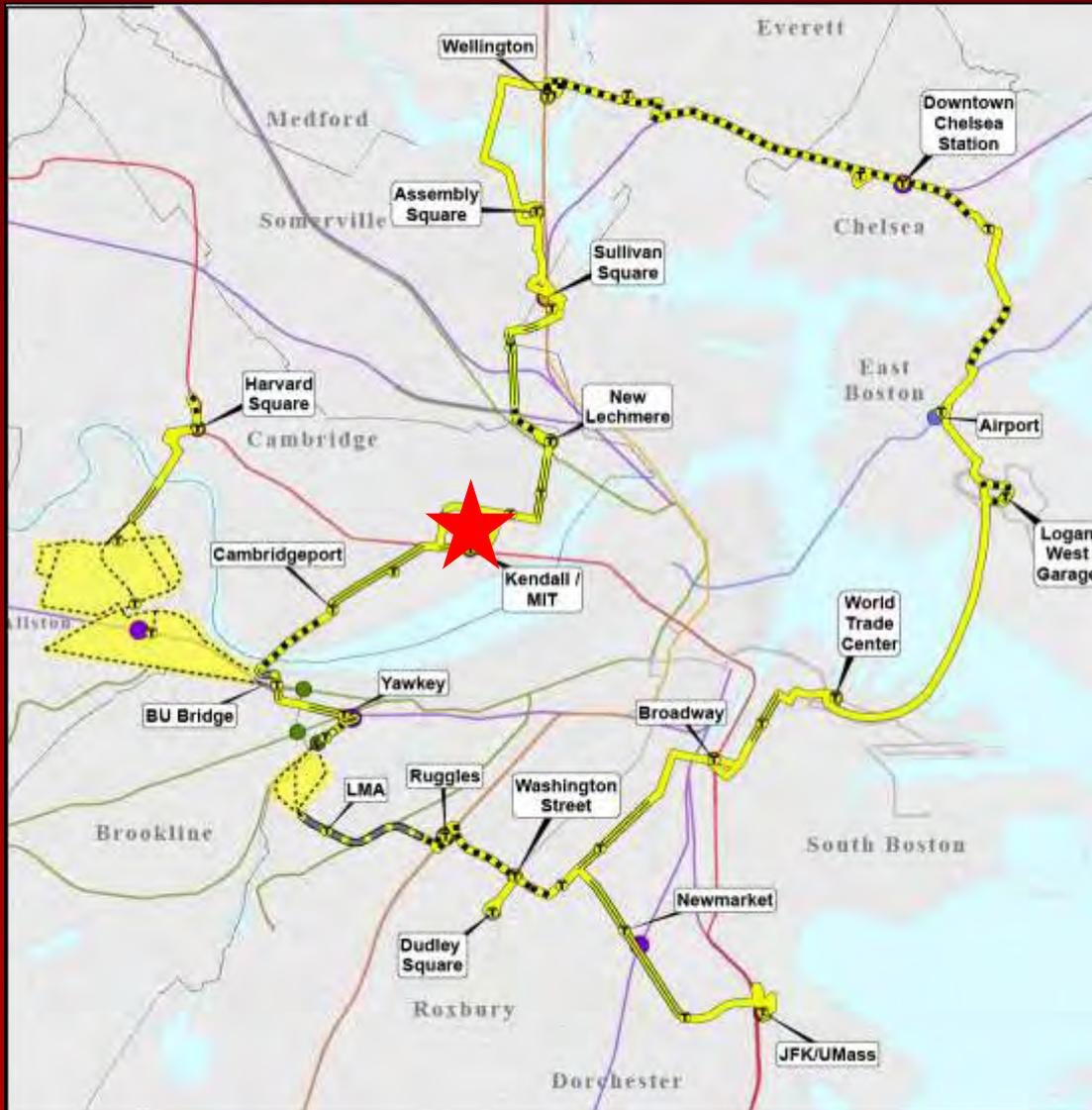
- Red line Reduction



PTDM Review - Top Towns

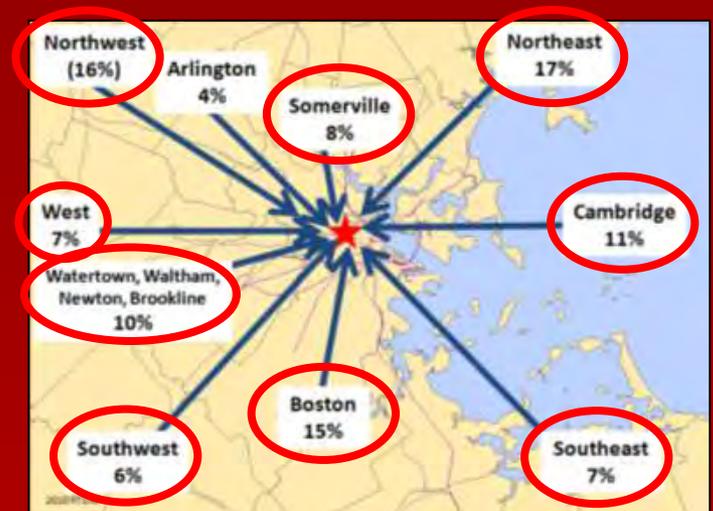


Urban Ring Overall

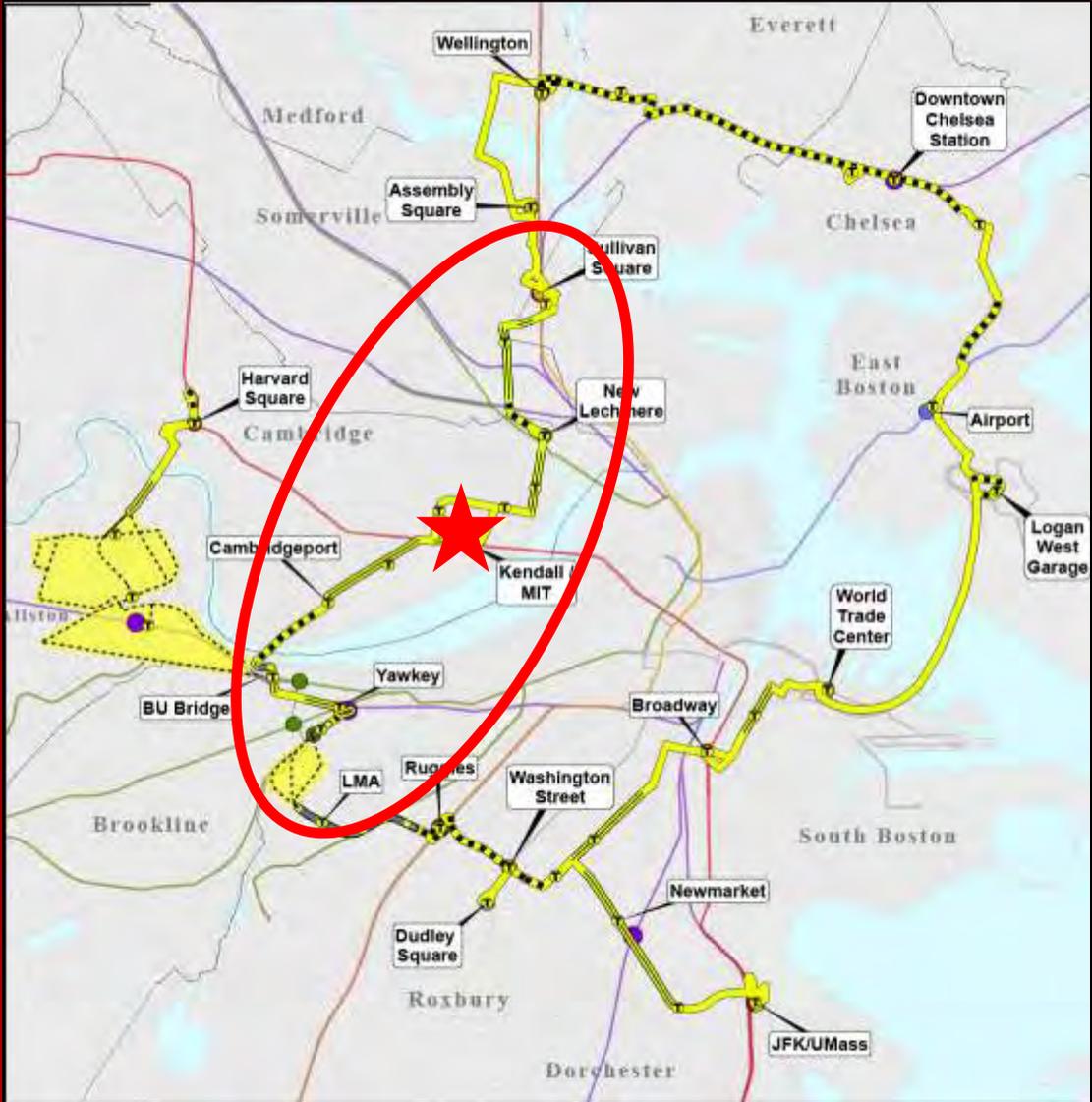


Benefits are Systemwide

- Removes trips from Central Subway System
- Not Funded
- Many elements do NOT directly benefit Kendall
- 184,000 Daily riders
- 15,000 Kendall boardings

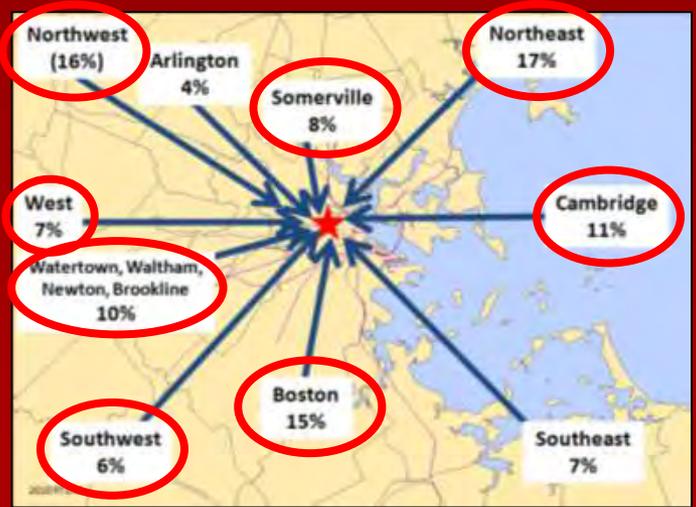


Urban Ring – Sullivan – KENDALL - Longwood

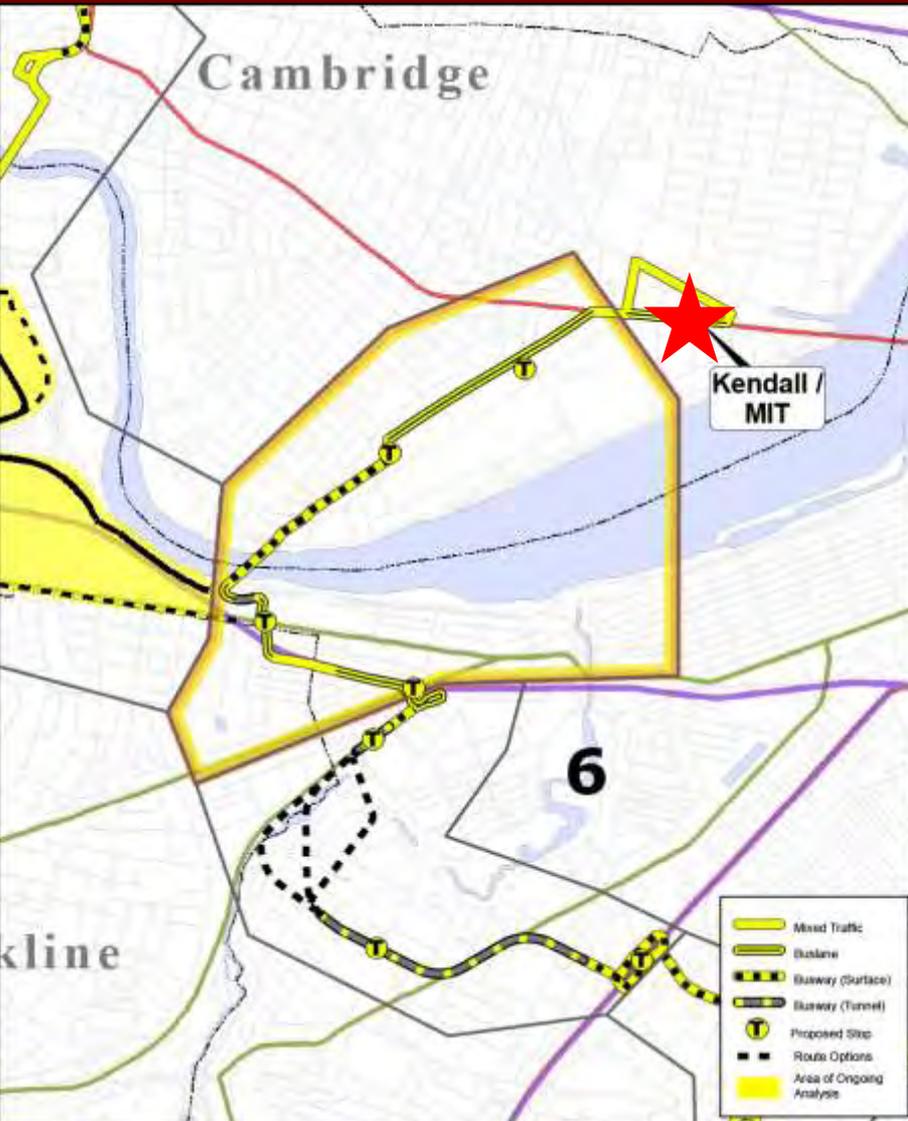


Greatest Kendall benefit

- Covers Primary areas without good current transit access
- Potential Capacity – 1,920 peak hour trips
 >Assumes 5 min headway (each direction)

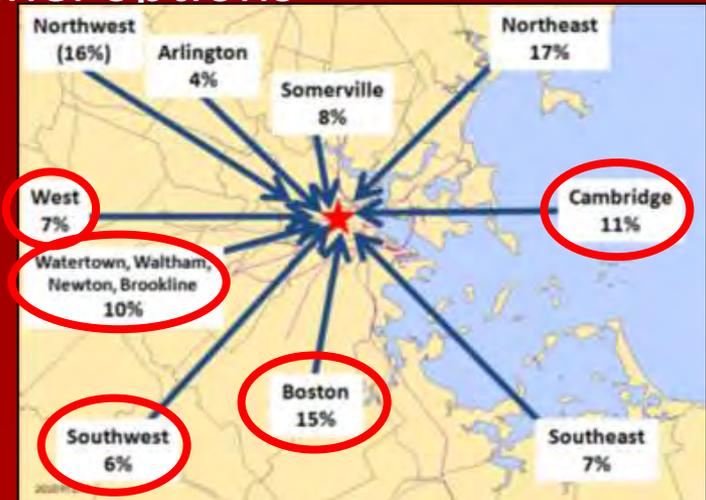


Urban Ring Charles River Crossing - Kendall (NPC)



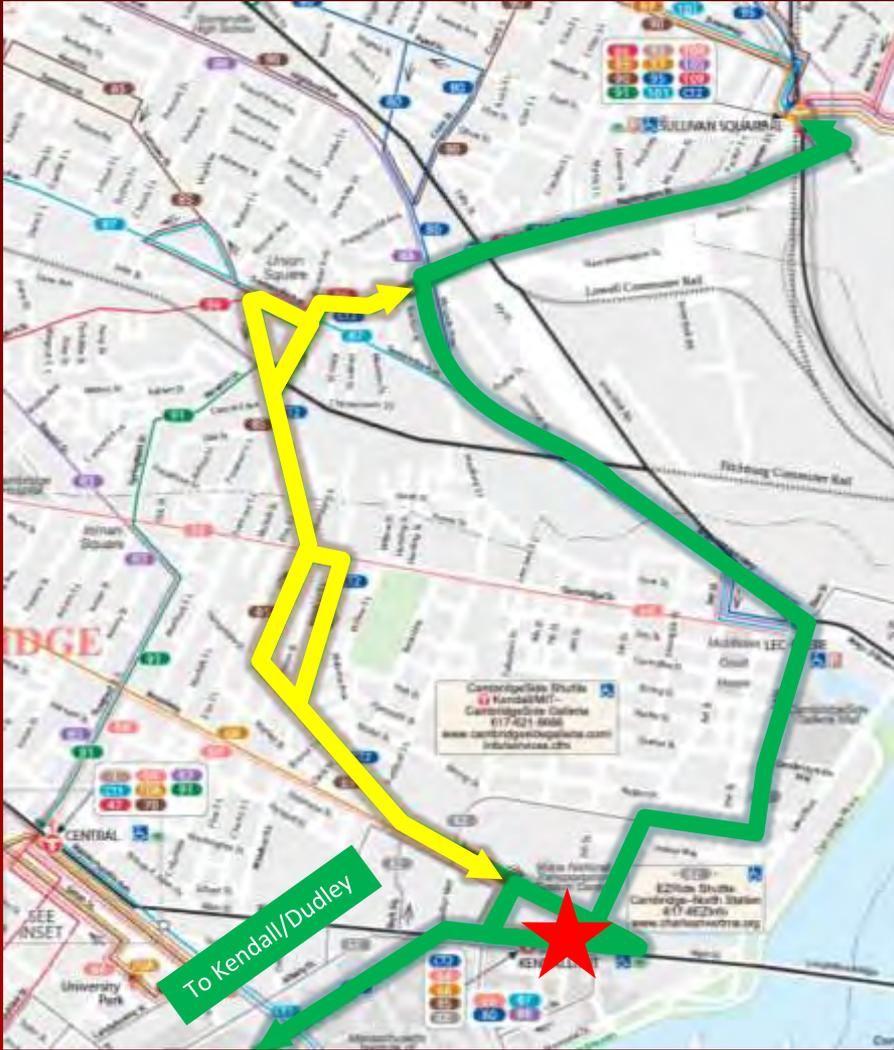
Important connection to LMAa & WWINB towns

- Watertown, Waltham
- Newton, Brookline
- Green Line Connection(s)
- Projected Ridership – 89,000 daily riders
- Ridership is higher with tunnel options



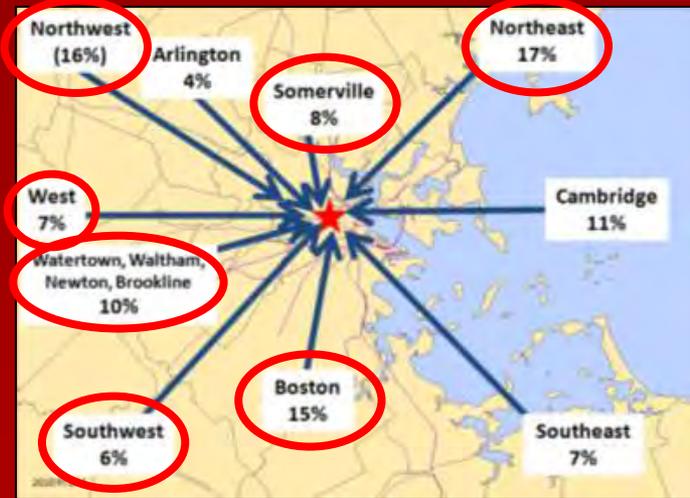
Enhanced CT-2

	Ridership	AM Peak Frequency	Coverage	AM Peak Capacity
CT 2	2,110	6	Boston, Somerville, Cambridge, Brookline	324

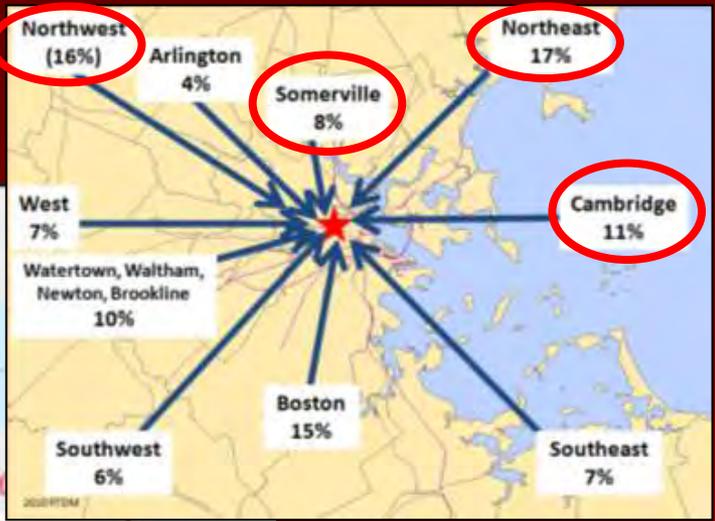
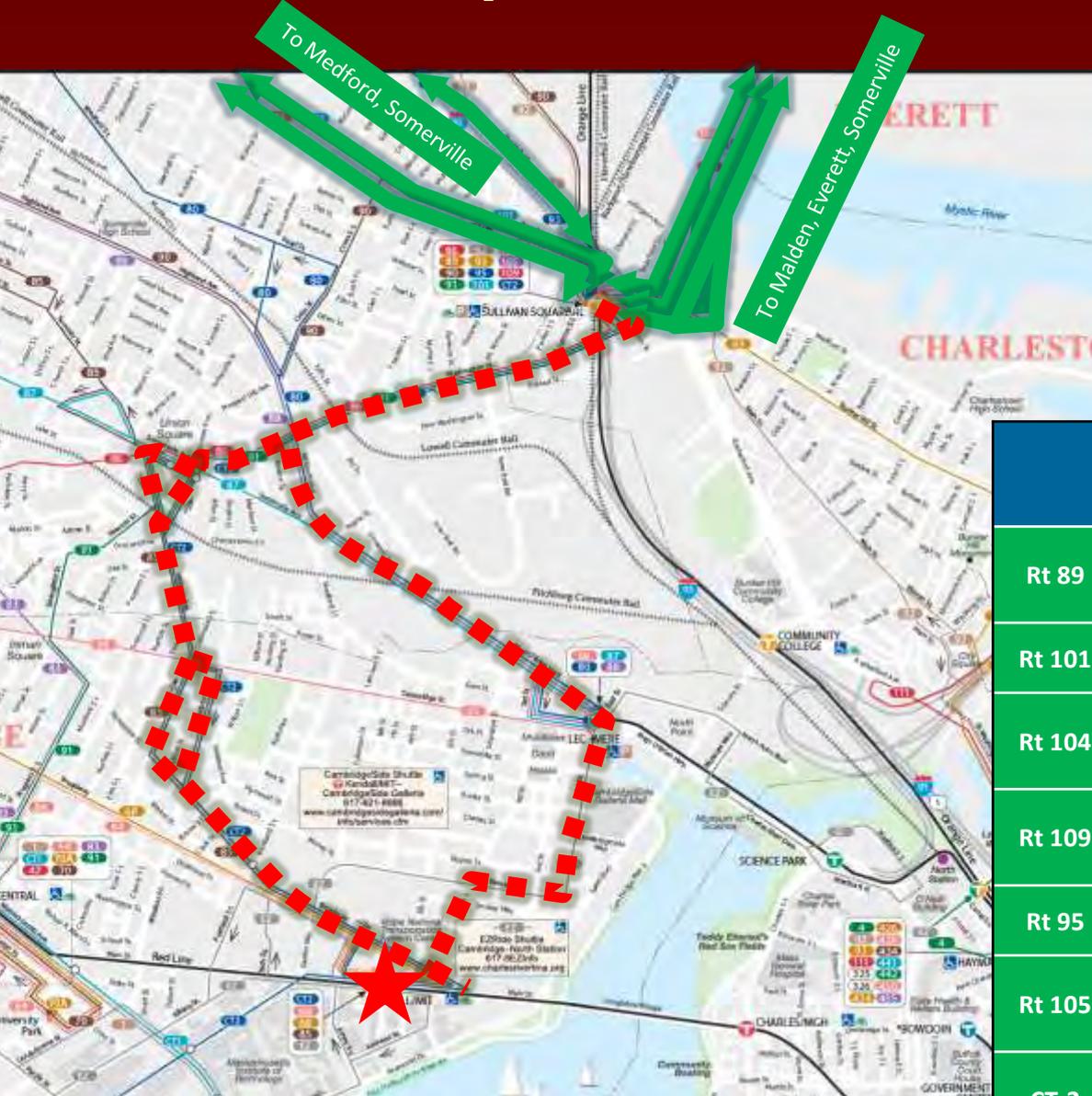


Could provide added Kendall benefit quickly

- Urban Ring Frequency - 5 min headways
- Improved Routing
 - Through Lechmere
 - McGrath Highway

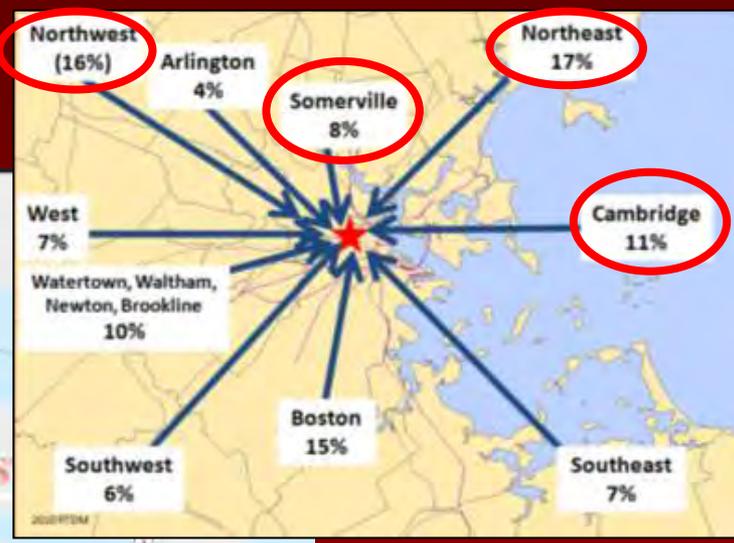
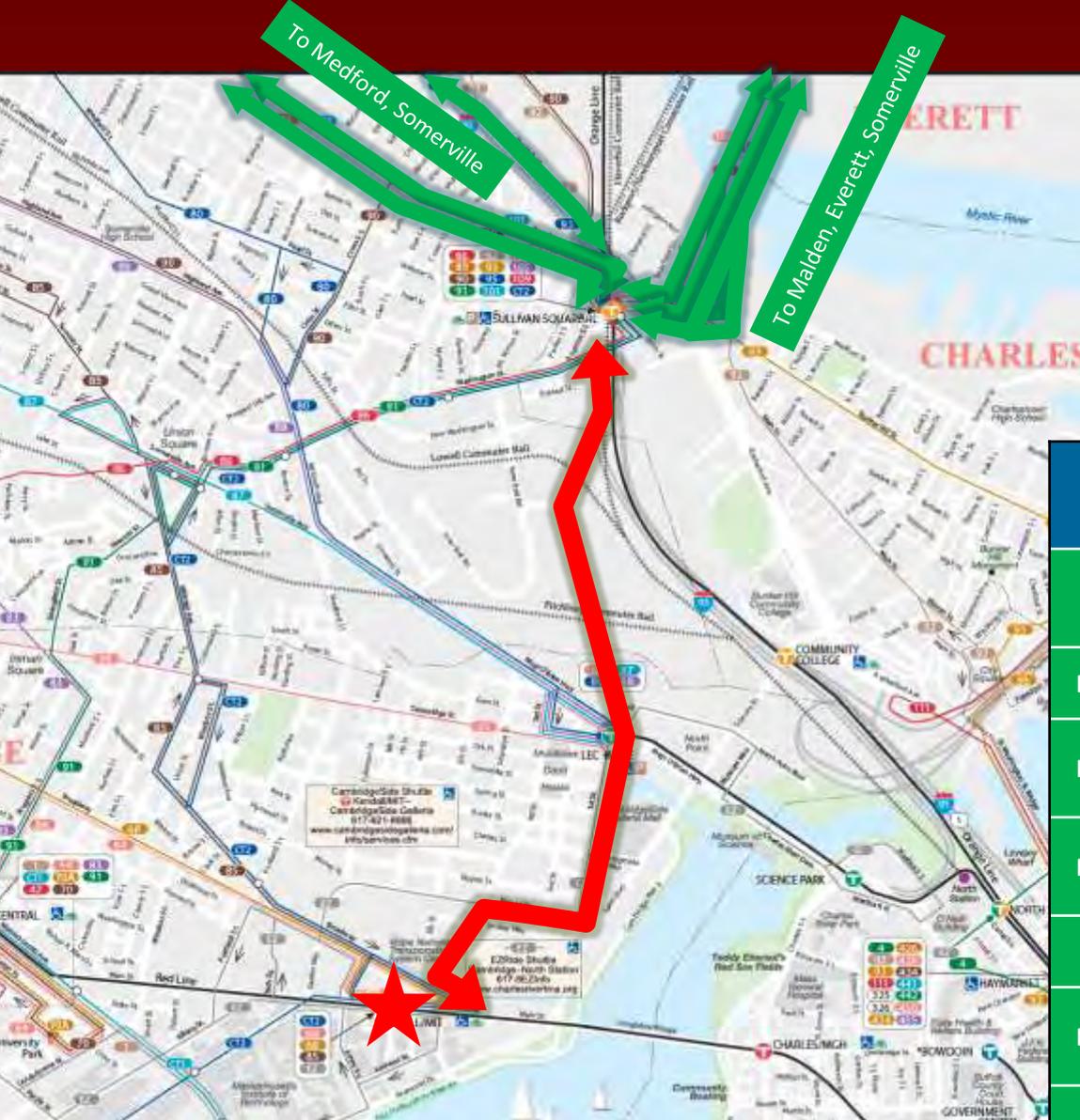


Extend Sullivan Sq Buses to Kendall



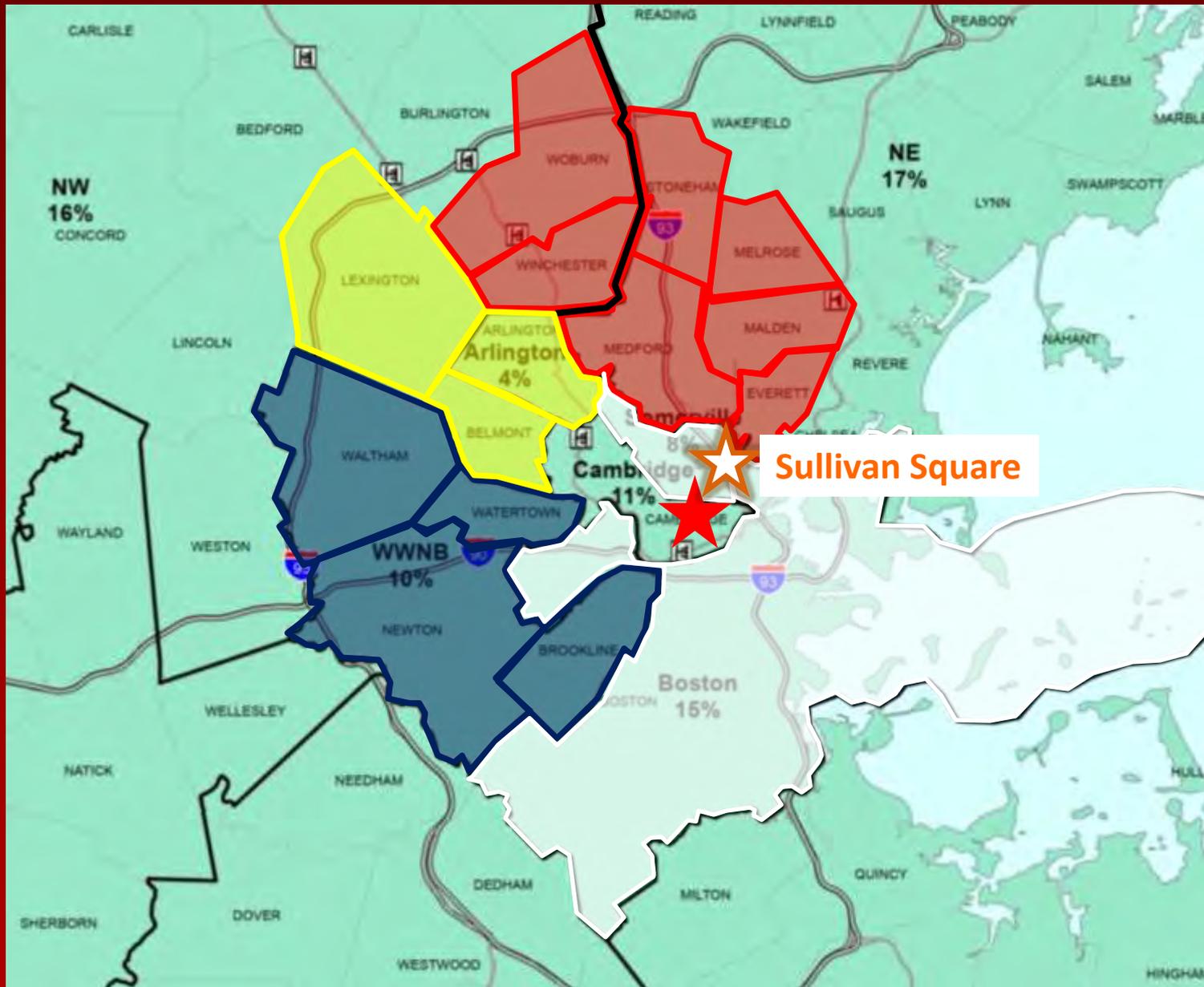
	Ridership Weekday Boardings	AM Peak Frequency	Coverage	AM Peak Capacity/hr
Rt 89	3,431	7	Somerville, Charlestown, Boston	378
Rt 101	4,116	6	Medford, Somerville	324
Rt 104	3,360	4	Malden, Everett, Somerville	216
Rt 109	2,988	4	Malden, Everett, Somerville	216
Rt 95	1,751	3	Medford, Somerville	162
Rt 105	926	2	Malden, Everett, Somerville	108
CT 2	2,110	6	Boston, Cambridge, Somerville	324
Total	18,682	32		1,728

Sullivan Sq Transit Connection through Inner Belt



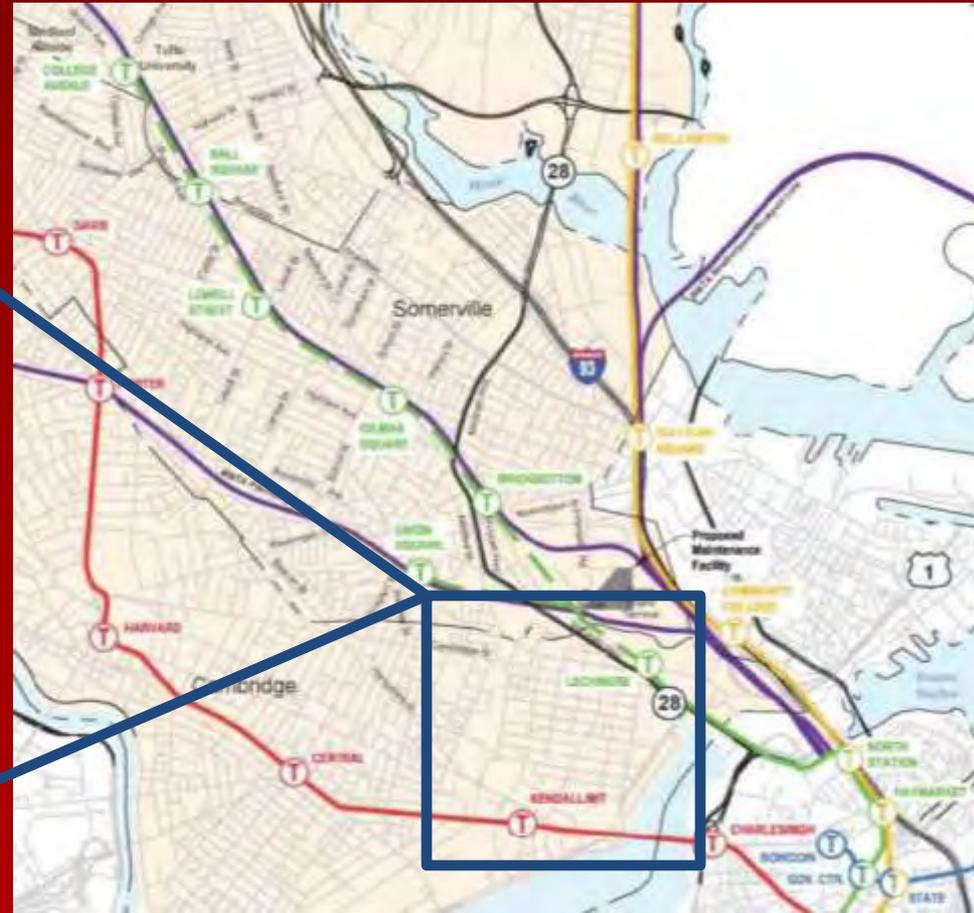
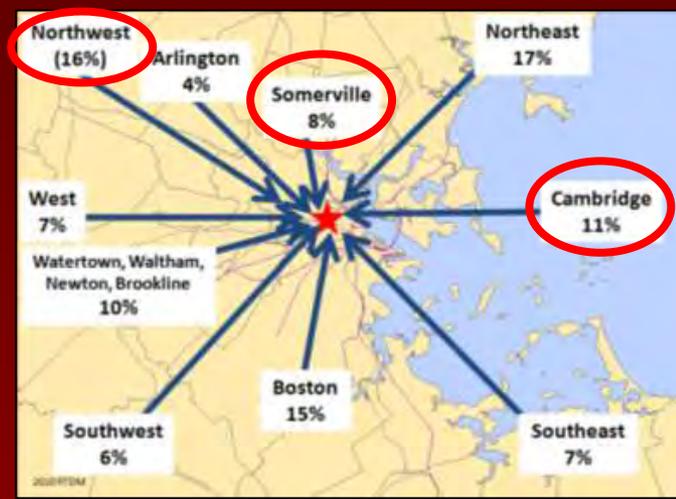
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PTDM Review - Top Towns



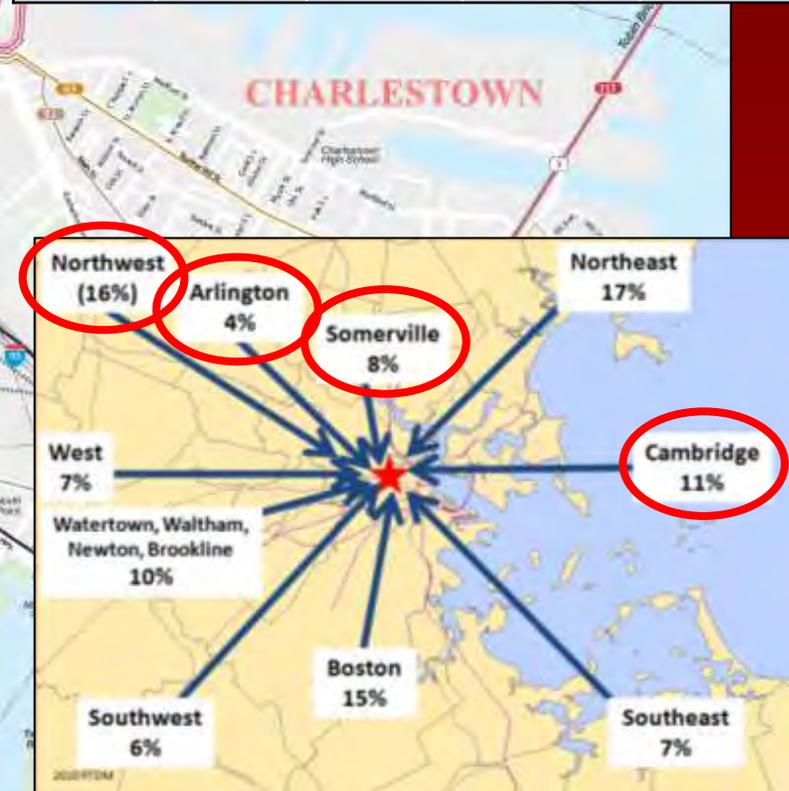
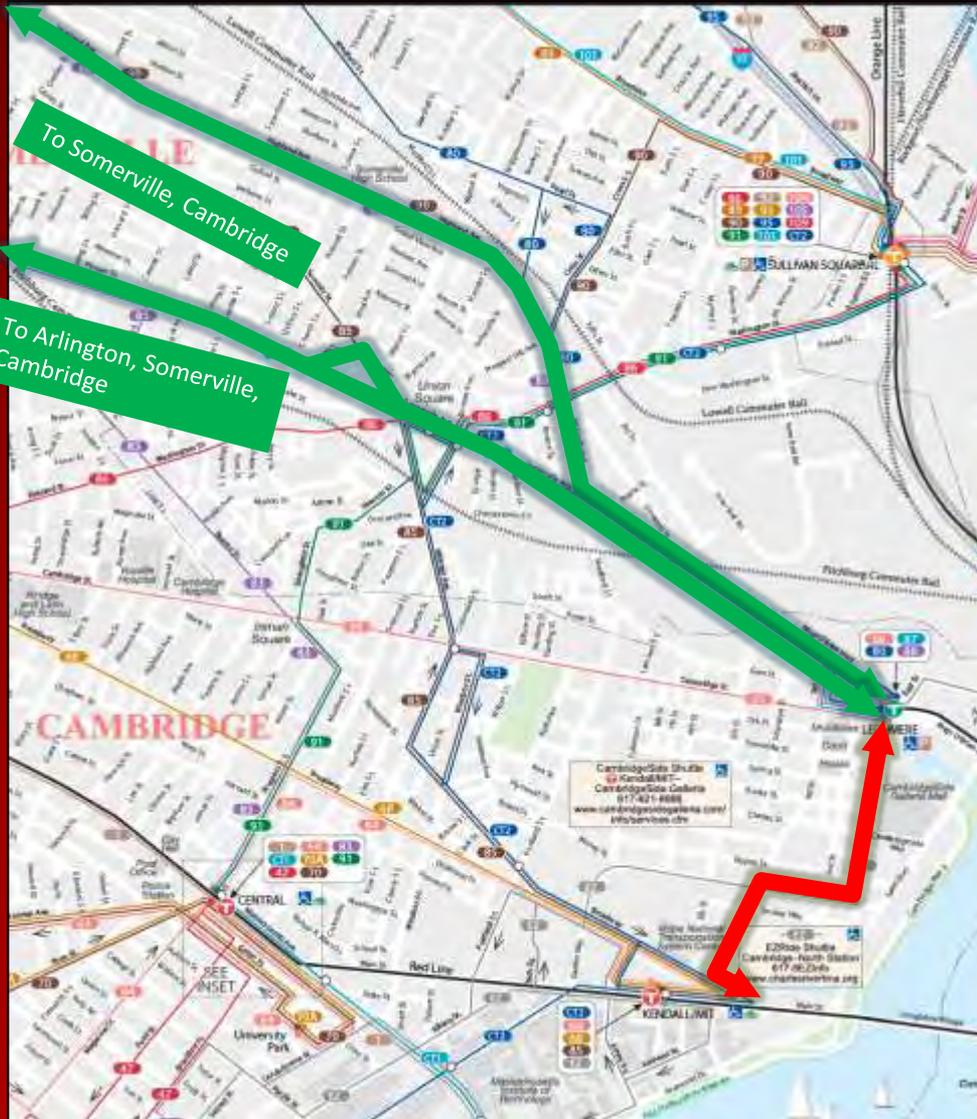
Transit Expansion – Green Line Extension

- Operational 2020?
- Shifts some demand from Red Line
- To serve Kendall – May require added bus service from Lechmere
- Serves only part of Kendall trip origin market



Extend Lechmere buses to Kendall

	Ridership Weekday Boardings	AM Peak Frequency	Coverage	AM Peak Capacity/hr
Rt 87	3,373	3	Arlington, Somerville, Cambridge	162
Rt 88	3,785	4	Somerville, Cambridge	216
Total	7,158			378



To Somerville, Cambridge

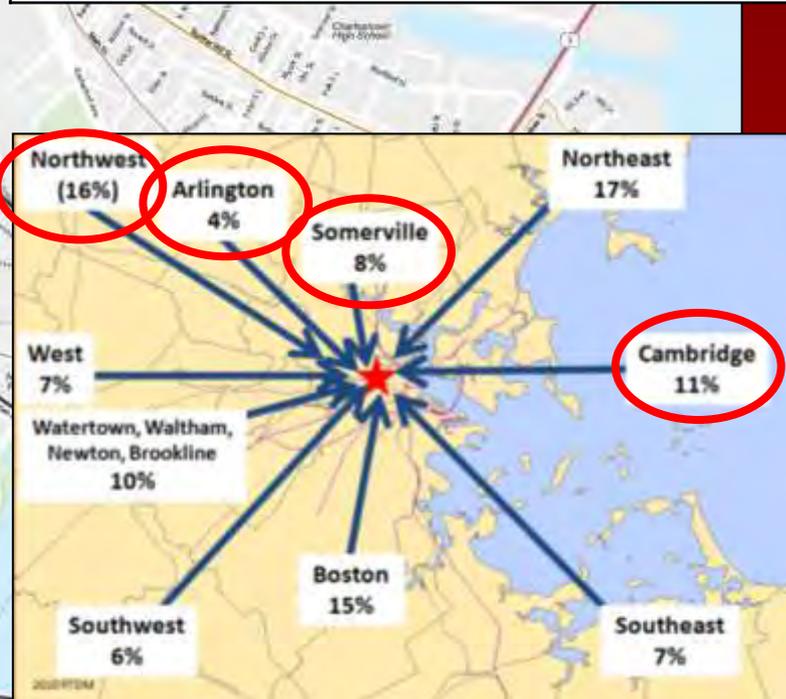
To Arlington, Somerville, Cambridge

Green Line extension, re-route

Lechmere buses to Kendall

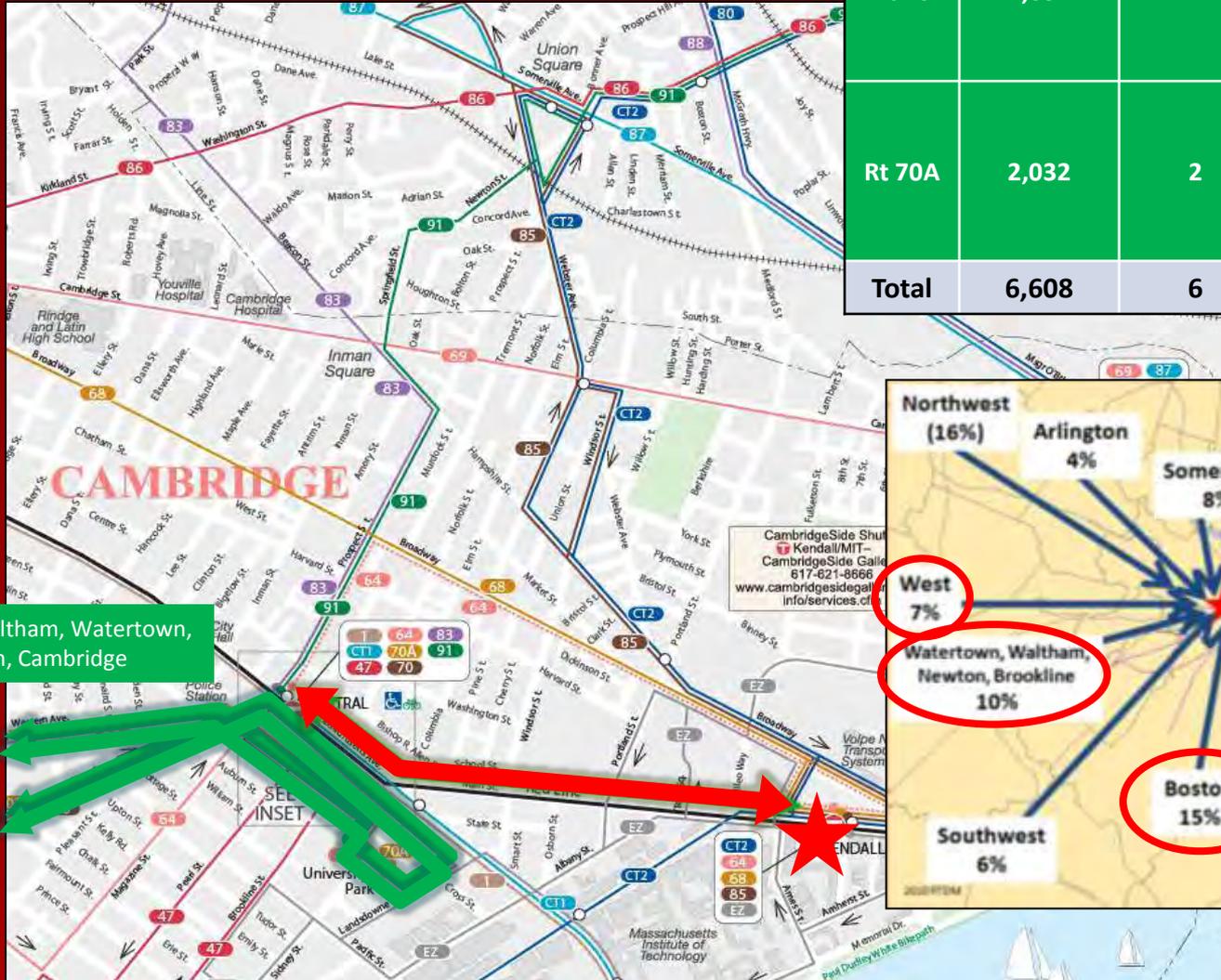


	Ridership Weekday Boardings	AM Peak Frequency	Coverage	AM Peak Capacity/hr
Rt 87	3,373	3	Arlington, Somerville, Cambridge	162
Rt 88	3,785	4	Somerville, Cambridge	216
Rt 80	1,872	3	Arlington, Somerville, Cambridge	162
Total	9,030	10		540

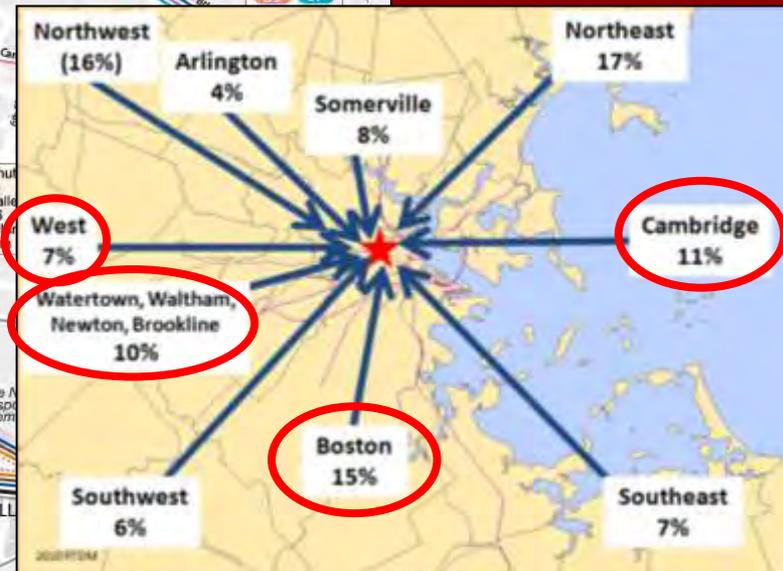


Extend Central Sq. Buses to Kendall

	Ridership Weekday Boardings	AM Peak Frequency	Coverage	AM Peak Capacity/hr
Rt 70	4,654	4	Waltham, Watertown, Boston, Cambridge, West	216
Rt 70A	2,032	2	Waltham, Watertown, Boston, Cambridge, West	108
Total	6,608	6		324



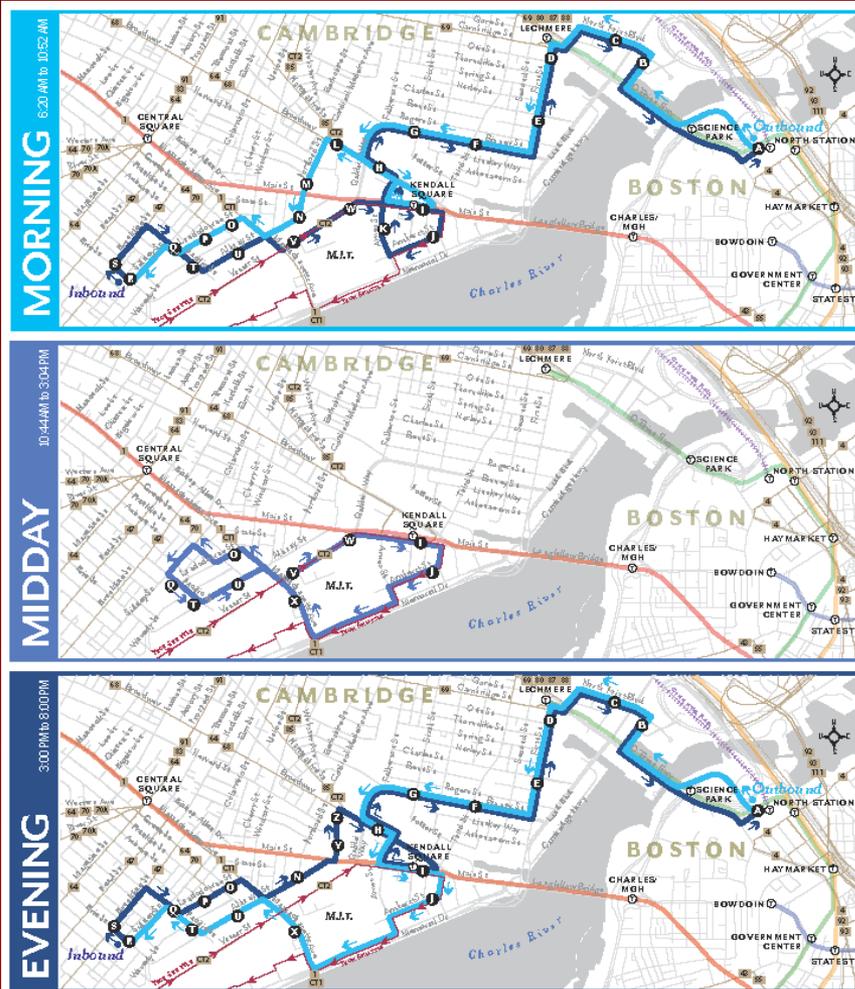
To Waltham, Watertown, Boston, Cambridge



CambridgeSide Shuttle
 Kendall/MIT - CambridgeSide Garage
 617-621-8866
www.cambridgesidegarage.com/info/services.cfm

EZ Ride Improvements

- Enhanced Frequency



Please distribute to EZ Ride commuters

More frequent Rush Hour service starts January 30th!

Charles River Transportation Management Association is pleased to announce that EZ Ride Shuttle will provide more frequent Rush Hour service, starting Monday, January 30, 2012. An additional bus will operate during the morning and evening commutes to provide more frequent departures at our busiest times.

Here's how the changes will impact your commute:

Morning Shuttles:

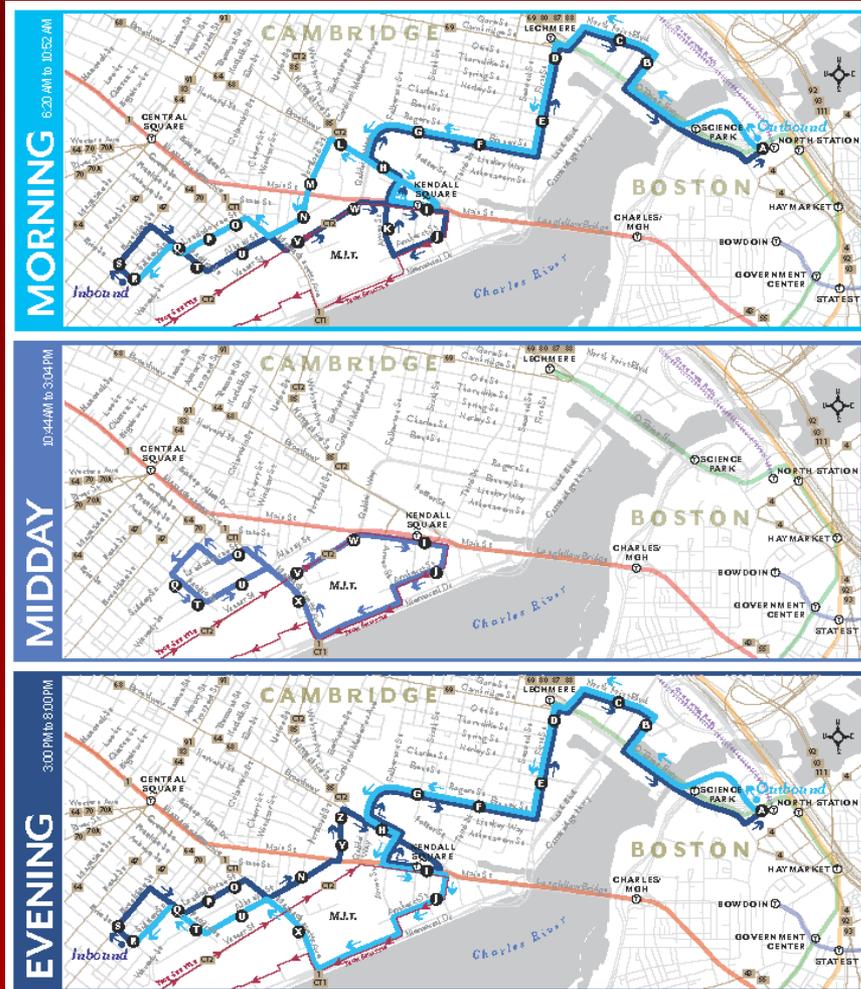
6:20-7:30 am - No changes, shuttles will continue to run every 10 minutes.

7:30-8:50 am - Outbound shuttles will depart North Station every 8 minutes. Inbound shuttles will leave Cambridgeport every 8 minutes from 8:00-9:20am.

8:50-10:20 am - No changes, shuttles will continue to run every 10 minutes.

EZ Ride Improvements

EZ Ride Improvements can be controlled
Potentially easier implementation
Extend Kendall Connectivity Quickly



- Enhanced Frequency
- Continually Improve Connection
 - Lechmere to Kendall
- Provide Off-Peak Connections
 - Lechmere
 - North Station
- Express Service or Direct Routing
 - Reduces Travel Time
- Additional Connections
 - Haymarket
 - Sullivan/Community College
 - Kenmore
- Expanded Membership/Funding
 - Greater employer contribution

Summary Analysis – Transit Expansion

Major Investments with Maximum KENDALL benefits

- Sullivan/KENDALL/LMA portion of Urban Ring
- Transit Bridge to Sullivan
- Charles River Crossing

Importance of Adjacent Connections

>Lechmere

>North Station

>Sullivan

>Community College/North Point

>Haymarket

>Central

Kendall Square should be a significant Transit Center

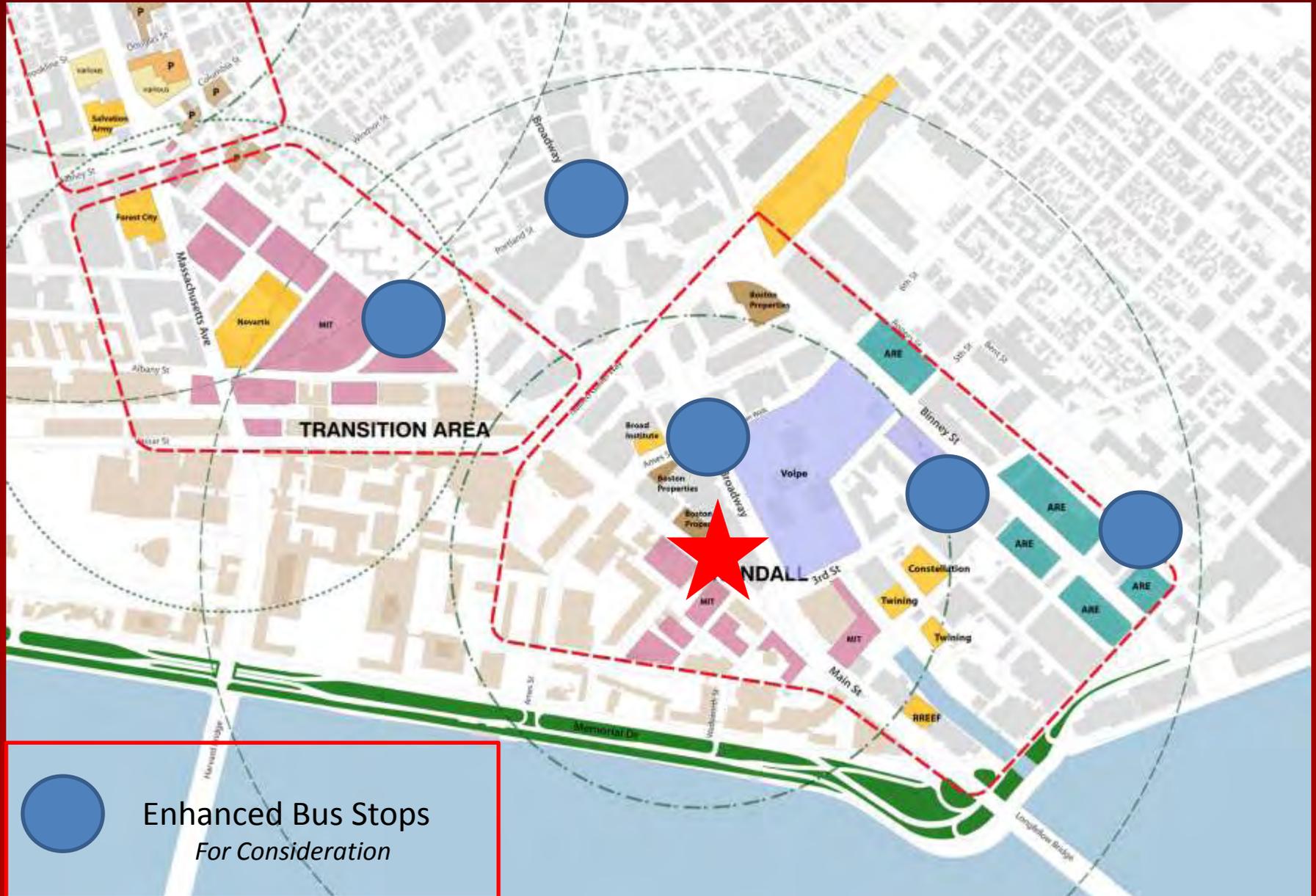
- Extend Buses from Lechmere, Central, Sullivan

EZ Ride Expansion

- Provide additional coverage AND frequency
- Significantly expand membership/funding

Advocate for continued MBTA systemwide expansion

Additional Strategies – Transit +



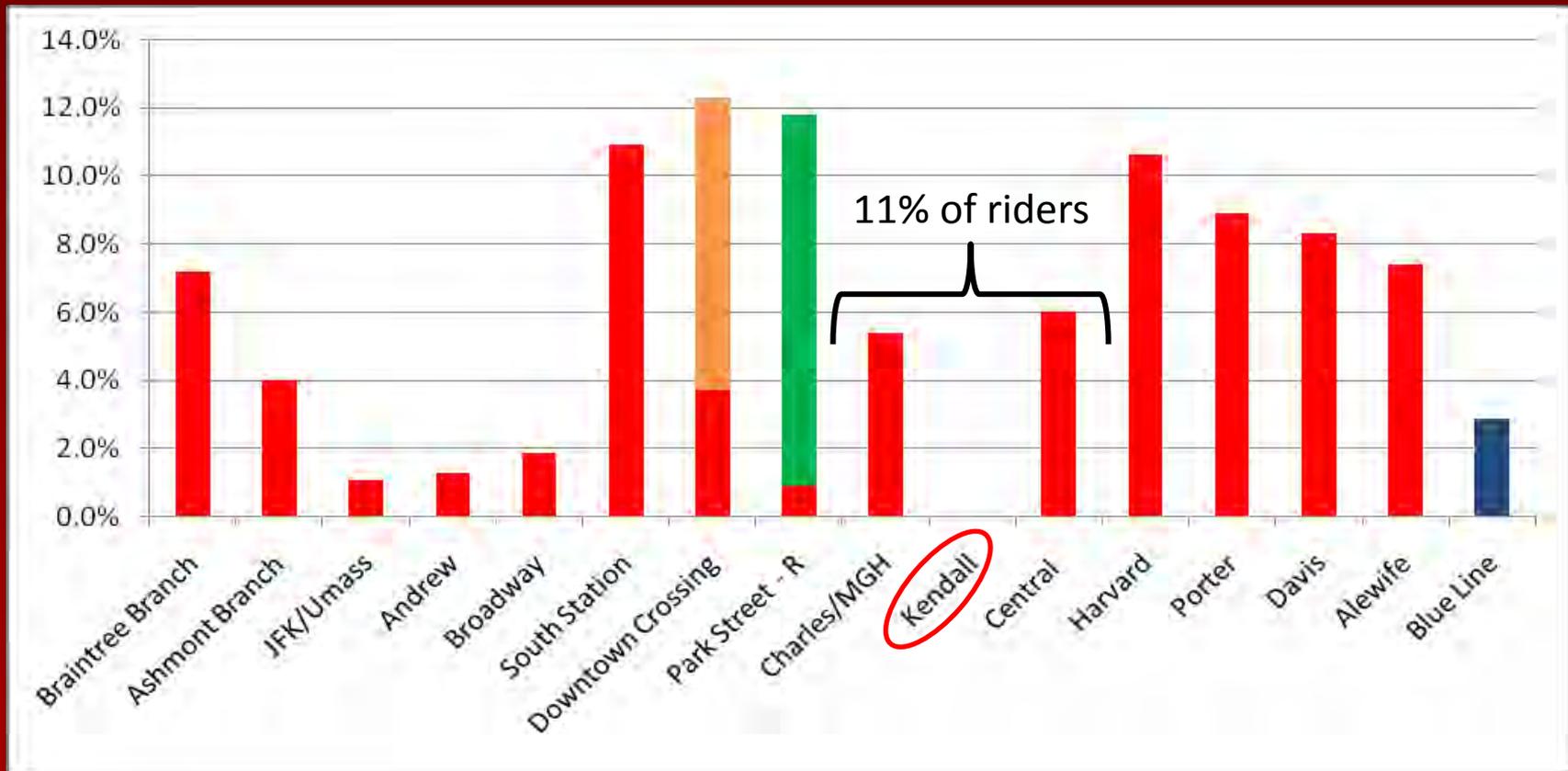
Additional Strategies – Transit +

Promoting combination trips

- Bike sharing from nearby Centers
 - North Station
 - Haymarket
 - Sullivan
 - Bowdoin
- Expanded bike parking at Alewife
- Pedestrian connections
 - North Station
 - Community College



Additional Strategies – Transit +



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Additional Strategies – Transit +

Expand Span of Service beyond peak hours

- Supports residential
- New bars/restaurants extend service need
- Lack of transit options outside peak contributes to auto complacency
- Shift trips (even transit trips) away from the peak hour

