

KENDALL SQUARE MOBILITY TASK FORCE

Meeting #7
Bus Priority Corridors and Red Line
Transportation Priorities
September 20, 2016





AGENDA – MODIFIED ORDER

- Introductions and Admin 10 min
- Red Line Capacity Analysis 40 min
- Focus40 Gaps Analysis 20 min
- Final Bus Scenarios / Performance Measures / Bus Priority Corridors 30 min
- Next Steps and October Workshop 10 min
- Public Comment 10 min



ADMINISTRATIVE ITEMS





TASK FORCE MEETINGS

Type	Description	Date
Public	Bus alternatives / priority concepts / Red Line capacity	October 12, 2016
Task Force	Bus alternatives analysis (CTPS) and Grand Junction mobility charrette	October 25, 2016
Task Force	Draft policy recommendations	November 22, 2016
Public	Summary of work and discussion of draft recommendations	December 13, 2016
Task Force	Present/finalize recommendations	January 17, 2017



RED LINE CAPACITY ANALYSIS



DISCUSSION



FOCUS40 GAPS ANALYSIS



DISCUSSION



FINAL BUS SCENARIOS





FINAL BUS SCENARIOS

Route	Proposed Scenario - Constrained	Proposed Scenario - Unconstrained
	Assume GLX is in place. These could be implemented in the shorter term, but will be modeled in 2040 for comparison purposes.	Assume GLX is in place. These could be implemented whenever funding or resources are identified, but will be modeled in 2040.
92	N/A	Create a "92A" (similar to 92, but different service entirely): Add 22 weekday peak trips in each direction between Assembly (serve station) and Kendall via the bus priority corridor being evaluated [Lechmere to 1st to Binney] (headway ~ 15 min).
88	Reroute all trips each way to/from Kendall instead of Lechmere via Columbia and Winsor, similar to CT2, and only making stops that the CT2 makes south of McGrath. Frequency would be reduced to adjust for increased cycle time (from about every 16 minutes in the peak to every 21 minutes). Off-peak headways would remain the same.	Reroute all trips each way to/from Kendall instead of Lechmere via Columbia and Winsor, similar to CT2, and only making stops that the CT2 makes south of McGrath. Frequencies would match the present service (about every 16 minutes in the peak).
87	Reroute all trips each way to/from Kendall instead of Lechmere via Columbia and Winsor, similar to CT2, and only making stops that the CT2 makes south of Union Square. Frequency would be reduced to adjust for increased cycle time (from about every 21 minutes to every 25 minutes in the peak). Off-peak headways would increase by 5 minutes.	Reroute all trips each way to/from Kendall instead of Lechmere via Columbia and Winsor, similar to CT2, and only making stops that the CT2 makes south of Union Square. Frequencies would match the present service (about every 21 minutes in the peak).





FINAL BUS SCENARIOS

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	Assume GLX is in place. These could be implemented in the shorter term, but will be modeled in 2040 for comparison purposes.	Assume GLX is in place. These could be implemented whenever funding or resources are identified, but will be modeled in 2040.
85	Stop consolidation and TSP at key intersections	Stop consolidation and TSP per 'constrained' scenario, plus increase peak period frequency from 25 to 15 minutes, and off-peak frequency from 30 to 20 minutes.
70/ 70A	Extend weekday peak trips only to Kendall, similar to route 64 via Mass Ave and Main St (about 13 trips per direction per peak period, as allowed by elimination of 68 service).	Extend all trips to Kendall, following same routing and stops as 64 from Central.
68	Eliminate service (in favor of extending the 70/70A)	Same as current service
64	Reroute 16 peak period trips each way between Kendall and Central (~ every 15 min) via Mass Ave, Main St, and Portland. These are the trips presently scheduled via Broadway	Operate all 37 weekday trips each way to/from Kendall via Mass Ave, Main St, and Portland.
CT2	Stop consolidation and TSP where overlaps with 85 service.	Stop consolidation and TSP where overlaps with 85 service.
CT4	N/A	This route will connect Sullivan and Kenmore via Lechmere and Kendall in accordance with proposed 'CT4' service from Sullivan along Washington Street, along McGrath, First Street, Binney, Third, Main, Vassar, and Mass Ave towards Kenmore.





PROPOSED CT4

- Proposed by Jamie Rosen as mitigation for GLX delay
- Between Sullivan and Kenmore (via Lechmere and Kendall) using the following headways:
 - 15 minutes from 5:30 AM – 6:30 AM
 - 10 minutes from 6:30 AM – 8:00 PM
 - 20 minutes from 8:00 PM – 12:40 AM
- Shorter term and longer term (if a connection were built between Inner Belt Road and McGrath) routing options

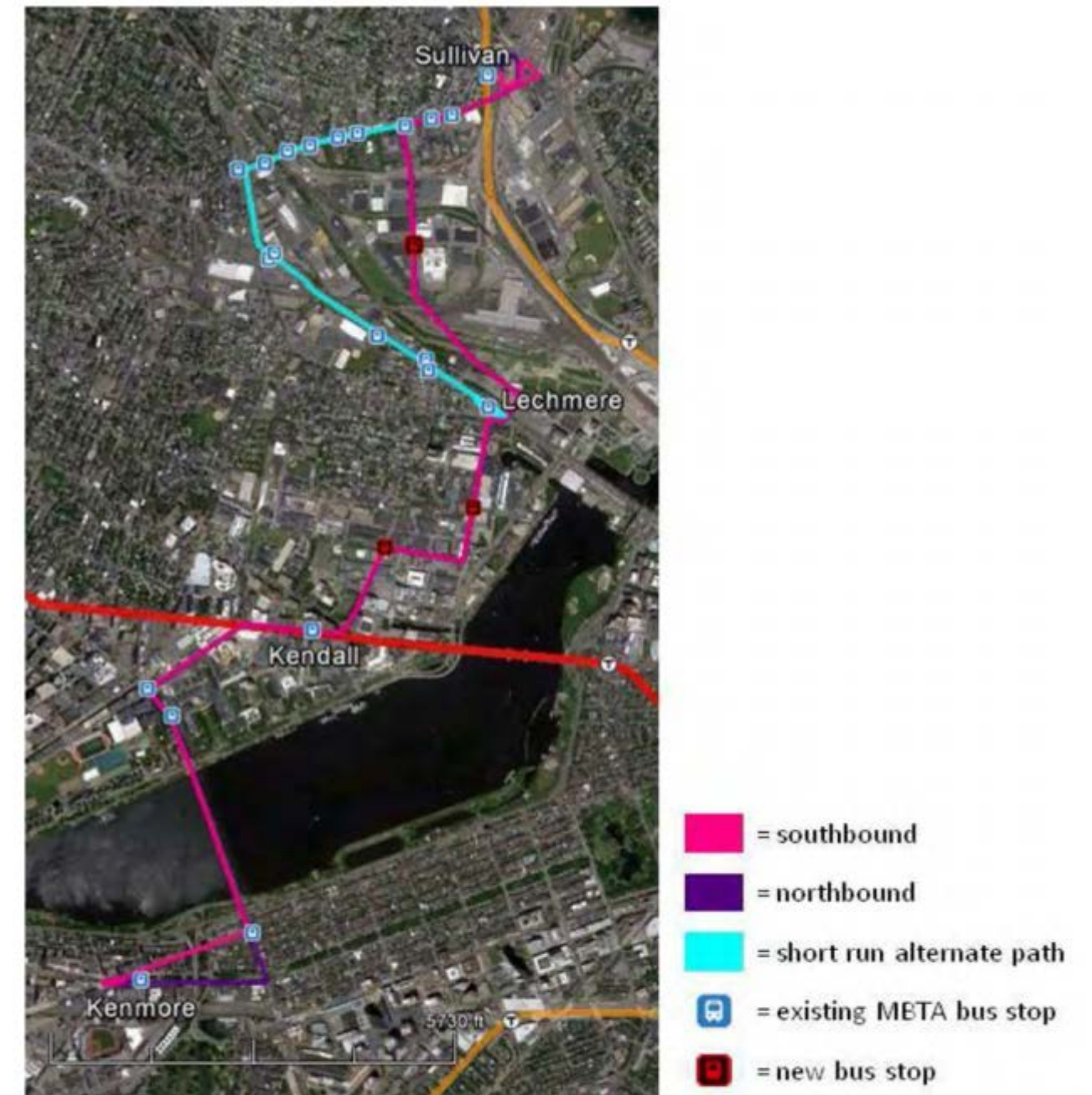


Figure 5-1. Proposed Sullivan – Lechmere – Kendall – Kenmore Route

Source: Reproduced from (Rosen, 2013, p. 123)

https://www.cambridgema.gov/~media/Files/CDD/Transportation/transitcommittee/2016/transit_cmte_MIT_CT4_report_20160302.pdf?la=en





EVALUATION CRITERIA

- Goals submitted by MassDOT in 2015 (see handout):
 - System Modernization
 - Mobility
 - Reduce Single-Occupancy Vehicle Use
 - Cost Effectiveness
 - Economic Impact
 - Safety
 - Social Equity and Fairness
 - Environmental and Health Effects
 - Policy Support





PROPOSED PERFORMANCE MEASURES

- System-wide, Travel to, Travel from:
 - Trips (passenger and vehicle)
 - Person/passenger-miles traveled
 - Person/passenger-hours traveled
 - Vehicle-miles traveled (highway)
 - Vehicle-hours traveled (highway)
 - Number transfers for transit trips
- Additionally for Red Line, buses, where possible:
 - Boardings/alightings
 - Link volumes

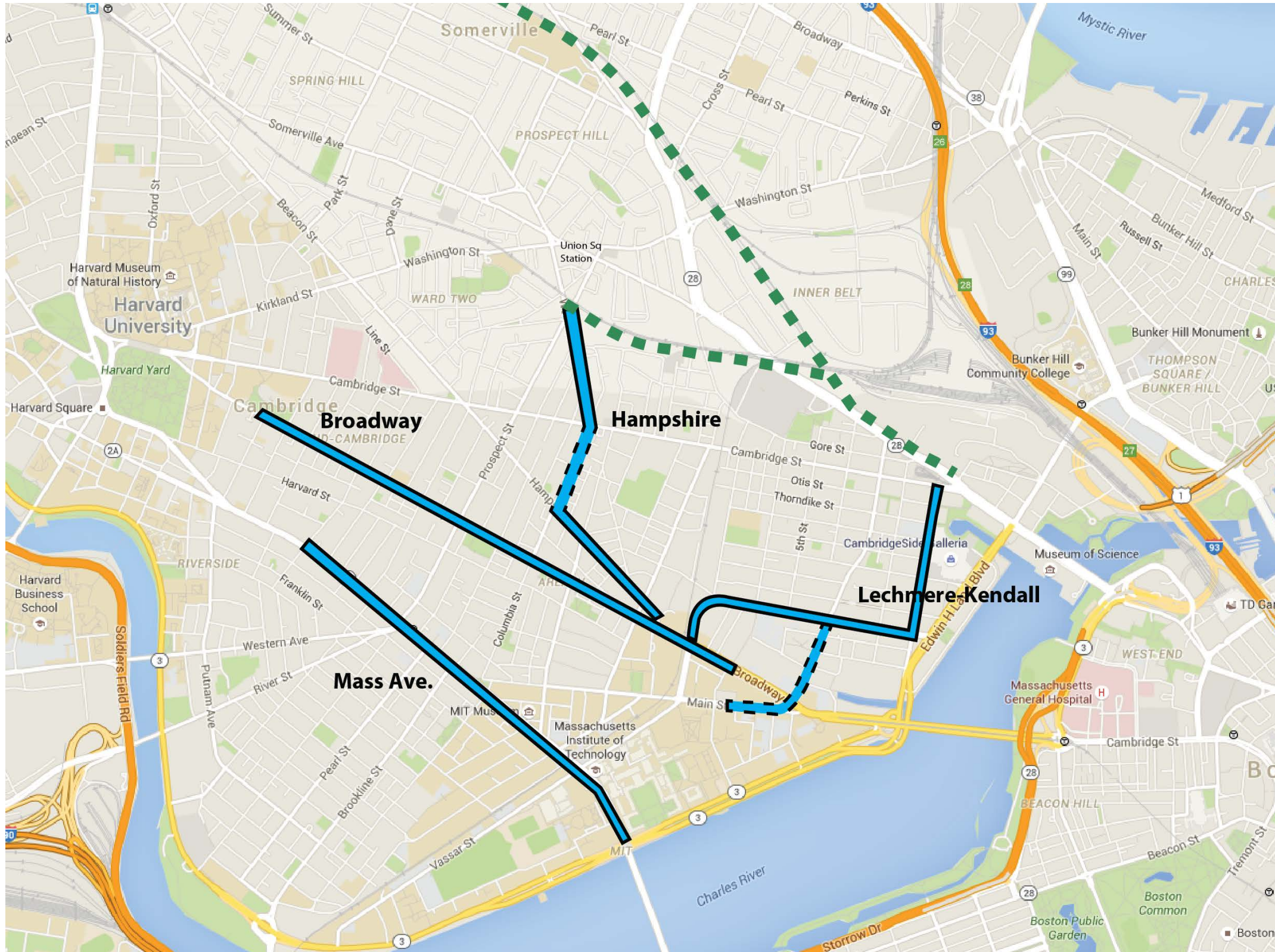


SELECTED BUS PRIORITY CORRIDOR





PRIORITY CORRIDORS CONSIDERED

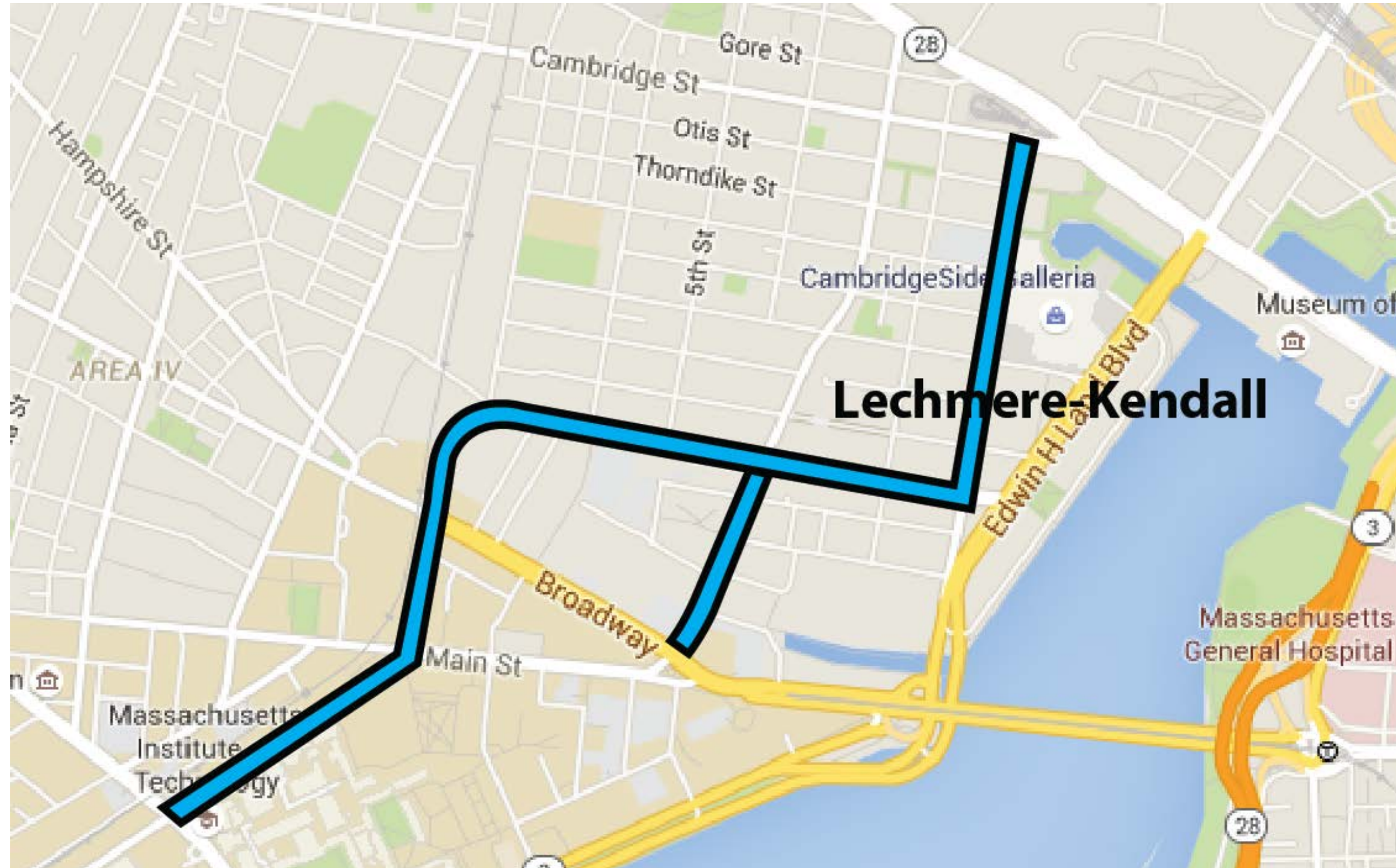


- Mass Ave does not serve Kendall directly; will be studied separately by the City
- Passenger volumes on Hampshire and Broadway are relatively low
- Lechmere-Kendall could:
 - Improve EZ Ride times
 - Improve transit access to Binney Street
 - Leverage accessibility of GLX





PRIORITY CORRIDOR TO BE EVALUATED





LECHMERE TO KENDALL PRIORITY CORRIDOR



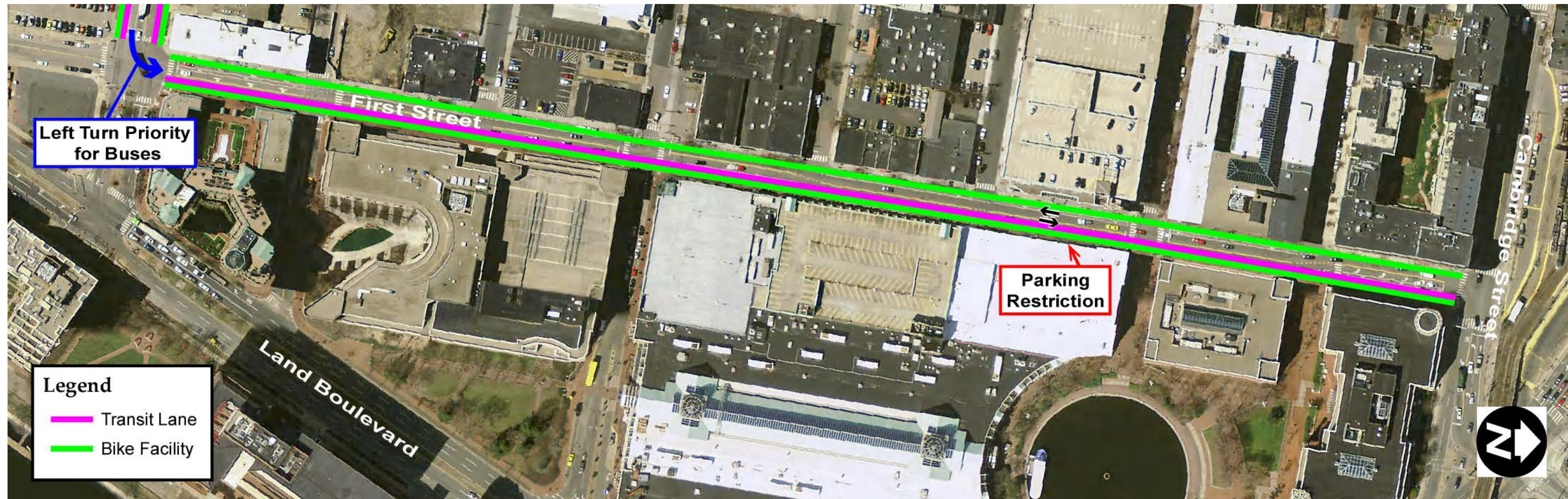
Considerations:

- Define routes and streets
- Right of Way
- Mode balance
- Traffic operations



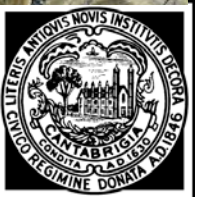
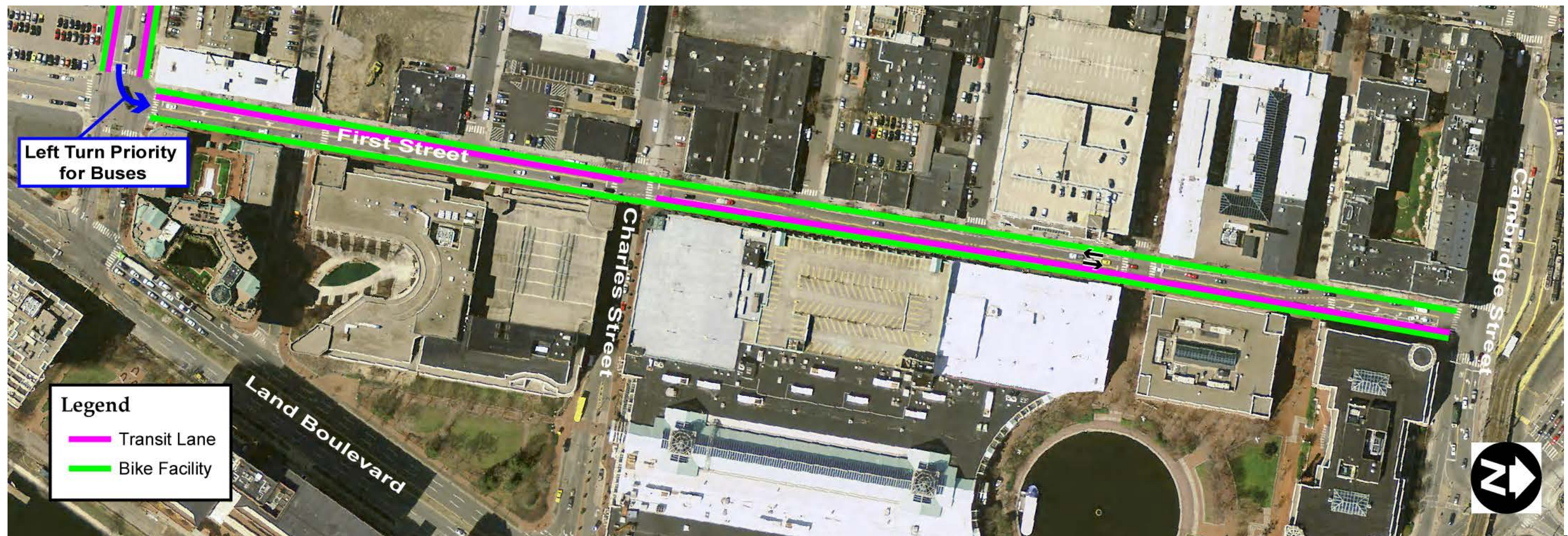
FIRST STREET- OPTION 1

- Replace parking with NB bus-only lane. One mixed use travel lane in each direction. Bicycle facilities in both directions.



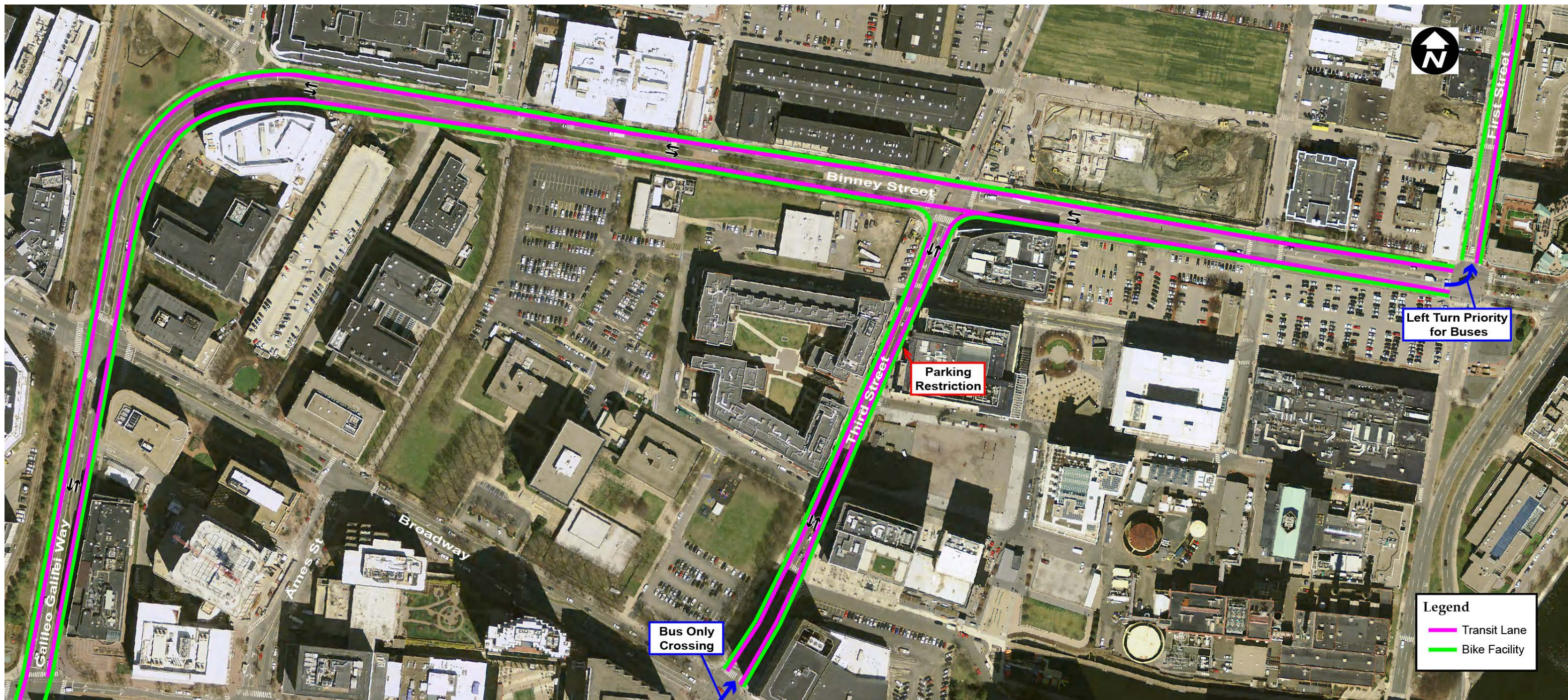
FIRST STREET –OPTION 2

- Replace parking with alternating bus lane, split halfway between Cambridge & Binney. One mixed use travel lane in each direction and bicycle facilities in both directions (same as Option 1).

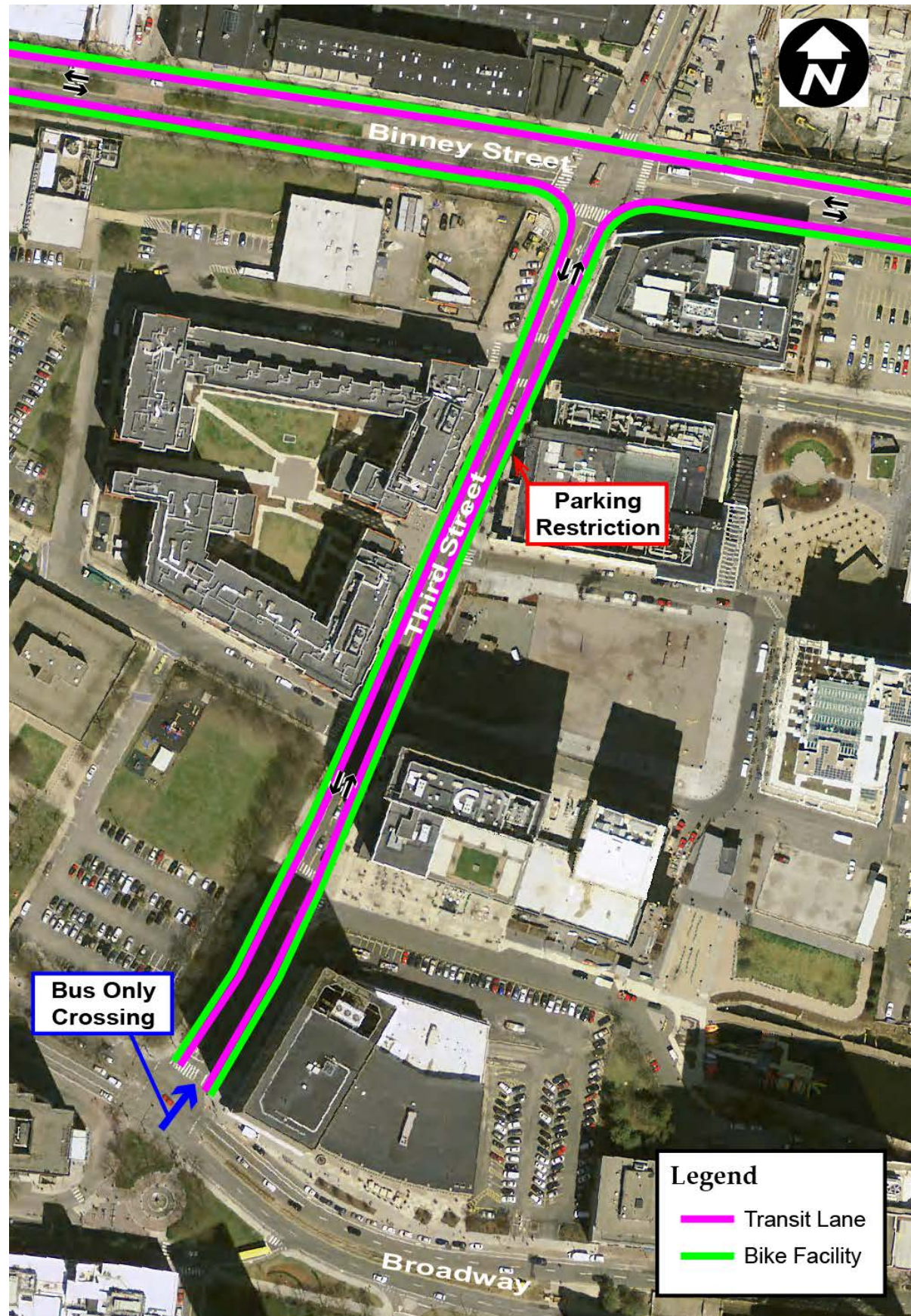


BINNEY BETWEEN FIRST & BROADWAY

- Convert travel lane to bus lane with cycle tracks plus mixed travel lanes/turn lanes in both directions.



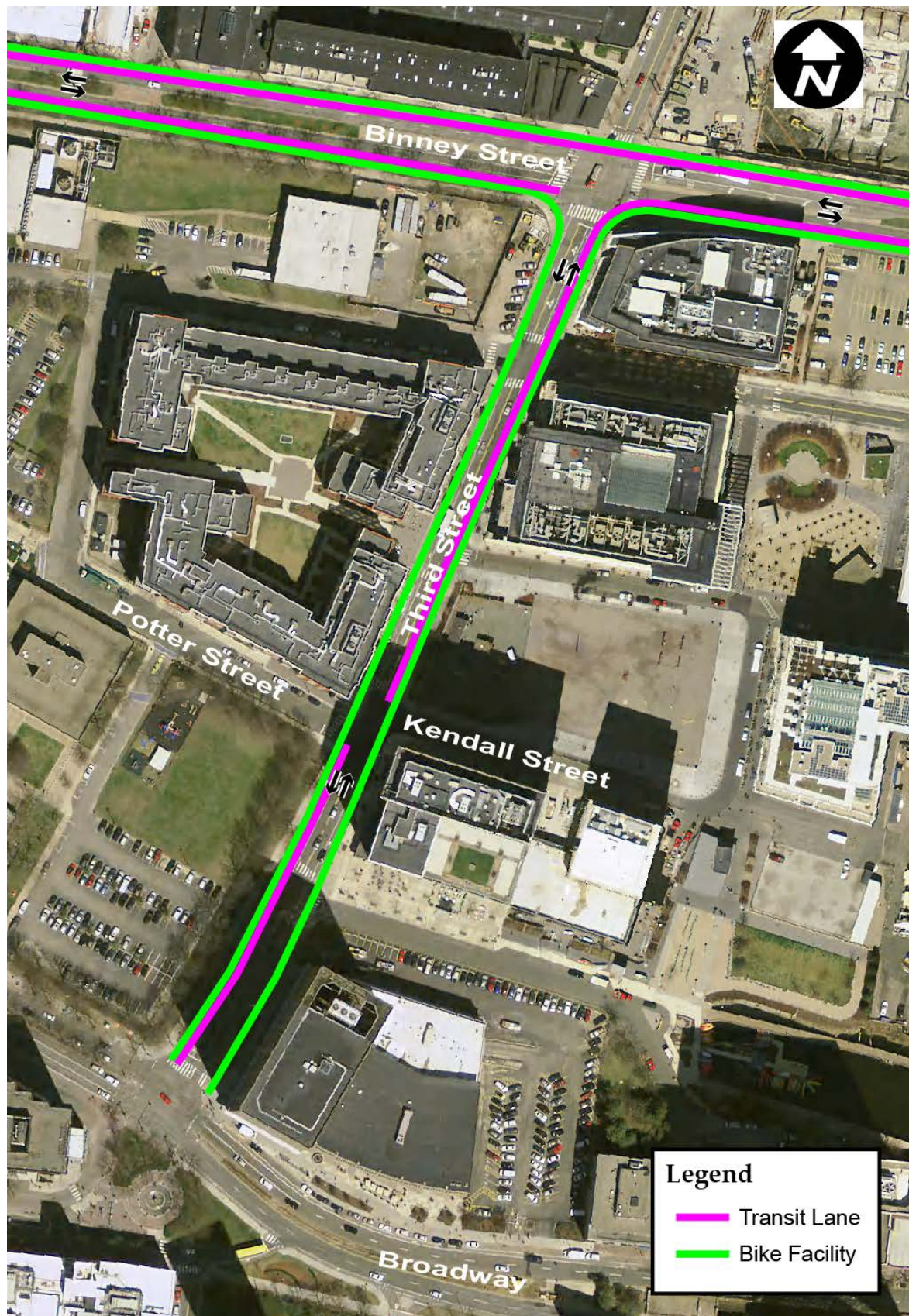
THIRD STREET- OPTION 1



- Replace parking with bus lanes in both directions
- One mixed travel lane and cycle tracks in each direction.
- Look at bus-only left turn lane from Main onto Third across Broadway.



THIRD STREET – OPTION 2



- Replace parking with *alternating side* bus lanes
- One mixed travel lane and cycle tracks in each direction.



NEXT STEPS AND OCTOBER WORKSHOP





NEXT STEPS

- Bus
 - Consultants to complete scenario and bus priority work
 - Scenarios will be modeled throughout October. Results will be available for the November 22nd meeting focused on draft recommendations.
- Red Line
 - Discuss
- Grand Junction
 - October 25th workshop with consultant





GRAND JUNCTION WORKSHOP

- Engaging consultant to:
 - Compile and update information related to the Grand Junction rail ROW and the feasibility of various transit technologies on the corridor
 - Consider the interaction of transit and the multi-use path
 - Plan a workshop on October 25th to:
 - summarize the current feasibility of technology options on the corridor; and
 - explore constrained segments and possible design implications.



PUBLIC COMMENT





HOW TO GET INVOLVED

- Website: <http://www.cambridgema.gov/CDD/Projects/Transportation/kendallsquaremobilitytaskforce>
- Contacts:
 - Brian Dacey, President, Cambridge Innovation Center
617-401-2870, dacey@cictr.com
 - Susanne Rasmussen, Director of Environmental & Transportation Planning, City of Cambridge
617-349-4607, srasmussen@cambridgema.gov
 - Tegin Bennett, Transportation Planner, City of Cambridge
617-349-4615, tbennett@cambridgema.gov
- Next Task Force Meeting: October 25, 2016 (Grand Junction Workshop)





THANK YOU!

