

TRANSPORTATION – Part 3

Central Square Advisory Committee: 2011/2012

October 17, 2012

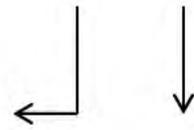
Mass Ave/River/Prospect:

- Low Critical sums at Mass/River are counterintuitive to how the intersection feels because:
 - No left turns means low vehicle conflicts.
 - Critical sums do not include peds in the analysis.
- Highest ped volumes of all intersections studied.
 - PM Peak 1900 vehicles, 2500 peds.
- Intersection operations heavily influenced by River St vehicle right turns and peds crossing between Starbucks and the Plaza.
- Alternative tool for analysis – LOS (Level of Service)
- Move goes from existing LOS C to K2C2 build out LOS E.

Mass Ave/River/Prospect: Current PM Peak Volumes



57 455

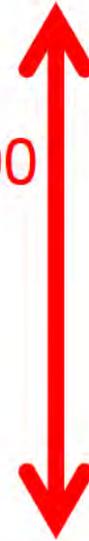


101

K2C2 2030:
+ 80 pedestrians.
2 per cycle.

← 297

800

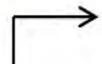


NBR

K2C2 2030:
+ 60 vehicle or 1.5 per cycle.

528

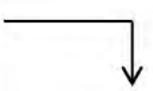
191



268



9



Conclusion

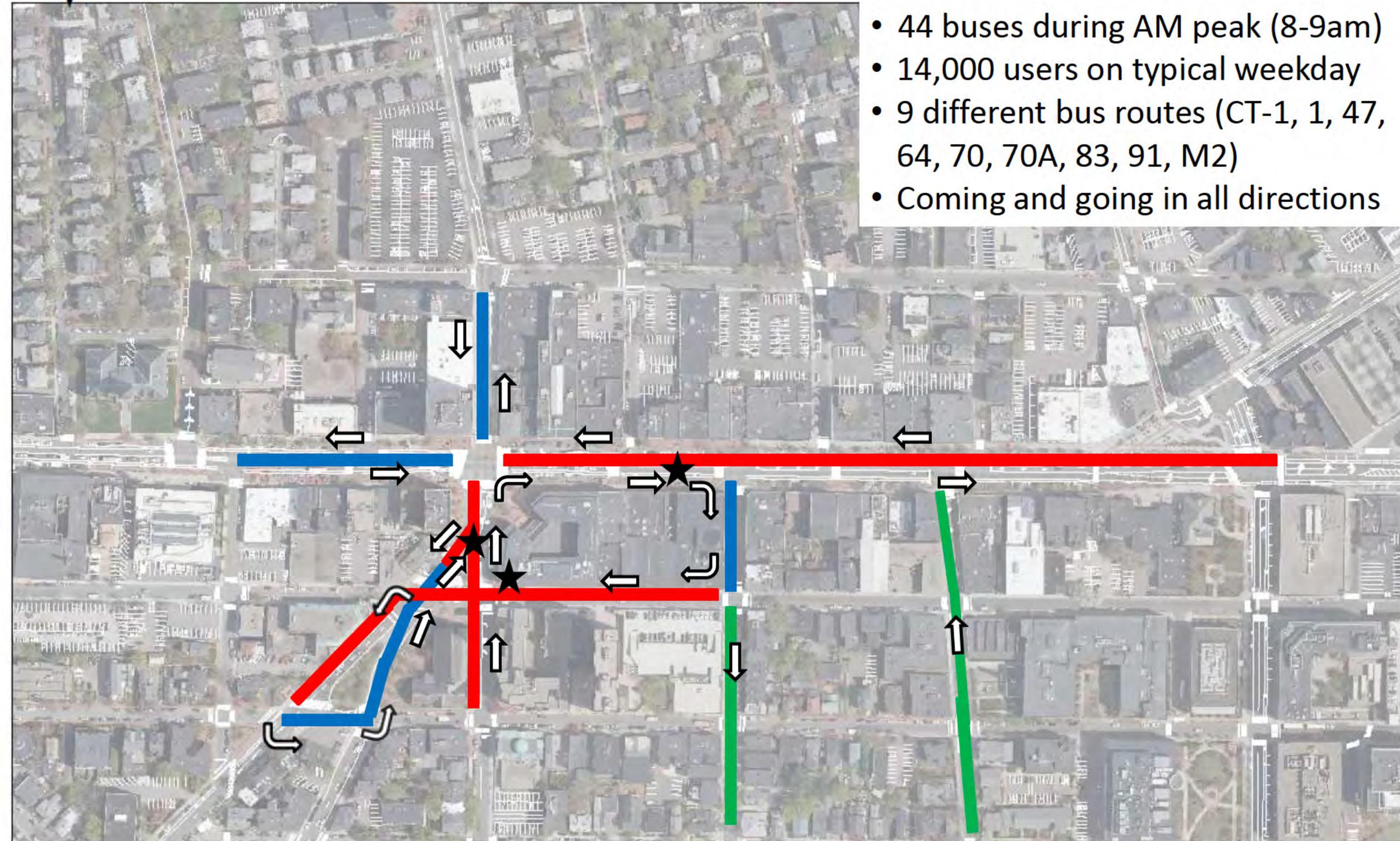
- Mass/River joins Broadway/Third as the two most sensitive intersections for K2C2 build out.
- Development projects will be required to do a detailed traffic study during permitting and mitigation will be required.
- At Mass/River the ped/vehicle conflicts are influenced by:
 - Fewer people driving
 - Through traffic avoiding Central Square
 - Drivers avoiding peak hour times
 - Signal timings being adjusted
 - Access/egress to/from new development being accommodated without sending vehicles through the intersection.

Existing Bus Conditions in Central Square

Key:

- Heavy Bus Use (3+ routes)
- Medium Bus Use (2-3 routes)
- Low (1 route)
- ★ Current Bus Stops

- 44 buses during AM peak (8-9am)
- 14,000 users on typical weekday
- 9 different bus routes (CT-1, 1, 47, 64, 70, 70A, 83, 91, M2)
- Coming and going in all directions



Central Square Bus Transportation Goals

- Evaluate ways to consolidate the Central Square bus stops
 - provide a space where all bus routes starting/ending in Central Square can layover
- Allocate scarce sidewalk space to best serve pedestrians, sidewalk activities, and serve bus stops and waiting areas
- Continue to keep buses close to MBTA Red Line for transfers between bus & subway
- Increase MBTA transit ridership
- Plan for future bus growth and extensions

Why Underground/Overhead Bus Depot Is not Feasible

- Underground depot:
 - Large footprint
 - Hard/impossible to serve both N-S and E-W routes
 - Red line is below Mass Ave therefore requiring a depot in that area to be below it
 - Extremely long ramps would take space from sidewalks or roadway
 - Rider safety is compromise/expensive when the depot is out of sight
 - Could increase headways/frequencies or costs of many of the buses
- Overhead depot:
 - Large footprint
 - Hard/impossible to serve both N-S and E-W routes
 - Extremely long ramps would take space from sidewalks or roadway
 - damage character of area
 - Blocks views and adds noise for building tenants
 - Degrades the environment below the depot

5 Possible Locations for Surface Bus Depot

C – 60
Prospect
St.

B – Lot 5

OR

B – Lot
6

D - YMCA + Lot 9

A – Green
St. Garage

+Library

Notes for all locations:

- Parking spaces need to be eliminated, relocated or replaced on site.
- Extension of routes could add costs to MBTA or reduce frequencies.
- Each location involves large amounts of money, and in some cases taking of private property.



Central Square bus depot possible locations and impacts

Changes/Criteria /Impacts	Which buses would NOT use depot?	Plaza Stop	Mass Ave Stop EB	Streets with bus activity (More or Less than current)	Public parking loss?	Distance to Red line	Conclusions
Current Conditions	n/a	83,91, CT-1, 64	1,CT-1, 47,64,70, 70A	n/a	n/a	Inbound Outbound (0-1 blocks)	
Location A: Green St. Garage + Public Library	1	none	1,70,70A	Mass. Ave, Pearl St, Green St	290 spaces (public)	Inbound Outbound (2-3 blocks)	Not Recommended: Lot too small; loss of public library; 83&91 needs longer routes and travel time to access depot; closest to current conditions
Location B: Lot 5 or 6	1,47	64	1	Bishop Allen Drive, Prospect St, Columbia St, Mass Ave	89 spaces (public Lot 5) 45 spaces (public Lot 6)= 134 Total	Inbound Outbound (3+ blocks)	Not Recommended: Size constraints; too much added bus traffic on Bishop Allen Drive; far distance to MBTA Red Line
Location C: 60 Prospect St.	1,70,70A	none	1,70,70A	Bishop Allen Drive, Prospect St, Columbia St	169 spaces (private)	Inbound (3+ blocks) Outbound (2-3 blocks)	Not Recommended: Too much added bus traffic on Bishop Allen Drive; hurt frequency of #47 & CT-1; would require taking of private lot
Location D: YMCA + Lot 9	1,70,70A	none	1,70,70A	Pleasant St, Green St	106 spaces (private) + 17 spaces (public Lot 9)= 123 Total	Inbound Outbound (3+ blocks)	Not Recommended: Size constraints; crossing Western & Franklin is difficult; taking of private lot; far distance from MBTA Red Line

*Note 1: Parking spaces for each option need to be eliminated, relocated, or replaced on site.

*Note 2: Extension of routes could add costs to MBTA or reduce frequencies.

*Note 3: Each location involves large amounts of money, and in some cases taking of private property.

Next Steps/Conclusions

- One central bus depot does not appear to be viable
 - limited physical sites available (either publicly or privately owned).
 - single location cannot serve all bus routes.
 - buses may be diverted onto residential streets.
- Bus depot very expensive, competes for limited funds needed to enhance the bus and red line services and is not likely to increase ridership
- Recommend a study with MBTA to evaluate routes, stops and layovers to recommend changes to meet the goals articulated for the review of the bus depot.

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