Alewife Transportation Update
City Council Transportation Committee
June 19, 2014
Tobin School

- “address the traffic, transportation and access to transit issues in the Fresh Pond/Concord Avenue/Alewife area with a view toward understanding the impact of recent development trends in the area.”
Presentation Outline

• Concord-Alewife Planning Overview

• Development Trends and Development to-date

• Area Transportation Trends

• Development Review Process

• Completed, in Planning and Transportation Goals

• Q&A
Overcome barriers

- Create an enhanced pedestrian environment that weaves the site together to include open space, transit, retail/shopping.
- Create pedestrian/bicycle connection between the Triangle and Quadrangle.
- Improve internal connections within the Quadrangle.
- Create open space connections.

Respond to transportation issues

- Understand the implications of local vs. regional traffic.
- Encourage alternatives to single-occupancy vehicles through transit and bike/pedestrian access.
- Reduce trip growth from future development.
- Reduce anticipated auto mode share in study area through improvements in transit and bike/pedestrian access.
Concord-Alewife Plan
Significant Projects Constructed in Alewife 1998 – Present (sq ft)

In Construction - Expected Complete 2014 (Note: Approximate)

<table>
<thead>
<tr>
<th>Primary Use</th>
<th>Address</th>
<th># of Units</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>160 - 180 Cambridgepark Dr. (Phase I)</td>
<td>273</td>
<td>307,050</td>
</tr>
<tr>
<td>Residential</td>
<td>563 - 603 Concord Ave.</td>
<td>61</td>
<td>64,189</td>
</tr>
<tr>
<td>Residential</td>
<td>70 Fawcett St. (Bldg 1 - Phase II)</td>
<td>171</td>
<td>186,480</td>
</tr>
</tbody>
</table>

In Construction - Expected Complete 2015 or Later (Note: Approximate)

<table>
<thead>
<tr>
<th>Primary Use</th>
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<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>160 - 180 Cambridgepark Dr. (Phase II)</td>
<td>125</td>
<td>137,950</td>
</tr>
<tr>
<td>Residential</td>
<td>165 Cambridgepark Dr.</td>
<td>244</td>
<td>260,000</td>
</tr>
<tr>
<td>Residential</td>
<td>80 Fawcett St. (Bldg 2)</td>
<td>168</td>
<td>181,881</td>
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</tbody>
</table>
Significant Alewife Projects Permitted and Proposed

Permitted - Not Yet In Construction

<table>
<thead>
<tr>
<th>Primary Use</th>
<th>Address</th>
<th># of Units</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>130 Cambridgepark Dr.</td>
<td>220</td>
<td>231,321</td>
</tr>
<tr>
<td>Office R&amp;D</td>
<td>400,500,600 Discovery Park</td>
<td>353,000</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>307 Fresh Pond Parkway</td>
<td>20</td>
<td>24,900</td>
</tr>
</tbody>
</table>

Proposed - In Permitting Process

<table>
<thead>
<tr>
<th>Primary Use</th>
<th>Address</th>
<th># of Units</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>180R Cambridgepark Dr.</td>
<td>378</td>
<td>348,992</td>
</tr>
<tr>
<td>Residential</td>
<td>75 New St.</td>
<td>147</td>
<td>154,549</td>
</tr>
</tbody>
</table>
City Council Transportation Committee on Alewife Transportation
Current Traffic Conditions and Trends in the Area

2013 Average Daily Traffic Volumes

- 53,000
- 45,000
- 22,000
- 22,000
- 12,500
Three Destinations of Alewife Traffic
CTPS 2007 Report

<table>
<thead>
<tr>
<th>Market</th>
<th>Vehicles</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>North-South Cross-Region**</td>
<td>4,391</td>
<td>61</td>
</tr>
<tr>
<td>Downtown Boston and Nearby Boston Neighborhoods</td>
<td>1,512</td>
<td>21</td>
</tr>
<tr>
<td>Cambridge</td>
<td>1,296</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,199</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Boston Region MPO regional transportation model
**Includes Allston/Brighton, Jamaica Plain, West Roxbury, Roslindale, Hyde Park, and Mattapan
ADT (Average Daily Traffic)

- Alewife Brook Parkway (North of Cambridgepark Drive)
- Massachusetts Avenue (South of Magoun St)
- Concord Avenue (East of Fawcett St)
- Concord Avenue (East of Fresh Pond Parkway)
- Blanchard Road (By Raised Device)
Hourly Variation in Traffic

Alewife Brook Parkway, North of Cambridgepark Drive

Axis Title

2008
2013
19% Increase in Transit Use
Biking Triples in Last Decade

Cambridge Bicycle Counts and Crashes
Combined AM/PM Peak Hour

Bike Crash and Volume Trends
DEVELOPMENT REVIEW PROCESS

Transportation Impact Reports (TIS)

- Existing Transportation Condition
- Project Trips
- Build Condition
- Add Background Growth Rate and Other Area Project Trips
- Future Transportation Condition

Project Impacts evaluated against Planning Board Transportation Criteria

- Project Trip Generation
- Change in Level of Service at intersections
- Increased traffic volume on residential streets
- Increase vehicle queue at intersections
- Sufficient pedestrian and bicycle facilities

Evaluate future cumulative transportation impacts

- Includes trips from other area projects permitted, approved or under construction.
Alewife  Current and Proposed Development

- Residential was recommended in Alewife-Concord Plan to support a transit-oriented development and a mixed use neighborhood.

- Residential Use has less trips and better non-auto mode share than office use.

8 Projects in Alewife Area

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Units</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 Fawcett Street</td>
<td>428</td>
<td>Partly occupied</td>
</tr>
<tr>
<td>The Residences at Rt. 2 (Faces site)</td>
<td>227</td>
<td>Partly occupied</td>
</tr>
<tr>
<td>603 Concord Ave(Concord/Wheeler Phase I)</td>
<td>61</td>
<td>Under construction</td>
</tr>
<tr>
<td>160 Cambridgepark Drive (Hanover)</td>
<td>398</td>
<td>Under construction</td>
</tr>
<tr>
<td>165 Cambridgepark Drive (Hines)</td>
<td>244</td>
<td>Under construction</td>
</tr>
<tr>
<td>130 Cambridgepark Drive</td>
<td>220</td>
<td>Approved</td>
</tr>
<tr>
<td>180R Cambridgepark Drive</td>
<td>378</td>
<td>Under review</td>
</tr>
<tr>
<td>75 New Street</td>
<td>93</td>
<td>Under review</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2049</strong></td>
<td></td>
</tr>
</tbody>
</table>
Assumed Mode Shares for 8 Alewife Residential Projects

**Residential Mode Share**

- **Drive Alone**: 45%
- **Transit**: 31%
- **Rideshare**: 9%
- **Bike**: 4%
- **Walk**: 7%
- **Other**: 4%

**55% Sustainable Transportation Modes**
## Assumed Vehicle Trips vs. Observed

<table>
<thead>
<tr>
<th></th>
<th>Assumed</th>
<th>Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak Hr.</td>
<td>0.26 trip/unit</td>
<td>0.25 trip/unit</td>
</tr>
<tr>
<td>PM Peak Hr.</td>
<td>0.30 trip/unit</td>
<td>0.16 trip/unit</td>
</tr>
</tbody>
</table>

- **Assumed** – 8 Alewife Residential Projects
- **Observed** – Driveway counts at 3 existing projects (30 Cambridgepark Drive, 87 New Street, and 25-39 Wheeler Street)
- **Fawcett St** - drive is less than we assume and Transit is more.
Special Permit Mitigation

- Parking and Transportation Demand Management (PTDM) Ordinance
  - Commercial Projects: PTDM ordinance required
  - Residential Projects: Residential TDM required per Special Permit (16 currently)

- Improvements to local bike connections

- Construction of path to Discovery Park

- Pedestrian/bike bridge feasibility/design study

- Reduced off-street parking ratios and shared parking

- Reserved bridge landings sites

- Starting Quadrangle interior street connections
Alewife Transportation Management Association (TMA)

- TMA is a partnership between businesses, developers, and residential buildings who join together to reduce traffic congestion, air pollution and improve transportation options.

- 12 existing and future permitted developments in Alewife are required to join a TMA, once it’s formed.

- A TMA can help promote new resources for shuttles, commuter connections and employee benefits to reduce vehicle trips.

- Study underway to lay the groundwork for establishing an Alewife TMA by fall 2014.
PM Peak Hour
Cumulative New Trips

City Council Transportation Committee on
Alewife Transportation

RT. 2
RT. 16
Alewife Brook Parkway
Rindge Ave
Cambridgepark Dr.
Transportation Observations

• Current congestion will remain even if no new development in Cambridge due to geography and development elsewhere.

• Congestion will cause some people to change modes or time of travel to off-peak.

• Local Trips will displace some regional trips to roads to the east, west, north and south of Alewife.

• New residents choosing to live here, are more likely to drive less and use sustainable modes more.

• Encouraging sustainable modes is the most important way to manage traffic in this area.
Recent Transportation Projects

- DCR Alewife Greenway – connects north to Arlington and Somerville, up Rt. 16

- Alewife Greenway Extension – path from Alewife Station to Brighton Street along stormwater wetland

- Concord Avenue cycle tracks

- Fawcett St. reconstruction with new sidewalks and new connector road

- Bicycle Parking added at Alewife - 488 spaces
Recent Projects Plan
Projects in Planning

• Hubway stations being installed at Alewife head-house at Russell field and Rindge Avenue in summer 2014, Fresh Pond Water Treatment Plant in late 2014-15 and other locations
• Route 2 & 16 intersection project by MassDOT – add portion of a lane from Alewife Station – bidding July 2014, fall construction
• Alewife Bicycle/Pedestrian Bridge – consultant to conduct feasibility study for bridge and commuter rail station beginning this summer, TIGER grant for $1m pending for final design
• Watertown/Cambridge Greenway – DCR close to beginning design process – likely in Fall 2014
• Red Line Capacity Improvements – working with MassDOT to look at options
• Cambridgepark Drive - repaving and bicycle facilities
• New Street Reconstruction-larger sidewalks and trees
Projects in Planning

City Council Transportation Committee on
Alewife Transportation
Future Goals

• Bus priority lanes into and out of Alewife Station
• Create Quadrangle roadway and pedestrian connections
• Extend Watertown/Cambridge Multi-use path to Danehy & connect to Fitchburg Line Path with a bridge over railroad, and extend path to Porter
• Expand Hubway locations to nearby towns
• Create connections into & through shopping center property
Future Projects
Question and Answers