



- Conceptual Streetscape Master Plan
- Community Vision
- Harvard to Porter Squares

PUBLIC MEETING # 3

June 29, 2011

MASSACHUSETTS AVENUE STREETScape MASTER PLAN: Harvard to Porter Squares
City of Cambridge - Community Development Department

Process:

- Feedback from community meetings
- Tree walk w/City Arborist
- Online community surveys
- Business-owners surveys (parking & loading zones)



Lower Massachusetts Avenue Streetscape Master Plan Questionnaire

Please answer these questions about the Mass Ave Corridor from Cambridge Common to Porter Square and how you think it might improve over the next decade or more. Feel free to attach any additional thoughts.

- You can take this survey on the web at www.cambridgema.gov/commonstoparter
- Off mail to Stuart Dash, Community Development Department, 344 Broadway, Cambridge, MA 02139
- Call 617-349-4640 or e-mail sdash@cambridgema.gov with any questions.

Streetscape

- What do you like about the character of Massachusetts Avenue? What do you value about the experience of walking, shopping and enjoying Massachusetts Avenue?

Landscape

- What projects and activities related to landscape would you like to see take place along the Mass Ave corridor?

Transportation

- What are some ways that you think that transportation on Mass Ave might improve?

Identity & Culture

- What are important aspects of this district that we might consider emphasizing or strengthening?

Communication

- What is the best way that the City can communicate with you about planning issues in the neighborhood? (Examples: web, e-mail, postal mail, signs/posters)

Recap 1st & 2nd Public Meetings

Community Goals:

- REVIEW AND IMPROVE SAFETY FOR ALL MODES

Review and improve safety for all modes with emphasis on more and better unsignalized pedestrian crossing, bicycle facilities, access improvements, signage on rules



Recap 1st & 2nd Public Meetings

Community Goals:

- **SUPPORT DIVERSITY OF BUSINESSES AND RETAILERS**
Create visual interest on the street through design options such as changes to parking, adding street furniture and new lighting, decorative accent paving, increased sidewalk dining including temporary options



Recap 1st & 2nd Public Meetings

Community Goals:

- **PROMOTE NEIGHBORHOOD STREET CHARACTER**
Create more of a neighborhood street with more green space, trees, enhanced casual encounters, and lighting (less like a wide, high-speed/volume roadway)



Recap 1st & 2nd Public Meetings

Community Goals:

- ENHANCE THE SENSE OF PLACE AND IDENTITY OF THE CORRIDOR
Layer actions that build on its varied character



Standards for “The Avenue”

- Tree Planting Solutions – “One size does not fit all.”
- Other Planting Opportunities – at curb extensions
- Sidewalk Surface Materials
- Site Furnishings
- Lighting
- Bus Stops

Tree Planting - Ideal

- Research Conclusions:
 - Large soil volumes (for roots to grow)
 - Soil amendments
 - Avoid soil compaction (within tree pit opening)
 - Minimize salt intrusion to roots
 - Water/irrigation
 - Aeration (air to the soil)
 - Maintenance plan



Tree Planting along “The Avenue”

- Existing Conditions
 - Tree pit sizes vary
 - 26 different species identified
 - Tree health needs improvement

- 2011 Tree Field Survey Results
 - 9 Empty Tree Pits
 - 25 Trees with potential to remove & replace
 - 32 Potential new tree locations



Tree Planting along “The Avenue”

Recommendations:

- 4' x 6' min. tree pit size
- Mulch or flexipave
- Min. 3" caliper tree size
- Mulch groundcover at tree pit openings
- Species selections (final selections TBD)
 - Consider open canopy or taller shade trees at retail locations
 - Create rhythm with species selection (avoid monoculture)
- Regular watering for all new trees (first 2 years)
 - Strong encouragement of private partnership



Tree Planting – on “The Avenue”

Implementation Strategies for planting new trees based on conditions/locations

Type 1 - Continuous Treeway

Sand-Based Structural Soil {SBSS} under sidewalk

Type 2 - Tree Pit with Root Paths

Constructed root paths to neighboring soil volumes

Type 3 - Back of Sidewalk on Public Property

Landscape areas not adjacent to curb/roadway

Type 4 - Single Tree Pit

Tree pit with no extended soil volumes

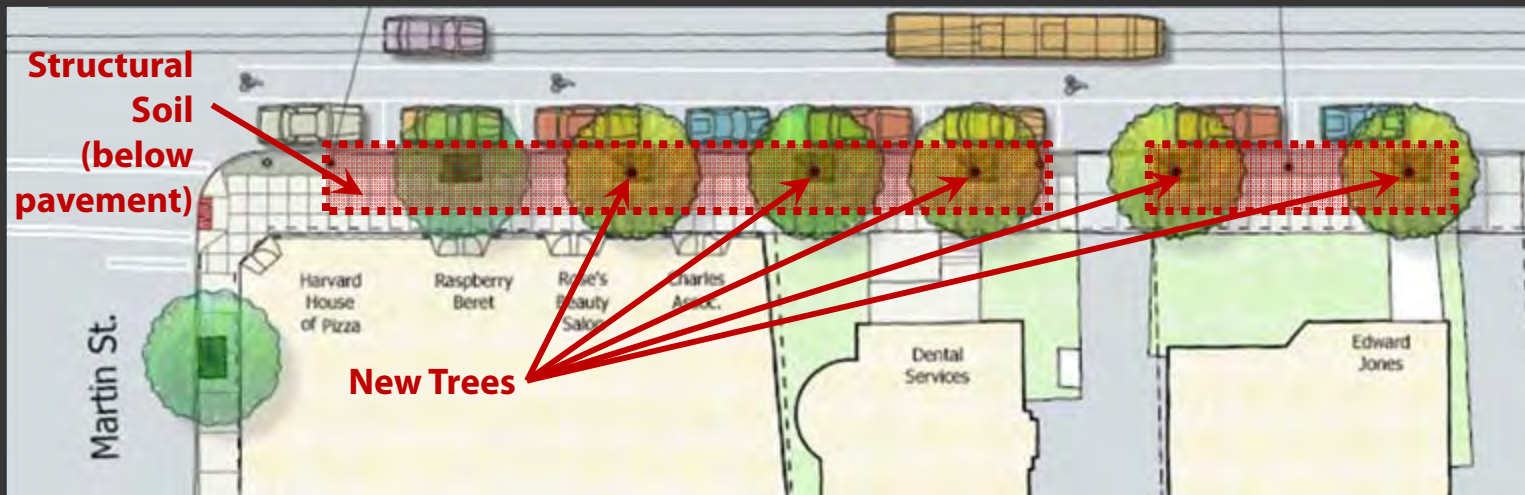
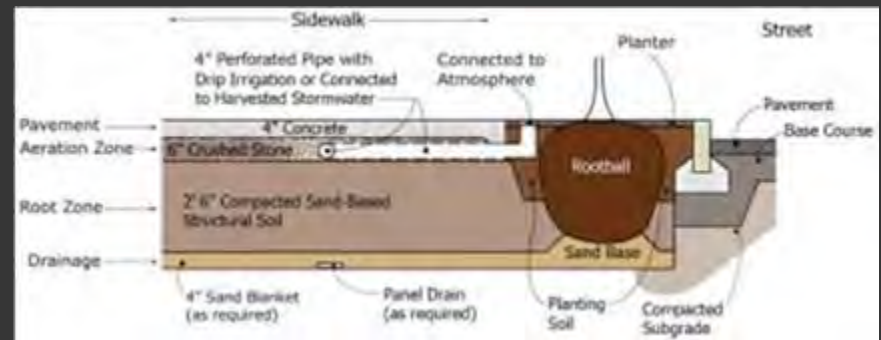
Consider longer tree pit

Type 5 - Back of Sidewalk on Private Property

Tree Planting Recommendations

Type 1 - Continuous Treeway

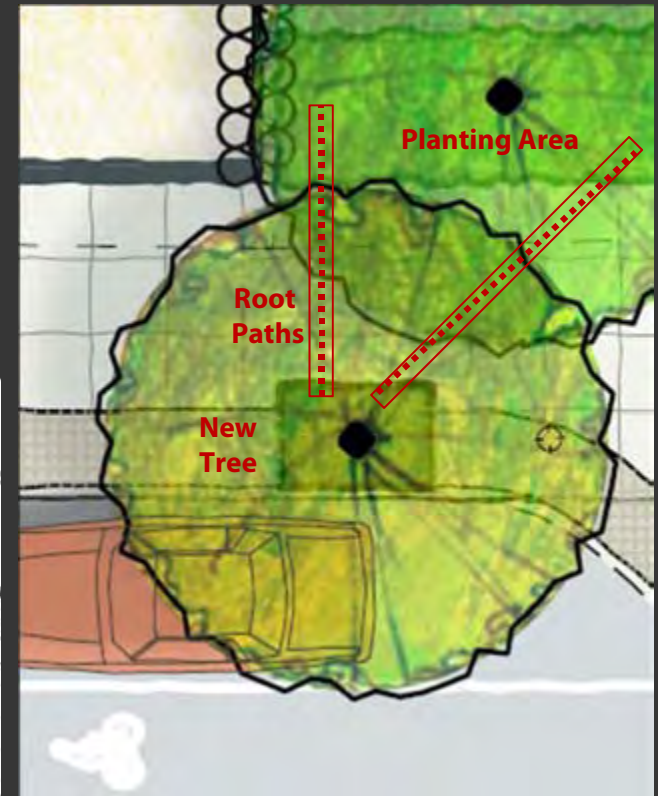
- Reconstruction limited to locations where multiple tree-planting opportunities exist (requires total reconstruction of sidewalk)
- Customized Sand-Based Structural Soil
- Provide reliable watering



Tree Planting Recommendations

Type 2 - Tree Pit with Root Paths

- Recommended treatment for reconstructed sidewalk locations where SBSS is not feasible
- 4" x 12" channels extend from tree pit into larger soil volumes at back of sidewalk
- Root growth is "guided" along channel out of confined tree pit into nearby planting soil



Tree Planting Recommendations

Type 3 – Back of Sidewalk on Public Property

- Recommended at areas where trees have access to large soil volumes at back of sidewalk



Open lawn area at Little Cambridge Common

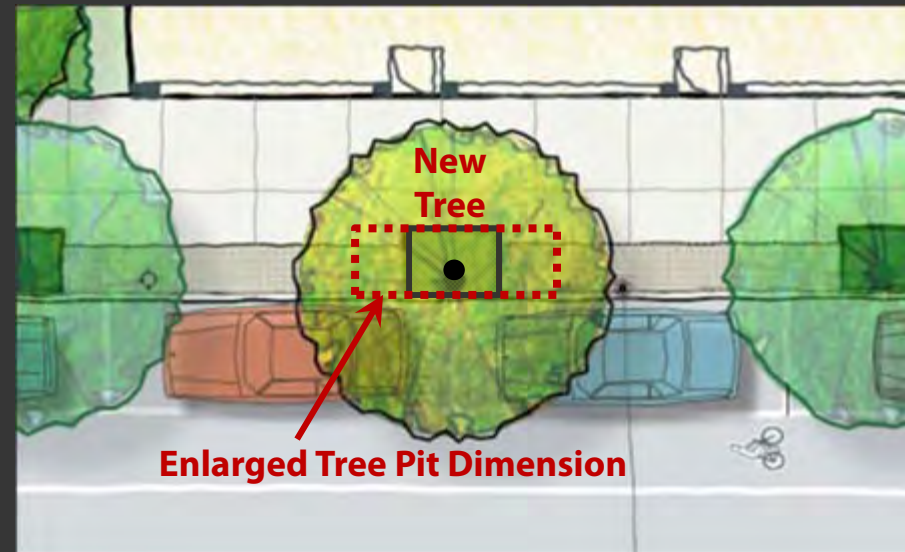


Potential new street trees planted at back of sidewalk

Tree Planting Recommendations

Type 4 - Single Tree Pit

- Recommended for singular tree replacement where Types 1, 2 or 3 are not feasible
- Where space permits, enlarge tree pit dimension beyond 4' x 6' min.
- Consider Flexipave to prevent compaction (*implemented on a whole-block basis*)



Tree Planting Recommendations

Type 5 – Back of Sidewalk on Private Property

- Recommended at areas where City does not own property at back of sidewalk and trees have access to large soil volumes
- Requires cooperation of property owner



*Existing trees on Harvard property
(between Baker Hall & North Hall)*



*Example of possible new street tree planting
back of sidewalk (private property)*

Special Planting Areas

1. Median – (suggested by community members)

Challenges include:

- Cooperation of abutters
- Limited location(s) feasible
- Commitment by others to fund and maintain
- Irrigation, special soil, & raised edge needed



The two ends of "The Avenue" have been suggested as areas for potential median plantings (further investigation/commitment by others required).

Special Planting Areas (cont'd.)

2. Parking Lot Edges

- Requires cooperation of property owner
- Maintain visual sightlines/clearances
- Low evergreen landscaping (3' max. ht.)
- 3' recommended min. width



Example of parking lot edge buffer



Chang Sho Parking Lot – existing edge condition



Chang Sho Parking Lot – potential edge condition

Special Planting Areas (cont'd.)

3. Accent Plantings

- Flower beds
- Flower pots
- Special outdoor café plantings



4. Raised Planting Areas

- At curb extensions
- At back of Sidewalk



Special Planting Areas (cont'd.)

5. Green Walls

- Vertical planting “cell” structures
- Vine plantings/climbers



6. Rain Gardens

- Identify possible areas on curb extensions



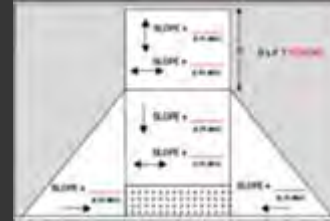
Example of a rain garden at curb extension



Possible rain garden on curb extension at Garfield St.

Sidewalks on “The Avenue”

- New sidewalks will meet ADA/AAB requirements



- Sidewalk Materials
 - Sawcut concrete primary walking surface
 - Wire cut brick continuity strip

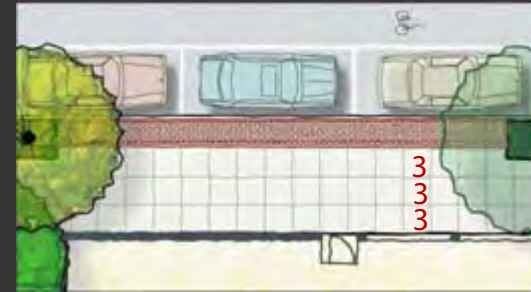


- Special Pavements / Markers
 - Bronze Insets / Historical Markers
 - “The Avenue” History



Sidewalks - Surface Pavement Configurations

- +/- 12' (typical width varies)
- 3' width brick continuity strip at back of 6" curb
- Concrete scoring options
 - 6' min. control joint
 - 9' concrete zone (can be divided)
 - 3 equal parts
 - 2 equal parts
 - 2 to 1 ratio



Concrete scoring in 3 equal parts



Concrete scoring in 2 equal parts



Concrete scoring with a 2:1 ratio

Site Furnishings along “The Avenue”

- Strap Bench
 - Black powder coated finish
- Trash Receptacle Options
 - Strap receptacle
 - Solar powered compactor
- Recycling Receptacle
 - Blue powder coated finish
 - Custom inner sleeve recycling decal
- Bike Rack
 - Post and hoop style
 - Galvanized steel



Lighting along “The Avenue”

- 1907 Teardrop Replica fixture w/energy efficient LED lighting
- Acorn fixture w/energy efficient LED lighting



1907 Teardrop Replica



Acorn Post Top

Bus Stops along “The Avenue”

- Consolidation & cooperation w/MBTA
Key Bus Routes process
- Benches & trash receptacles at all bus stops
- Bus shelters possible at some locations with wider sidewalk



Goals for Curb Use Allocation

- Parking:
 - Provide metered parking to encourage frequent turnover for business customers

- Bus/shuttle stops:
 - Locate stops near likely high-usage destinations and, in general, near intersections/crosswalks
 - Ensure that distance between bus stops is appropriate: not too short and not too far
 - Locate stops at beginning or end of block to make it easier for bus to pull in/out
 - Where feasible, locate "far side" of signalized intersections to avoid buses being further delayed by signals



Curb Use Zone



Goals for Curb Use Allocation

- Loading:
 - Accommodate loading to avoid double parking/blocking of bike lane
 - Provide loading areas for large trucks that can serve multiple adjacent businesses
 - Provide shorter loading zones near businesses that typically generate frequent double-parking, e.g. coffee shops
 - Ensure loading zones are of sufficient length to accommodate anticipate truck size
 - Where feasible, locate loading zone at beginning or end of block



Goals for Curb Use Allocation

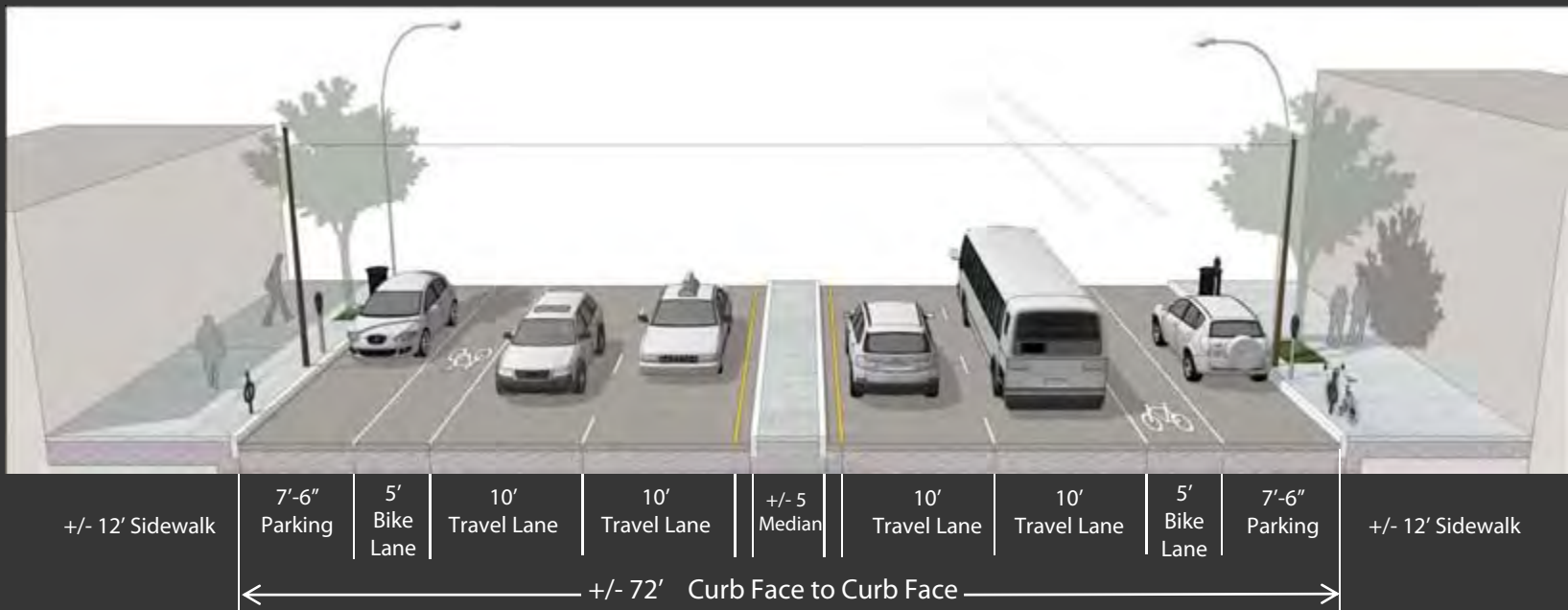
- Pedestrian facilities:
 - Provide curb extensions, primarily at non-signalized crosswalks, to make pedestrians more visible to drivers and shorten crossing distance
 - Provide curb extensions where chronic illegal parking too close to a corner blocks sight lines

- Other possible uses:
 - Parking spaces could be converted to bike parking to free up sidewalk space
 - Parking spaces could be converted to curb extensions that would accommodate sidewalk cafes or additional green space
 - Parking spaces could be temporarily converted to support seasonal uses – seating, sidewalk café, bike share or bike parking

“The Avenue” - Proposed Roadway Section

Typical Roadway Section:

- Add bike lanes
- No change in roadway, parking, median or sidewalk widths
- Reallocation of roadway



Waterhouse St.



Mass. Ave – looking north from Cambridge St.



Waterhouse St. Intersection

Chauncy & Everett St.



- *Widen sidewalks/curb extensions*
- *Landscape improvements*
- *Metered parking displaced to next block*
- *Completed intersection/pedestrian access improvements*

Shepard & Wendell St.



- *Curb Extension/shorter crosswalk*
- *New crosswalk at north side of intersection*



Sacramento St.



Curb extension at Temple Bar

Garfield St.



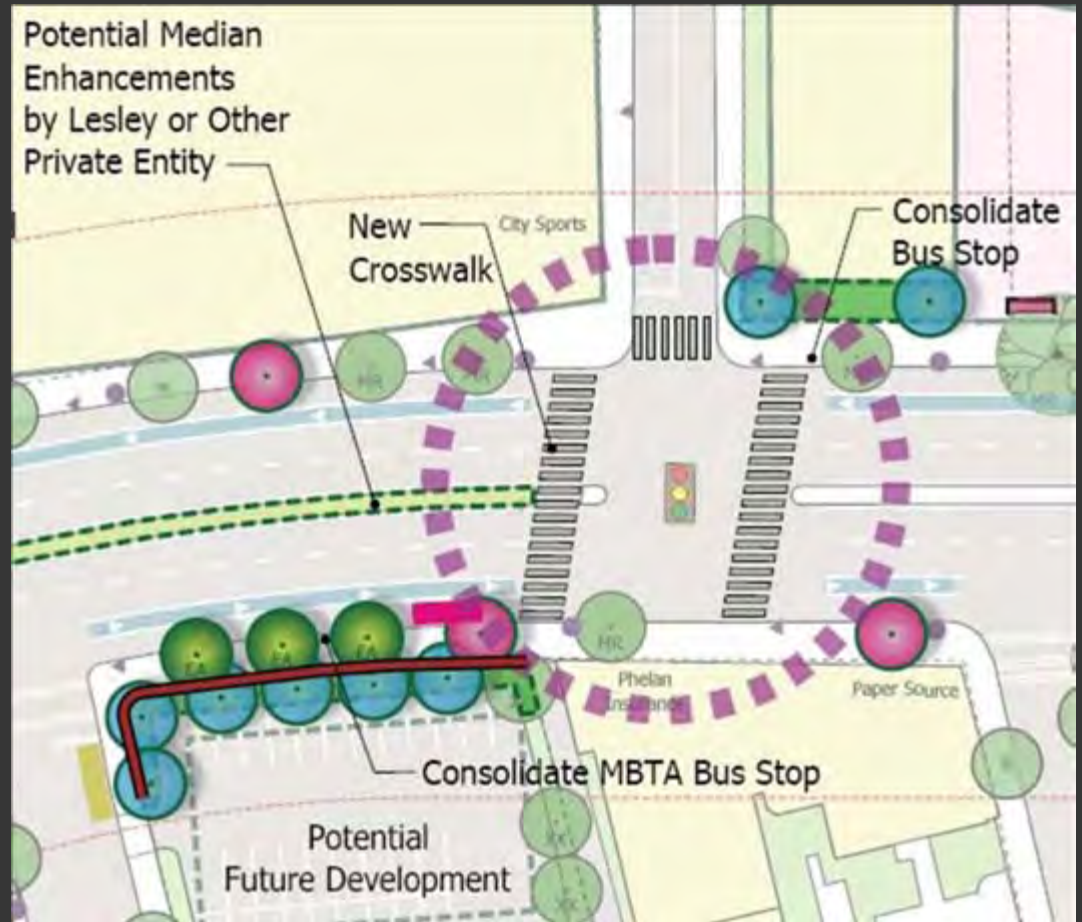
- Curb extensions /
- Relocated crosswalk
- Seating area improvements

Linnaean St.



- *New crosswalk*
- *Curb extensions*

Roseland St.



Sidewalk Widening at Porter Square Area

*Option 1 – Partial median removal
- Keep metered parking*



Sidewalk Widening at Porter Square Area

*Option 2 – Removed metered parking
- No change in median*



Implementation Strategies

Improvements will be made as opportunities allow, based on funding, development and other roadway/sidewalk construction. Improvements have been categorized based on known project information or anticipated timeframes which are all approximate.

Items noted in italics at the end of each section will be implemented in an on-going basis without a particular timeframe.

Implementation Strategies

Short Term (within a year)

- Reconstruction of 3 intersections with an additional crosswalk and/or curb extensions, and compliant pedestrian ramps across Mass. Ave (Waterhouse, Shepard, Linnaean)
 - Relocation of crosswalk with curb extensions and pedestrian actuated flasher at Garfield; landscaped curb extension/possible rain garden
 - Re-paving of travel lanes and striping of bike lanes between Everett and Arlington streets as mitigation funds permit
 - Consolidation/relocation of bus stops with new benches (4), trash receptacles (4) by MBTA
 - Curb use changes made as needed for bicycle lane and bus stop changes
-
- *Installation of additional benches*
 - *Completion of parking and curb use changes to accommodate loading and parking needs*
 - *Installation of Bikeshare station – (1 station at Porter Square planned) and additional bike racks where needed, including corrals, if demand warrants in particular areas*
 - *Removal of dead trees and planting of new trees in areas of “planned future work”*

Implementation Strategies

Medium Term (2-5 years)

- Relocation of crosswalk at Roseland intersection; to be completed by Lesley in conjunction with new AIB building
- Landscape/seating improvements at Little Common and sidewalk added on Little Mass. Ave up to Waterhouse
- Demonstration block (Shepard to Garfield) rebuilt to new standards
- Bus shelters installed where possible (narrow or full size)
- New pocket park/seating area established (Harvard or CHA property)
- Curb extensions with landscaping built
- Landscaped areas and green walls installed at one or more private property locations

- *Installation of additional benches*
- *Completion of parking and curb use changes to accommodate loading and parking needs*
- *Installation of Bikeshare station – (1 station at Porter Square planned) and additional bike racks where needed, including corrals, if demand warrants in particular areas*
- *Removal of dead trees and planting of new trees in areas of “planned future work”*

Implementation Strategies

Longer Term (5-10 years)

- Curb pulled out between Chauncy and Waterhouse for additional landscaping and widened sidewalk at MBTA vents
- Removal of median between Upland and Mt. Vernon and/or reconstruction of MBTA lower plaza to widen sidewalk in front of Commonwealth Lock and accommodate bicycle lanes
- Additional blocks of sidewalk reconstructed as opportunities arise
- Conduit and infrastructure for new lighting system installed when sidewalks are reconstructed. 1907 and acorn poles and fixtures installed when infrastructure is complete and funding is identified.
- Add landscaping to the median near Waterhouse Street (need private maintenance)
- Historical markers installed in sidewalk or as signs
- One or more additional seating areas/pocket parks installed

- *Installation of additional benches*
- *Completion of parking and curb use changes to accommodate loading and parking needs*
- *Installation of Bikeshare station – (1 station at Porter Square planned) and additional bike racks where needed, including corrals, if demand warrants in particular areas*
- *Removal of dead trees and planting of new trees in areas of “planned future work”*

Questions & Answers



June 29, 2011

MASSACHUSETTS AVENUE STREETScape MASTER PLAN: Harvard to Porter Squares
City of Cambridge - Community Development Department