

CITY OF SOMERVILLE, MASSACHUSETTS



Bicycle Advisory Committee

JOSEPH A. CURTATONE  
MAYOR



# Bicycle Transportation Improvement Proposals - 2012-





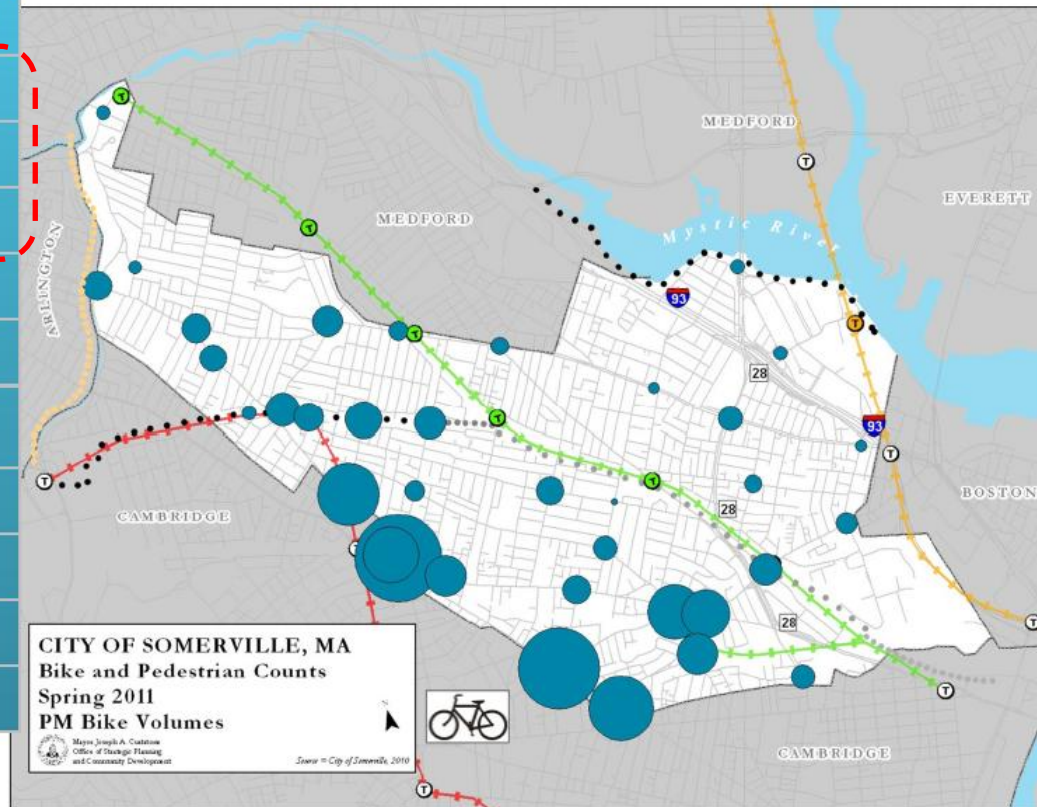
# Agenda

- Introductions
- Purpose and goal of meeting
- 2011 accomplishments
  - 11 miles of bike facilities
  - On-Street Bike Rack Program
  - Bike Friendly Community bronze award
- SBC proposals for 2012
  1. Beacon Street interim safety repairs
  2. Beacon Street cycletracks
  3. Union Square bike connectivity
  4. Complete Streets policy
  5. Comprehensive Bicycle Plan
- Additional points
  1. Bicyclist night safety
  2. Community Path flooding
  3. Other repaving priorities

# Improving road surface conditions on Beacon Street to ensure public safety

- **Current problem:**
  - Beacon Street is most heavily traveled cycling route in Somerville (350 cyclists per hour at peak).

Intersection	Bikers/Hour
Beacon Street and Somerville Avenue	352
Beacon Street and Washington Street	310
Beacon Street and Concord Avenue	207
Elm Street and Willow Avenue	194
Mossland Street and Somerville Avenue	159
Somerville Avenue and Washington Street	158
Prospect Street and Somerville Avenue	126
Somerville Avenue and Elm Street	94
Prospect Street and Webster Avenue	90
Community Path and Willow Avenue	76



# Improving road surface conditions on Beacon Street to ensure public safety

- **Current problem:**
  - Beacon Street is most heavily traveled cycling route in Somerville (350 cyclists per hour at peak).
  - Certain segments are dangerously unsafe for cyclists: ruts, potholes, uneven pavement. SBC has received numerous complaints including reports of accidents.
  - Unsafe for motorists, who must focus on avoiding hazards.
  - Federal funds (2013 TIP) in place to reconstruct Beacon Street.  
Best case: construction begins late 2013 and finishes late 2014/2015.
  - Between now and 2014/2015, road conditions will deteriorate further.



Amanda Kersey



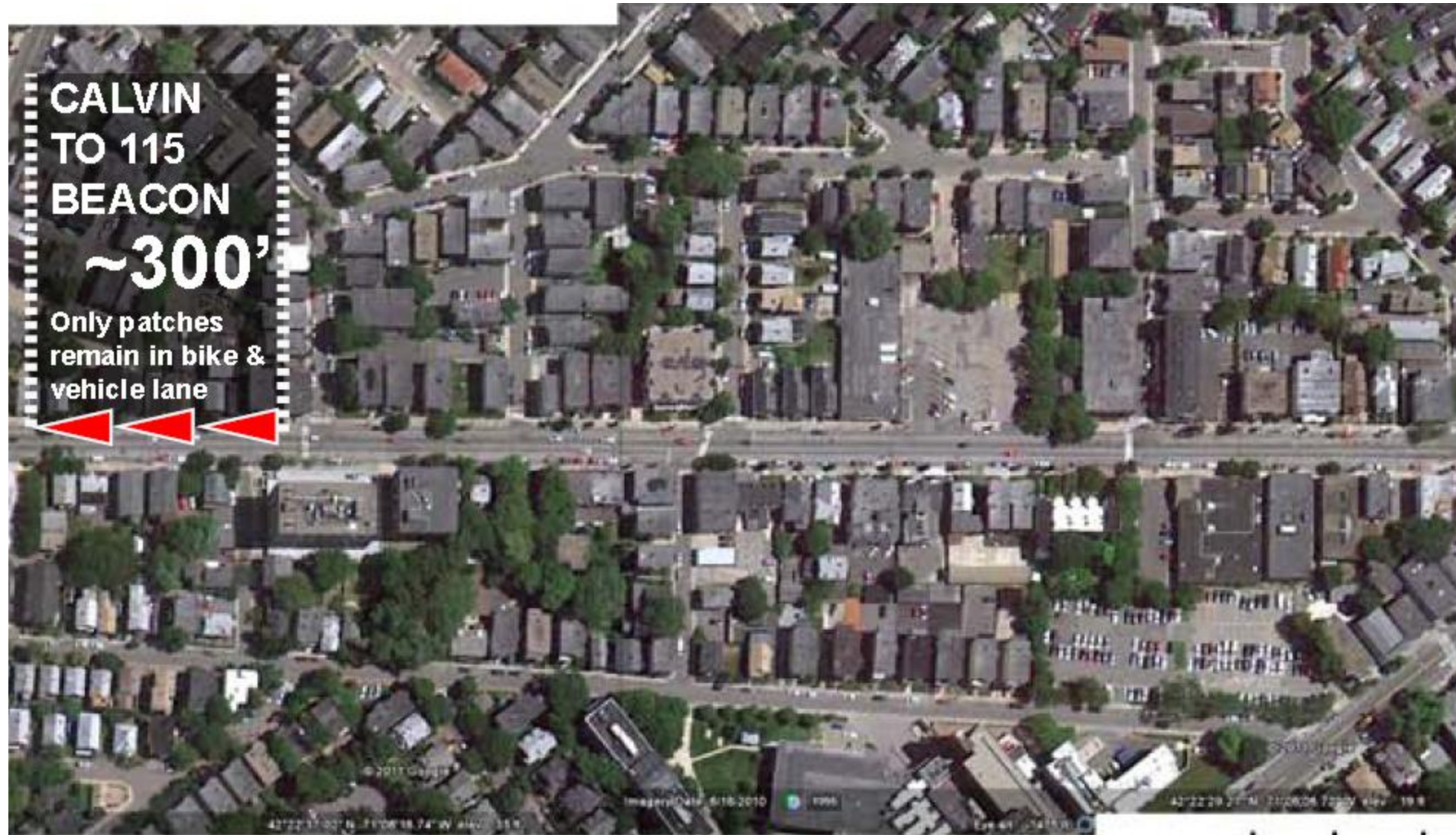
# Improving road surface conditions on Beacon Street to ensure public safety

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- **Proposed solution:**
  - SBC recommends sections of worst road condition be re-surfaced in late 2011 or early 2012.
  - SBC has identified five segments of roadway in worst condition plus Oxford Street (Somerville section).
  - Four out of five segments have deteriorating conditions in west bound direction only, requiring re-surfacing of only half of road width.
  - Overall 2800 feet of half-width pavement is in need of interim re-surfacing.
  - SBC researched milling and re-surfacing costs, and estimate costs of \$5000 per 100 feet of half-road width. Projected total cost: \$150,000
  - Total cost could be reduced further by focusing on the worst of the worst

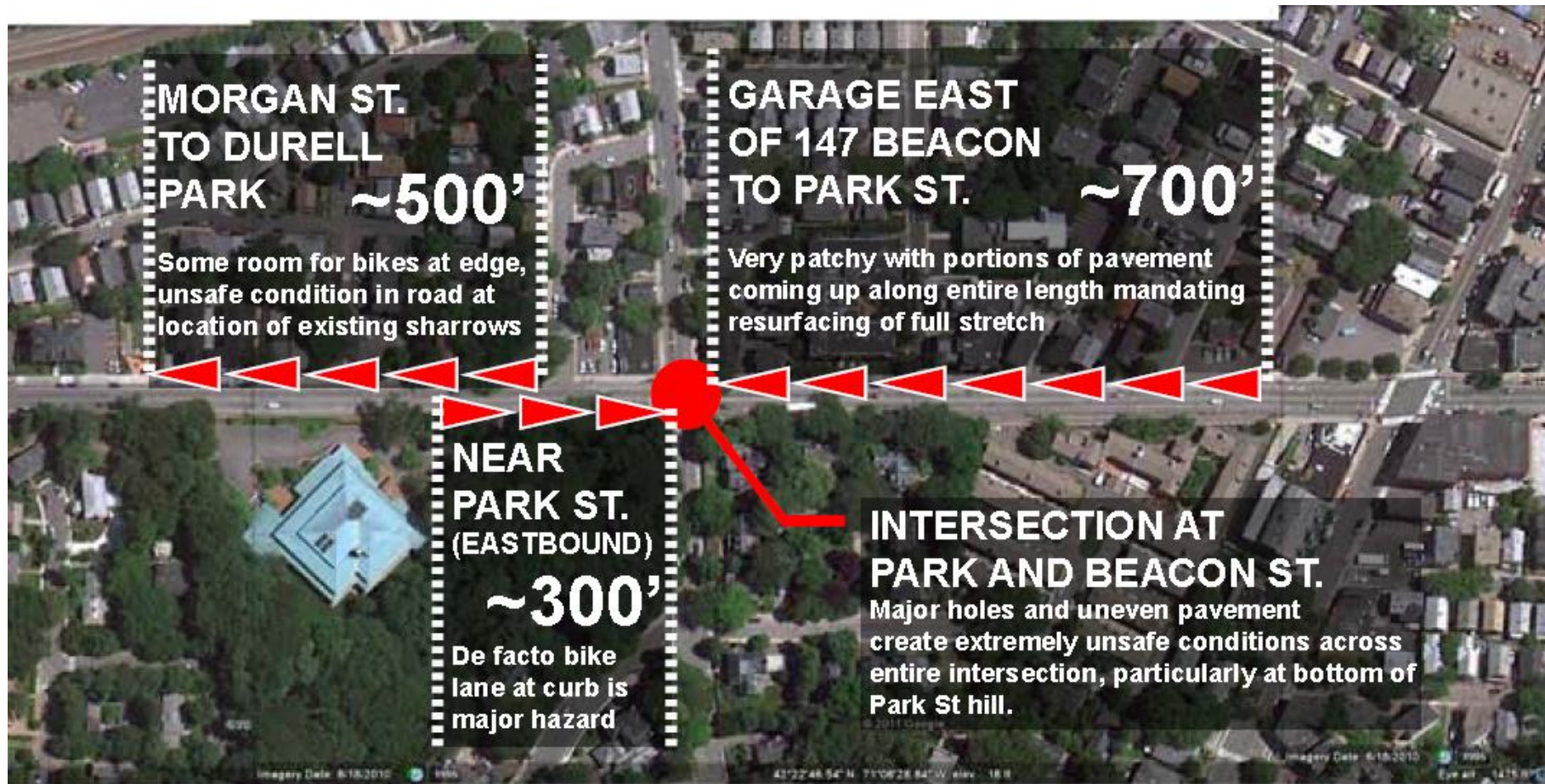
# Beacon Street road conditions- eastern segment

CALVIN  
TO 115  
BEACON  
~300'  
Only patches  
remain in bike &  
vehicle lane





# Beacon Street road conditions- middle segment





# Beacon Street road conditions- western segment

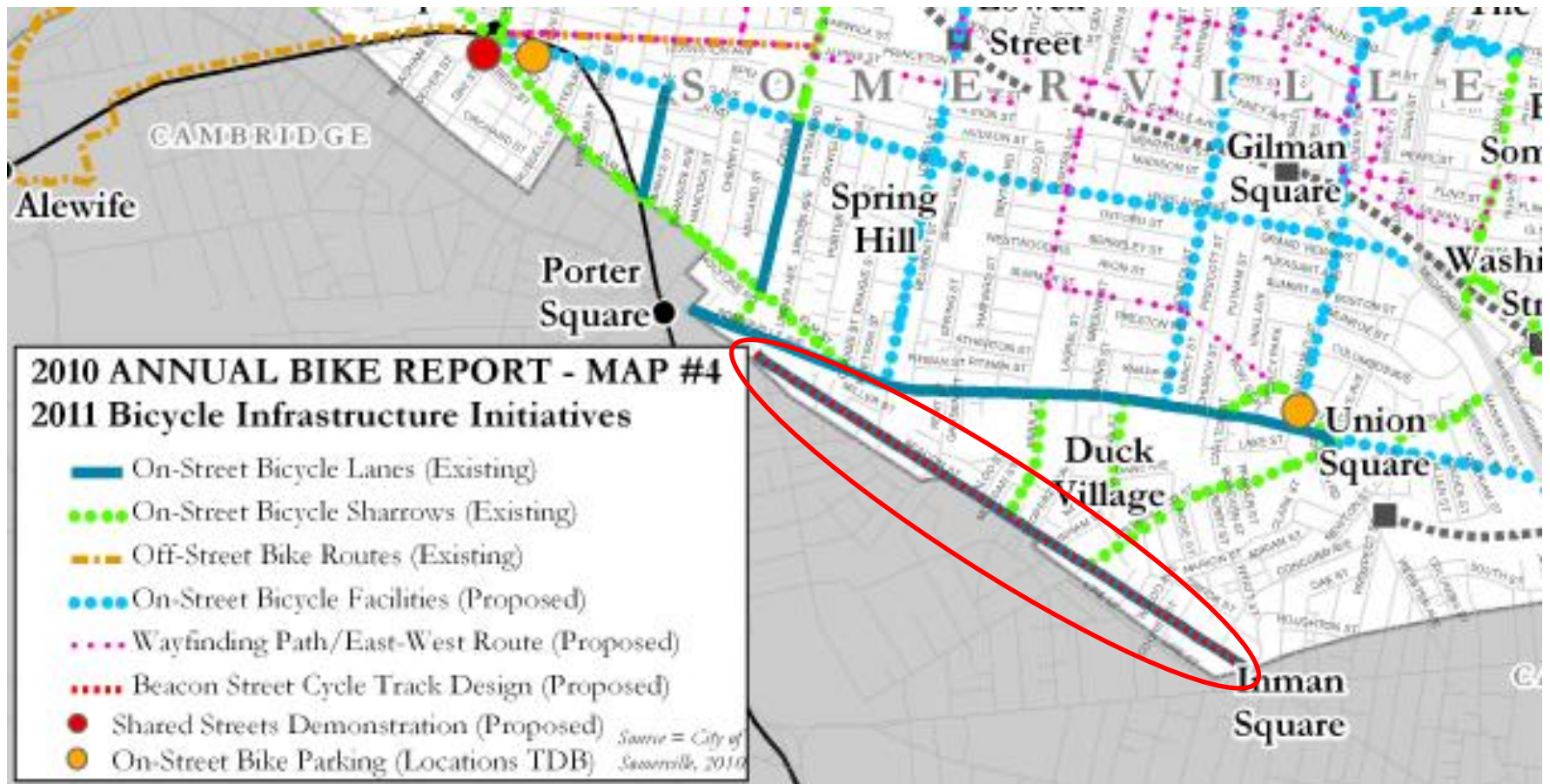




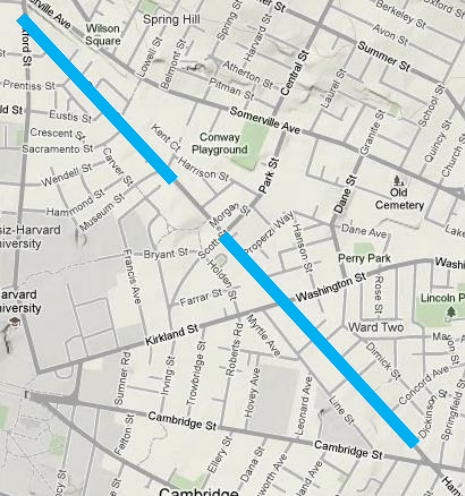
# Beacon Street Interim Recommendations

Segment	Street	Start	End	Length (Ft)	Direction	Resurfacing width
1	Beacon	Calvin Street	115 Beacon Street	300	West	Half
2	Beacon	Dial-a Pizza	Park Street	700	West	Half
3	Beacon	Park Street	American Academy entrance	300	East	Half
4	Beacon	Morgan Street	Durrell Park	500	West	Half
5	Beacon	316 Beacon St	Oxford St	800	West	Half
6	Oxford	Beacon	City Line	200	East & West	Full
7	Beacon	Intersection with Park Street		50	West	Half

# Beacon Street 2014/15 cycletracks







# Beacon Street

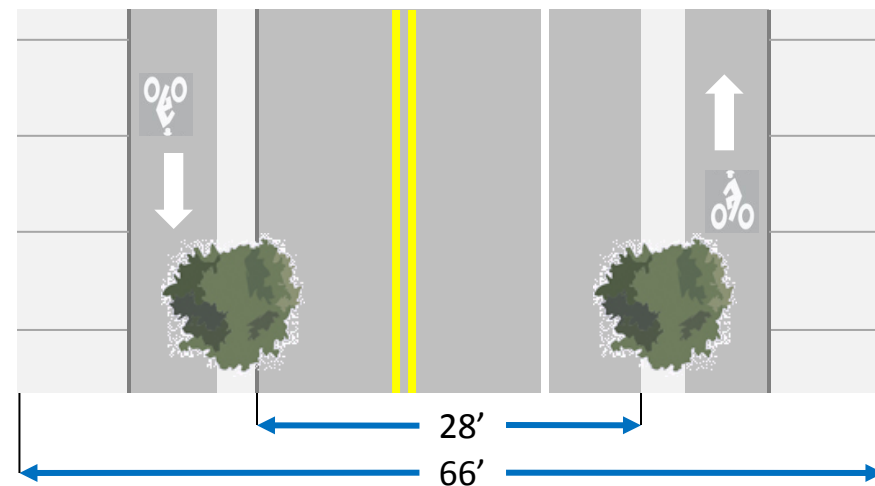
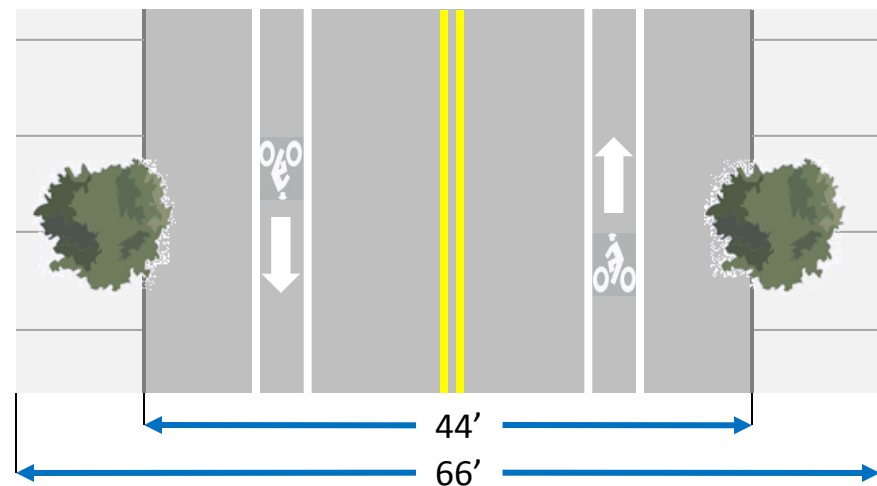
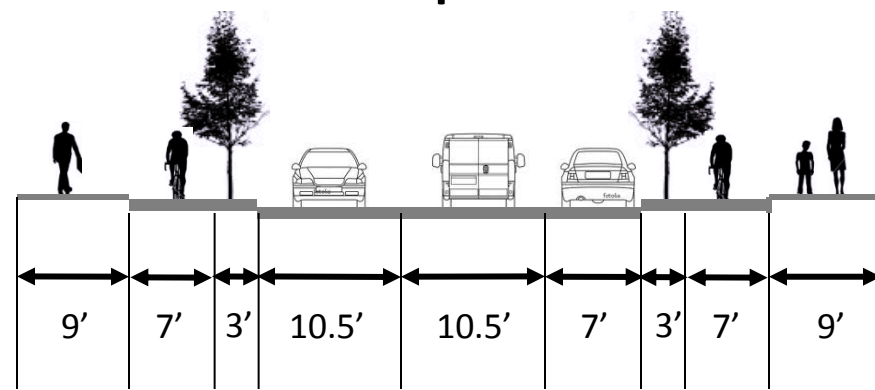
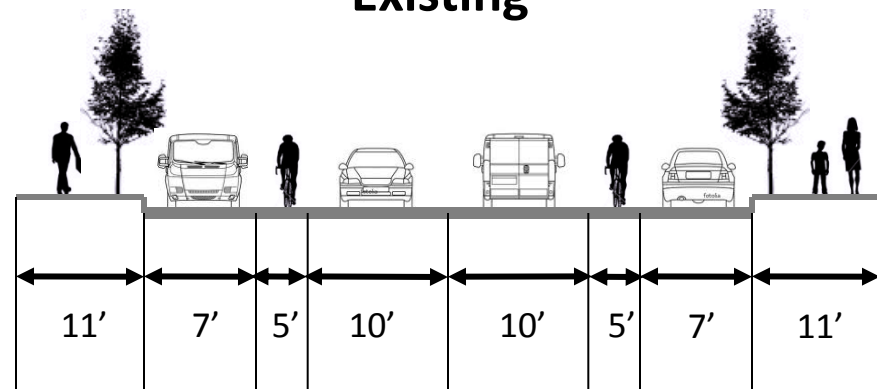
## Somerville Ave to Museum St, Park St to Inman Sq

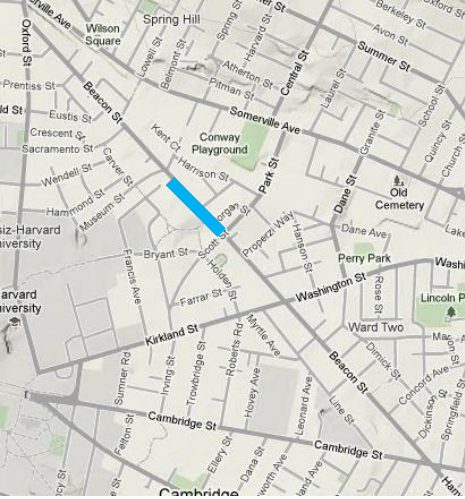
With parking only retained on one side, there is more clear width for bikes and peds.

**Existing**



**Proposed**

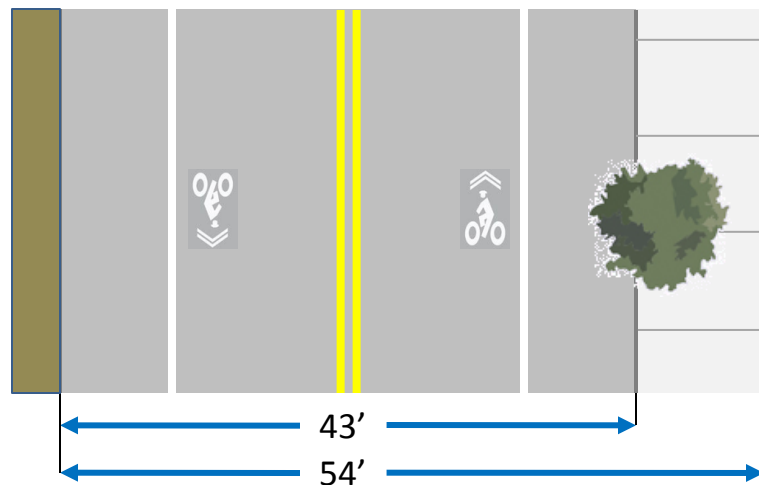
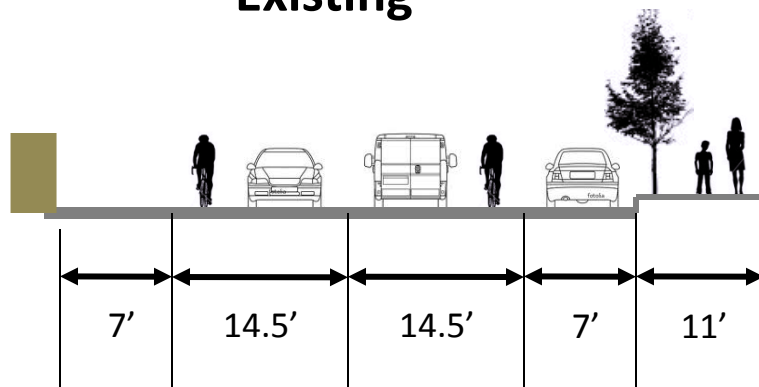




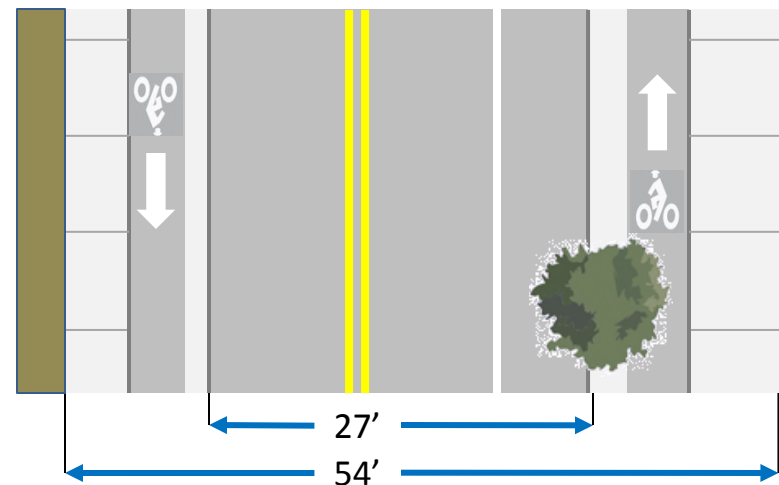
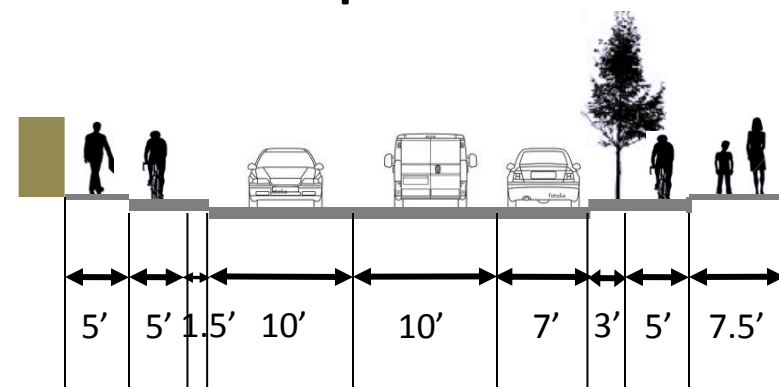
# Beacon Street Museum St to Ivaloo St\*

\*between Ivaloo & Park Sts, sidewalk each gain 2.5'

## Existing



## Proposed





# Beacon Street

## Parking utilization data--underway

Beacon St., Oxford to City Line  
 total length 5,800 feet

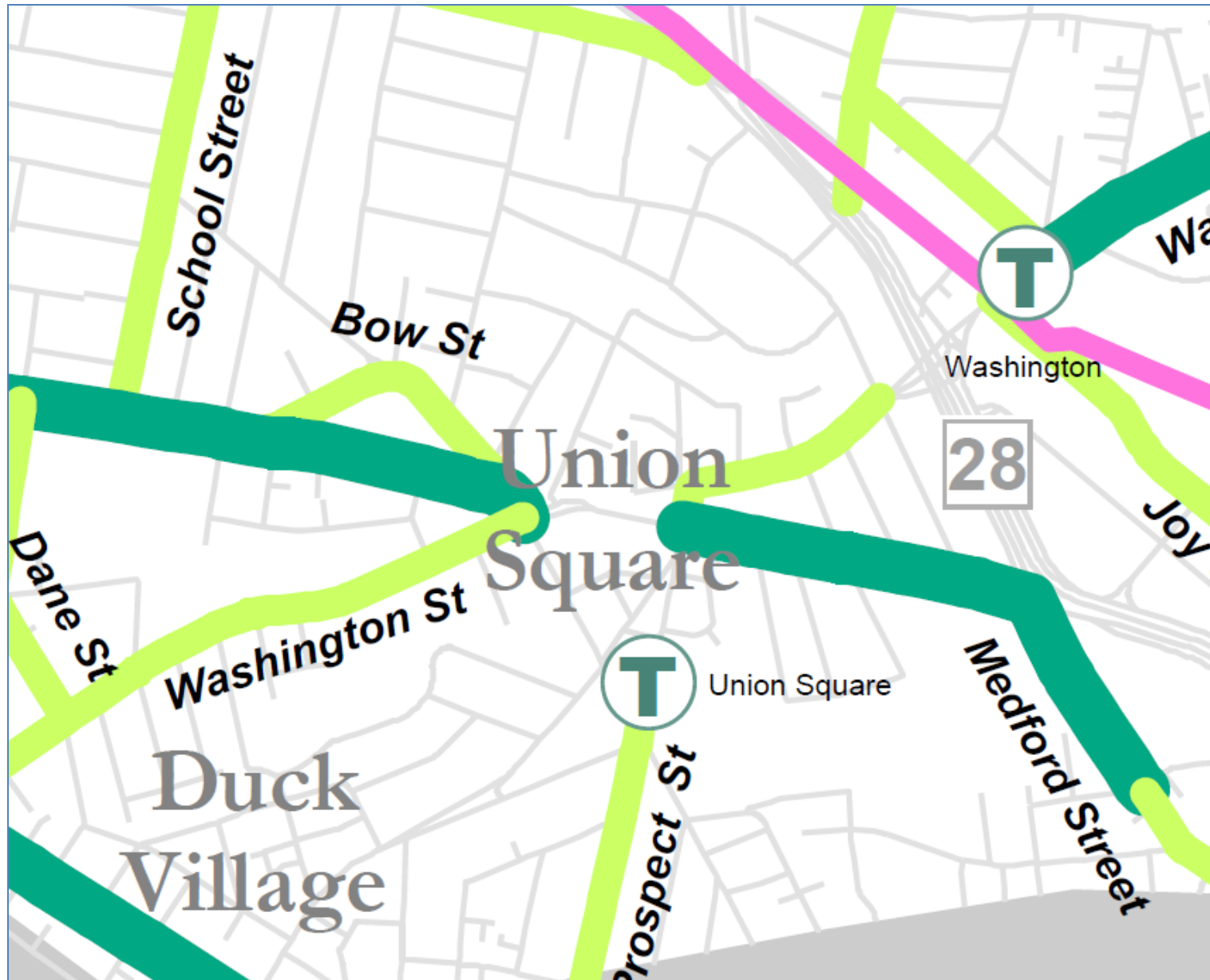
# existing parking spaces		actual counts of used spaces													
south side	north side	south side	north side	south side	north side	south side	north side	south side	north side	south side	north side	south side	north side	south side	north side
section	time counted	unknown,		% utilization		2:00 AM		10:00 AM		2:00 PM		5:00 PM		8:00 PM	
<b>Oxford to Museum 2,050 feet</b>															
Google map - date ?: overestimated ?															
Actual count on 10/??/2011															
TBD	TBD														
<b>Museum to Scott/Park - 900 feet</b>															
Google map - date ?: overestimated ?															
Actual count on 10/??/2011															
TBD	TBD														
<b>Scott/Park to Washington-950 feet</b>															
Google map - date ?: overestimated ?															
Actual count on 10/??/2011															
TBD	TBD														
<b>Wash to City line 1,900 feet</b>		via Google													
Google map - date ?: overestimated ?		satellite photos													
86	72	40	17	47%	24%										
Actual count on 10/??/2011															
TBD	TBD	TBD	TBD	#VALUE! #VALUE!											

# Union Square connectivity

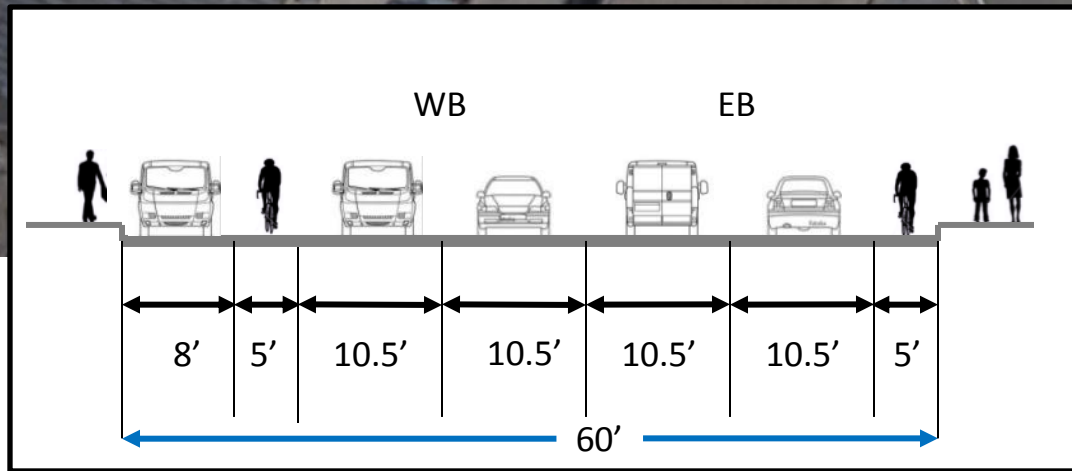
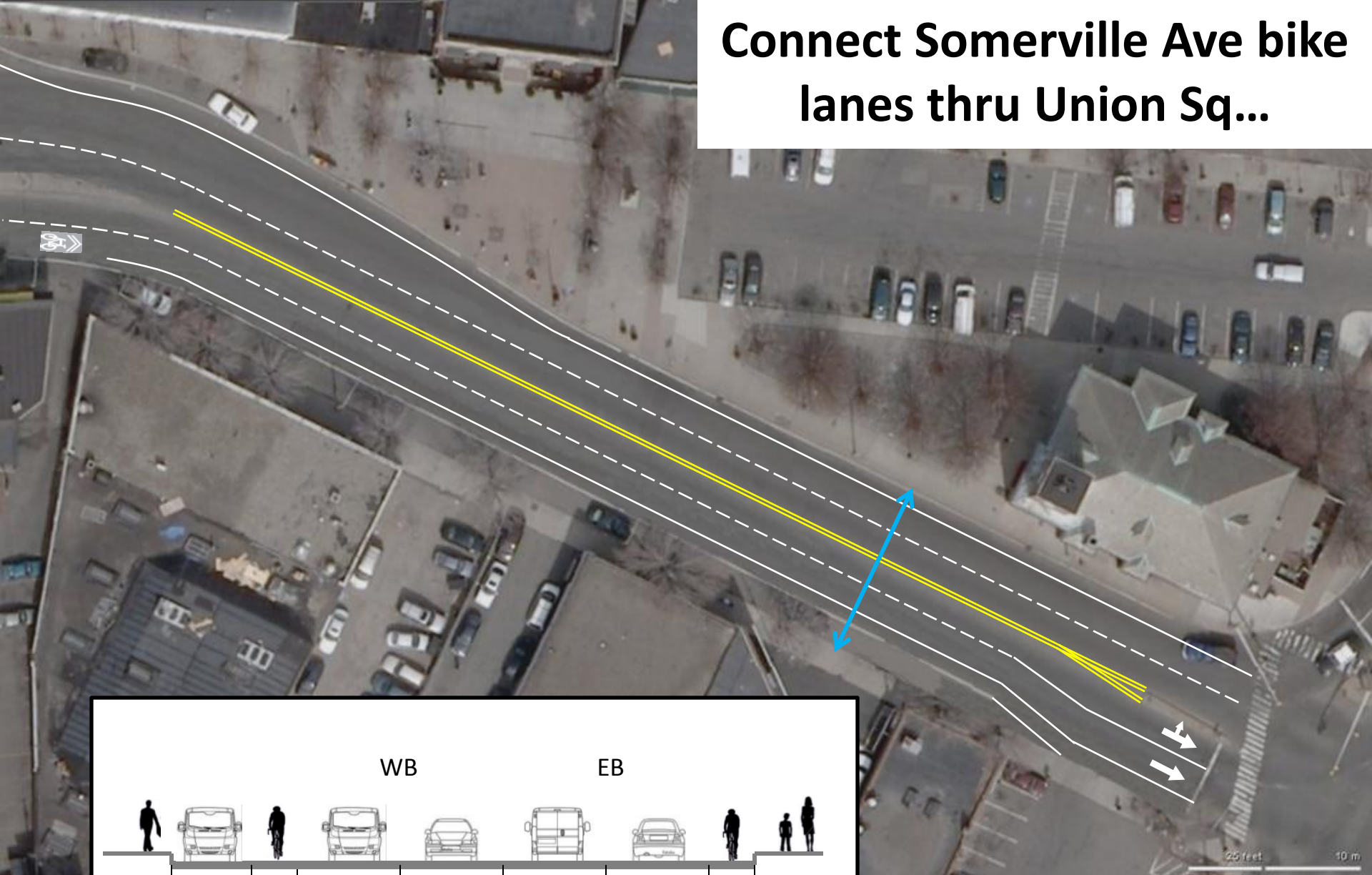




# Union Square is a major bike network gap



# Connect Somerville Ave bike lanes thru Union Sq...



**Proposed cross-section**

**...and north to Bow Street.  
Add sharrows toward  
Washington and Webster.**



**Add bike lane on  
Webster**



# Link Somerville Ave bike lanes from Target to Porter Square



# Link Union and Inman Squares



# Complete Streets policy

- Somerville recently ranked #9 most bikeable city
- Somerville recently ranked #10 most walkable city

## But...

- No cohesive policy guiding street improvements for bikes, peds, and transit
  - (Near) missed opportunities to improve streets when resurfacing:
    - Union Square, Temple Street...
  - No improved designs ready for stimulus \$\$\$
    - Washington Street...
- Need better communication between DPW, OSPCD and SBC regarding the list of planned resurfacing projects. These are huge opportunities for improving streets for bicycling and walking simply by using paint.

# Complete Streets policy

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- **Proposed solution:**
  - Work with City stakeholders to develop, adopt, and implement a **Complete Streets policy in 2012**
    - T&P, SPCD, DPW, SPD, Mayor, BoA, Schools, Health Dept...
  - Law (ordinance) rather than internal policy
  - Leverage research already performed by comparable cities
- Bicycle Friendly Community 2011 application feedback:  
This is #1 *“most significant measure the city should take to improve cycling”*





# Complete Streets policy

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- **Model policies to be drawn from comparable cities**
  - Comparable cities to Somerville are:
    - Dense
    - Medium-sized
    - Infrastructure maintaining not expanding
    - Strong municipality, weak county



**New Haven, CT**  
**Buffalo, NY**  
**Cambridge, MA**  
(Rockville, MD)

## 1. Policy & Ordinance

### 1.1 COMPLETE STREETS POLICY

*The City of New Haven shall require the accommodation of the safety and convenience of all users of the transportation system using a hierarchy of users which supports and encourages non-motorized transportation and prioritizes the needs of the most vulnerable users: children, the elderly and persons with disabilities. This accommodation will be executed through the application of the complete street designs guidelines described in the Complete Streets Design Manual.*

### 1.2 BOA ORDER

The order of the New Haven Board of Aldermen specifies the creation of a policy that:

- a. requires the accommodation of the safety and convenience of all users of the transportation system using a Complete Streets hierarchy of users, which begins with pedestrians, bicyclists, transit users. These users shall be accommodated and balanced in all types of transportation and development projects and through all phases of a project so that the vulnerable – children, elderly, and persons with disabilities – can travel safely within the public right of way;
- b. mandates the application of this policy, through adherence to principles of the Design Manual, to any new or improvement project affecting the public streets and sidewalks (including resurfacing, restoring, and rehabilitation projects);
- c. prioritizes walkability, inter-modal transit, traffic calming and pedestrian-based urban economic development over competing goals; and
- d. references performance standards, with measurable outcomes and benchmarks.

Various improvements are subject to review by City Plan, the **Legal Traffic Authority**, the Board of Aldermen, other state and federal agencies, and partners in the Complete Streets process.

# city of new haven COMPLETE STREETS DESIGN MANUAL

DRAFT March 2010



John DeStefano, Jr., Mayor  
**NEW HAVEN**  
IT ALL HAPPENS HERE

BY: MESSRS. LOCURTO, RIVERA AND GOLOMBEK  
 RE: ORDINANCE AMENDMENT  
 CHAPTER 413, STREETS AND SIDEWALKS  
ARTICLE XIV, COMPLETE STREETS

The Common Council of the City of Buffalo does hereby ordain as follows:  
 That Chapter 413 of the Code of the City of Buffalo be amended to read as follows:

§413-68 Complete Streets Defined

A. Complete Streets are defined as facilities that are designed and operated to enable safe access for all users. Persons with disabilities, pedestrians, bicyclists, motorists and transit riders are able to safely move along and across a complete street.

§413-69 Implementation of Complete Streets and Exceptions

A. The Commissioner of Public Works, Parks and Streets shall include pedestrian and bicycle facilities in all new street construction, street reconstruction, street maintenance, public works and park projects undertaken by the City of Buffalo subject to the exceptions contained herein.

B. The City of Buffalo Bicycle and Pedestrian Advisory Board shall review all new street construction, street reconstruction and street maintenance projects undertaken by the City of Buffalo and shall provide consultation regarding its implementation as a complete street.

C. The inclusion of bicycle and pedestrian facilities shall be mandated in all new street construction, street reconstruction and street maintenance projects undertaken by the City of Buffalo unless one of the following conditions exists:

1. Bicyclists and pedestrians are prohibited by law from using the facility. In this case, alternative facilities and accommodations for pedestrians and bicyclists shall be provided within the same transportation corridor as determined by the Commissioner of Public Works, Parks and Streets.

2. The cost of establishing bikeways or walkways would be disproportionate to the need or probable use. Costs shall be considered disproportionate for purposes of this section if the cost of including bicycle and pedestrian facilities exceeds twenty percent of the cost of the larger project.

3. Where the existing right of way does not allow for sidewalks, bike lanes, paths or other improvements. In this case, the Commissioner shall explore alternatives such as the use of revised travel lane configurations, paved shoulders, signage, traffic calming, education or enforcement to accommodate pedestrians, cyclists and persons with disabilities. If the Commissioner makes said determination he shall reduce it to writing and file it with appropriate supporting documentation with the Common Council and Bicycle and Pedestrian Advisory Board for its information and review.

4. Where the Commissioner determines that the inclusion of bicycle and/or pedestrian facilities on a roadway would constitute a threat to the health, safety and/or

welfare to the motorists and/or pedestrians and bicyclists of the City of Buffalo. If the Commissioner makes said determination he shall confirm it in writing and file it with appropriate supporting documentation with the Common Council and Bicycle and Pedestrian Advisory Board for its information and review.

§413-70 Planning, Design and Maintenance of Facilities

A. Bicycle and Pedestrian facilities will be planned, designed, developed and maintained in accordance with guidelines adopted by the United States Department of Transportation (USDOT), New York State Department of Transportation (NYSDOT) and the American Association of State Highway and Transportation Officials (AASHTO) or other guidelines approved by the City of Buffalo.

APPROVED AS TO FORM

NOTE: Matter underlined is new.

REFERRED TO THE COMMITTEE ON LEGISLATION

ATTEST

  
 CITY CLERK

The above item was signed by the Mayor on 6/5/08 and returned to The City Clerk's Office on 6/11/2008

Definition

Scope

Review

Exception  
allowances



## Toward A Sustainable Future

### Cambridge Growth Policy

UPDATE 2007

#### TRANSPORTATION



Transportation

#### POLICY 22

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. However, minor arterials with a residential character should be protected whenever possible.

#### POLICY 23

Encourage all reasonable forms of nonautomobile travel including, for example, making improvements to the city's infrastructure which would promote bicycling and walking.



Before improvements were made, Massachusetts Avenue had the character of a highway. Pedestrian crossings were very hazardous and there were no provisions for bicyclists.

#### Central Square

Following the recommendations of the Central Square Committee, the City made significant improvements to the public spaces of Central Square in 1997. Travel lanes were reduced from four lanes to three, which allowed sidewalks to be widened and bicycle lanes to be added. Curb extensions were installed as well, and the cross-



The improved public realm in Central Square, with Carl Baron Plaza in the foreground. Sidewalks were widened and pedestrian crossings were clearly delineated. Bicycle lanes were provided.

ing of Massachusetts Avenue was reduced from an average of 70 feet to an average of 50 feet. Streetscape improvements—including new sidewalks, tree planting, new benches and lighting, and better bus shelters and entrances to the MBTA Red Line station—have made Central Square a more pleasant environment.

#### Fresh Pond Parkway

Fresh Pond Parkway, which is now owned by the Department of Conservation and Recreation (the former Metropolitan District Commission), underwent a major rehabilitation in 2001 through a cooperative effort of the City and MDC. The roadway reconstruction created pedestrian and bicycle facilities along the parkway with new sidewalks and paths, added four new signalized crossings that make the

# Bicycle Plan 2030

## 2012 SBC INITIATIVE:

**Finalize the Draft 2009 Somerville Comprehensive Bicycle Plan and present to the Mayor and Aldermen for approval. Also request funding from the City to hire a bicycle planning consultant to further expand the Plan and help the SBC and City implement it's recommendations.**

# Bicycle Plan 2030

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III. Goal: Expand bike and pedestrian culture by transforming existing infrastructure to add accommodations for all bicyclists and pedestrians, resulting in safe, accessible and well-connected networks.

*A. POLICY: The City shall systematically evaluate its bike and pedestrian networks to ensure safe and efficient travel.*

**Action: Develop a bicycle plan**, including implementation strategies and a timeline for advancing the plan, which aims to make Somerville a world-class bicycling city.

*(From Somervision: Transportation & Infrastructure Goals, Policies and Actions)*



# Bicycle Plan 2030: WHY?

- Many residents are interested in cycling but are still concerned about riding in Somerville – this plan will identify how cycling can become a viable and comfortable option for all interested residents
- Comprehensive Plan has set a goal of increasing trips by bicycle: Bicycle Plan will set specific targets and identify how to accomplish them
- Having a plan will prepare Somerville to be prepared to apply for future funding sources as they become available

## Four Types of Transportation Cyclists in Portland By Proportion of Population



# Bicycle Plan 2030: WHAT?

- **EXISTING CONDITIONS**
- **SURVEY OF BEST PRACTICES**
- **STRATEGIES**
  - Engineering and Planning
  - Education and Communication
  - Encouragement
  - Evaluation
  - Enforcement



# Bicycle Plan 2030: HOW?

## IMPLEMENTATION:

- The Somerville Bicycle Committee has already created a 19 page draft bicycle plan in 2009: this will be updated and expanded to reflect current conditions
- Final document to be approved by Board of Aldermen and the Mayor, similar to the Comprehensive Plan Process
- **FUNDING SOURCES FOR INDEPENDENT CONSULTANT??**





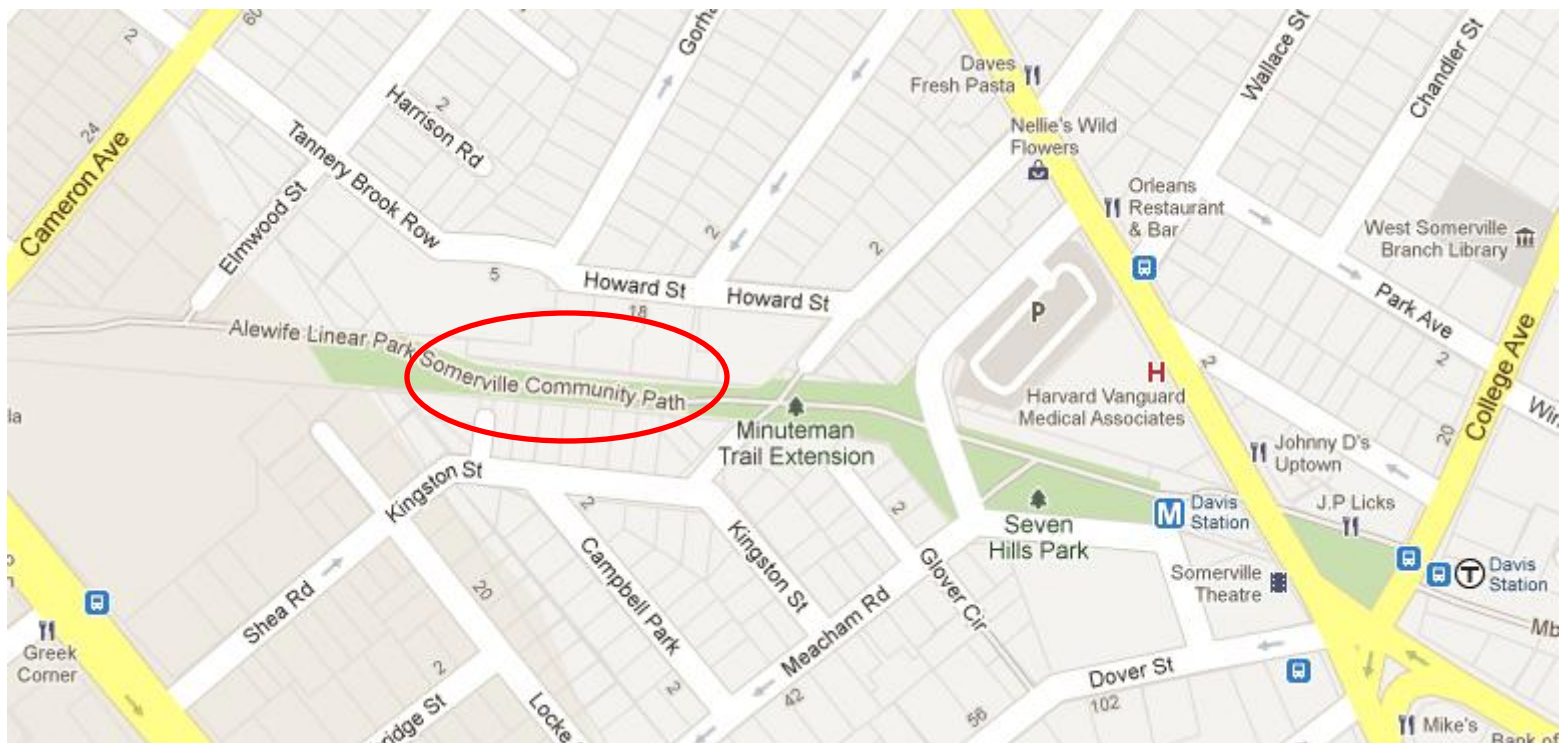
# Night riding safety

- Safety problem of “ninja” bicyclists with no lights/reflectors at night
- Reflectors and/or lights are legally required
- Proposal: intercept violators at key locations
  - Issue warnings + basic reflectors and/or headlights for *immediate* use



# Community Path flooding

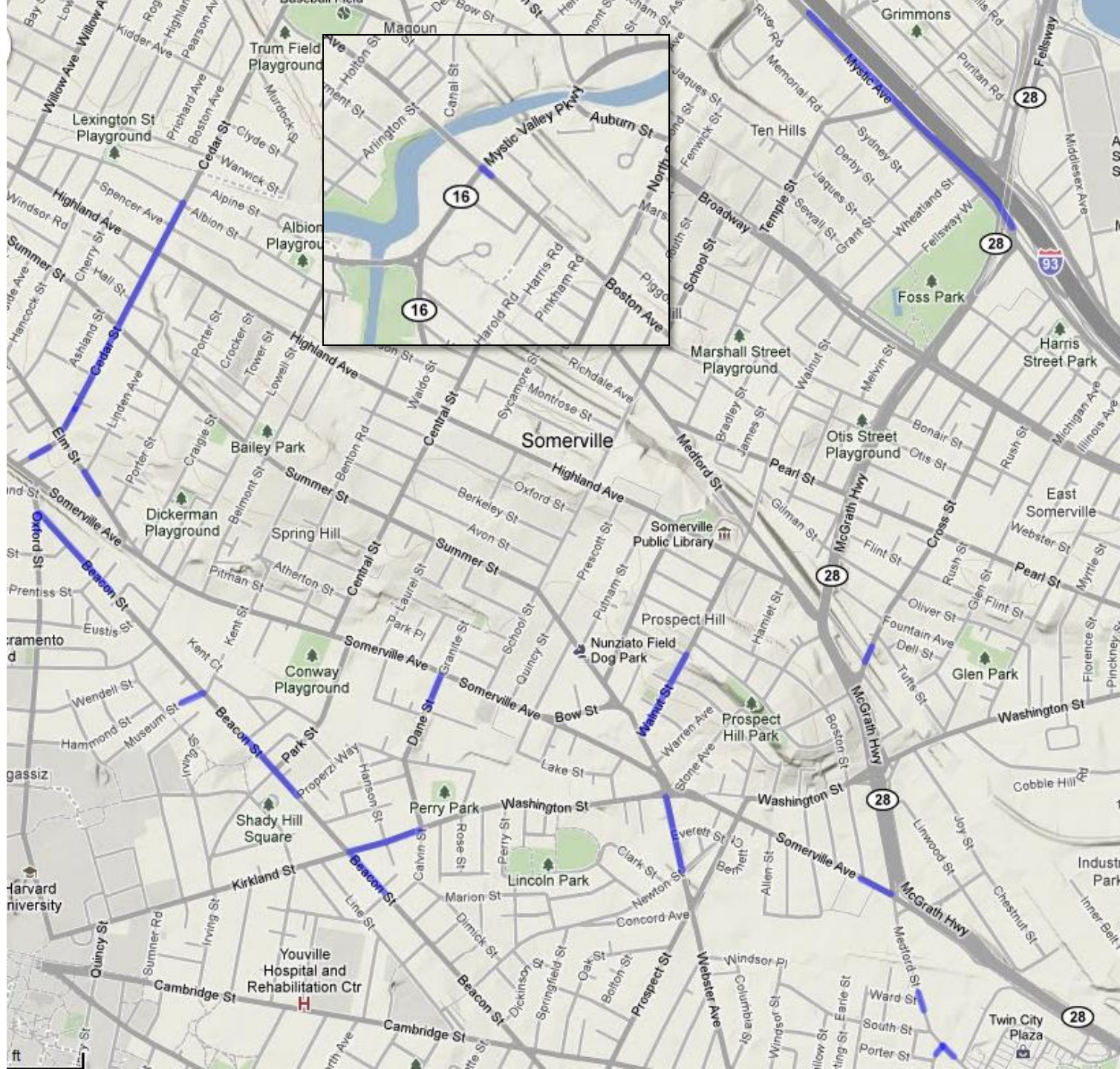
- Longtime flooding problem obstructs access to Davis Square T
- Between Thorndike Street and Cambridge city line
- Regrading and/or drainage upgrades may be needed





**Street  
Reconstruction  
Bicycle Priorities  
Map**

**Based on continuous  
community input**







# Questions?

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