Agenda

1. Current Conditions
2. NRCC Master Plan
3. Complete Streets
4. MassWorks Funding
5. Progress / Schedule
6. Design Elements
7. Discussion
Current Conditions

Intersection of Boston, Bridge, and Goodhue Street
Current Conditions

Goodhue Street

Unfinished Path Behind Public Storage
Current Conditions

View looking toward Flint Street

View looking toward Boston Street
Current Conditions

Flint Street Intersection
The critical NRCC Salem gateway intersection of Boston and Bridge Streets needs to be simplified so it can serve pedestrians and bikes more effectively while allowing general motor vehicle traffic to flow through it acceptably (Section 5.1, Pg. 62).

Design and install traffic, bicycle and pedestrian friendly enhancements to compress the intersection of Boston, Bridge, Goodhue, and Proctor Streets consistent with NRCC Master plan objectives (Section 5.1, Pg.70 – Priority 2.2).

Priority 2-6 – [Create] Goodhue-Bridge Street Connector (Section 5.2, Pg. 74)

Right now, with 2-foot shoulders, bicycle traffic is not encouraged to use the wide segment of Bridge Street, let alone its narrower segment (Section 5.2, Pg. 81).

With a potential three lane cross-section, the future Gateway Center development will attract new left turn movement demands from Bridge Street to the east (Section 5.2, Pg. 81).
A Complete Street is one that provides safe and accessible options for all travel modes – walking, biking, transit and vehicles – for people of all ages and abilities. Complete Streets improvements may be large scale, such as corridor wide improvements, or focused on the needs of a single mode.
MassWorks

PROSPECTIVE MASSWORKS PROJECT CONSTRUCTION ELEMENTS

1. Goodhue Street – “Complete Streets” enhancements tied to MassWorks Grove Street Project south boundary including separated bike lanes on Bridge Street
2. Bridge Street – “Complete Streets” repaving plus separated bike lanes and pedestrian sidewalk enhancements between Flint and Boston Streets
3. Bridge/Boston Street and Bridge/Flint Streets signal upgrades w/ “Complete Streets” sidewalk, lighting, and pavement markings
4. Widen westbound Boston Street approach to Bridge Street to provide exclusive through/left, shallow right, and sharp right lanes
5. Complete missing link of shared use path between Bridge and Grove Streets with lighting
6. Provide new separated facility bike connection between the Bridge/Flint Streets intersection and the Leslie’s Retreat shared use path
7. Install rectangular rapid flashing beacon (RRFB) at possible Bridge Street crossing with a median refuge area
8. Evaluate and improve public utilities. Relocate 36” drain line easement to Boston and Bridge Streets layout.

City of Salem, Massachusetts
Kimberley Driscoll, Mayor
City of Salem
Department of Planning & Community Development

LEGEND
- NRCC Redevelopment Site
- MassWorks Application
- Construction Elements
- MassWorks Grove Street Project completed
Design Elements - Overview
Design Elements – Boston Street

- Signal Upgrades
- Mill and Overlay
- Reconstruct Sidewalks
- New Separated Bike Lane
- Add Truck Aprons
Design Elements – Goodhue Street

- Add Pavement
- Reconstruct Sidewalk
- New Sidewalk/Landscape Strip
- Coordinate with Development
- Continue Lighting Improvements
Design Elements – Goodhue Street

BEFORE

AFTER

Looking North
Design Elements – Bridge Street

- Reduced Cross Section
- New Shared Use Path
- Reconstruct Sidewalk
- New Separated Bike Lane
- Street Trees and Lighting
- Coordinate w/Development & National Grid
Design Elements – Bridge Street

BEFORE

Looking East

AFTER

Looking East
Design Elements – Bridge Street

- New Crosswalk/RRFB
- Median
- Bike Lane Transition
- Trail Connection
- Trail Lighting
Design Elements – Bridge Street

- New Shared Use Path
- Reconstruct Sidewalk
- Landscape Strips
- On Road Bike Lane
- Street Trees and Lighting
- Coordinate with Development and National Grid
Design Elements – Bridge Street

BEFORE

AFTER

Looking East
Design Elements – Flint Street

- Signal Upgrades
- Reconstruct Wide Sidewalks
- Add Truck Aprons
- New Shared Use Path
- New Trail Connection
Design Elements – Flint Street

BEFORE

AFTER

Looking North
Expands Bike Network for all Abilities

- On Road Bike Lanes
- Separated Bike Lanes
- Shared Use Paths
Expands Bike Network for all Abilities

- On Road Bike Lanes
- Separated Bike Lanes
- Shared Use Paths
Facility Type Comfort Level

Interests but Concerned

60% of the population

Who are they?
A 45-year-old father of two on the South Coast who has been diagnosed with pre-diabetes. His doctor has encouraged him to be more active. He doesn’t think he has time to go to the gym, so he’s been thinking about commuting to work by bike. As a motorist he feels uncomfortable passing bicyclists, so he isn’t sure he’d feel comfortable as a bicyclist sharing the road with cars.

A Boston-area resident who just moved to the US. He’s used Hubway bike shares for a few times to ride home from the train station. He enjoys riding as long as he stays on quiet streets or the sidewalk. He’d like to be able to ride to the grocery store, but there are busy roads and intersections along the way.

Casual and Somewhat Confident

7%

Who are they?
A woman on the North Shore who rides her bike downtown every morning to her job at the hospital. She prefers to ride on neighborhood streets, but doesn’t mind riding the last few blocks on a busy street since there’s a bike lane.

A lower-income Cape resident who rides a bicycle to save money for other household expenses. He’s comfortable riding on Main Street without a conventional bike lane because it’s a two-lane road and motorists usually don’t pass him.

Experienced and Confident

1%

Who are they?
A 60-year-old, life-long, daily-commuting bicyclist. He prefers direct routes to his destinations to save time. He is confident riding in mixed traffic and knows to be wary of opening car doors and turning trucks. He enjoys riding on shared use paths, but typically avoids them during congested periods.

LOWER STRESS TOLERANCE

HIGHER STRESS TOLERANCE
Bike Lanes

Benefits:
Drivers, Bicyclists, and Pedestrians

Grove Street, Salem
Shared Use Paths - Side paths

Path Travels Adjacent to Roadway

Nonantum Road, Watertown
Research has shown:

- Attracts more people to bicycling
- Improves safety for all road users
- Preferred by motorists and bicyclists over on-road facilities
Pedestrian Crossing Island

- Reduces pedestrian crashes by 46% (FHWA)
- Allows pedestrians a safe place to stop
- Enhances visibility of the crossing
Rectangular Rapid Flashing Beacon

- For midblock locations
- Motorist yielding rates increased:
  - 18.2% to 81.2% for 2 beacons and
  - to 87.8% for 4 beacons (TRB)
- Pedestrian activated (pushbutton or passive)
- Warning device
- Interim approval from FHWA, July 2008
- Can be solar powered or hard wired
Accessible Pedestrian Signals (APS) and Countdown Signals

- For visually-impaired pedestrians
- Signal information both audible and vibrotactile
- Extra information benefits all pedestrians
- Required for new construction
Questions? / Discussion

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Thank you! Go Pats!
Typical Section – Boston Street

Looking North
Typical Section – Goodhue Street

Looking North

- Accessible Sidewalk (See Plans)
- Grass Strip (See Plans)
- One-Way Travel Lane
- Bike Lane
- Accessible Sidewalk (See Plans)

Width Varies

Approx City Layout Width Varies - 37'-6" ± to 42'-6" ±
Typical Section – Bridge Street

Looking East
Typical Section – Bridge Street

Looking East
Typical Section – Flint Street

Looking South