

**Conceptual
design
selection**
October 2010

*This booklet is intended
to supplement the
"Community Design
Process, June 2010,
booklet, available
online.*

Western Avenue Reconstruction

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Community design process booklet

June 2010
(available online)



2

project goals

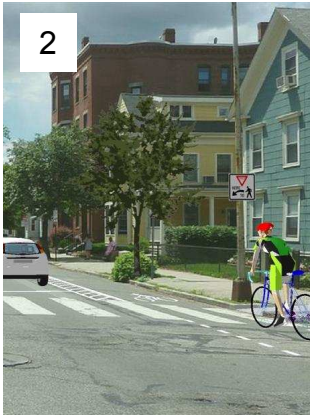
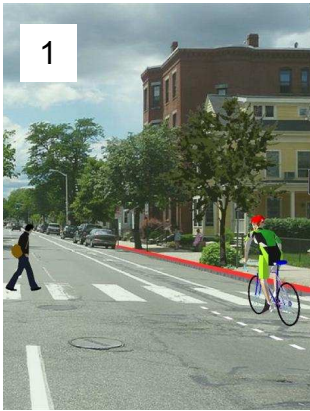
This Conceptual Design Selection, October 2010, booklet is intended as a supplement to the above booklet Community Design Process booklet published in June 2010.

Western Avenue is scheduled to be fully reconstructed beginning in summer 2011. The underground stormwater and sewer system, roadway, and sidewalks will all be replaced from Franklin Street to Memorial Drive. The redesign considers all street users: walkers, bicyclists, bus riders, and drivers. The public process began in January 2010. Neighborhood walks and meetings have been held. An advisory committee has been meeting regularly.

Following are the project goals that were developed in conjunction with the Advisory Committee:

- Ensure corridor is safe for all users
- Maintain adequate traffic flow
- Reinforce residential character
- Ensure appropriate traffic speed
- Improve conditions for walking, bicycling, and transit riders
- Meet and exceed accessibility requirements
- Improve access to businesses
- Help meet stormwater environmental goals through green design
- Provide adequate parking
- Promote environmental sustainability
- Improve landscaping

3



4

concept development

With the input of the Advisory Committee and other public outreach, five concepts were developed to identify the full range of potential options for Western Avenue between Pleasant Street and Memorial Drive.

Concept 1: Two travel lanes, bicycle lane, parking on both sides

Concept 2: Two travel lanes, street level cycle track, parking on both sides

PROPOSED CONCEPT

Concept 3: Two travel lanes, raised cycle track, parking on both sides

Concept 4: One travel lane, bicycle lane, parking on both sides

Concept 5: One travel lane, bicycle lane, back-in angle parking on the left side. This concept provides for the same total number of parking spaces as the other concepts, just that all the parking would be on one side)

[Please see the Community Design Process booklet, June 2010 for more details on these five concepts.]

5

evaluation criteria

City staff and the Advisory Committee used the following criteria to evaluate the various concepts, with tradeoffs among the various criteria inevitable:

- Traffic calming effect / vehicle speed reduction
- Pedestrian crossing safety
- Expanded sidewalk space for walking and sitting
- Bicycle facility safety and comfort
- Bus operations and efficiency
- Rush hour vehicle capacity
- Parking availability
- Maintenance operations, such as snow clearance and street cleaning
- Emergency vehicle access
- Construction cost
- Community support

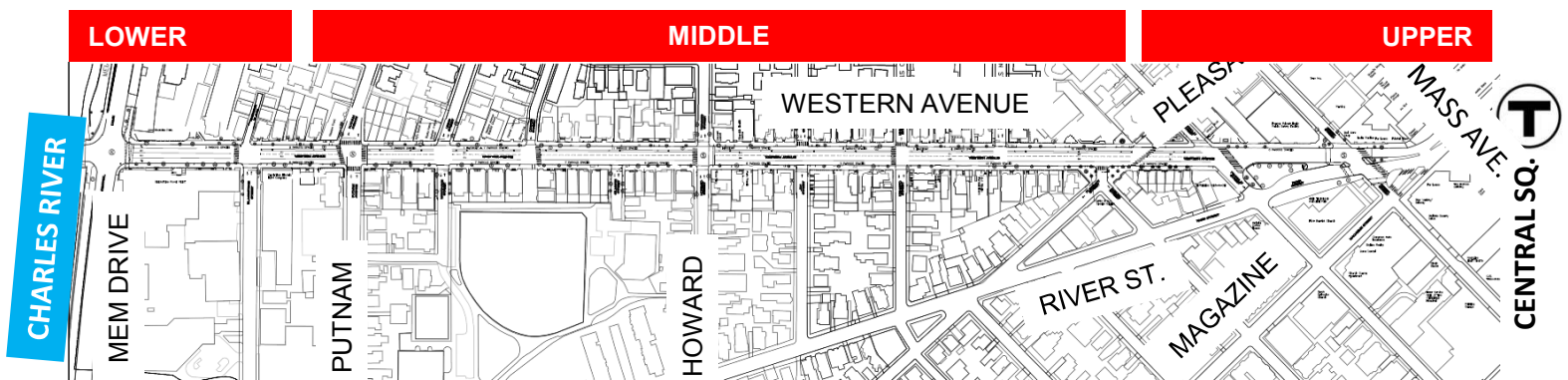
6

draft proposed conceptual design

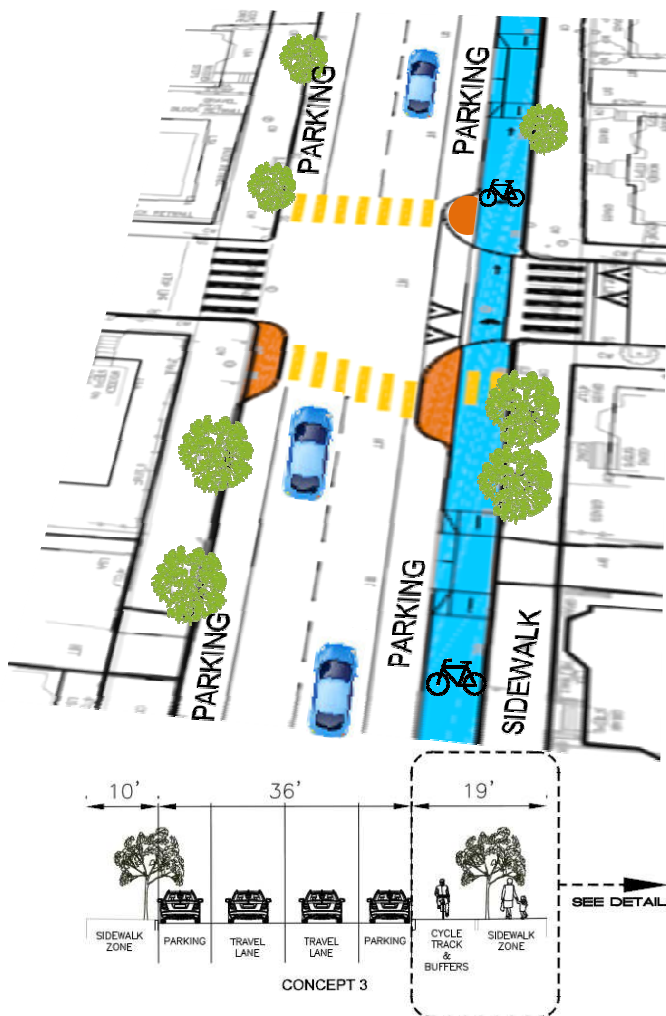
Since June 2010, city staff from various departments have been reviewing the concepts in greater depth to better understand the pros and cons of each and have taken into account the extensive community feedback received. This draft proposed conceptual design has been developed, and is being shown to the community. In the middle section from Pleasant St. to Blackstone St., the draft proposed conceptual design utilizes:

Concept 3 with two travel lanes, a separated bicycle facility (raised cycle track), and parking on both sides of the street.

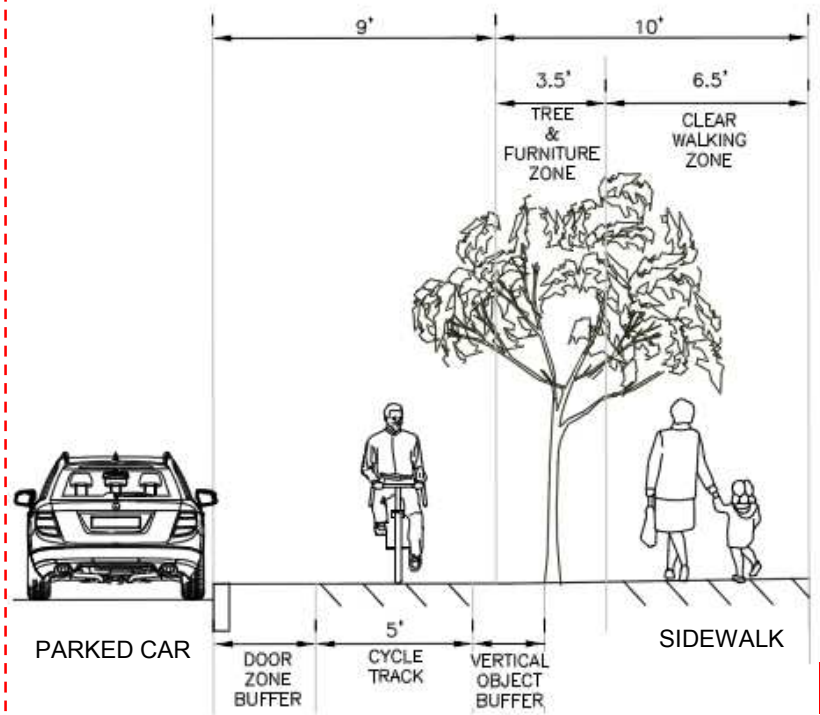
The proposed concept is presented on the following pages:



7



PROPOSED CONCEPT



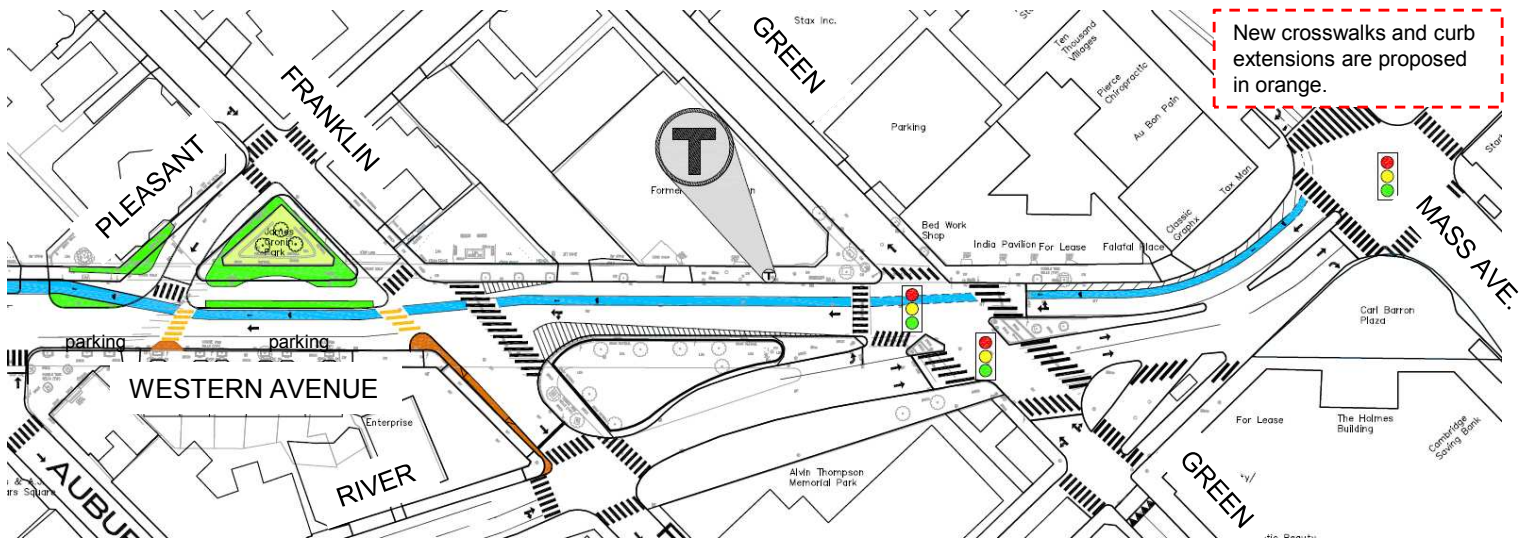
8

Draft proposed conceptual design (Concept 3)

(Middle section from Pleasant Street to Blackstone Street)



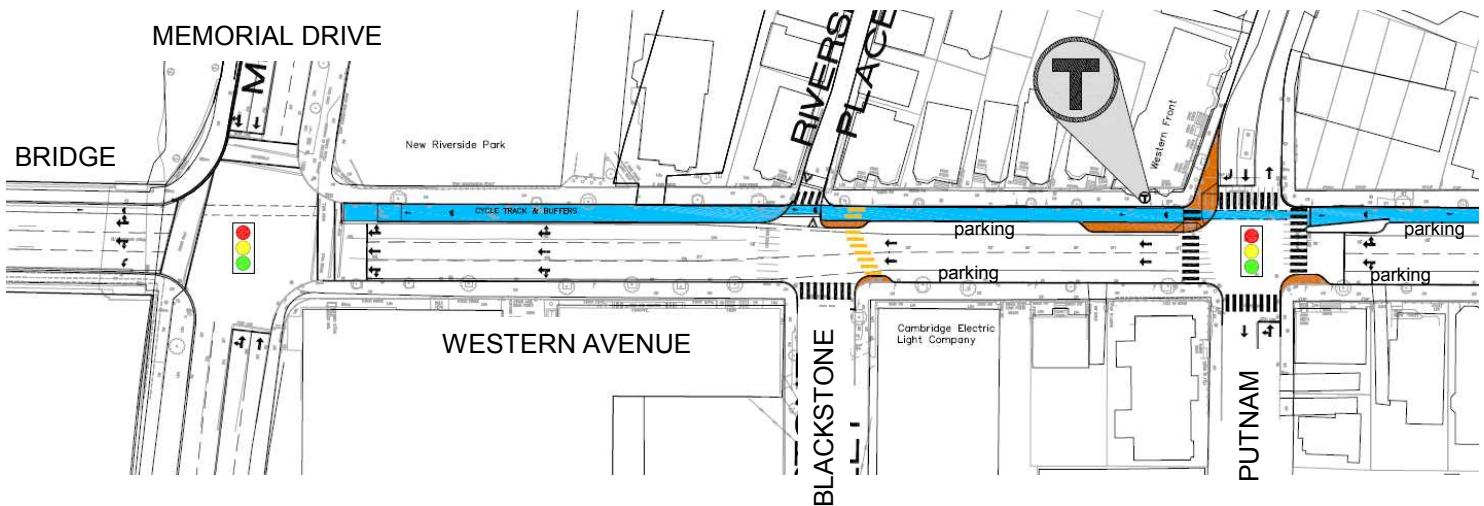
9



upper section

This project only includes reconstruction from Franklin Street to Memorial Drive; only pavement marking changes are proposed from Mass. Ave. to Franklin Street. The proposal for Mass. Ave. to Pleasant Street is to have one travel lane and a bicycle lane. This allows for a significant expansion of the green space at James Cronin Park with no impact on traffic congestion. At Pleasant Street, two travel lanes will begin and continue all the way to the river. The bus stop has already been relocated, the Franklin Street sidewalk will be expanded, and Pleasant Street will be easier to cross as a pedestrian.

10



lower section

The right-turn-only lane on Western Avenue approaching Memorial Drive is currently underutilized. The current proposal is to provide three travel lanes from Blackstone Street to Memorial Drive, which provides space for a bicycle facility (cycle track) where none exists today. Our analysis indicates that removing the right-turn lane will have a negligible impact on traffic congestion. We are working with State agencies (Cambridge only owns up to Memorial Drive) regarding the addition of a crosswalk on Memorial Drive, coordination of the signal timing for all the Western and River Street Bridge intersections to improve traffic flow, and addition of a bicycle facility on the bridge when it is reconstructed.

11