



MASSACHUSETTS DEPARTMENT OF
CONSERVATION AND RECREATION



Emerald Necklace Crosswalk and Pathway Treatment Guidelines

A DCR and Emerald Necklace Conservancy Partnership Project



Public Presentation
7pm, June 24, 2013
Wheelock College Campus Center

Commonwealth of Massachusetts



Deval L. Patrick
Governor

Richard K. Sullivan, Jr.
Energy and Environmental Secretary

Jack P. Murray
Department of Conservation and Recreation Commissioner



DCR Mission Statement

“To protect, promote and enhance our common wealth of natural, cultural, and recreational resources for the well-being of all.”



Emerald Necklace Conservancy

“To renew, enliven, and advocate for the Emerald Necklace park system”

Purpose of Meeting

- Present and obtain input on final recommendations for Emerald Necklace Pathway and Crosswalk Treatment Guidelines
- Review next steps





Massachusetts
Emerald Necklace

Crosswalk and Pathway Treatment Guidelines
Emerald Necklace Parks
 Boston, Massachusetts



June 2013

Massachusetts Department of Conservation and Recreation
 Bureau of Planning and Resource Protection
 In partnership with the
 Emerald Necklace Conservancy

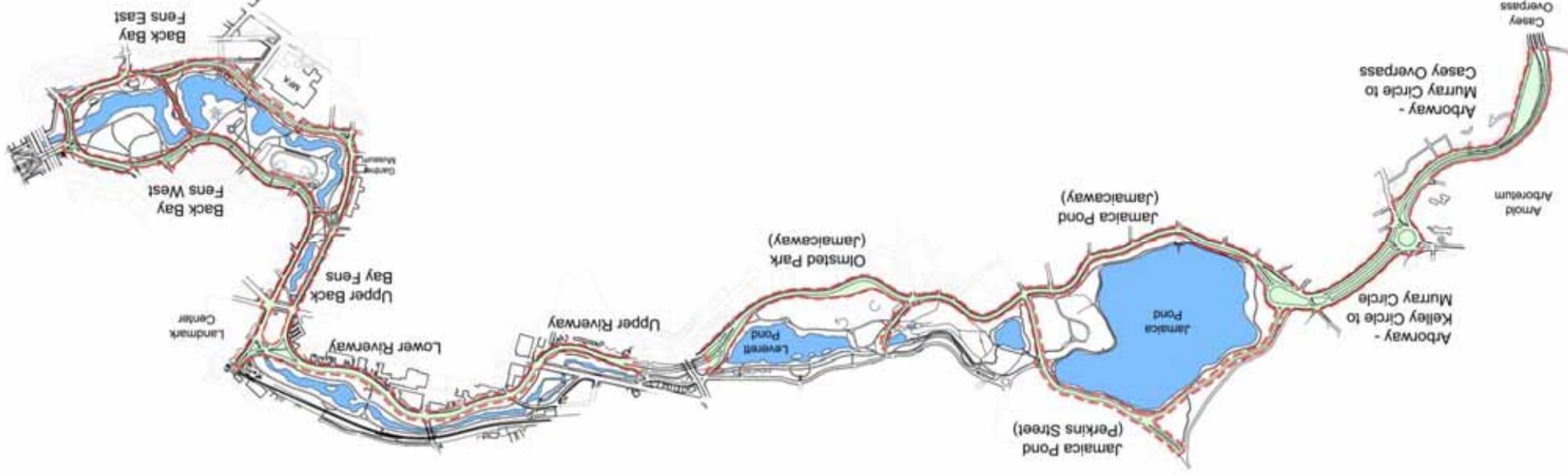
The Emerald Necklace Crosswalk and Pathway Treatment Guidelines present a vision for a consistent treatment and design vocabulary for the crosswalks and pathways of the Emerald Necklace parkways and parklands under the jurisdiction of the Massachusetts Department of Conservation and Recreation (DCR).

The Emerald Necklace Parkway in this project include Fenway, Park Drive, Riverway, Jamaicaway, and Arborway. Also includes Agassiz Road and a portion of Willow Pond Road, Perkins Street, and Parkman Drive.

Project Scope



MASSACHUSETTS DEPARTMENT OF
CONSERVATION AND RECREATION



Project Scope and Goals

Develop consistent pathways and crosswalks treatments and design criteria to be used on future projects in the Emerald Necklace parklands within DCR's jurisdiction*

- Improve visitor experience and safety
- Enhance connectivity between parks
- Balance needs of different user groups
- Preserve historic landscape integrity
- Improve universal access

* Advanced study and design will be required for all future projects



Kelley Circle (Microsoft Bing Maps)

- DCR
- Emerald Necklace Conservancy
- Pressley Associates
- Working Group:
 - Boston Cyclists Union
 - Boston Parks and Recreation Dept.
 - Brookline Parks and Open Space
 - Emerald Necklace Conservancy
 - Fenway Alliance
 - Greater Boston Greenway Network
 - Institute for Human Centered Design
 - Livable Streets Alliance
 - Massachusetts Bicycle Coalition
 - MASCO
 - WalkBoston

Project Team



Intersection of Riverway and Longwood Avenue

Project to Date

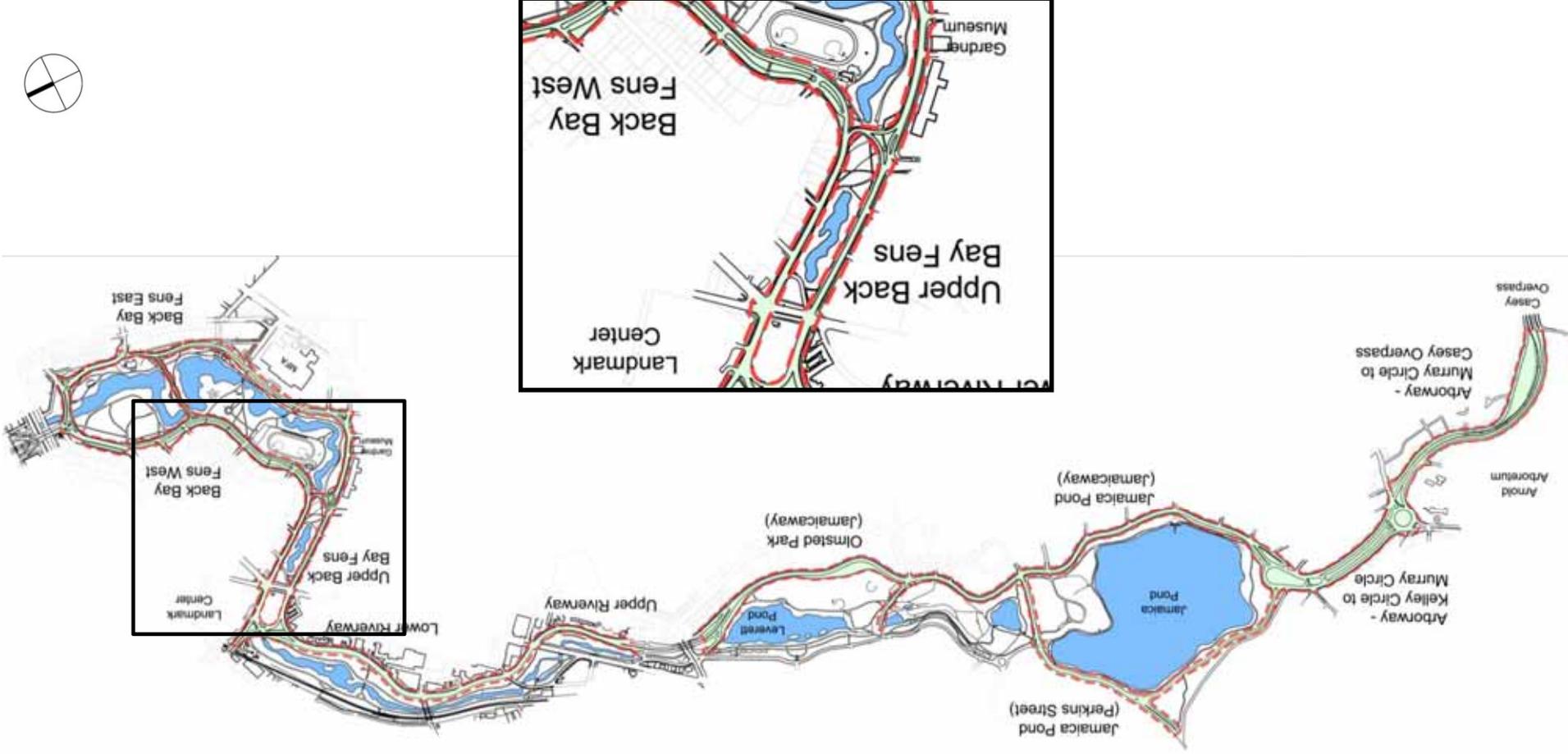
- Existing Conditions Data Collection
 - field reconnaissance (June 15-18, 2010)
 - stakeholder input
 - existing conditions plans and report
- Working Group and Public Process
 - First public meeting on Oct. 7, 2010

- Development of Treatment Guidelines
 - Crosswalks
 - Pathways
 - Signage and Wayfinding
 - Peer review by VHB
 - DCR meetings with stakeholder groups
- Agassiz Road Conceptual Design
 - Prototype Application
 - Final Conceptual Design Report March 2012



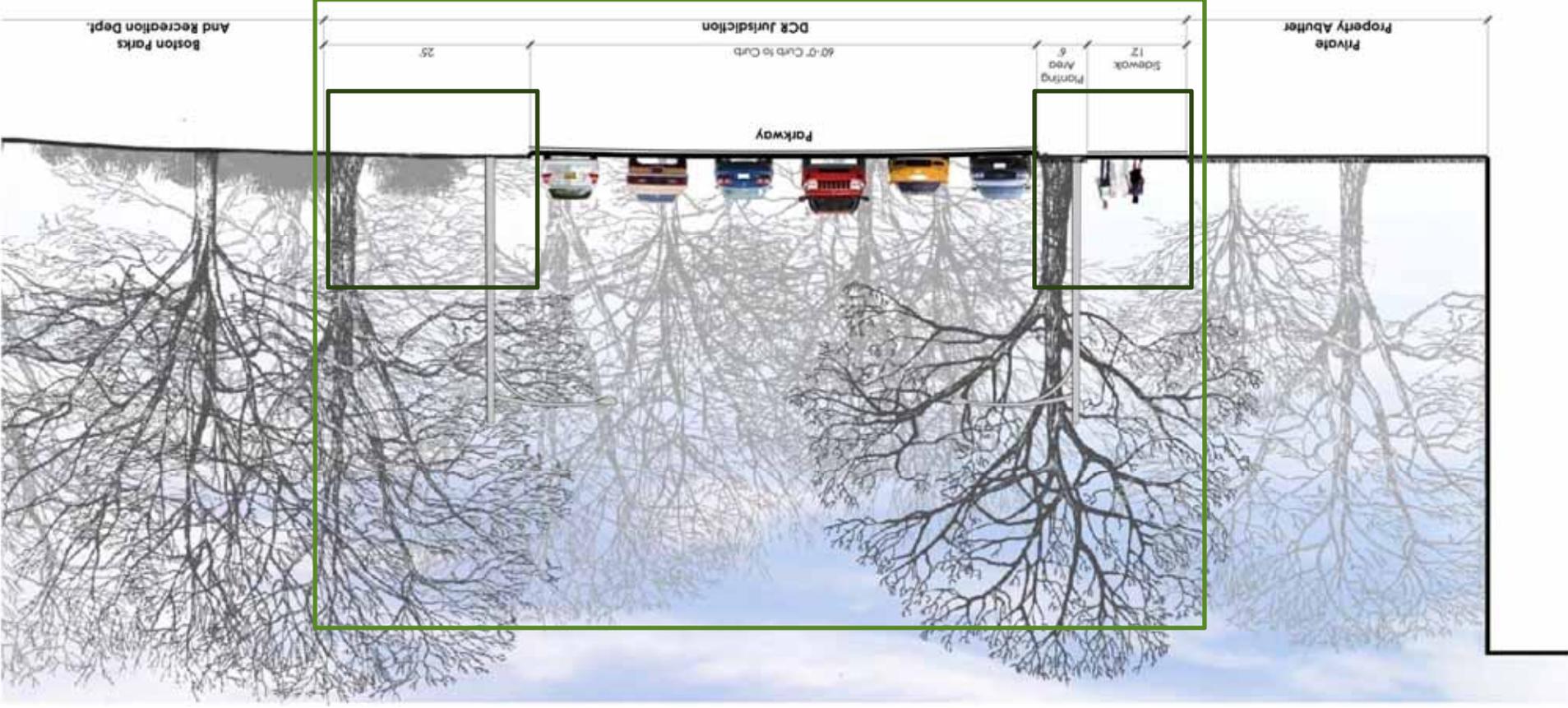
Project Limits - DCR Jurisdiction

Project scope is limited to crosswalks, sidewalks, and pathways of the Emerald Necklace only under the jurisdiction of the DCR within the project limits



Project Limits - DCR Jurisdiction

DCR jurisdiction in the Emerald Necklace typically defined as either 25 feet from parkway curbline or back side of pathway.



Example of DCR jurisdiction at the Riverway

Existing Conditions - Pathways

Pathways	
<i>Length</i>	<i>Surface Material</i>
Park-Side 22,750 linear feet (4.3 miles)	<ul style="list-style-type: none"> • Concrete: 10,100 linear feet • Bituminous Concrete: 9,850 linear feet • Stonedust: 2,800 linear feet
City-Side 32,000 linear feet (6.1 miles)	<ul style="list-style-type: none"> • Concrete
Informal Paths 3,200 linear feet (approx. 0.6 miles)	<ul style="list-style-type: none"> • Compacted dirt "desire lines"



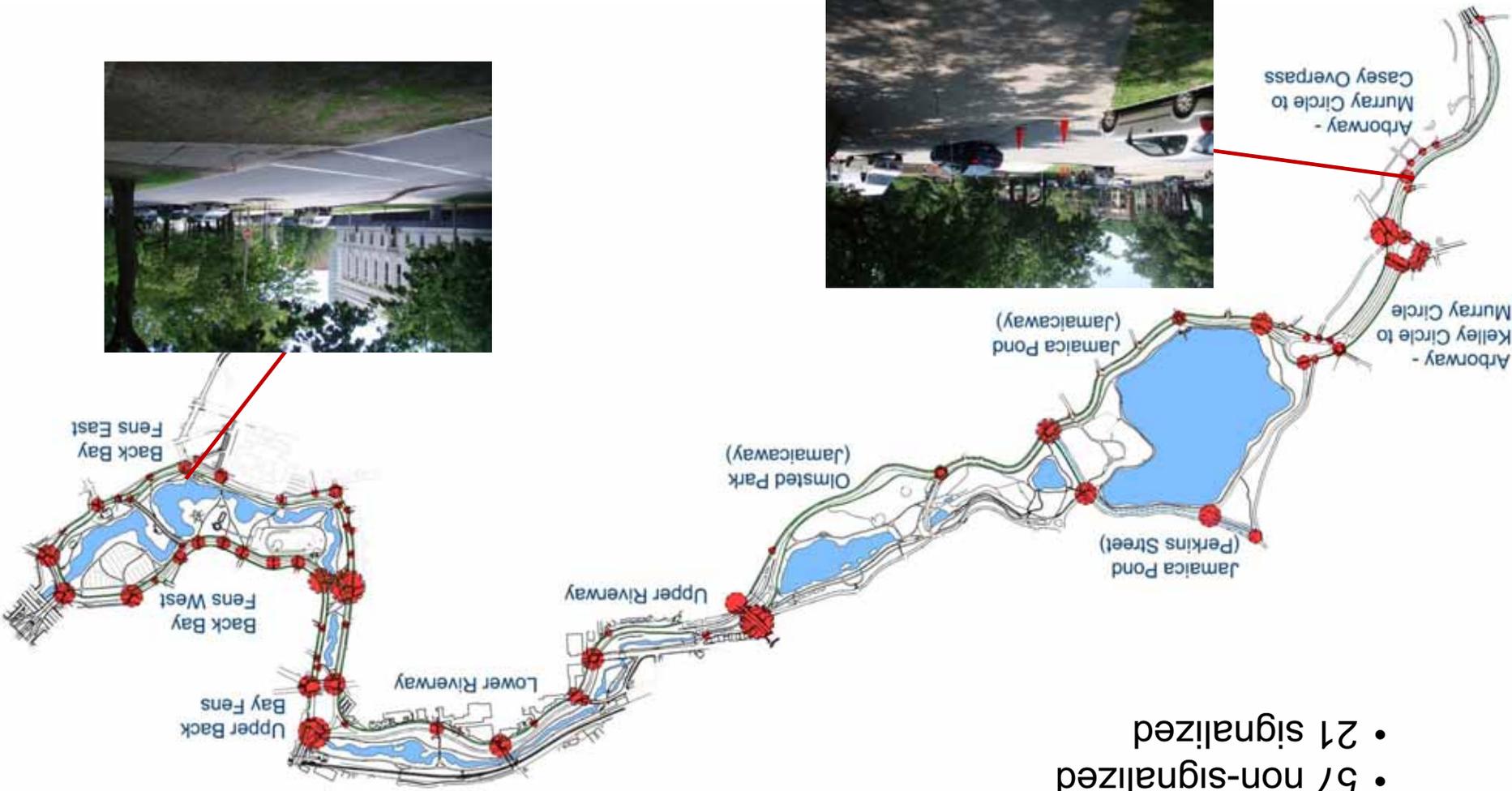
Analysis - Existing Pathways

- Path system used by a wide variety of user groups
- City-side sidewalks not seen as part of DCR system
- Inconsistent paving materials and widths
- Some paths too narrow
- Path conditions vary
- Some paths not universally accessible based on current standards
- Paths diverge and discontinuous in some areas
- General absence of user-oriented directional signage
- Some erosion and drainage problems
- Multitude of non-designated and desire line paths



Existing Conditions – Crossing Areas

- Total of 78 street crossing areas
- Crossing areas can consist of 1 or more crosswalks / crossings
- 57 non-signalized
- 21 signalized



Existing Conditions – Crossing Areas



• 21 signalized crosswalk areas

 Signalized crosswalk areas at traffic intersections

 Mid-block on-demand signalized crosswalks

Analysis – Existing Crossing Areas

- Physical conditions of crosswalks vary
- Differing paving materials at ramps
- Most ramps are no longer compliant under current accessibility standards
- Some crosswalks without ramps.
- Inconsistent striping patterns and lack of striping in some crossings
- Several unsignalized, mid-block crossings that are difficult to cross
- General deficiency of advance crossing warning signs
- Poor sightlines at some crossings
- Several non-designated, yet frequently used, crossings
- Grading, drainage, and siting issues



Crosswalk and Pathway Guidelines

Pathways

- General Design Guidelines
- Specific Design Criteria

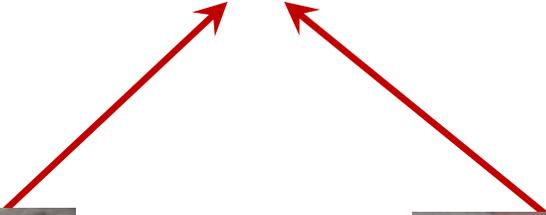


Crossing Areas

- General Design Guidelines
- Specific Design Criteria



Conceptual Shared Use System Designated Shared Use Pathways and Crosswalks



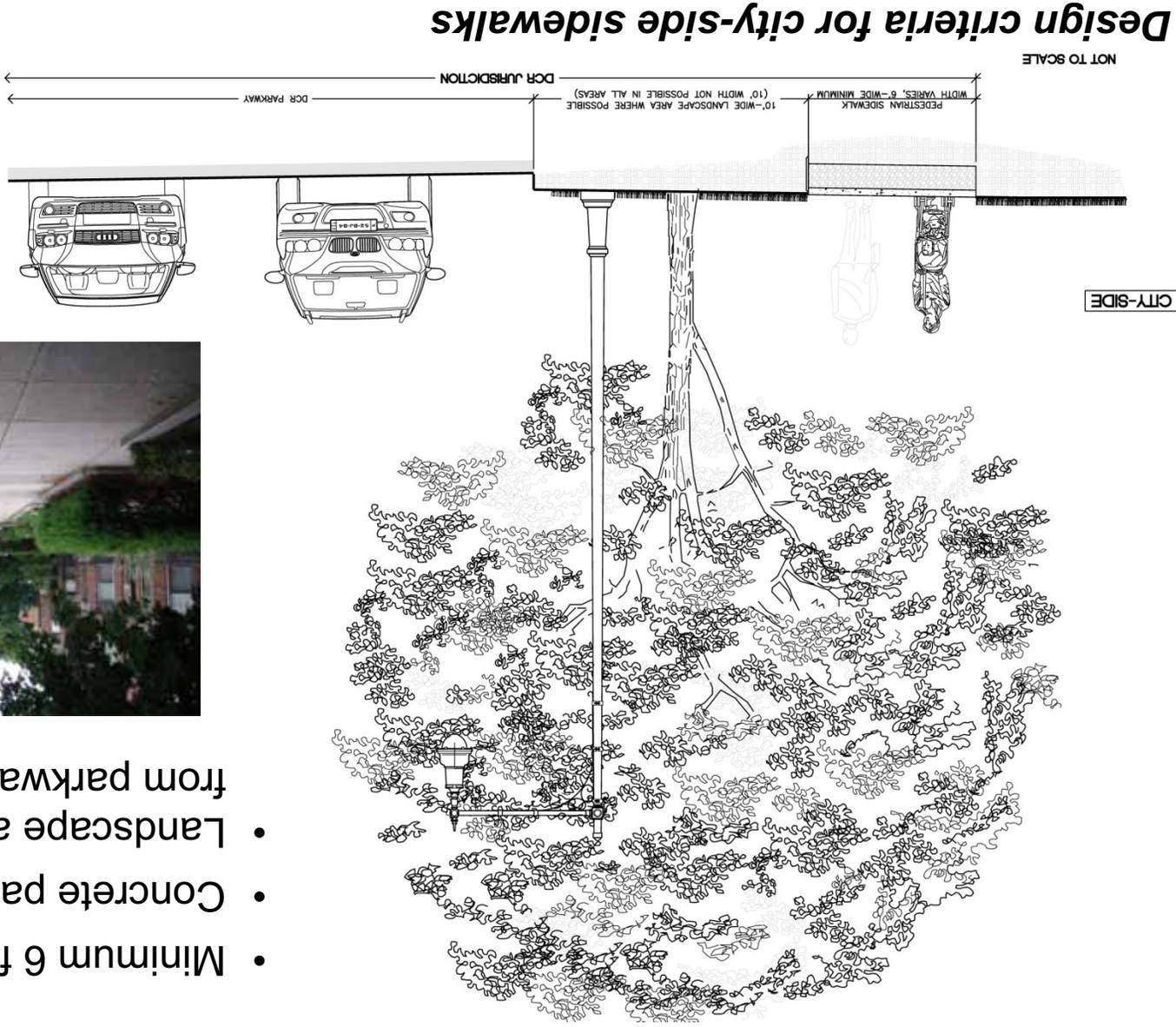
Pathway Guidelines

General Design Criteria - Pathways

- Upgrade, re-construct, or add new pathways to be fully functional and accessible
- Designate pathway width and pavement standards
- Cross-slope paths
- Stormwater drainage and/or diversion features
- 10-foot wide landscape buffer, min. typical
- New trees in the landscape buffer
- Root barriers along path edges
- 8-foot minimum vertical tree branch clearance.
- Smooth transitions where paths of differing pavements converge
- Wider pavement at intersections
- Latest accessibility standards
- Sufficient light levels at all roadway intersections. Transition to the historically compatible 1907 Boulevard light (pendant).

Pathways Guidelines – City-Side Sidewalks

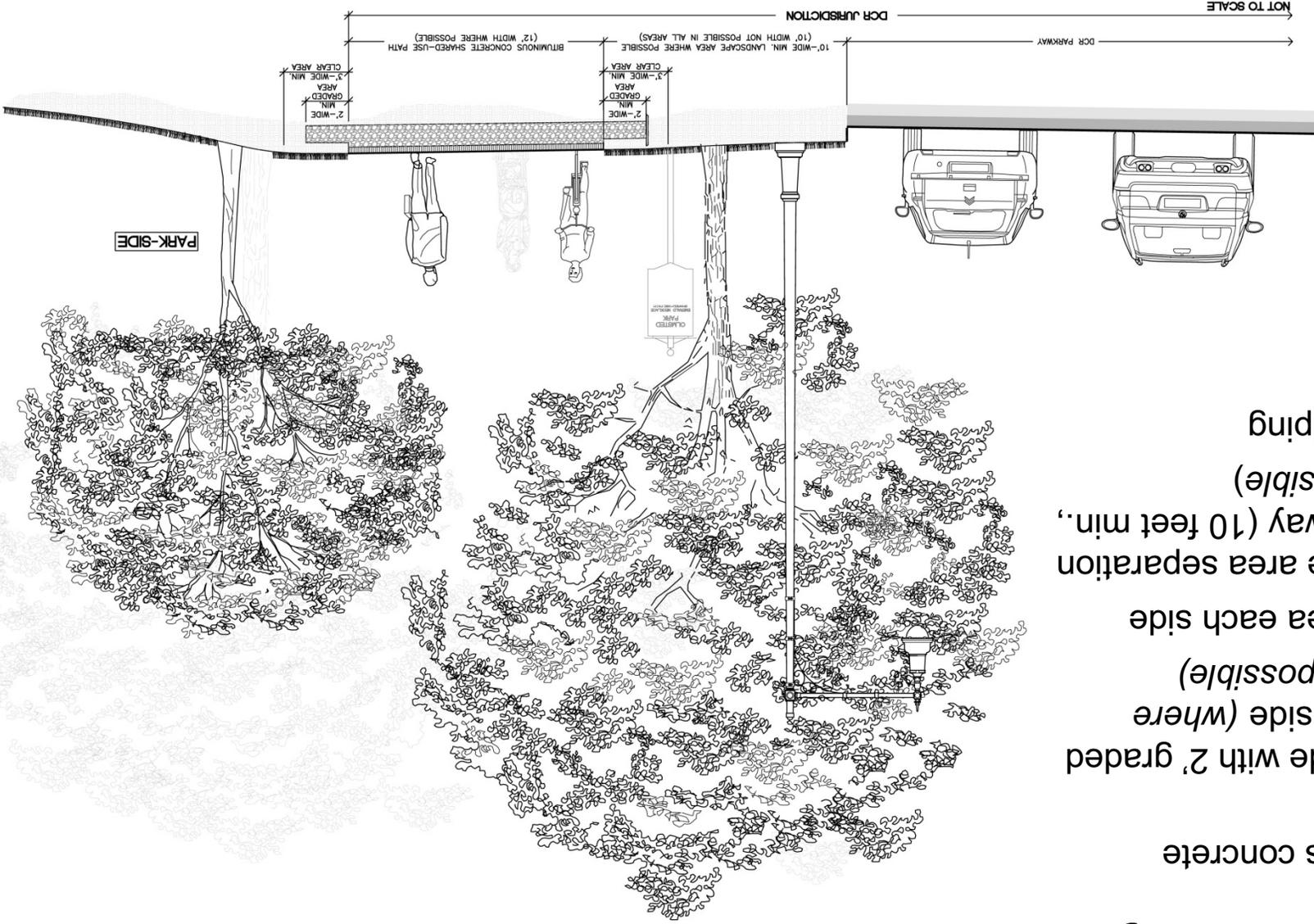
- Minimum 6 feet wide
- Concrete pavement
- Landscape area separation from parkway (10 feet min.)



Design criteria for city-side sidewalks

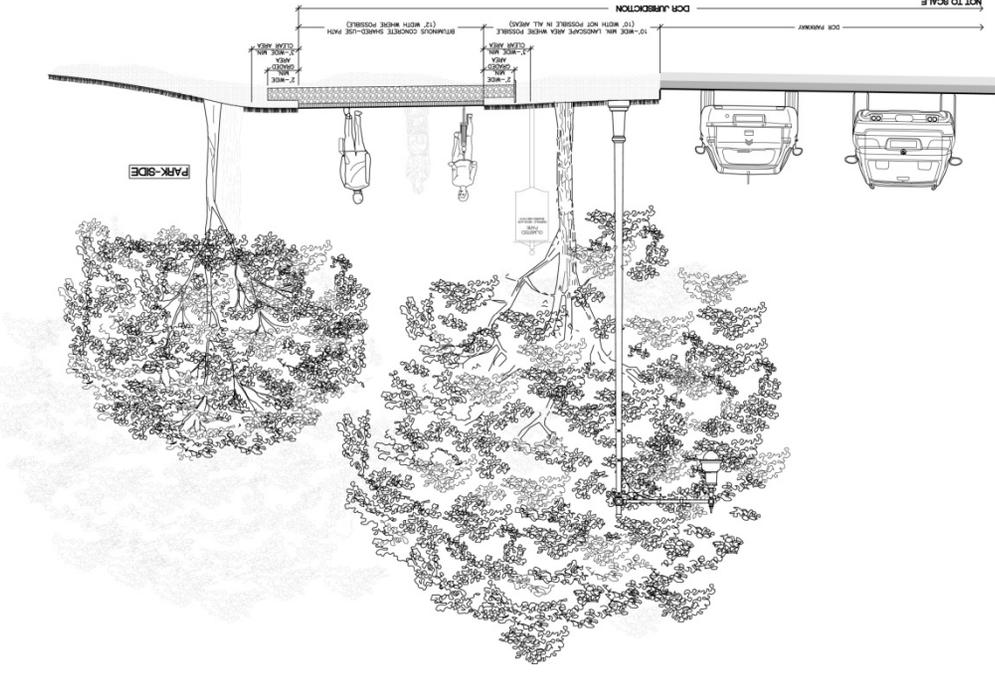
Pathways Guidelines – Shared Use Paths

- Bituminous concrete pavement
- 12 feet wide with 2' graded area each side (*where physically possible*)
- 3' clear area each side
- Landscape area separation, from parkway (10 feet min., *where possible*)
- No line striping



Design criteria for park-side shared use paths

Pathways Guidelines – Shared Use Paths



Design criteria for park-side shared use paths

Crossing Areas Guidelines

General Design Criteria - Crosswalks

- Upgrade, or reconstruct, and widen existing crosswalks to be fully functional and accessible
- Latest accessibility standards
- Improve the visibility and safety of existing crosswalks
- Advanced crosswalk warning signage and beacons (MUTCD*)
 - More visible line striping
- Construct new crosswalks, where needed

- Remove or relocate underutilized or unnecessary existing mid-block crosswalks.
- Avoid roadway low spots and/or regrade roadway at curb ramps
- Reduce curbline radii
- Bottom of curb ramps as wide as the connecting path
- Curbline bump-outs at some mid-block crossings

- Raised crosswalks at bisecting park roadways (Willow Pond Road, Parkman Drive, and Agassiz Road)

* Manual on Uniform Traffic Control Devices (Federal Highway Administration)

Crossing Areas Guidelines – Line Striping

Existing

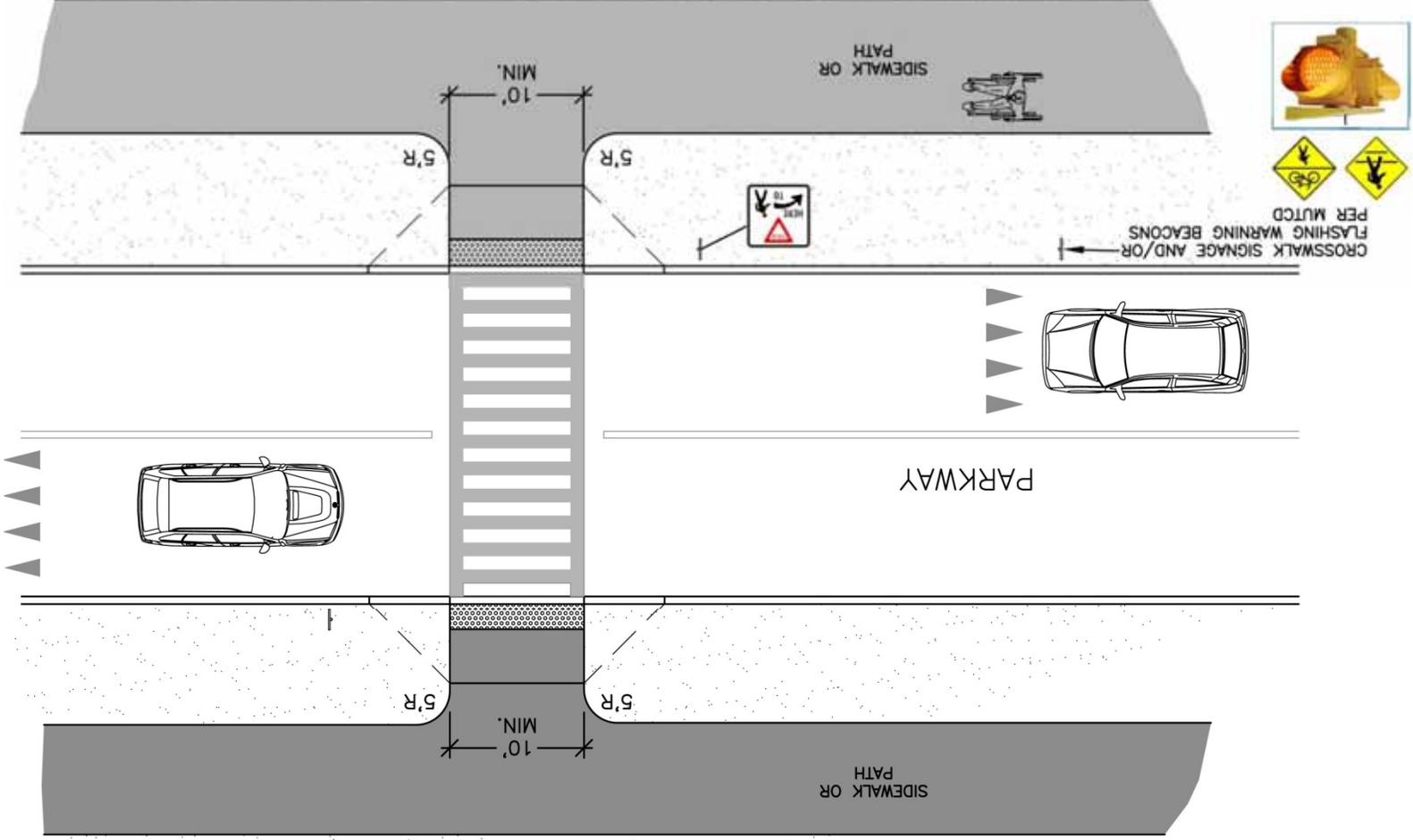


Proposed ladder striping system-wide



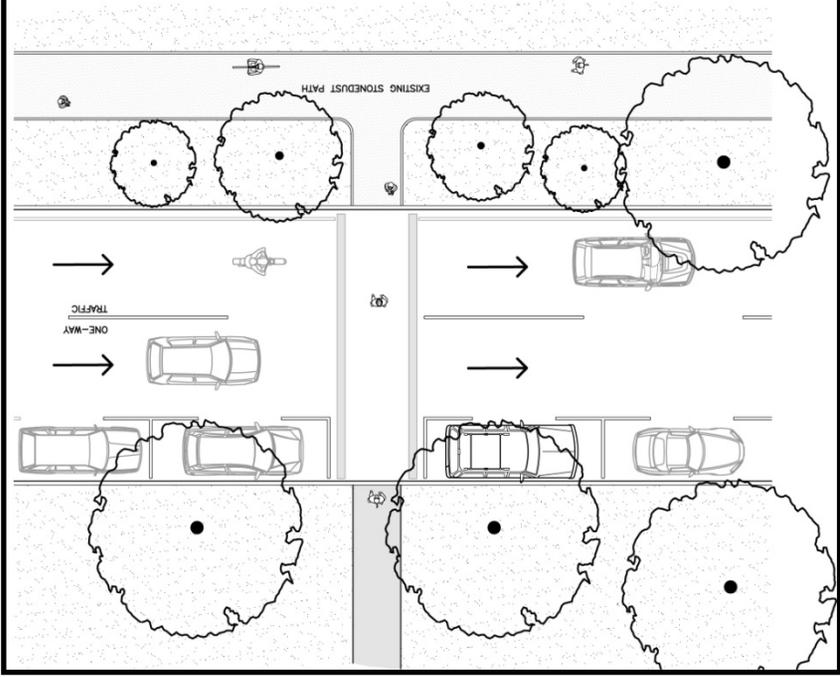
Typical Mid-Block Crosswalk across Parkway

Crossing Areas Guidelines – Parkway Crossings

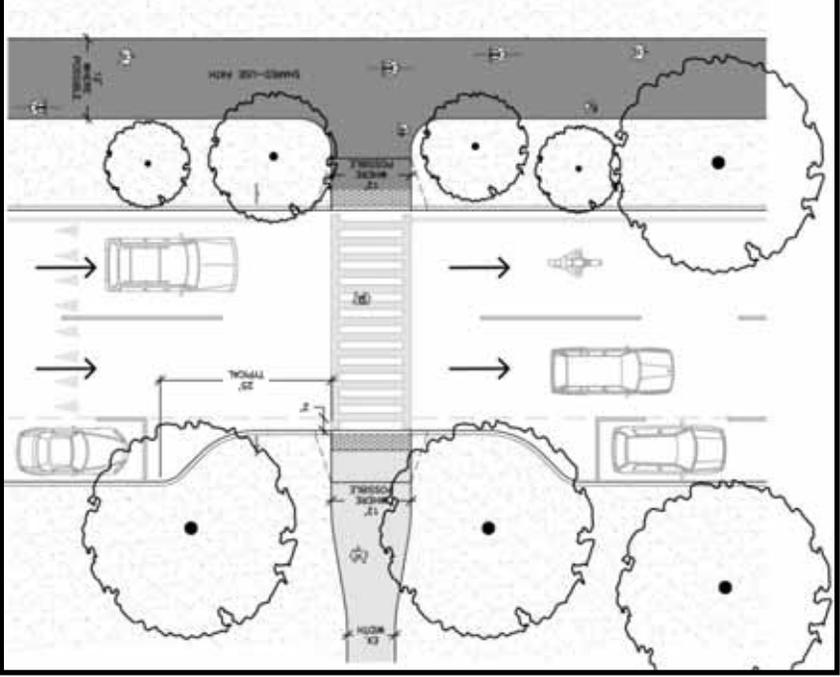


Typical Proposed Mid-Block Crosswalk across Parkway

Crossing Areas Guidelines – Parkway Crossings

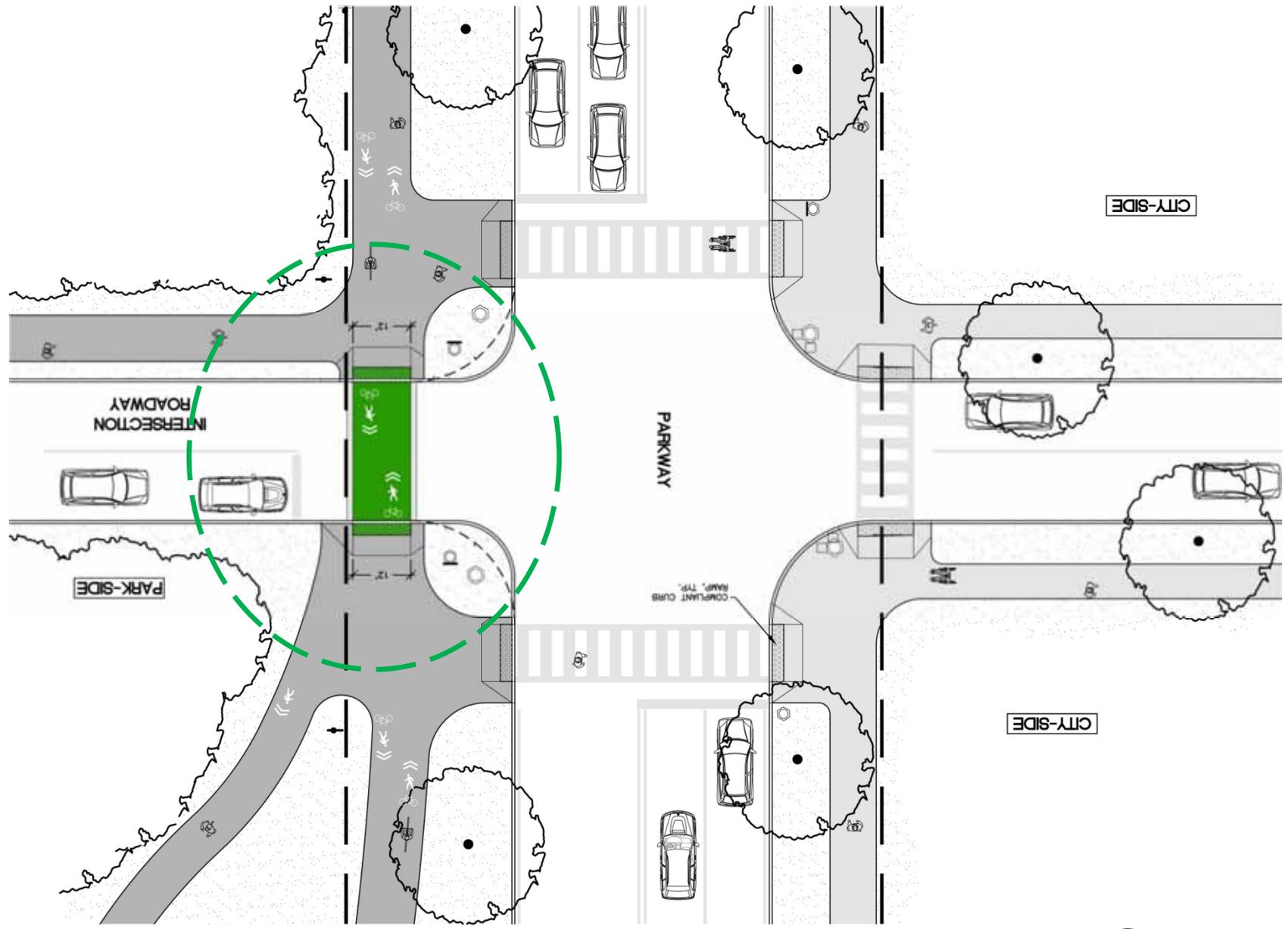


Existing example

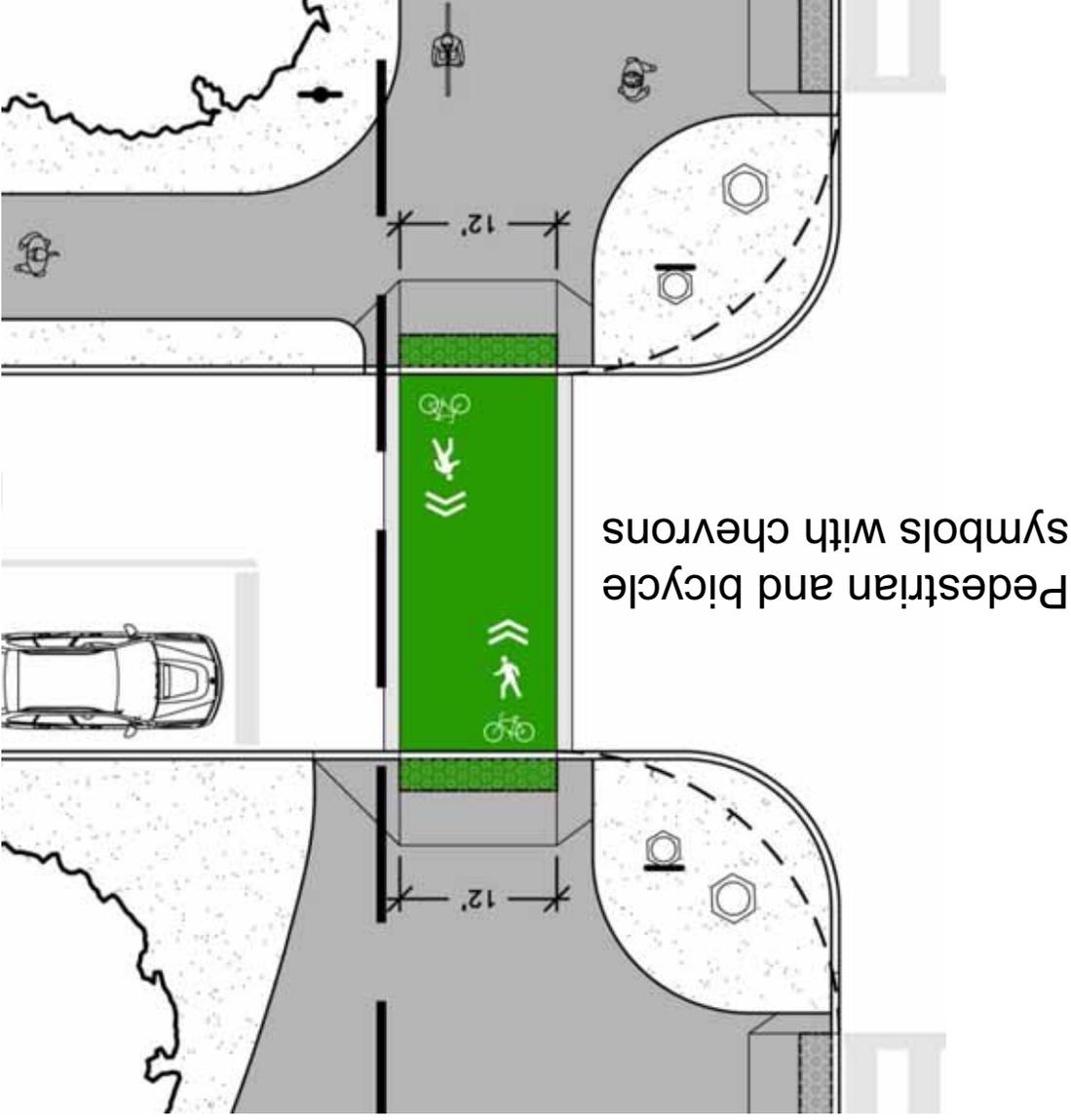


Proposed with bump out at curb

Crossing Areas Guidelines – Shared Use Crosswalks

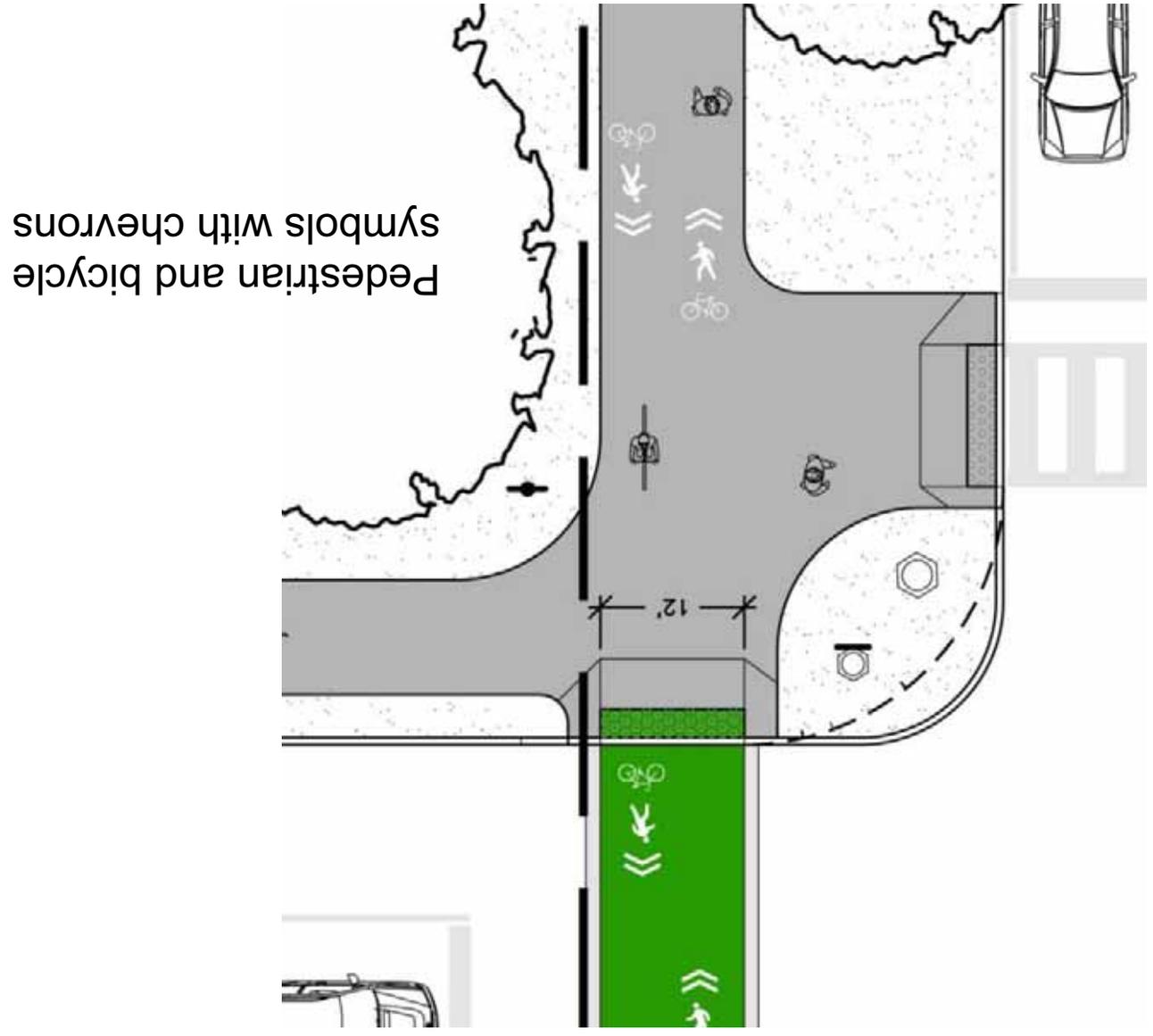


Crossing Areas Guidelines – Shared Use Crosswalks



Example of green pavement markings
(Syracuse University)

Crossing Areas Guidelines – Shared Use Crosswalks

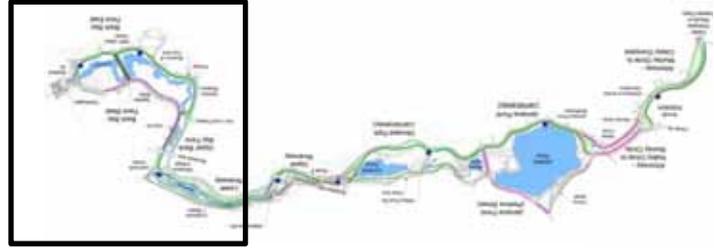


Pedestrian and bicycle symbols with chevrons

Shared Use System

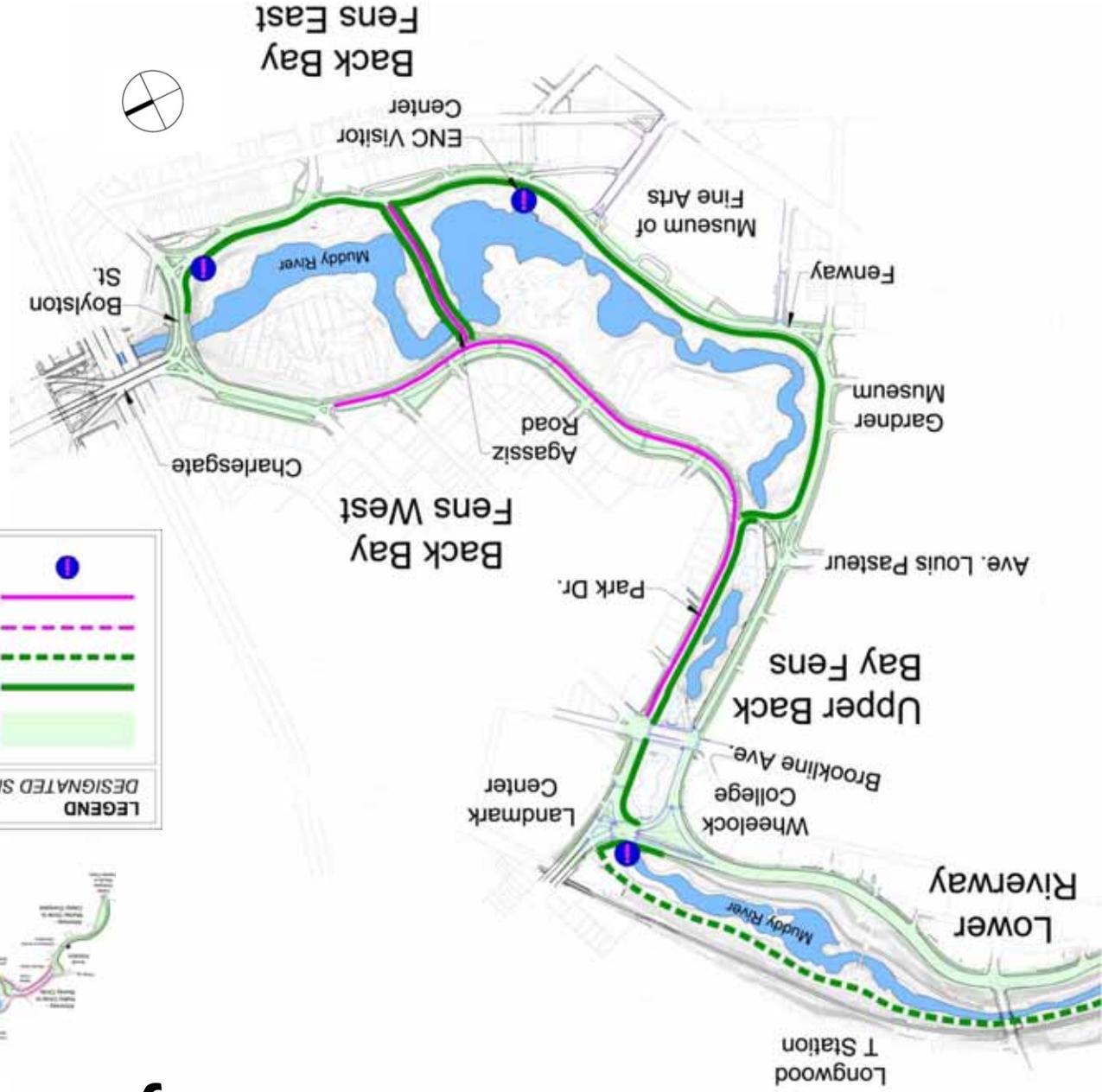


Shared Use System



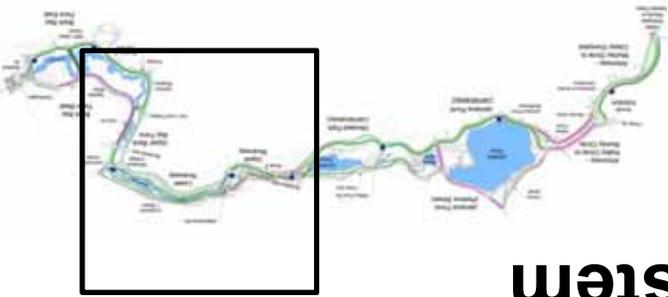
LEGEND
DESIGNATED SHARED USE PATH RECOMMENDATIONS

APPROXIMATE DCR JURISDICTIONAL AREA	(Light Green)
DESIGNATED SHARED USE PATH (DCR JURISDICTION)	(Solid Green)
DESIGNATED SHARED USE PATH (OUTSIDE OF DCR JURISDICTION)	(Dashed Green)
EXISTING BIKE LANE	(Dashed Purple)
NEW BIKE LANE	(Solid Purple)
INFORMATION AREA	(Blue circle with 'i')

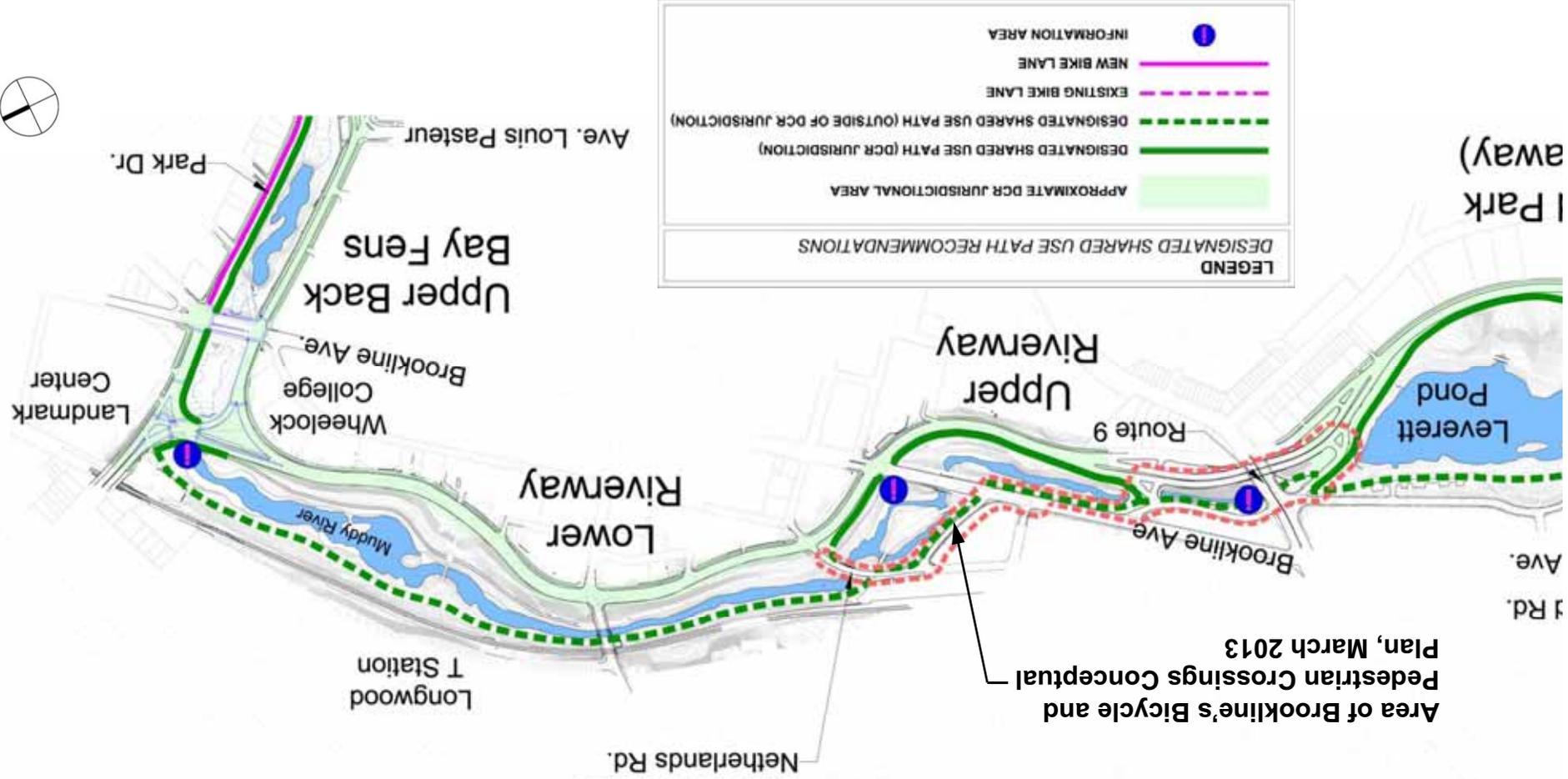


ands Rd.

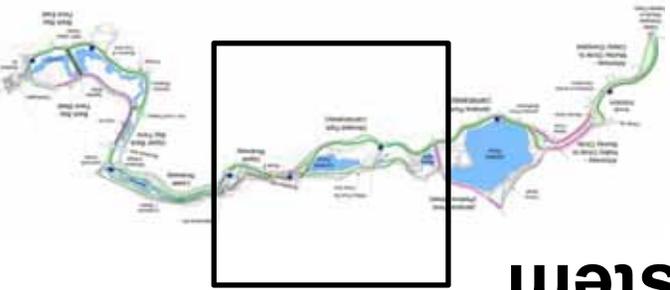
Shared Use System



Area of Brookline's Bicycle and Pedestrian Crossings Conceptual Plan, March 2013



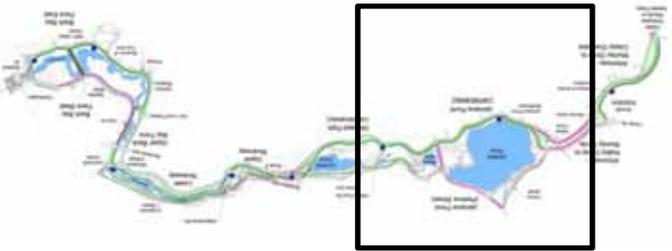
Shared Use System



LEGEND
DESIGNATED SHARED USE PATH RECOMMENDATIONS

APPROXIMATE DCR JURISDICTIONAL AREA	
DESIGNATED SHARED USE PATH (DCR JURISDICTION)	
DESIGNATED SHARED USE PATH (OUTSIDE OF DCR JURISDICTION)	
EXISTING BIKE LANE	
NEW BIKE LANE	
INFORMATION AREA	

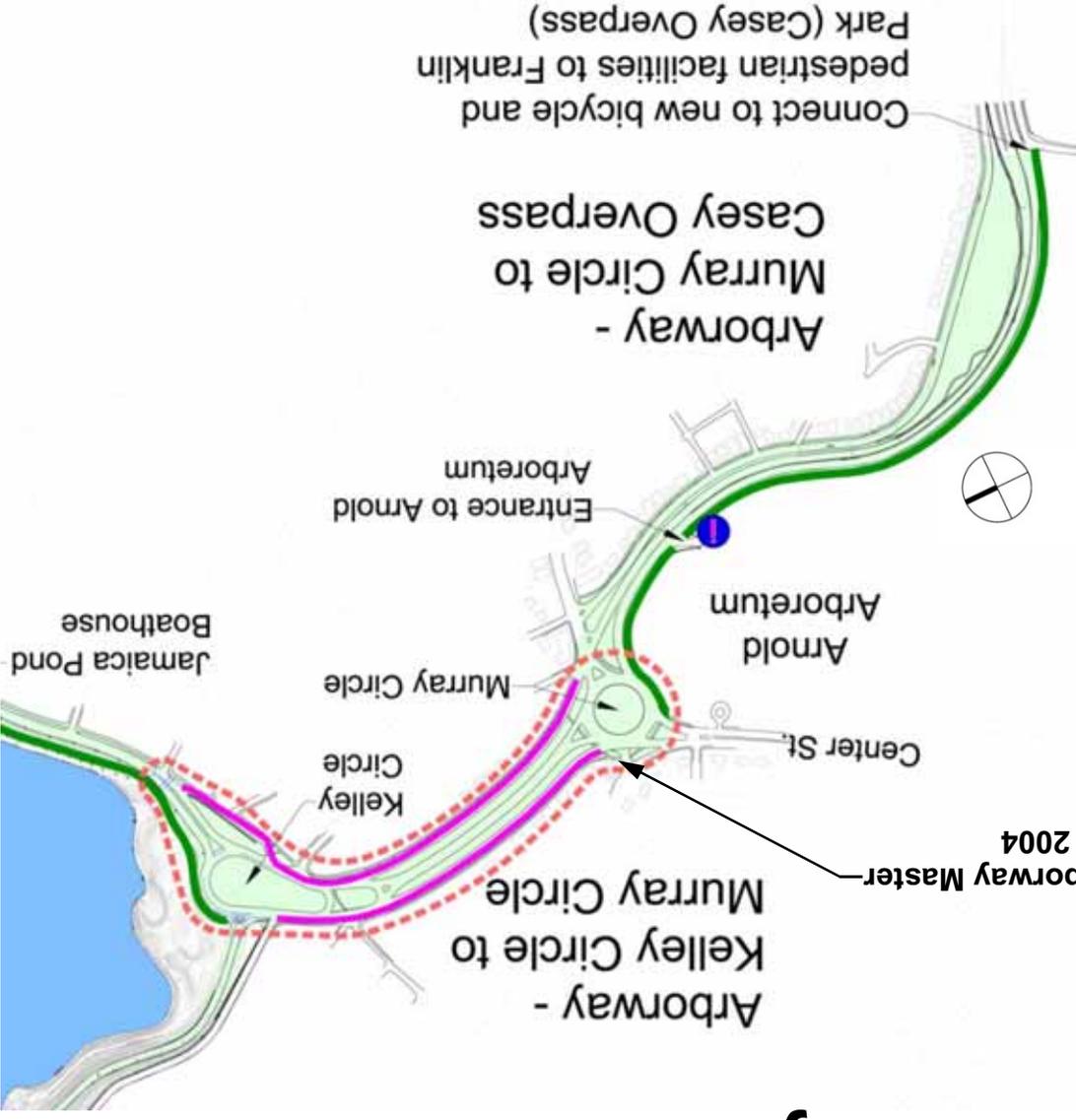
Shared Use System



LEGEND
DESIGNATED SHARED USE PATH RECOMMENDATIONS

APPROXIMATE DCR JURISDICTIONAL AREA	(Light Green Shaded Area)
DESIGNATED SHARED USE PATH (DCR JURISDICTION)	(Solid Green Line)
DESIGNATED SHARED USE PATH (OUTSIDE OF DCR JURISDICTION)	(Dashed Green Line)
EXISTING BIKE LANE	(Dashed Purple Line)
NEW BIKE LANE	(Solid Purple Line)
INFORMATION AREA	(Blue Circle with '1')

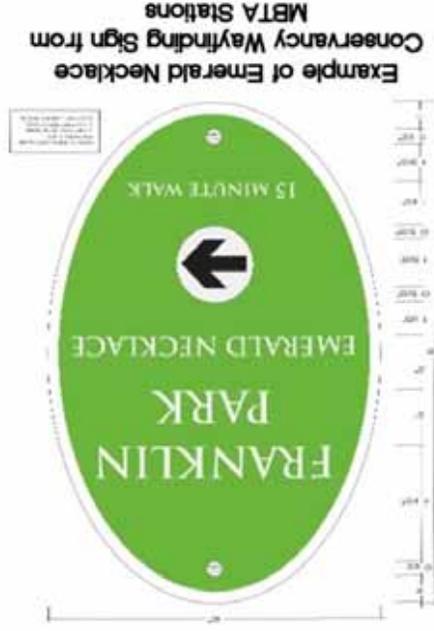
Shared Use System



Area of Arborway Master Plan, April 2004

Signage and Wayfinding Guidelines

- Existing directional and place-marking signage is limited and inconsistent
- A comprehensive and consistent network of signage can enhance the Emerald Necklace experience and improved wayfinding.



Question and Answers/ Discussion Period

- Finalize the Emerald Necklace Pathway and Crosswalk Treatment Guidelines Report; post on DCR website
- Implement the Guidelines in upcoming projects (Advanced study and design will be required for all future projects)

Next Steps



Additional Information

For more information:

– Web: <http://www.mass.gov/dcr/news/publicmeetings/parkandspast.htm>

If you have comments:

Email: dcr.updates@state.ma.us (subject: Emerald Necklace Guidelines)
Call: 617-626-4974

Write: Department of Conservation and Recreation, Office of Public Outreach,
251 Causeway Street, Suite 600, Boston, MA 02114

Note: Public comments submitted to DCR by email or letter will be posted on
the DCR website in their entirety, and no content, including personal
information, will be redacted.

If you have questions or concerns or would like to be added to an email list to
receive DCR general announcements:

Email: MassParks@state.ma.us
Call: 617-626-4973