

# Riverside Greenway Closing Network Gaps

**Dieckmann Cogill**, Transportation Planning Manager  
**Beth Isler**, Senior Transportation Planner

Jacobs Engineering Group  
Boston, Massachusetts

*Tuesday, July 30, 9:45 - 11:15 a.m*



**Sustainability & Multimodal Planning Workshop** //





THE LAWRENCE & LILLIAN SOLOMON FOUNDATION

*creating connections / restoring a legacy*

# Key Presentation Take-Aways

- Importance of closing key network gaps to:
  - Increase active transportation mode share.
  - Connect communities and Foster health and wellness for livable communities
- Community Partnerships
  - Solomon Foundation
  - Riverside Greenway Working Group
- Alternatives Development and Prioritization Process



# Topics

1. Study Context and Background
2. Outreach Process
3. Alternatives Analysis
4. Assessment and Prioritization
5. Concept Plan Development
6. Cost and Phasing



# STUDY CONTEXT



# Vision & Goals

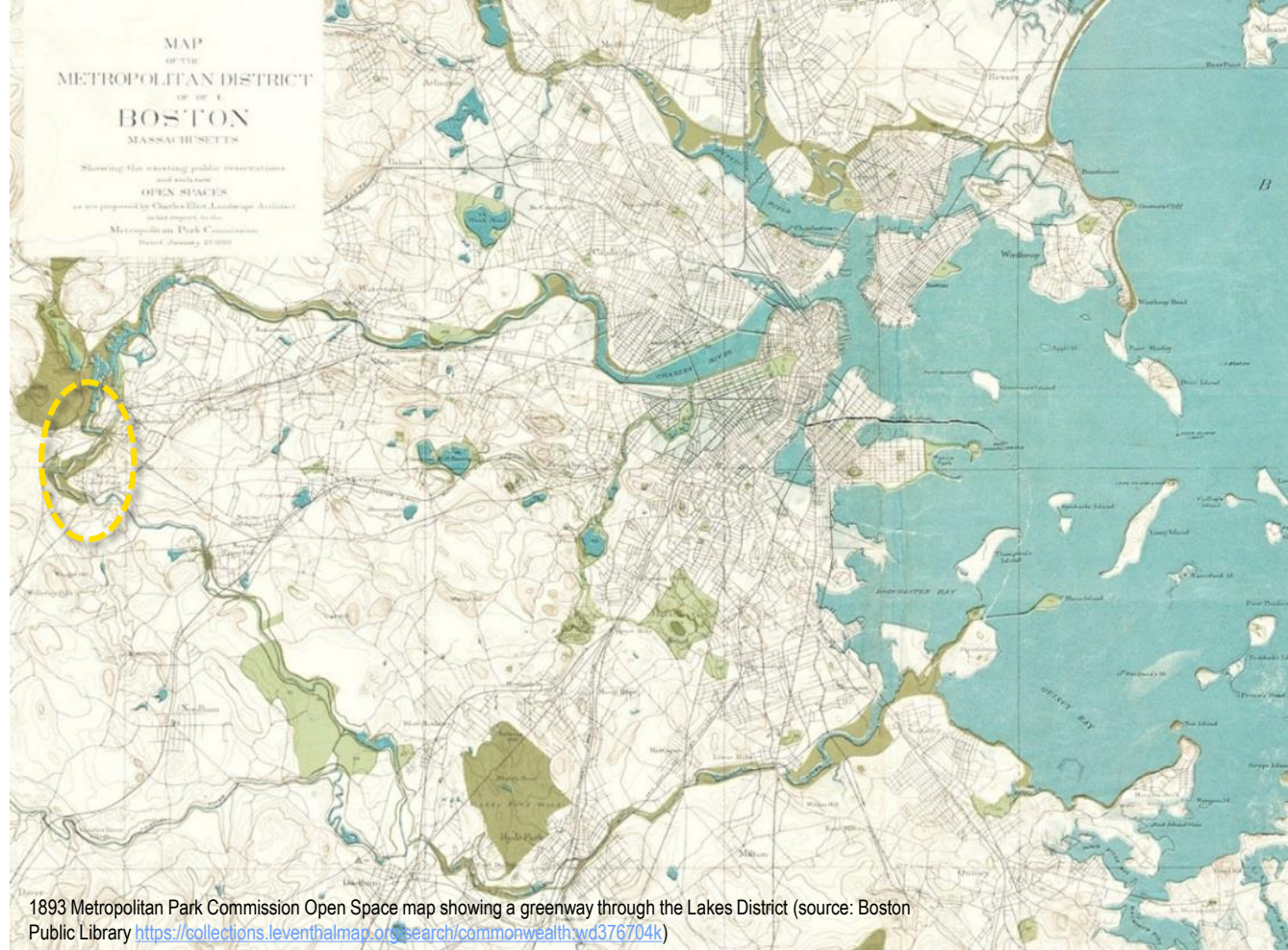
The 1998 Upper Charles River Reservation Master Plan set forth goals that still apply to this study area even 20 years later. The 1998 vision and goals were reviewed and revised to apply specifically to the Riverside Greenway project.

*Vision: Link communities and bring people together to share in a common natural resource.*

## Goals

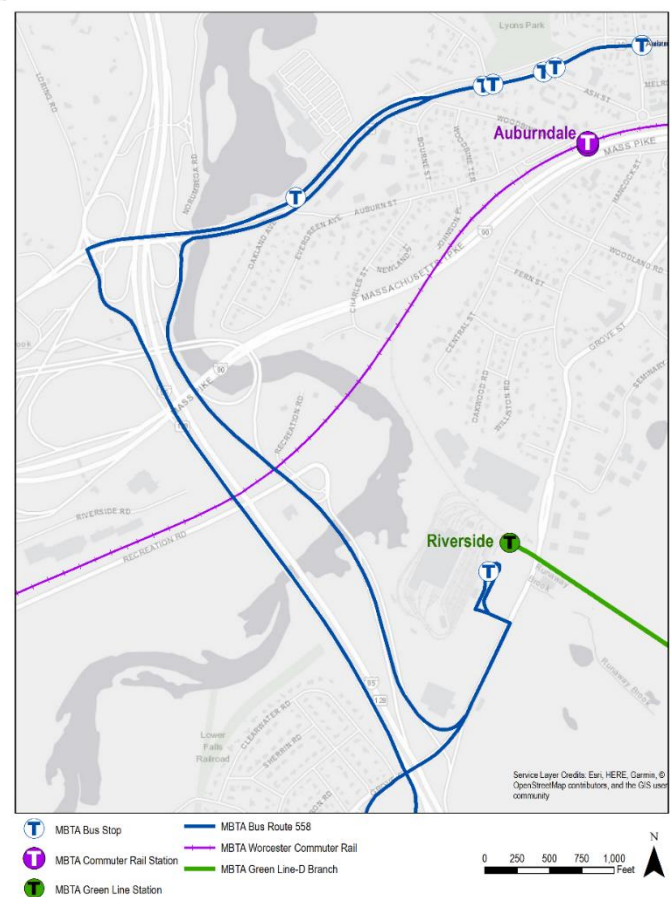
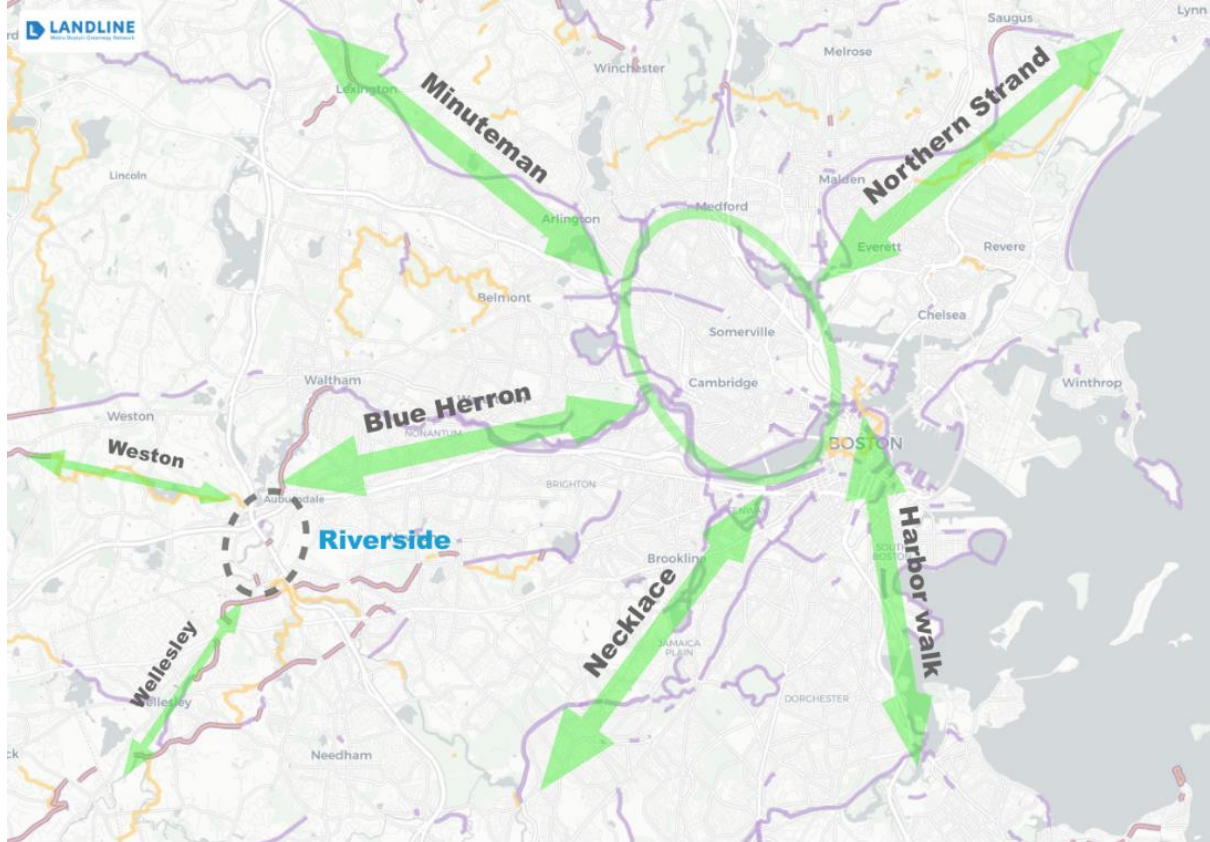
1. Improve access to the river and/or greenway for people walking, biking, or taking part in other activities.
2. Improve circulation and open space connections along the river corridor.
3. Protect and enhance the character of open space and the shoreline along the River.
4. Protect and improve visual/scenic quality.
5. Limit potential conflicts between activities.

# Legacy



1893 Metropolitan Park Commission Open Space map showing a greenway through the Lakes District (source: Boston Public Library <https://collections.leventhalmap.org/search/commonwealth/wd376704k>)

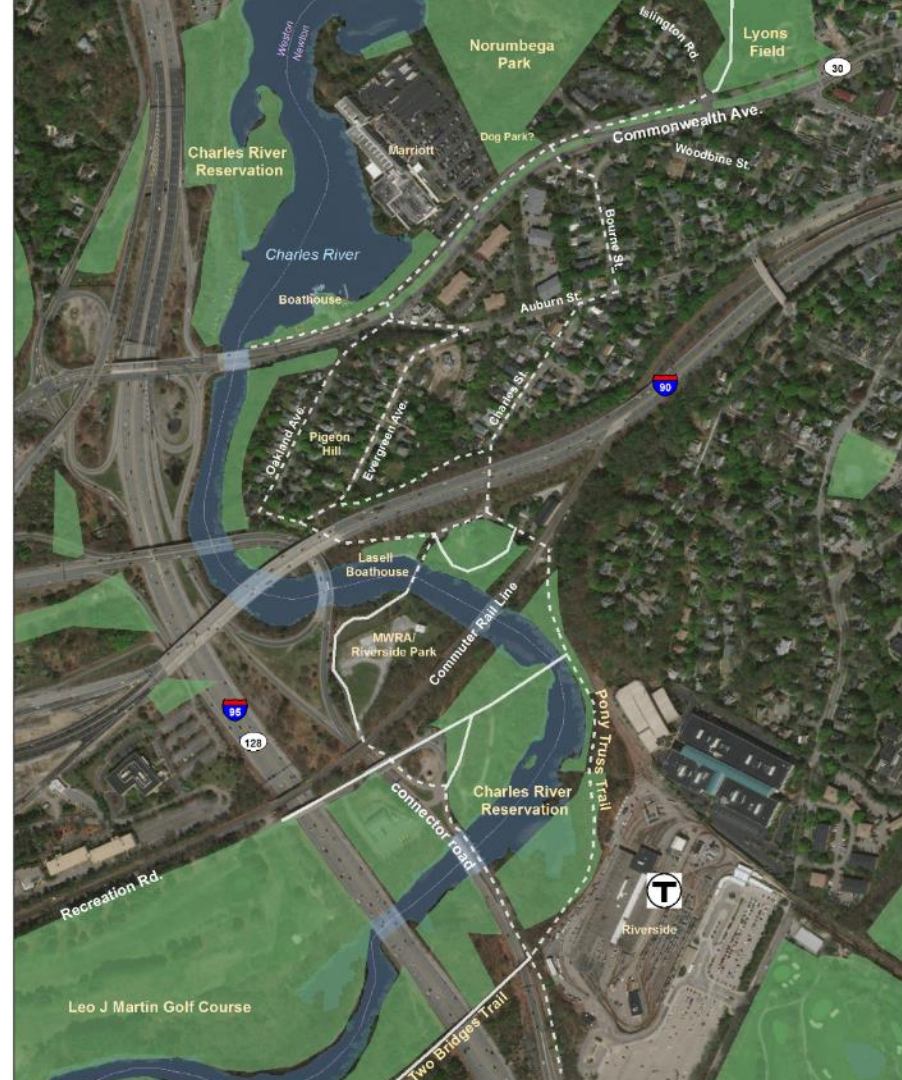




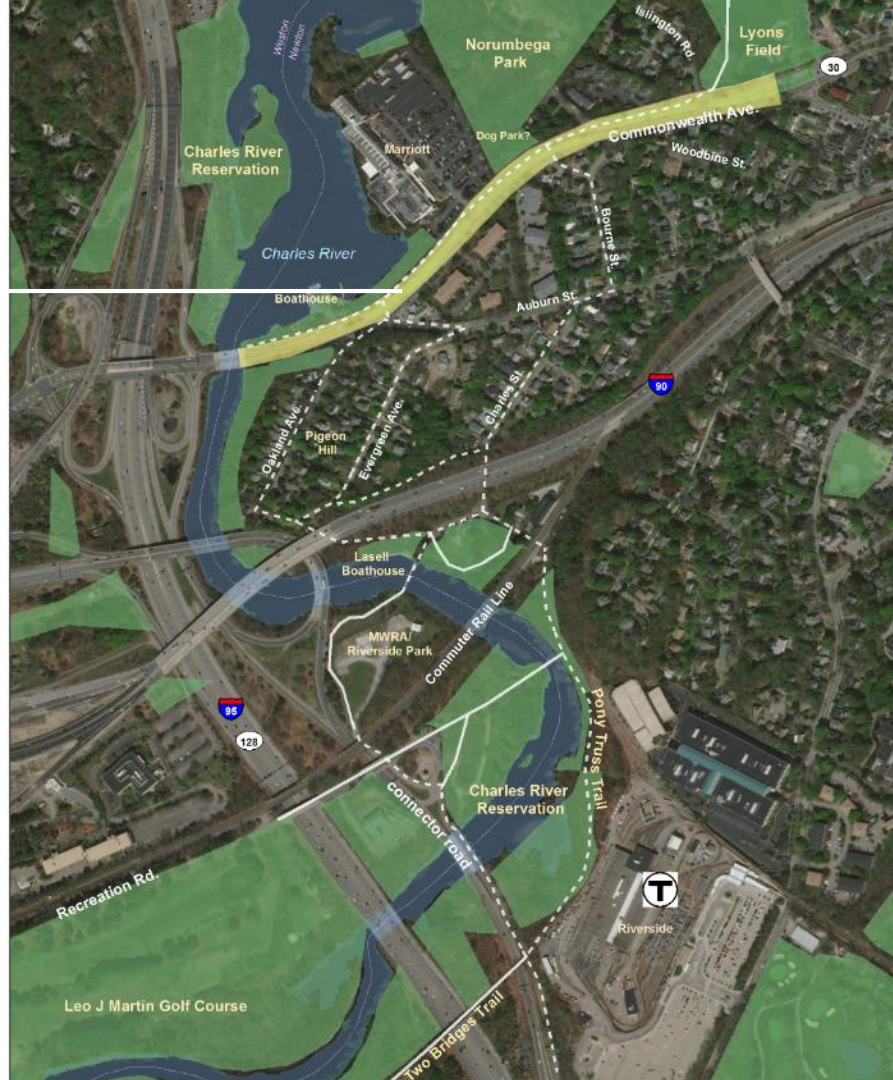
*creating connections / restoring a legacy*



# Site Assets, Barriers and Opportunities

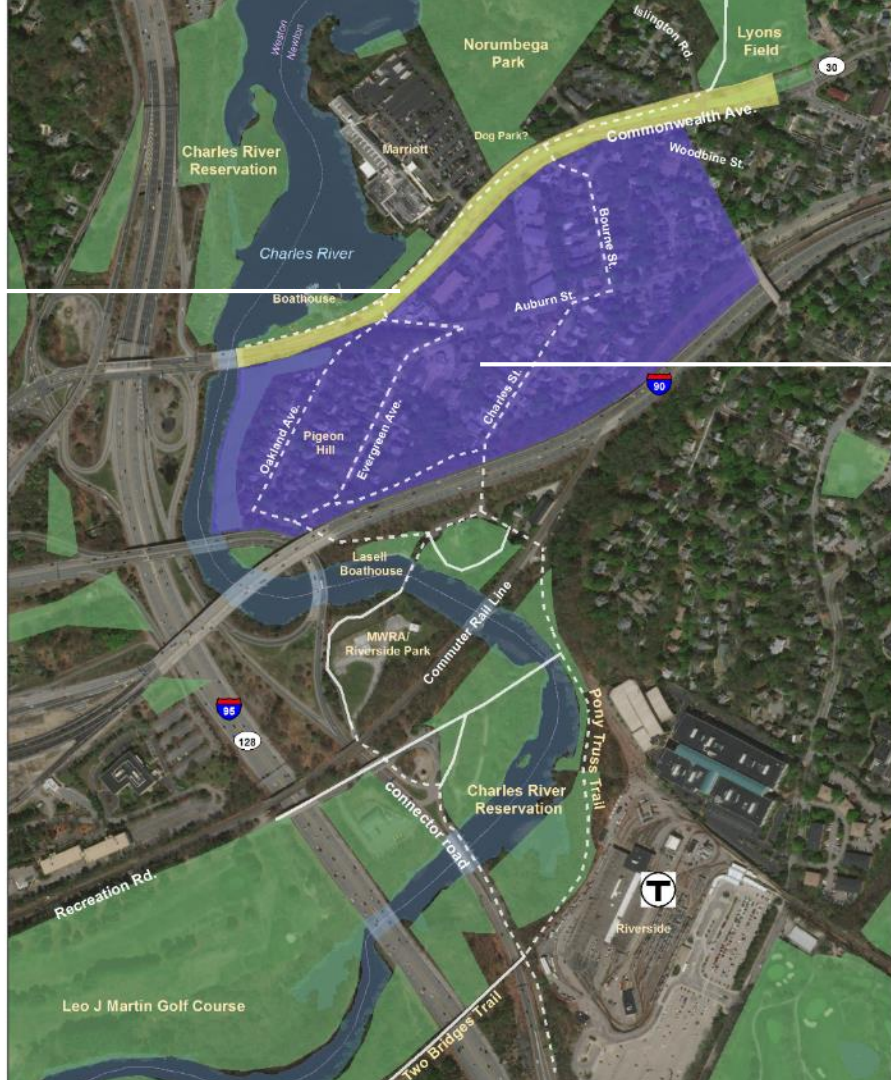


# Commonwealth Avenue



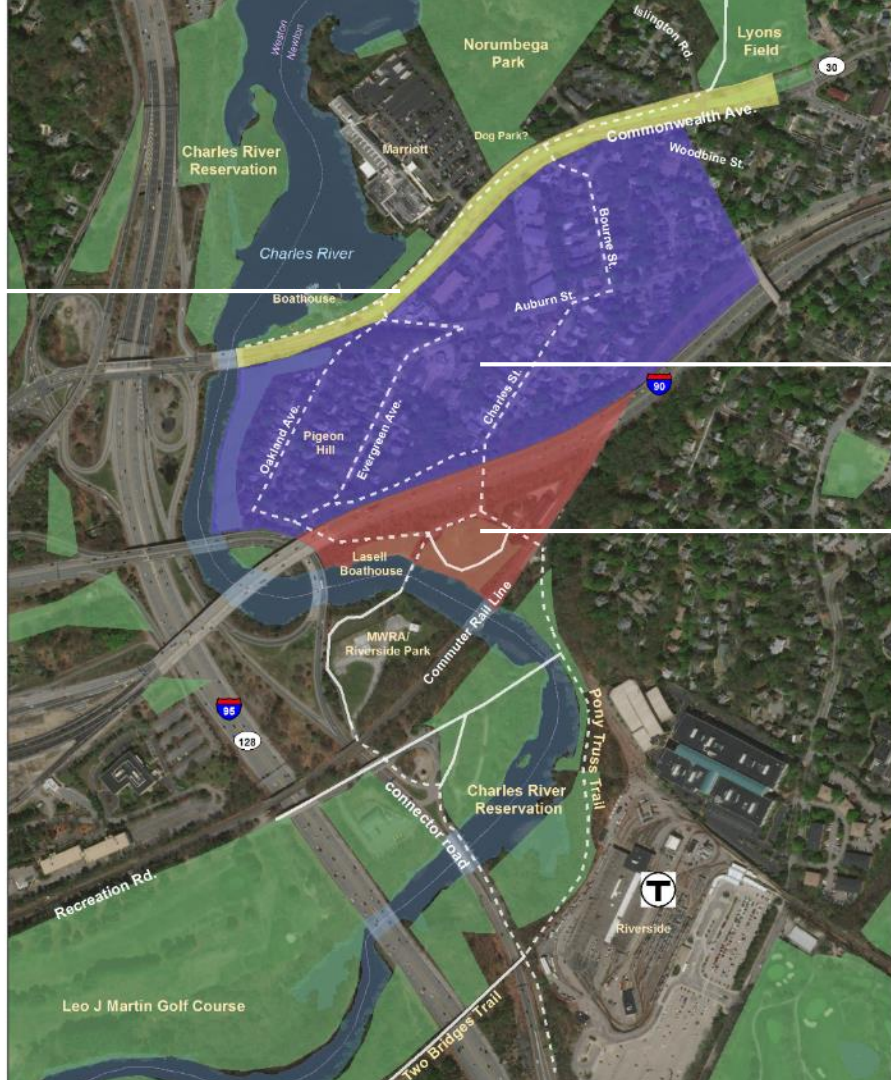


Commonwealth  
Avenue



Pigeon Hill  
Neighborhood

Commonwealth  
Avenue



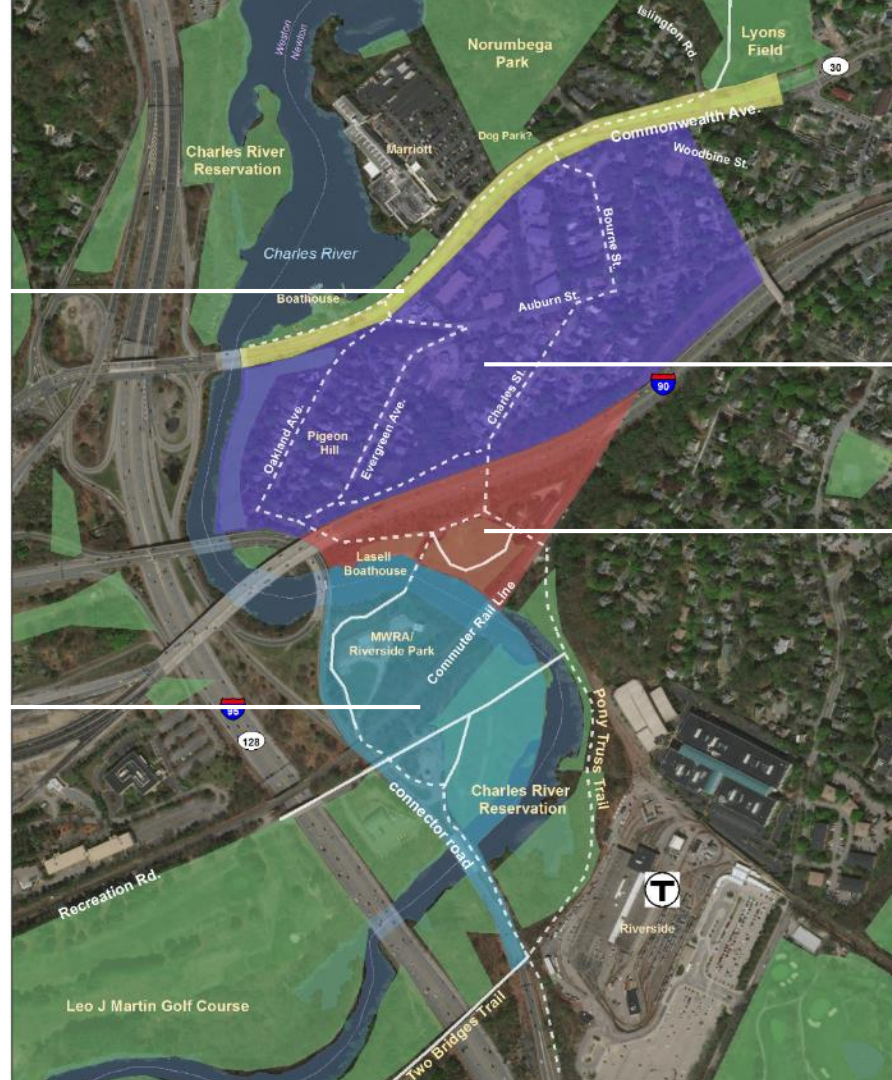
Pigeon Hill  
Neighborhood

MassPike to  
Commuter Rail Line



Commonwealth  
Avenue

MWRA Pump  
Station and  
connector road

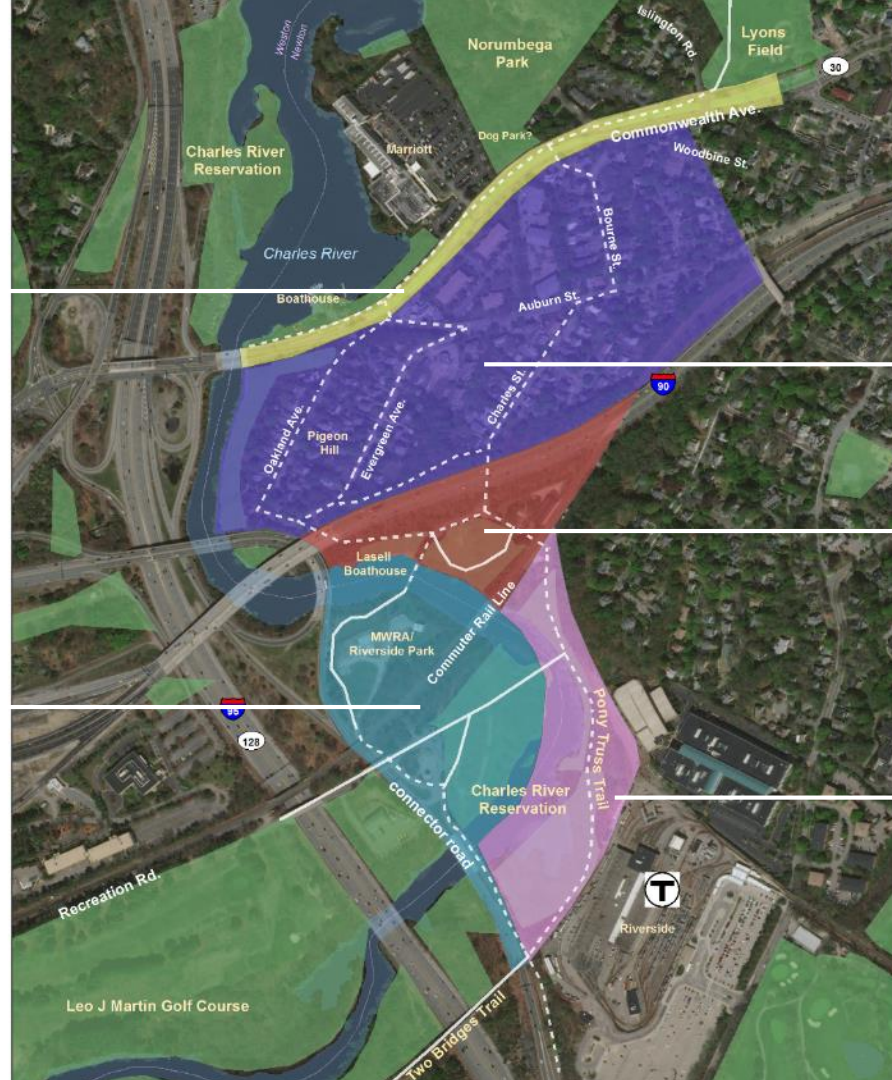


Pigeon Hill  
Neighborhood

MassPike to  
Commuter Rail Line

Commonwealth  
Avenue

MWRA Pump  
Station and  
connector road



Pigeon Hill  
Neighborhood

MassPike to  
Commuter Rail Line

Commuter Rail Line  
to MBTA Riverside  
and Two Bridges  
Trail



# Riverside Access

To Newton Lower  
Falls and Wellesley

To Auburndale  
and Boston

Illustrative plan diagram by Mark Development. Yellow  
lines and text added by Riverside Greenway Working Group  
with support from A Greener Greater Boston - 9/17/18

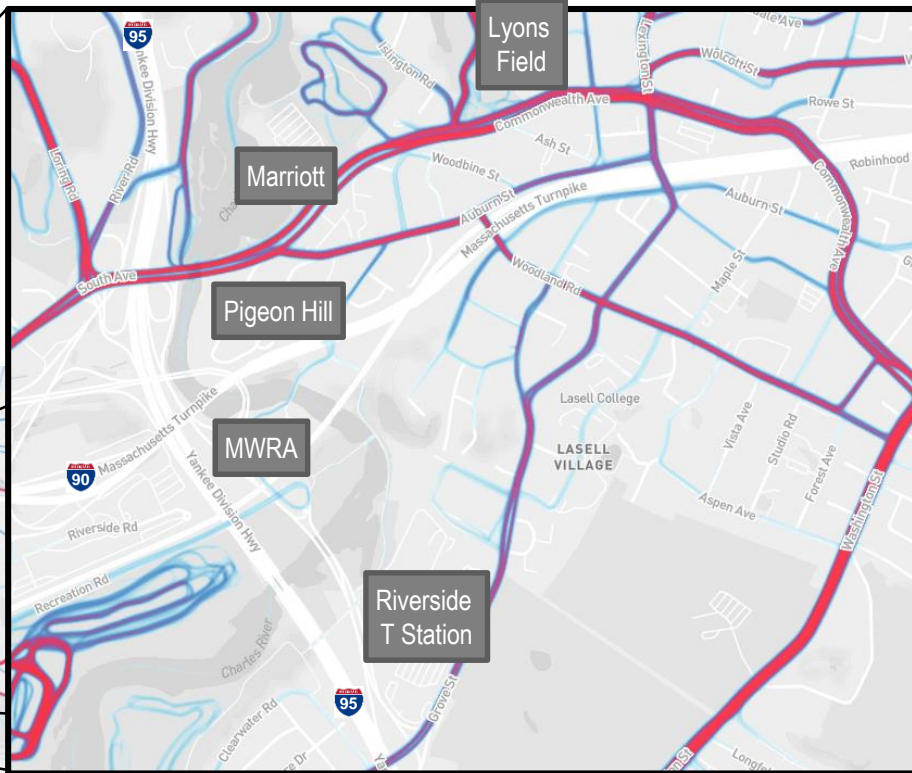
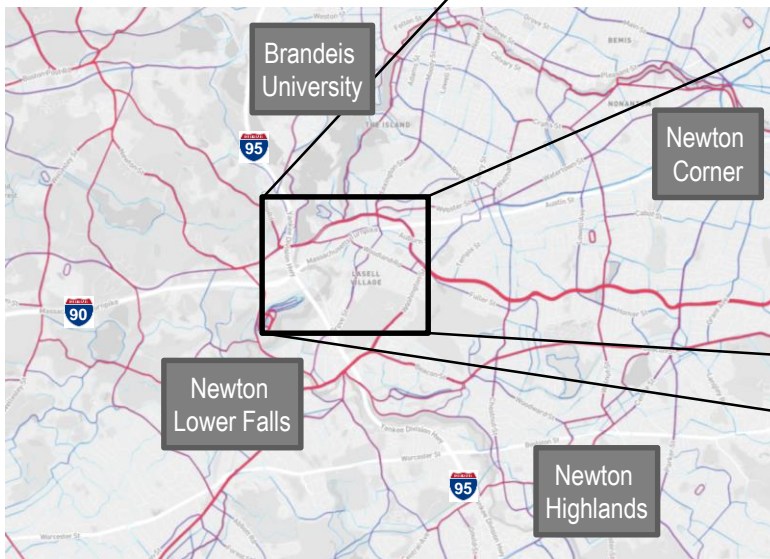


# Origins/Destinations and Potential Users

These maps indicate the origins and destinations that the Greenway would connect, as well as the relative use that the existing corridors currently experience.

Anticipated users include:

- Residents
- Recreation/naturalists
- Marriott employees
- Through commuters
- MBTA commuters accessing Green Line at Riverside or Commuter Rail at Auburndale



Source: STRAVA Global Heat Map



# Riverside Greenway Working Group

## Public Input

Task 1: Document  
Existing Conditions

Task 2: Identify and  
Evaluate Alternatives

Task 3: Finalize  
Conceptual Plan

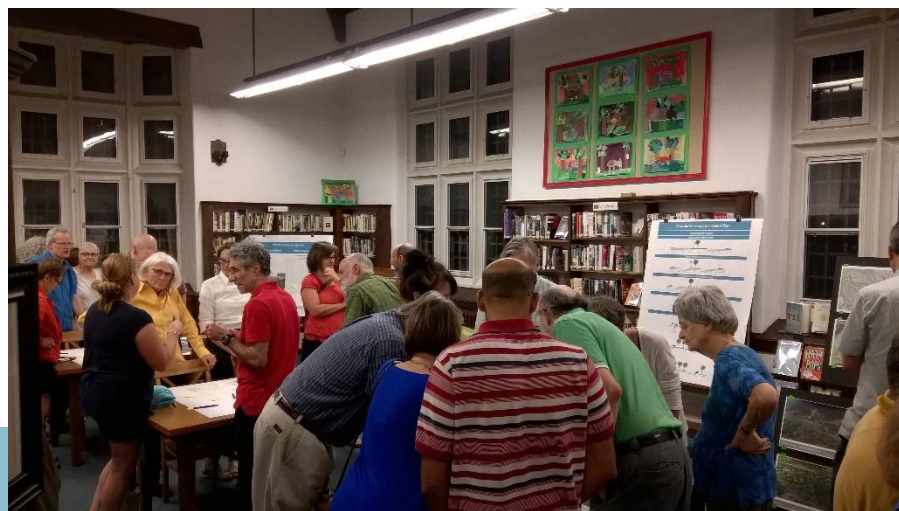
# OUTREACH PROCESS

Riverside Greenway Working Group

Neighborhood Walking Tours

Traditional Public Meetings

Individual Outreach to City, State and DCR



*creating connections / restoring a legacy*

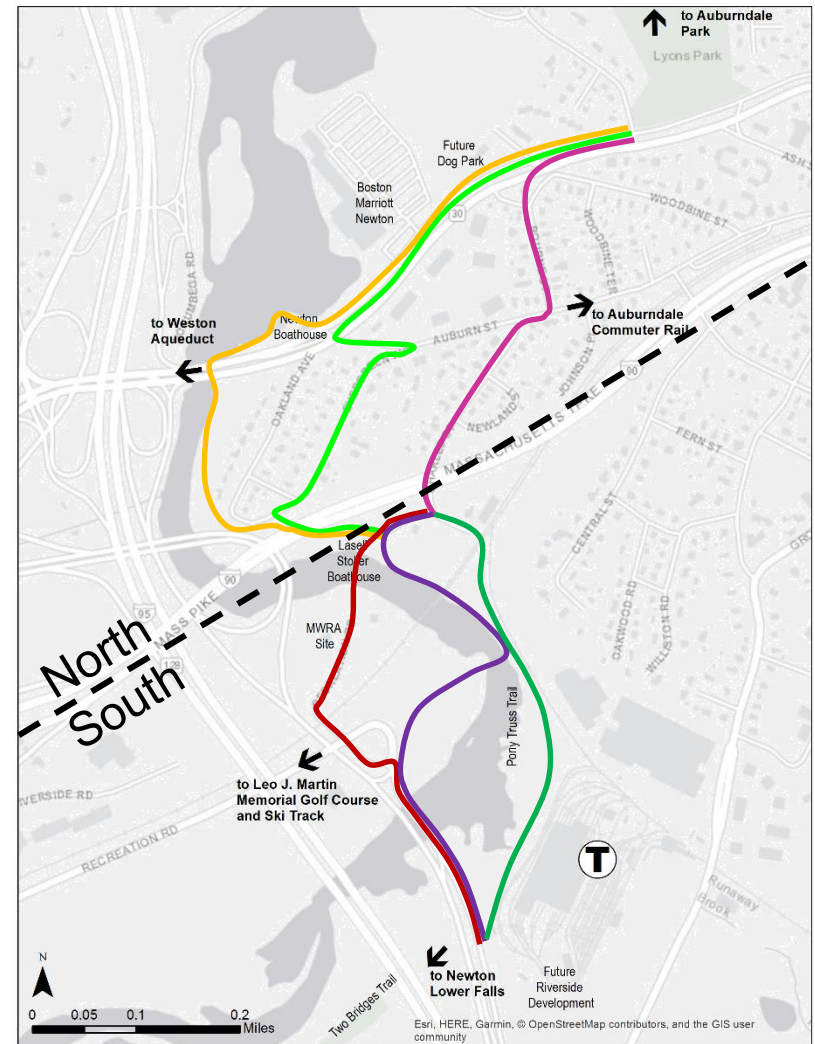
# ALTERNATIVES ANALYSIS



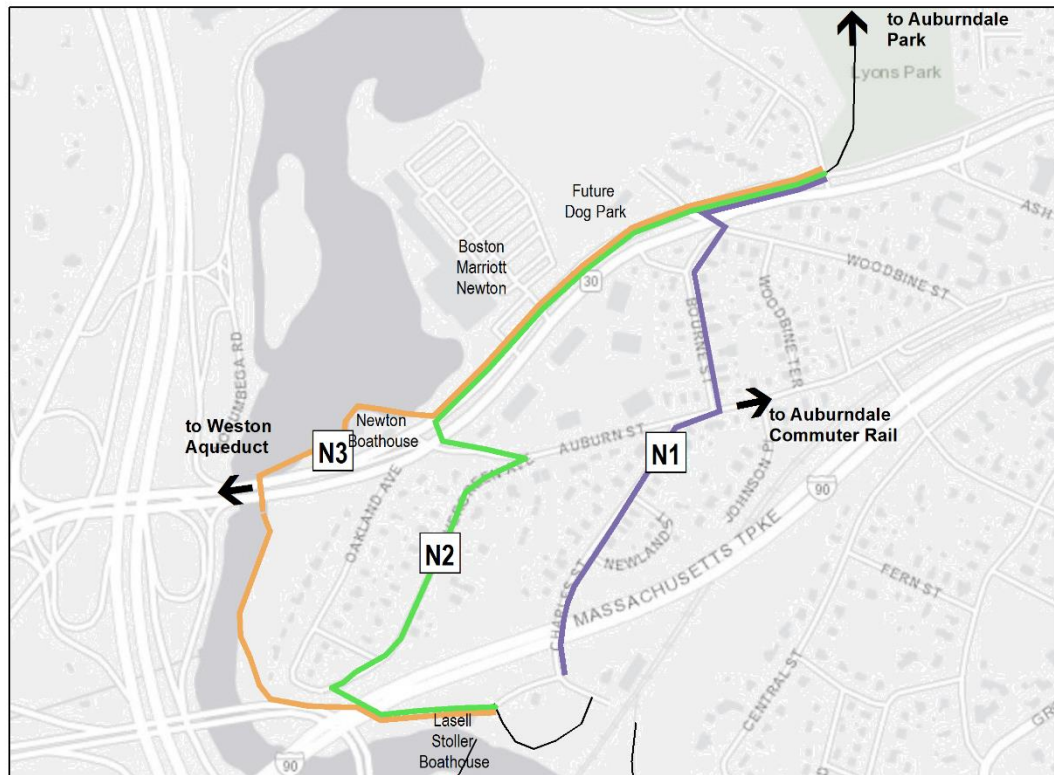
# Alternatives Analysis

## Potential Connections from Lyons Park to Riverside MBTA

*creating connections / restoring a legacy*



# Northern Route Alternatives



## Pros

## Cons

### Route N1

Most direct route for travelers	Not near river; no natural experience
Uses Charles Street to get under I-90, which is easier than trying to reopen underpass off Evergreen/Oakland Ave	Does not improve access to Marriott and bus stops
Simplest in terms of infrastructure (short Comm Ave segment, then bike boulevard)	Does not connect to the Newton Boathouse or future Dog Park

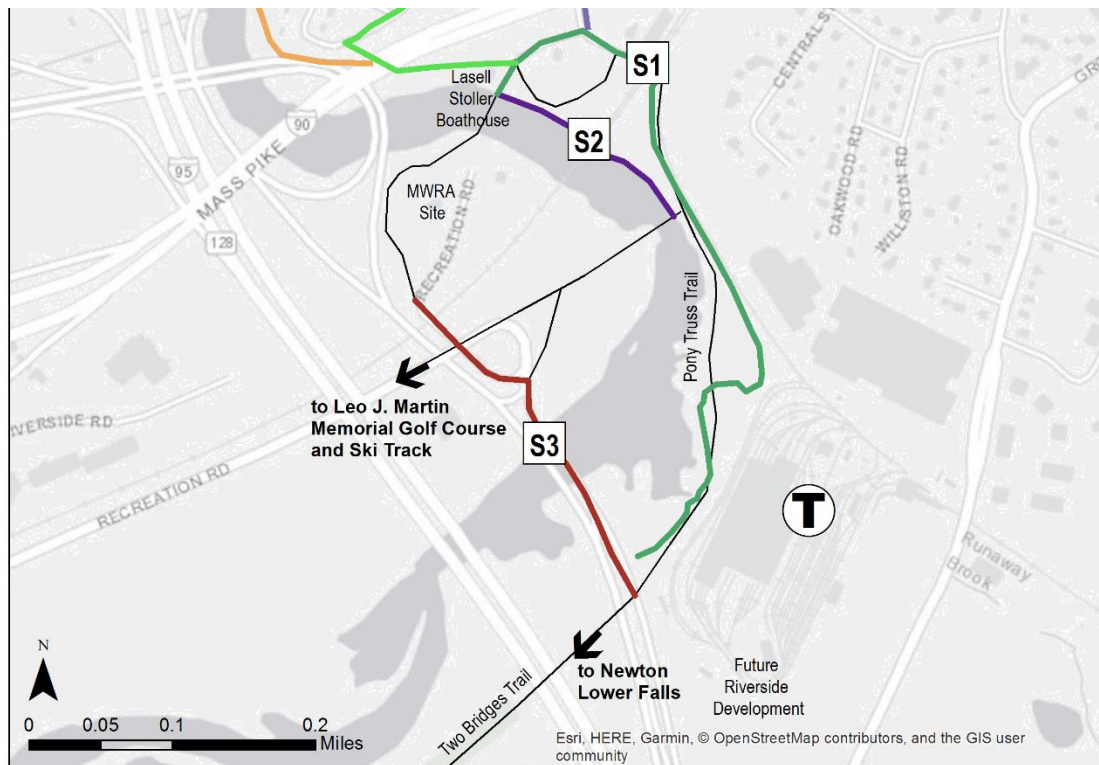
### Route N2

Comm Ave crossing at established signalized intersection	Not near river; no natural experience
Re-envision Comm Ave carriage lanes	More intensive infrastructure needs on Comm Ave
	Requires working with MassDOT to reopen passage under I-90
	Requires new facility along old Riverside Road (a.k.a. Pigeon Hill Road)
	Does not connect to the Newton Boathouse

### Route N3

Safest Comm Ave crossing (grade separated)	More intensive infrastructure needs on Comm Ave
Provides best natural experience along river	Most challenging option in terms of design and cost (?)
	Requires working with MassDOT to reopen passage under I-90
	Requires new facility along old Riverside Road (a.k.a. Pigeon Hill Road)

# Southern Route Alternatives



## Pros

## Cons

### Route S1

Most direct route for travelers

Not near river

Requires MBTA tunnel to reopen

Not ADA accessible

### Route S2

Does not require MBTA tunnel to reopen

Most challenging option in terms of design and cost (?)

Provides best natural experience along river

### Route S3

Potential opportunity with redevelopment of Hotel Indigo site

Little exposure to river, not a very pleasant experience along high speed limited access highway

If includes walking facilities, would not require MBTA tunnel to reopen

# ASSESSMENT AND PRIORITIZATION



# Prioritization Process

Vision: Link communities and bring people together to share in a common natural resource.		Goals (1 = doesn't meet goal, 5 = definitely meets goal)					Safety (1 = not at all, 5 = definitely)	Connectivity (1 = not at all, 5 = definitely)	Overcoming Barriers (1 = not at all, 5 = definitely)	Transportation (1 = not at all, 5 = definitely)	Impacts and Anticipated Permitting Needs (1 = large impacts, 5 = no impacts)				Feasibility and Timeliness (1 = less feasible, 5 = more feasible)			TOTAL  (max possible points = 80)
		Does this connection improve access to the river and/or greenway for people walking, biking, or taking part in other activities?	Does this connection improve circulation and open space connections along the river corridor?	Does this connection protect and enhance the character of open space and the shoreline along the River?	Does this connection protect and improve visual/scenic quality?	Does this design/facility type limit potential conflicts between activities?	Does the facility improve safety for people walking or biking? (compared to parallel alignments)	Does it connect other networks and/or destinations (or is it a road to nowhere)?	Does it overcome one of the study area barriers (such as Comm Ave, I-90, MBTA tracks)?	Does it improve connectivity to transit?	Natural Resource Impacts	Cultural Resource Impacts	Built Environment Impacts	Wetland/Water Resource Impacts	Order of Magnitude Cost (correlates to Design Challenges)	Timeframe	Political Viability	
Commonwealth Avenue																		
Cross Section 1: vehicles allowed on carriage road for entire length of study area	Includes road diet and intersection improvements	3	3	3	3	2	4	5	4	4	5	5	3	5	3	2	4	57
Cross Section 2: no vehicles on carriage road between Woodbine Street and Auburn Street		5	5	4	4	5	5	5	4	4	5	5	3	5	3	2	4	69
Auburn Street																		
Cross Section 1: Conventional Bike Lanes	Includes intersection improvements	3	2	1	2	5	4	3	2	3	5	5	4	5	5	5	3	57
Cross Section 2: Two-way Separated Bike Lane		4	2	1	2	5	5	3	2	3	5	5	2	5	3	2	3	52
Cross Section 3: Shared Use Path		4	2	1	2	3	5	3	2	3	5	5	2	5	3	2	4	52
Neighborhood Streets																		
Bike Boulevards on Neighborhood Streets		4	4	2	2	4	3	3	3	3	5	5	5	5	5	5	5	63
Off-road Segments																		
West Pigeon Hill Footpath (from Comm Ave to I-90 Underpass)		4	3	3	3	5	4	3	2	2	3	5	5	4	3	2	3	54
Pigeon Hill Trail (shared use path)		5	5	3	4	3	4	3	2	2	4	5	5	4	4	3	4	60
Depot tunnel to existing Pony Truss/new footbridge (footpath exists; scoring reflects potential bike/walk trail)		5	5	4	4	3	4	4	2	4	3	5	5	4	4	4	5	65
Key Locations																		
I-90 Underpass		5	5	4	4	4	4	4	5	2	5	5	5	5	3	2	4	67
Charles Street Tunnel		4	4	4	4	4	4	4	5	3	5	5	4	5	3	3	4	65
Depot Tunnel		5	5	4	5	4	5	5	5	5	5	5	5	5	3	3	4	73
*Note that this plan offers a vision for Recreation Road Extension but does not evaluate it because it is under consideration by other parties.																		

\*Note that this plan offers a vision for Recreation Road Extension but does not evaluate it because it is under consideration by other parties.

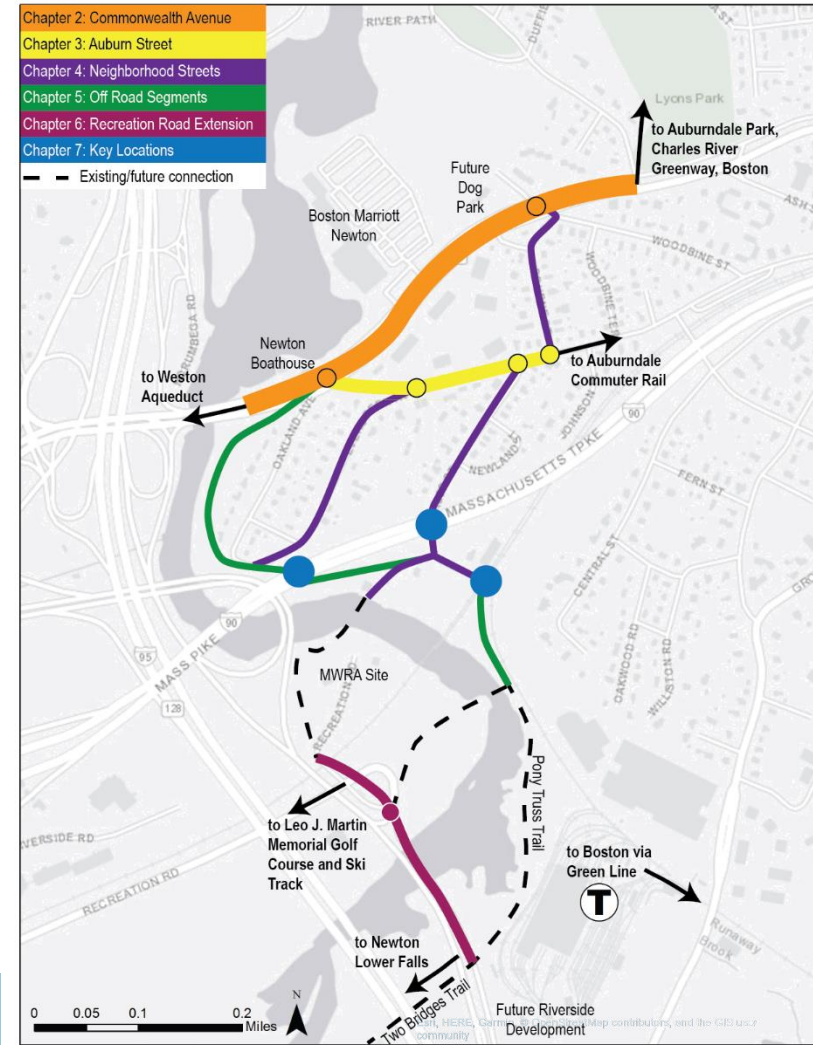
creating connections / restoring a legacy

# CONCEPT PLAN DEVELOPMENT

# Concept Development Plan

1. Commonwealth Ave
2. Auburn Street
3. Off Road Segments
4. Recreation Road
5. Key Locations

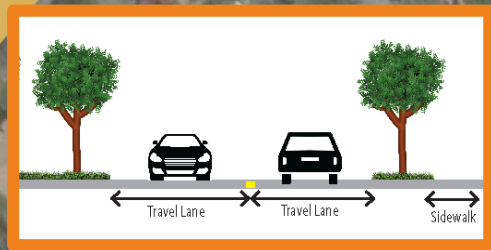
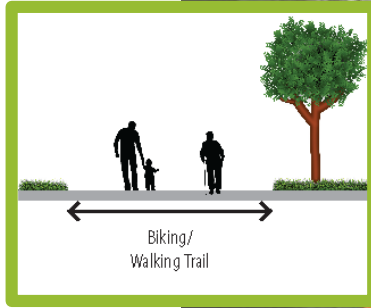
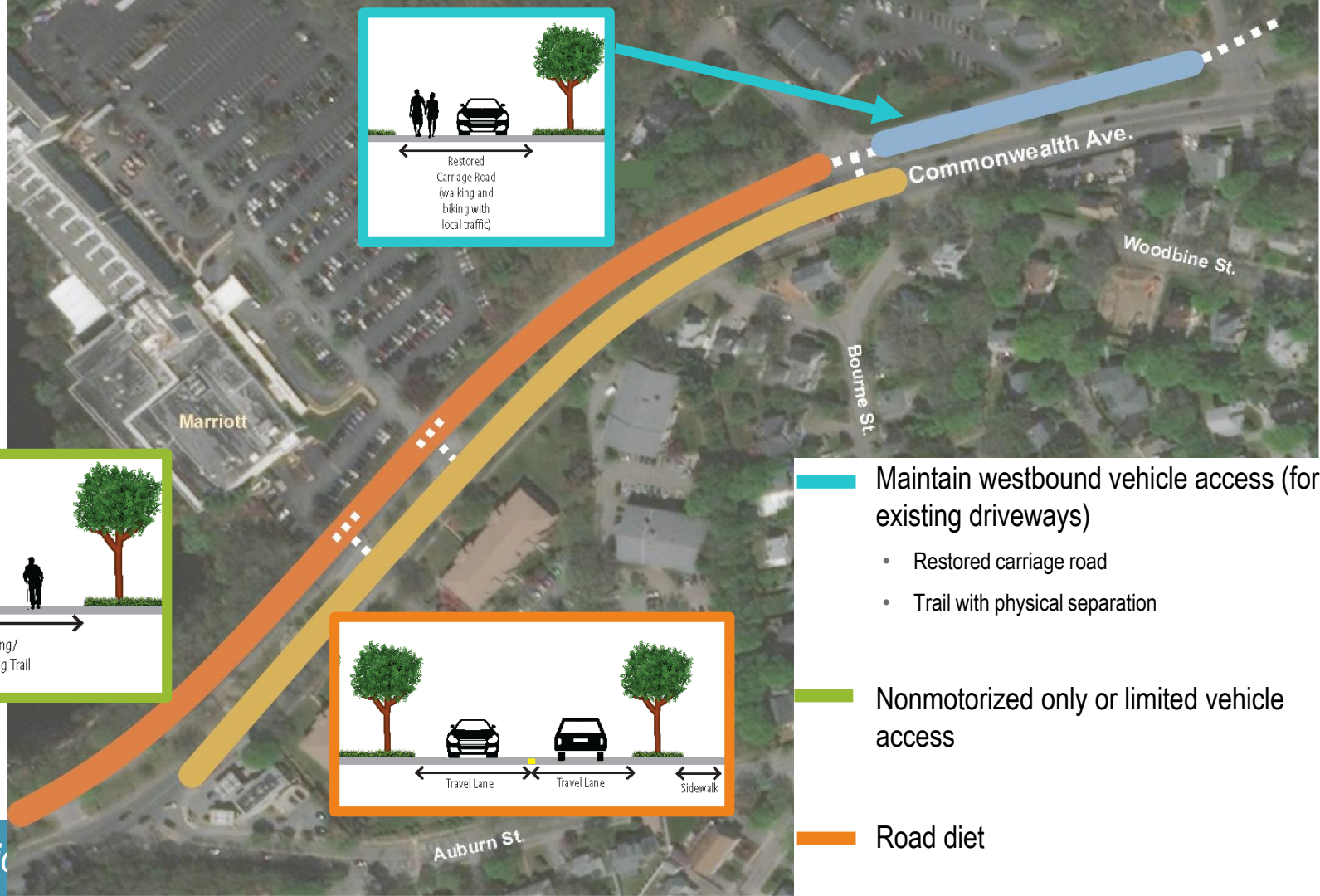
*creating connections / restoring a legacy*








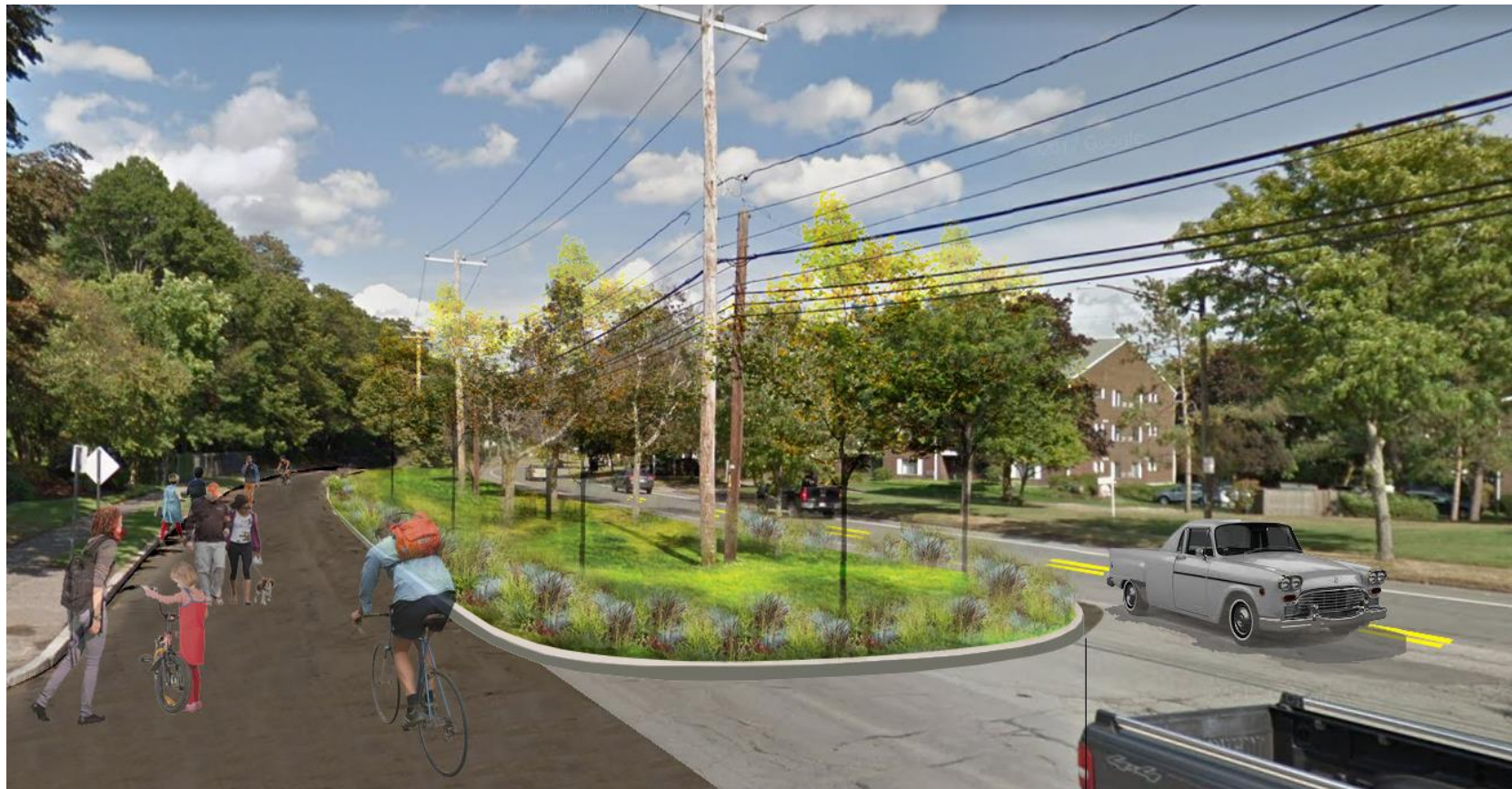


# Commonwealth Avenue Opportunities



-  Maintain westbound vehicle access (for existing driveways)
  - Restored carriage road
  - Trail with physical separation
-  Nonmotorized only or limited vehicle access
-  Road diet

# Commonwealth Avenue: Opportunities



14' Wide Biking / Walking Trail

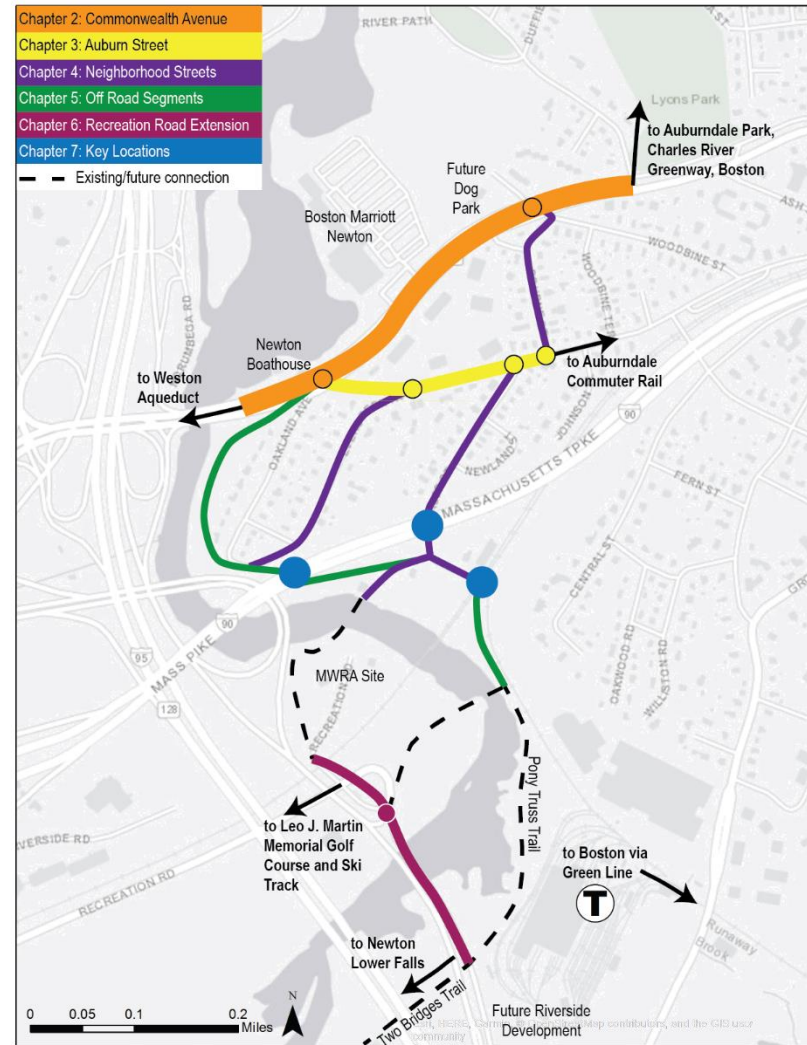
Median: Variable Width, (~45')

11' Travel Lanes, 2' Buffer, 6' Sidewalk



# Key Locations

- A. I-90 underpass
- B. Charles Street Tunnel
- C. Historic Depot Tunnel
- D. Recommendations and Next Steps





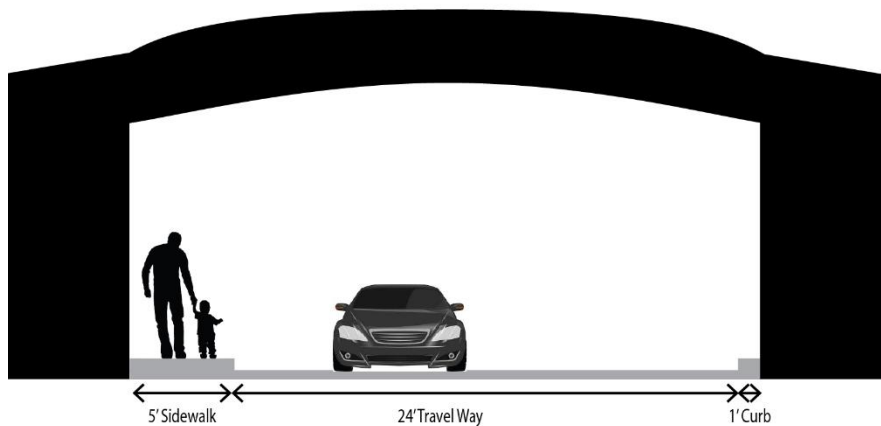
# 1. The I-90 Underpass



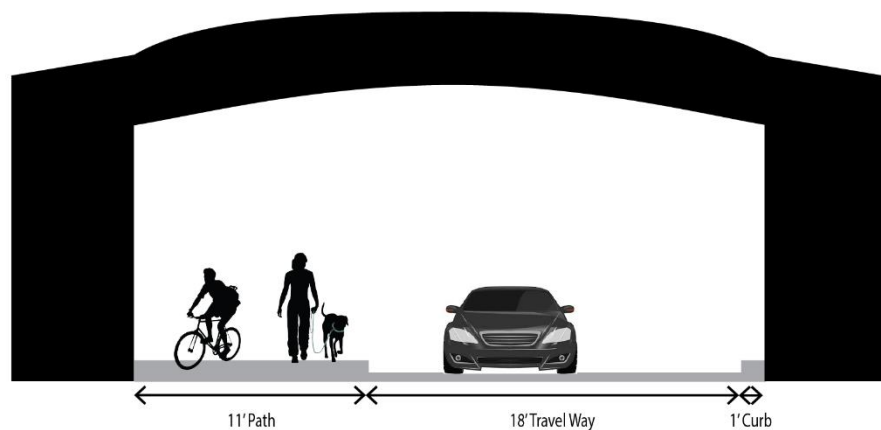
*creating connections / restoring a legacy*

## 2. The Charles Street Tunnel

Existing  
30' wall to wall



Proposed  
30' wall to wall



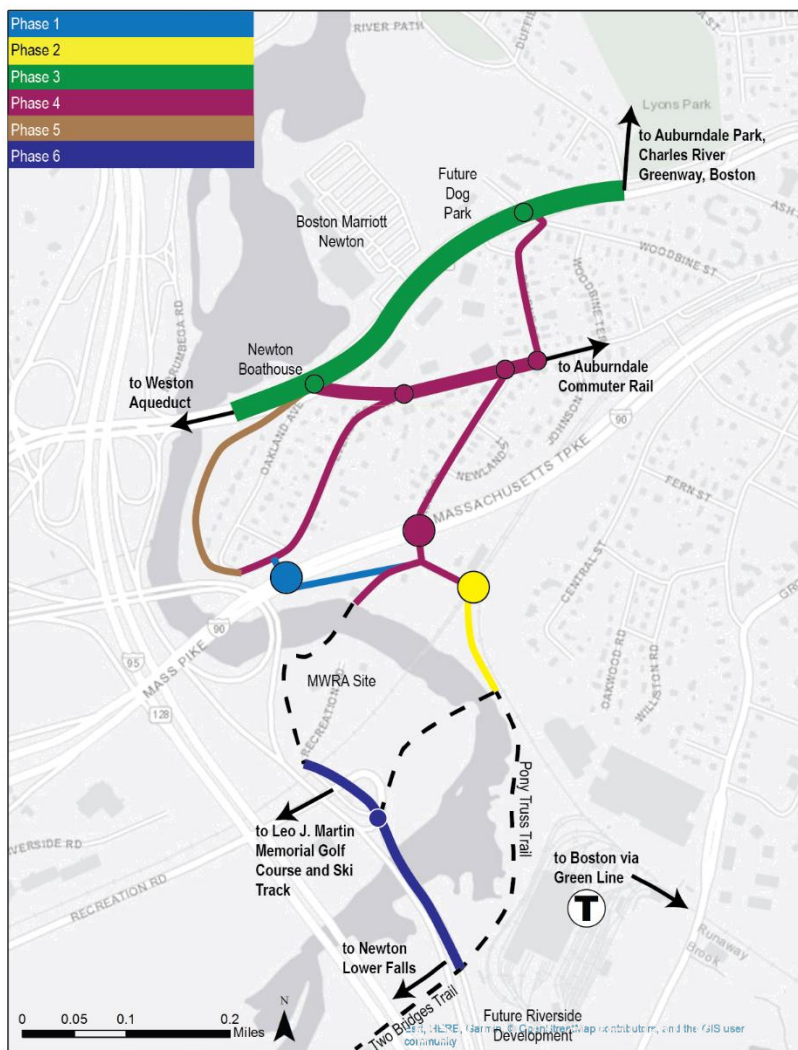


### 3. Historic Depot Tunnel





# COST ESTIMATES AND PHASING



	<i>Vision: Link communities and bring people together to share in a common natural resource.</i>	<b>TOTAL</b> (max possible points = 80)	<b>Estimated Cost</b>
Key Locations	Depot Tunnel	73	<\$1.5 M
Commonwealth Avenue	Cross Section 2: no vehicles on carriage road between Woodbine Street and Auburn Street	69	<\$2M
	Key Locations	I-90 Underpass	67
Off-road Segments	Depot tunnel to existing Pony Truss/new footbridge (footpath exists; scoring reflects potential bike/walk trail)	65	<\$50k
Key Locations	Charles Street Tunnel	65	<\$50k
Neighborhood Streets	Bike Boulevards on Neighborhood Streets	63	<\$100k
Off-road Segments	Pigeon Hill Trail (shared use path)	60	<\$350k
Auburn Street	Cross Section 1: Conventional Bike Lanes	57	<\$100k
Off-road Segments	West Pigeon Hill Footpath (from Comm Ave to I-90 Underpass)	54	<\$200k
Rec Road	Rec Road		

## Current Status

**Mass Trails Funding has been awarded for I-90 Underpass and Pigeon Hill Road. Design underway.**



# Thank you



THE LAWRENCE & LILLIAN SOLOMON FOUNDATION

**JACOBS**<sup>®</sup>

[www.jacobs.com](http://www.jacobs.com) | worldwide