

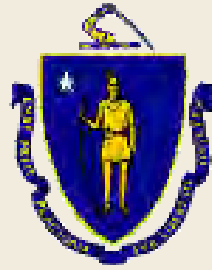


Mount Auburn Street Corridor Study



December 13, 2017
Russell Youth
Community Center





Commonwealth of Massachusetts

Governor
Charles D. Baker

Lieutenant Governor
Karyn E. Polito

Energy and Environmental Secretary
Matthew A. Beaton

Department of Conservation and Recreation Commissioner
Leo P. Roy



DCR Mission Statement

To protect, promote, and enhance our
commonwealth of natural, cultural,
and recreational resources
for the well-being of all.

Agenda

- Welcome Back!
- Quick Process Review
- Short-Term Project (2018)
 - Pedestrian, Bicycle, Bus, and Traffic Performance
- Next Steps
 - Construction
 - Long-Term Design (5-10 years)
 - Draft Final Report



Quick Process Review

Draft Report – Mount Auburn Corridor Study



Mount Auburn Street
Corridor Study
Draft Report | October 2017

Table of Contents

Background.....	1
History.....	1
Today.....	2
Building the Stakeholder Group.....	6
Existing Conditions.....	7
Pedestrian and ADA Conditions.....	8
Bicycle Conditions.....	13
Transit Conditions.....	15
Motorist Conditions.....	20
Defining the Problems and Establishing Shared Goals.....	23
Walk Through.....	23
First Public Meeting.....	24
The Shared Goals.....	25
Design Development and Concepts.....	27
Design Alternatives and Discussions.....	27
Long-term Design Concept.....	33
Key Issues Explored.....	34
Pedestrian and ADA Improvements.....	36
Parkways.....	39
Public Route Improvements.....	39
Bicycle Improvements.....	41
Transit Improvements.....	42
Traffic Safety and Traffic Calming Improvements.....	43
Ongoing Discussion Topics.....	46
Short-Term Design Concept.....	51

List of Figures

Figure 1. Local Area Projects.....	4
Figure 2. Stakeholder Group Members.....	6
Figure 3. Stakeholder Group Membership Distribution.....	8
Figure 4. Project Limits.....	7
Figure 5. Curb Use and Edge Character.....	10
Figure 6. Pedestrian and ADA Conditions.....	11
Figure 7. Average Pedestrian Delay Times.....	12
Figure 8. Bicycle Level of Comfort.....	14
Figure 9. Average a.m. Peak Hour Bus Delay.....	16
Figure 10. Average p.m. Peak Hour Bus Delay.....	17
Figure 11. Daily Bus Passenger Boardings by Stop.....	18
Figure 12. Daily Bus Passenger Alightings by Stop.....	19
Figure 13. Crash Severity.....	20
Figure 14. Crash Type Comparison.....	21
Figure 15. Average Daily Traffic (ADT) Volumes and a.m. and p.m. Peak Hour Traffic Queues.....	22
Figure 16. Fresh Pond Parkway, Huron Avenue to Mount Auburn Street.....	47
Figure 17. Mount Auburn Street Corridor.....	48
Figure 18. Gerry's Landing, Memorial Drive, and Greenough Boulevard.....	50
Figure 19. Fresh Pond Parkway at Mount Auburn Street and Gerry's Landing.....	62

Project Area – Mount Auburn Corridor Study



Project Area – DCR Short-Term Design



Project Area – DCR Long-Term Design



Community Engagement Overview

- Public Meetings: allow the public at large an opportunity to voice their ideas and concerns as the study progresses
- Stakeholder Group: meeting monthly to advise DCR on neighborhood's goals and desires.
- Wikimap: a means for feedback from folks that can't attend meetings
- DCR balances your input with:
 - Environmental Review
 - Historic status
 - Funding Requirements
 - Regional Needs



April: Review of Previous Planning Work

DCR Parkway Study
(Now)

DCR Charles River
Connectivity Study
(2014)

DCR Lowell
Memorial Park
Cultural Landscape
Report (2014)

MBTA Focus 40
(Now)

MBTA Key Bus Route
Improvement Program
(2013)

Envision Cambridge
(Now)

Cambridge Transit
Strategic Plan
(Interim 2014 &
Now)

Cambridge Bicycle
Plan (2015)

Cambridge
Riverfront Plan
(2011)

Cambridge Pedestrian
Plan (2000)

West Cambridge
Neighborhood Study
(2007)

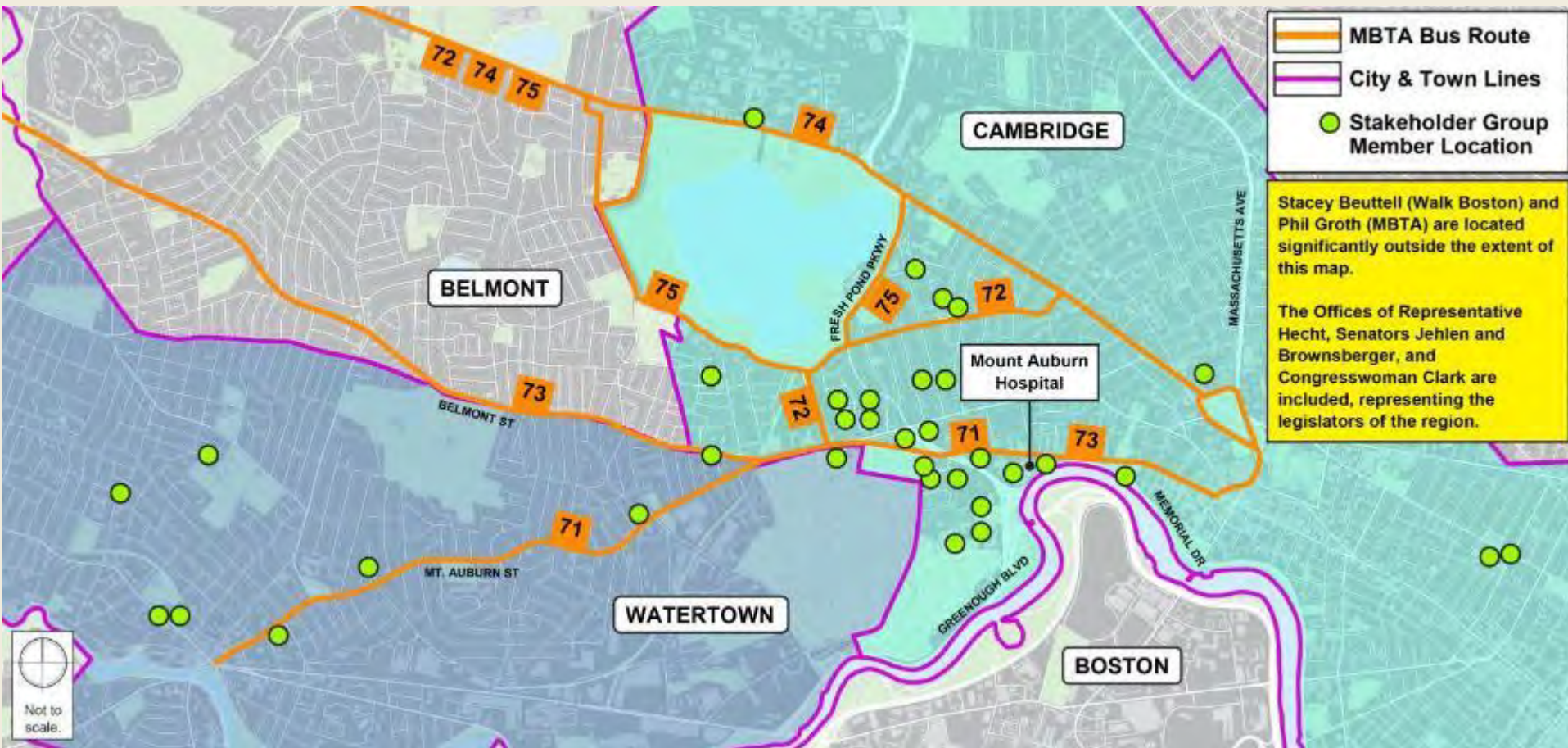
Strawberry Hill
Neighborhood Plan
(2007)

Watertown
Comprehensive Plan
(2013)

Watertown Bicycle
Transportation Plan
(2003)



April- May: Stakeholder Group Forms





"To ensure that our Stakeholder Group is truly representative of the community, we would be pleased if you would share with us one group or individual that you believe it would be wise to include in this body" – Stakeholder Group Invitation (April 4, 2016)

Name	Affiliation	Name	Affiliation
Joe Barr	City of Cambridge	Patricia Jehlen	Senator
Joanne Bauer	Coolidge Hill	Angeline Kounelis	Watertown Town Council
Stacey Beuttell	Walk Boston	Joe Levendusky	Watertown Public Transit Taskforce
Alexis Belakovskiy	457 Mount Auburn Resident	Melissa McGaughey	Larchwood
Elizabeth Bierer	Cambridge Plant and Garden Club	Maureen Nunez	Shady Hill School
Wade Blackman	Office of Congresswoman Clark	Kelsey Perkins	Office of Congresswoman Clark
Doug Brown	Watertown Greenway Project, Fresh Pond Residents Alliance	Mark Peterson	Watertown Public Transit Taskforce
William Brownsberger	Senator	Helene Quinn	The Cambridge Homes
Jane Carroll	Mount Auburn Cemetery	Katherine Rafferty	Mount Auburn Hospital
Nina Coslov	Larchwood	Megan Ramey	Livable Streets Alliance, Cambridge Bicycle Committee
Ethan Davis	Watertown Bike & Ped Committee	Ron Reppucci	Tufts Health Plan
Bill Deignan	City of Cambridge	Gabriella Romanow	Charles River Conservancy
Jan Devereux	Cambridge City Council	Ann Roosevelt	Larchwood
Aaron Dushku	Watertown Town Council	Amory Rowe Salem	Shady Hill Parents' Council
Xander Dyer	Coolidge Hill	Gideon Schreiber	Town of Watertown
Jill Forney	Coolidge Hill	Matthew Shuman	Town of Watertown
Arcady Goldmints-Orlov	Transit Matters	Martha Stearns	Cambridge Plant and Garden Club
Janice Gould	BB&N Parents Committee	William Stone	The Cambridge Homes
Phil Groth	MBTA	Arthur Strang	Cambridge Transit Committee
Matthew Hartman	Office of Sen. Jehlen	Bill Warner	Larchwood
Jonathan Hecht	Representative	Tim Whyte	Shady Hill School









May - June: Wikimap Open (*May 5 through June 23*)


 **MOUNT AUBURN STREET
TRANSPORTATION STUDY** 

Where would you improve transportation on Mount Auburn Street?

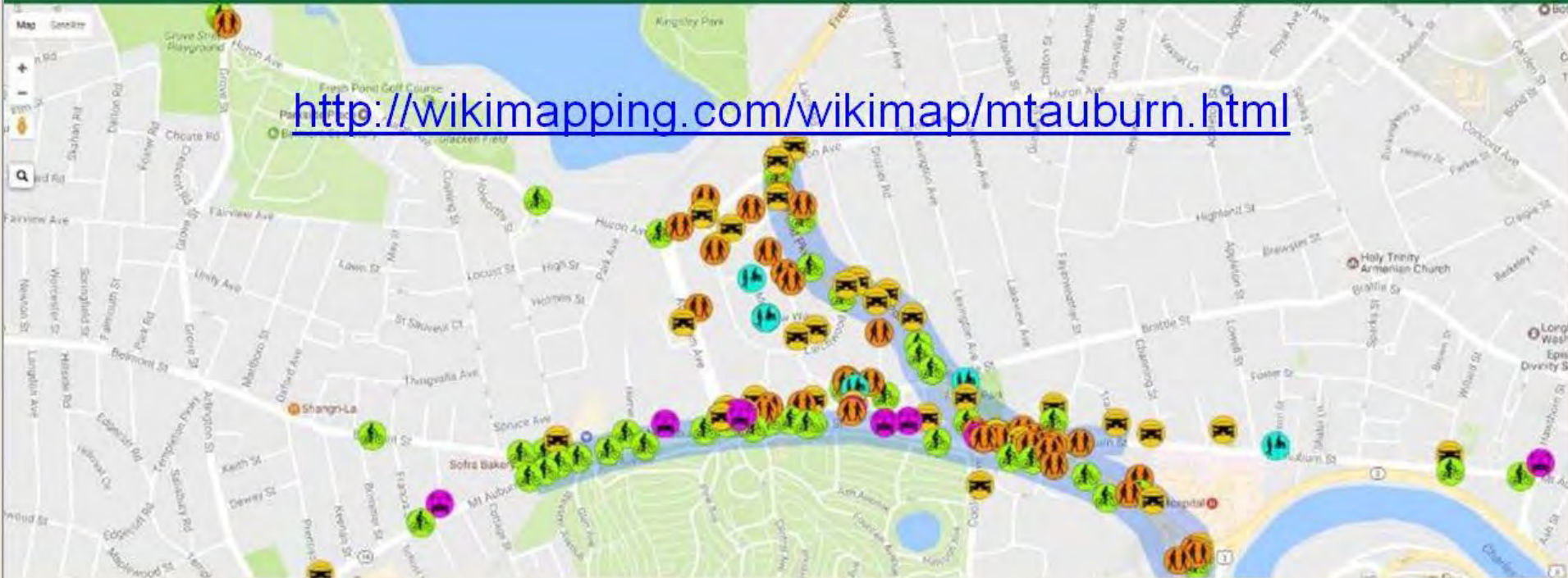
Click **ADD POINTS** to add to the map.

ADD AS MANY POINTS AS YOU WOULD LIKE

 ADA  Bicyclist  Driver  Local Business Owner  Pedestrian  Transit Rider

About & Help - **ADD POINTS** Anonymous 

<http://wikimapping.com/wikimap/mtauburn.html>



Community Engagement Overview

April 14, 2016	Site Walk
May 5, 2016	Stakeholder Group
June 1, 2016	Public
June 23, 2016	Stakeholder Group
July 21, 2016	Stakeholder Group
August 18, 2016	Stakeholder Group
September 15, 2016	Stakeholder Group
November 1, 2016	Stakeholder Group
November 14, 2016	Public
January 10, 2017	Stakeholder Group
January 18, 2017	Site Walk Reunion
January 31, 2017	Public

- Public Meetings Advertised 2 weeks prior to each public meeting:
 - Watertown TAB
 - Belmont Citizen-Herald
 - Cambridge Chronicle
- Emails and Flyers went to stakeholders to let their communities know about the public meetings.

Shared Goals (Approved by Stakeholders June 23)

1. Calm traffic, provide clarity, reduce crashes and severity of crashes
2. Improve connectivity, air quality and expand mobility choices by:
 - a. Measuring people, not cars
 - b. Reducing transit delays
 - c. Improving safety, access, parking and comfort for bicycles.
 - d. Maintaining mobility for motor vehicles
 - e. Improving safety, attractiveness, noise, and comfort for pedestrians and residents
3. Address cut-through traffic in the Larchwood, Huron Village, and Coolidge Hill Neighborhoods
4. Offer short-term and long-term solutions
5. Acknowledge enforcement and special uses by BB&N, Mount Auburn Cemetery, Mount Auburn, Shady Hill, and Tufts Health Plan

Shared Values (Approved by Stakeholders June 23)

- **Equity**
 - Design for everyone's needs, including the disadvantaged
- **Flexibility**
 - Designs responsive to:
 - Peak and off-peak
 - School pick up and drop off
 - Funeral processions
 - Emergency vehicle access
- **Balance**
 - Try to balance goals that may conflict

Draft Report – Mount Auburn Corridor Study



Mount Auburn Street
Corridor Study
Draft Report | October 2017

Table of Contents

Background.....	1
History.....	1
Today.....	2
Building the Stakeholder Group.....	6
Existing Conditions.....	7
Pedestrian and ADA Conditions.....	12
Bicycle Conditions.....	13
Transit Conditions.....	15
Motorized Conditions.....	20
Defining the Problems and Establishing Shared Goals.....	23
Wells Through.....	23
First Public Meeting.....	24
The Shared Goals.....	25
Design Development and Concepts.....	27
Design Alternatives and Discussions.....	27
Long-term Design Concept.....	33
Key Issues Explained.....	34
Pedestrian and ADA Improvements.....	38
Parkways.....	39
Public Route Improvements.....	39
Bicycle Improvements.....	41
Transit Improvements.....	42
Traffic Safety and Traffic Calming Improvements.....	43
Ongoing Discussion Topics.....	46
Short-Term Design Concept.....	51

List of Figures

Figure 1. Local Area Projects.....	4
Figure 2. Stakeholder Group Members.....	6
Figure 3. Stakeholder Group Membership Distribution.....	6
Figure 4. Project Limits.....	7
Figure 5. Curb Use and Edge Character.....	10
Figure 6. Pedestrian and ADA Conditions.....	11
Figure 7. Average Pedestrian Delay Times.....	12
Figure 8. Bicycle Level of Comfort.....	14
Figure 9. Average a.m. Peak Hour Bus Delay.....	16
Figure 10. Average p.m. Peak Hour Bus Delay.....	17
Figure 11. Daily Bus Passenger Boardings by Stop.....	19
Figure 12. Daily Bus Passenger Alightings by Stop.....	19
Figure 13. Crash Severity.....	20
Figure 14. Crash Type Comparison.....	21
Figure 15. Average Daily Traffic (ADT) Volumes and a.m. and p.m. Peak Hour Traffic Queues.....	22
Figure 16. Fresh Pond Parkway, Huron Avenue to Mount Auburn Street.....	47
Figure 17. Mount Auburn Street Corridor.....	48
Figure 18. Gerry's Landing, Memorial Drive, and Greenough Boulevard.....	50
Figure 19. Fresh Pond Parkway at Mount Auburn Street and Gerry's Landing.....	62

Draft Final Report Released

- **Project Website:** www.mass.gov/dcr/mt-auburn-corridor-study
- **Comments on Draft Final Report:**
 - *Submit online at:* <https://www.mass.gov/forms/dcr-public-comments>
 - *Write:* Department of Conservation and Recreation, Office of Public Outreach, 251 Causeway Street, Suite 600, Boston, MA 02114
 - *Comment Deadline: January 5, 2017*
 - *Note: Public comments submitted to DCR may be posted on the DCR website in their entirety, and no information, including personal information, will be redacted.*



Short-Term Design (2018)

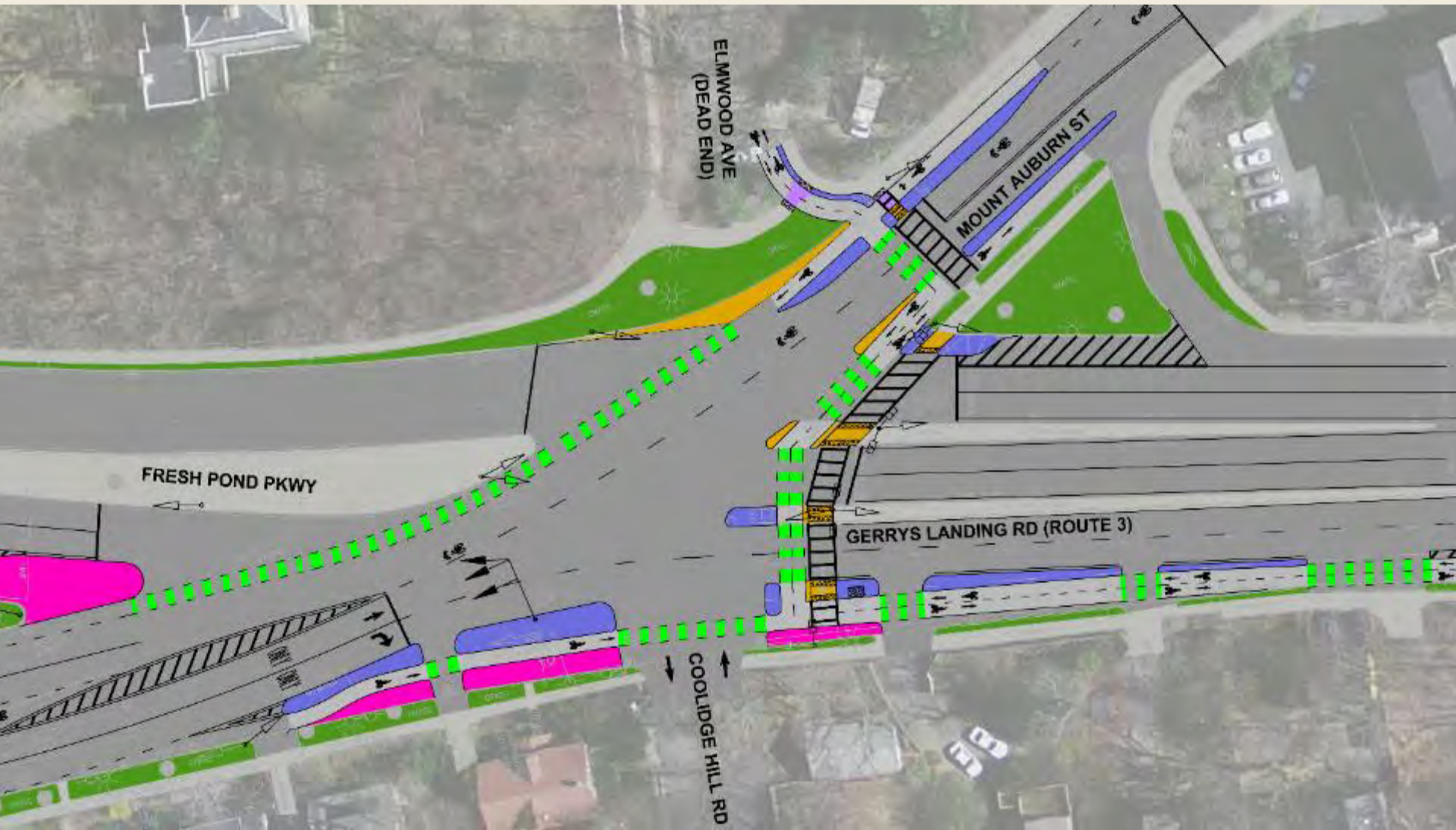
Project Area – DCR Short-Term Design



Short-Term Concept



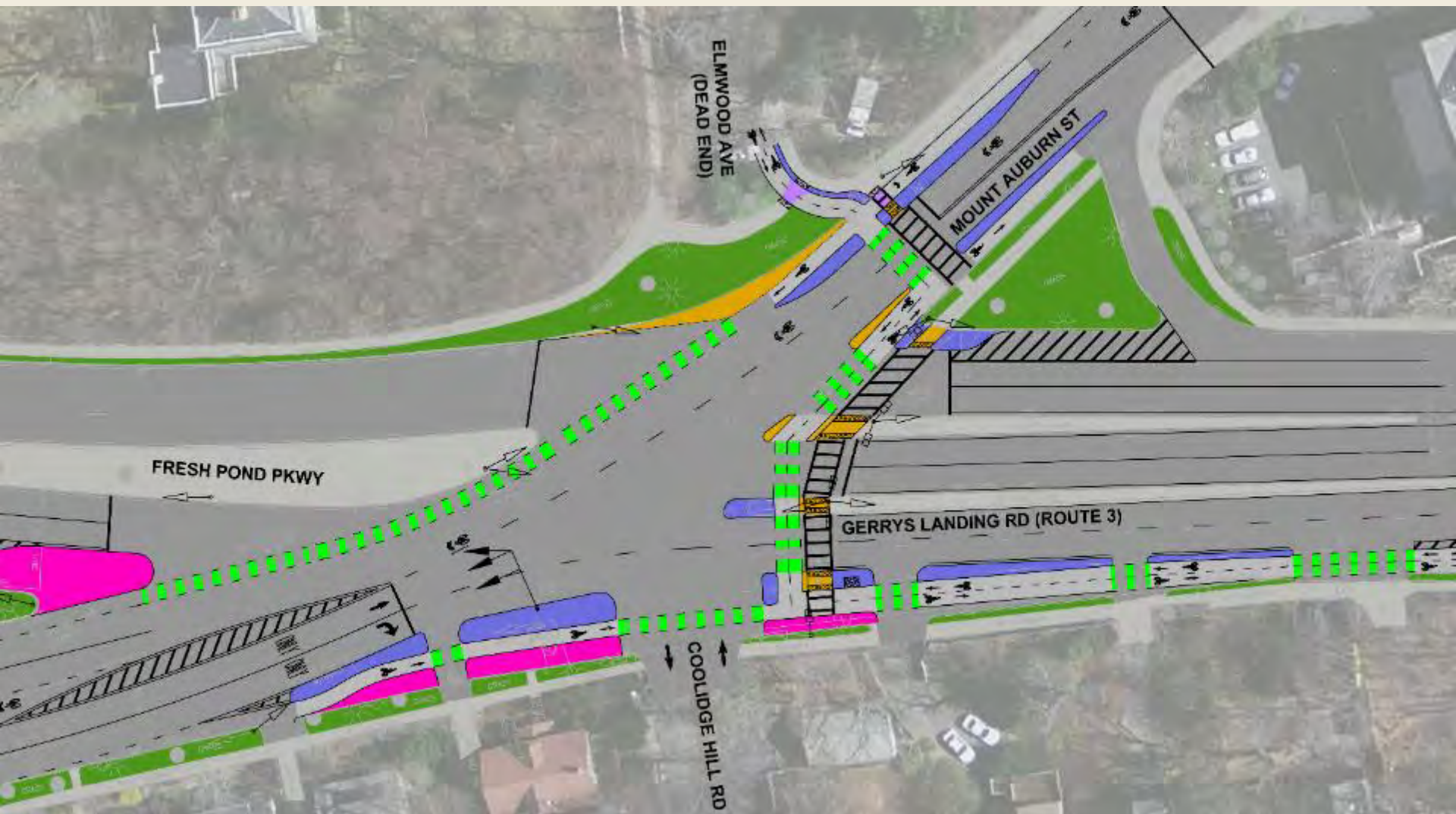
Short-Term Design



Short-Term Design Overview



Short-Term Design – Mount Auburn & Fresh Pond Parkway



Short-Term Design – Gerrys Landing Road



Short-Term Design – Crossing to Charles River



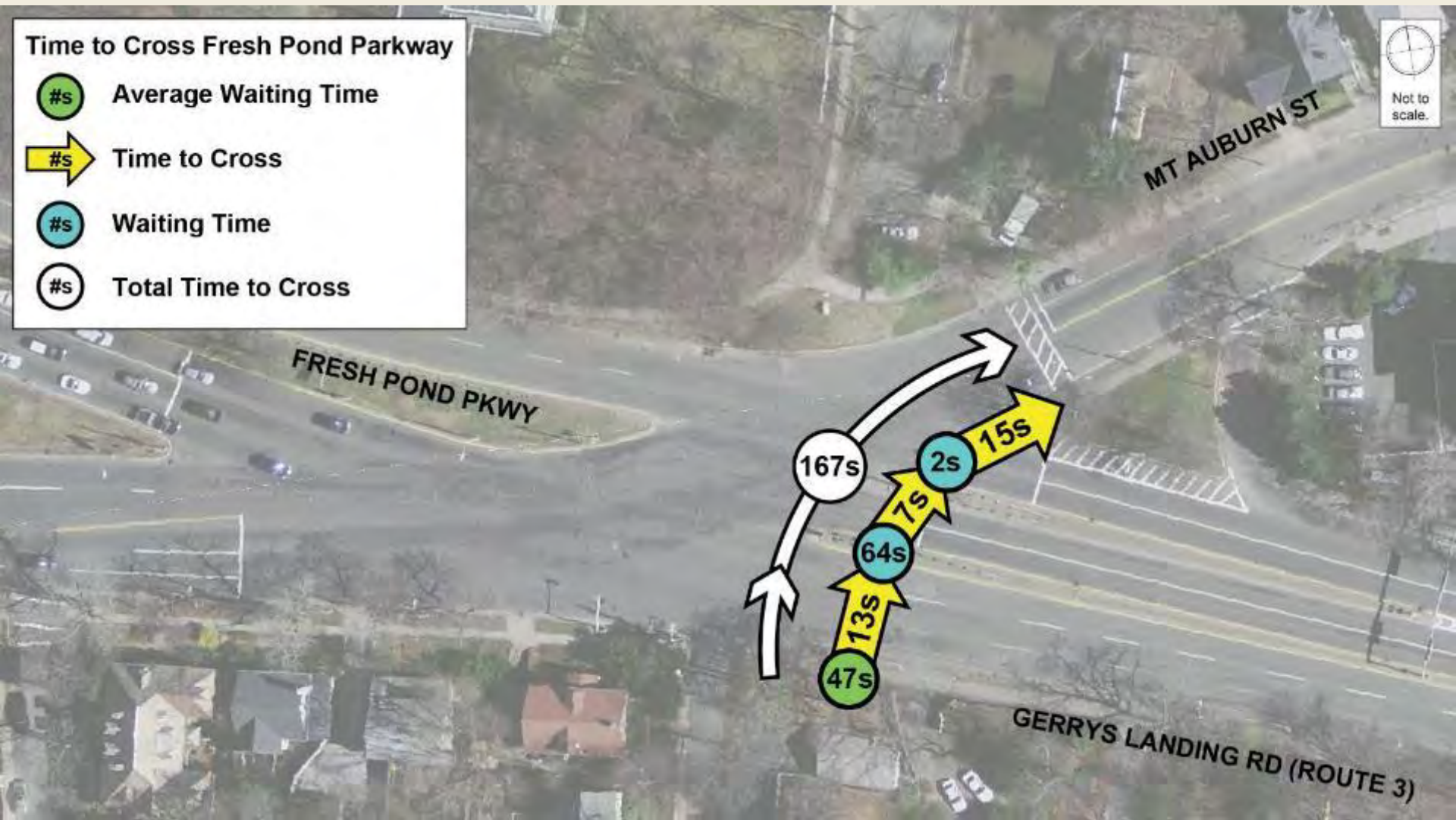
Key Improvements in Short-Term

- Safer and faster pedestrian crossings
- Improves eastbound traffic flow in AM peak hour
- Bike path from Old Cambridge Historic District to Charles River
- Safer crossings for Mount Auburn bicycle traffic
- Allows for bus priority treatments while improving eastbound traffic flow for all

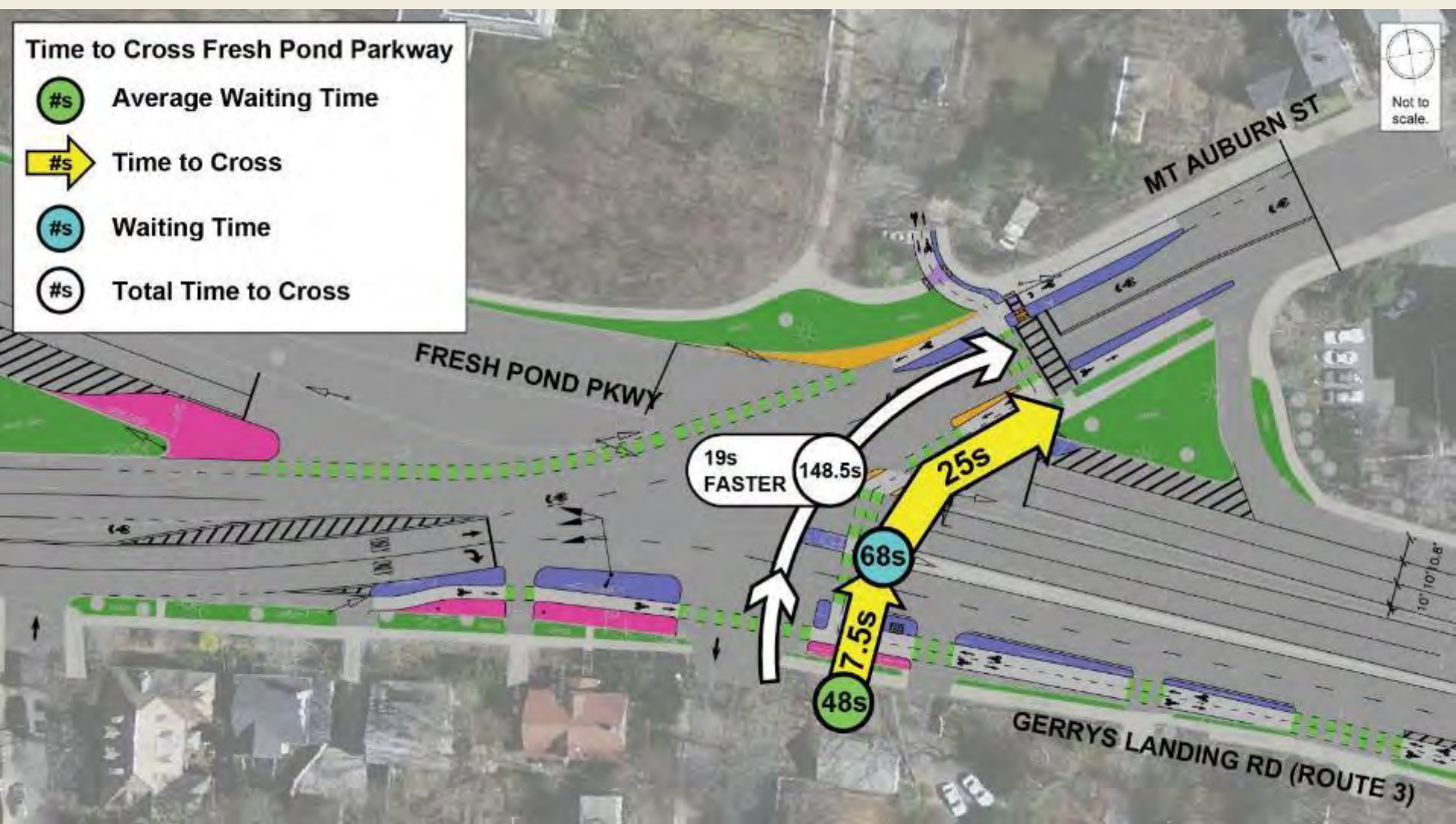


Pedestrian Improvements

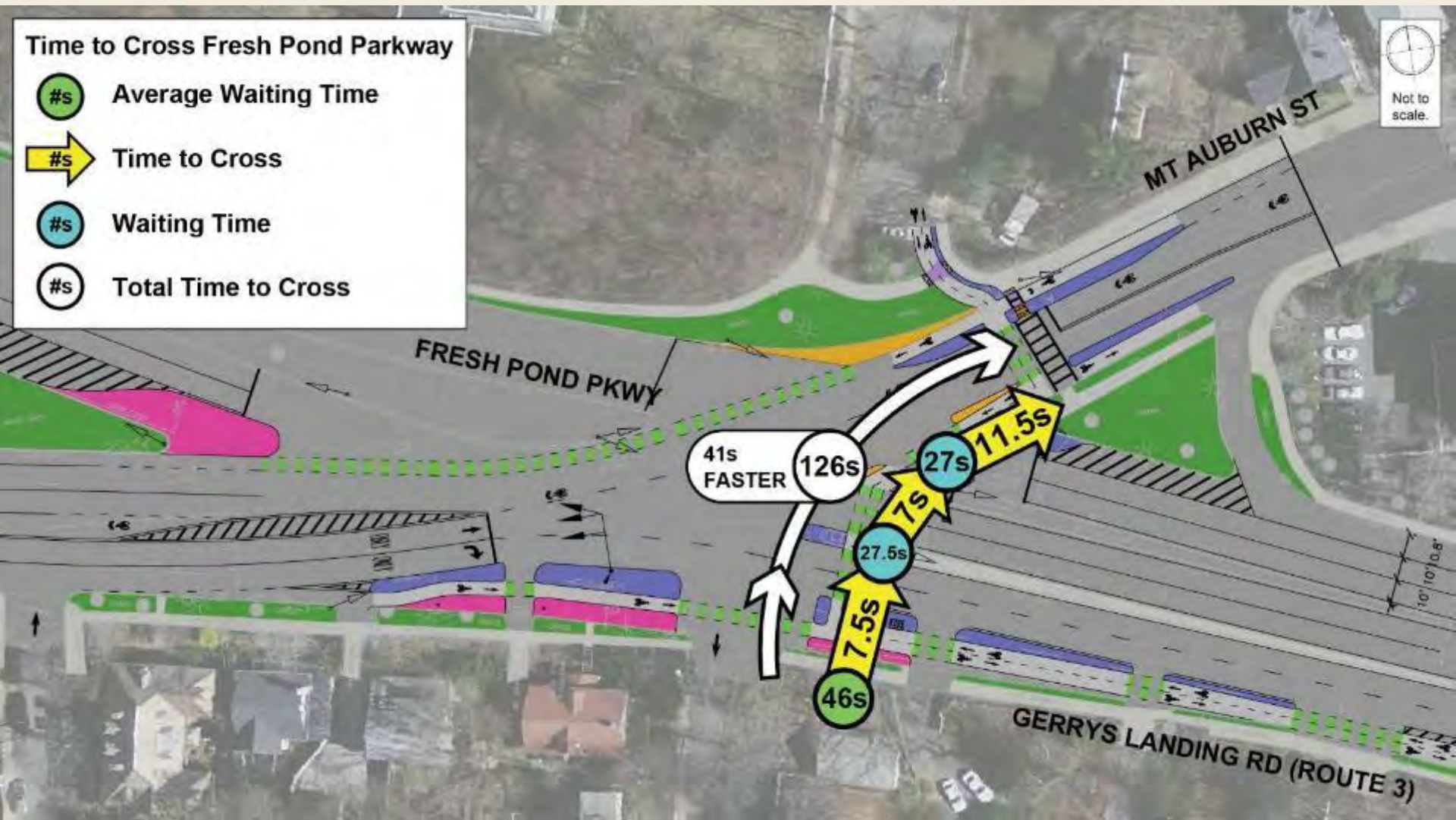
Existing Pedestrian Crossing Time – Eastbound



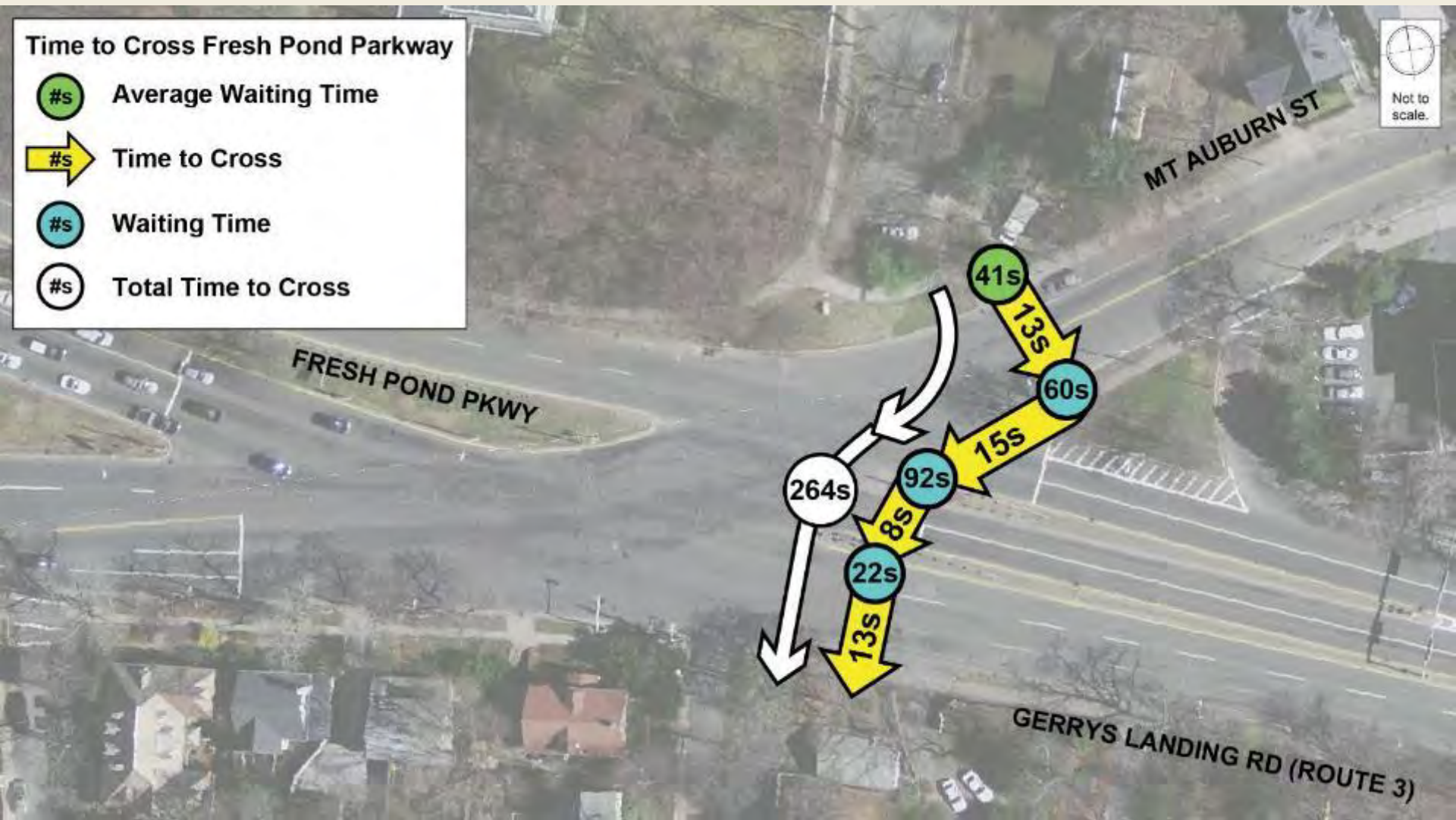
Short-Term Option A – Eastbound Two-Stage Crossing



Short-Term Option B – Eastbound Three-Stage Crossing



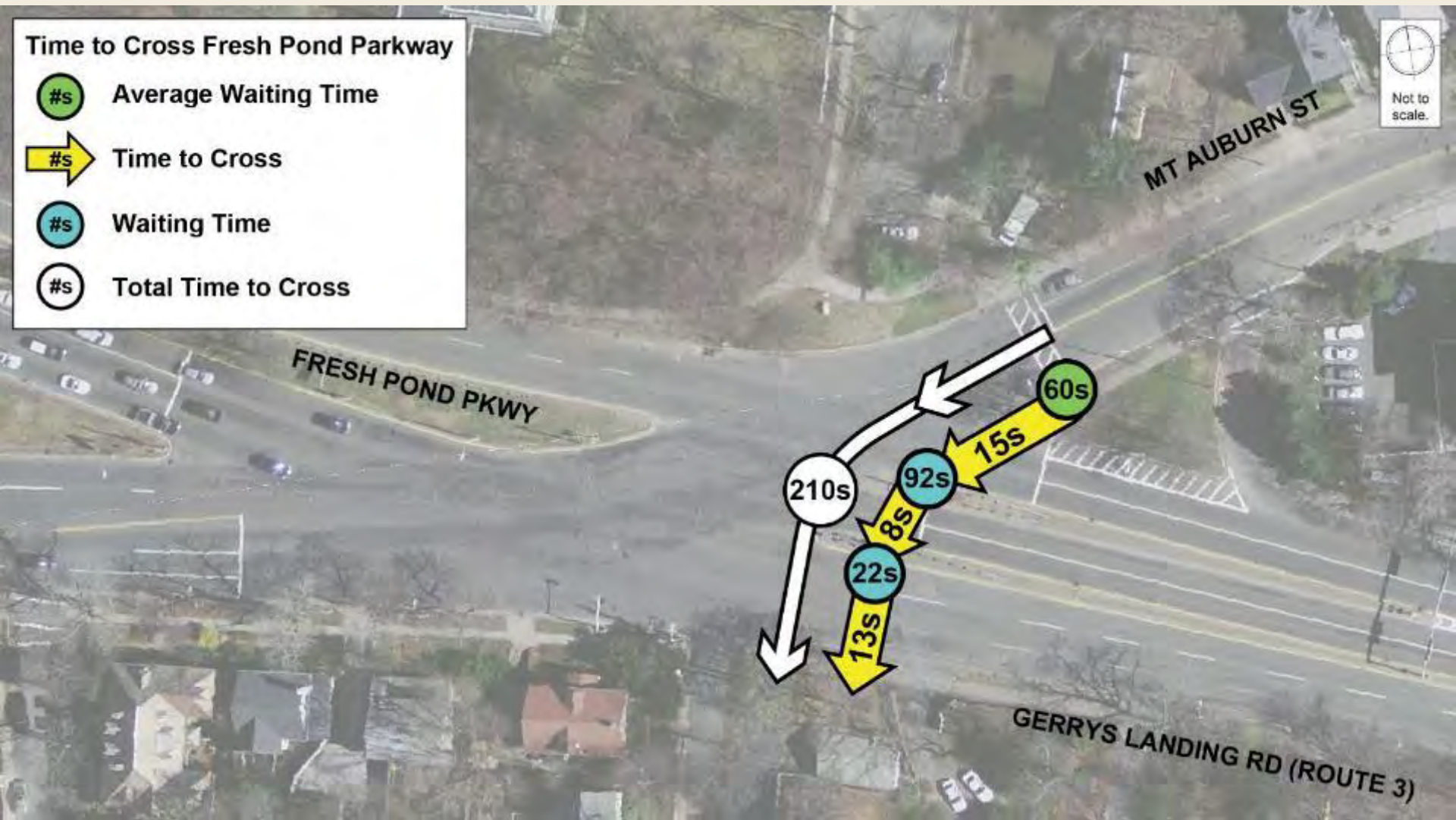
Existing Westbound Crossing



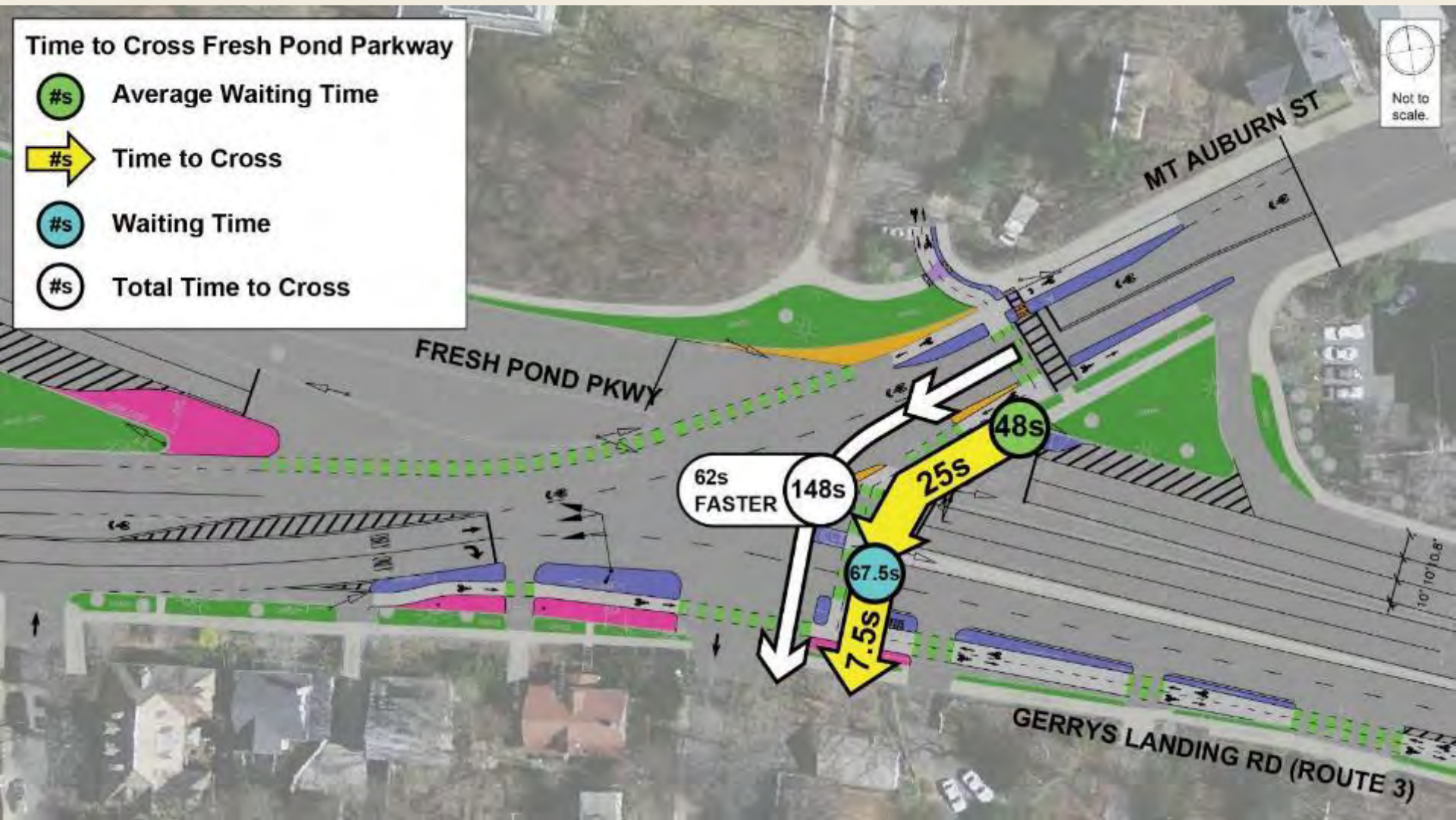
Proposed Westbound Crossing (from North Side)



Existing Westbound Crossing (from South Side)



Proposed Westbound Crossing (from South Side)



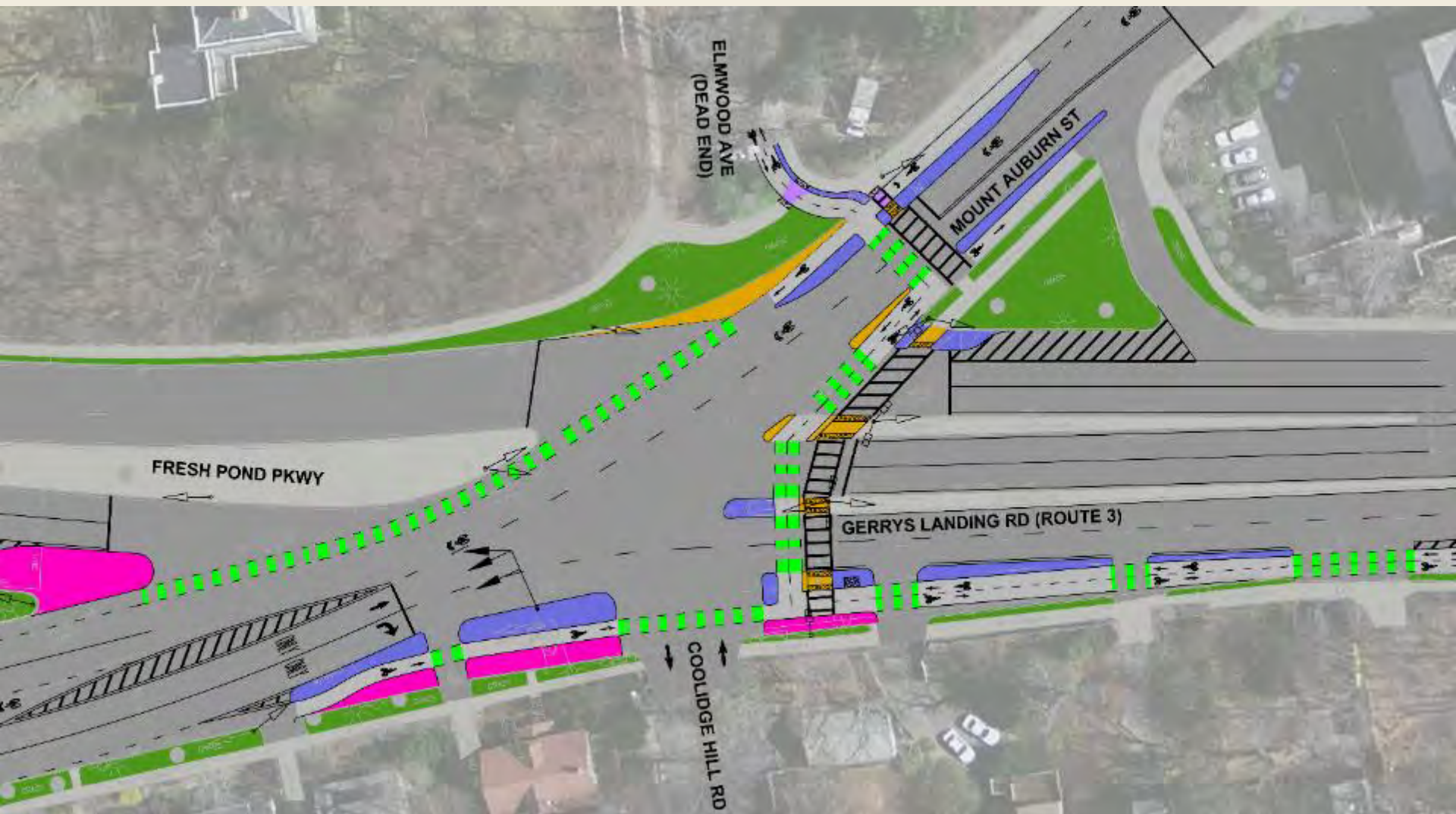


Bicycle Improvements

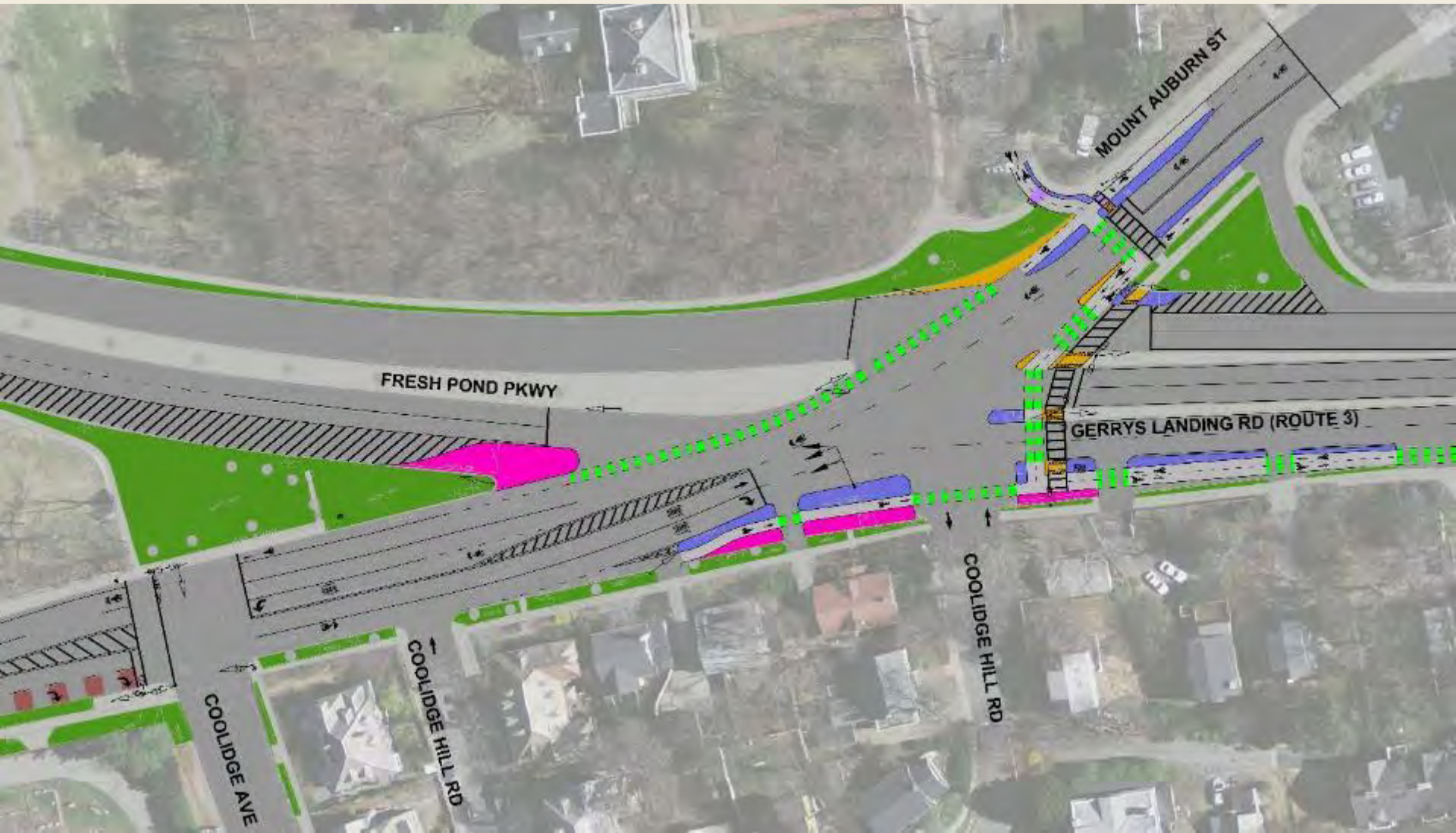
Existing



Short-Term Design – Mount Auburn & Fresh Pond Parkway



Short-Term Design – Elmwood Connection



Example of a Protected Intersection/Corner



Randolph & Dearborn, Chicago, IL



Short-Term Design – Gerrys Landing Road



Examples of Two-Way Bike Lanes



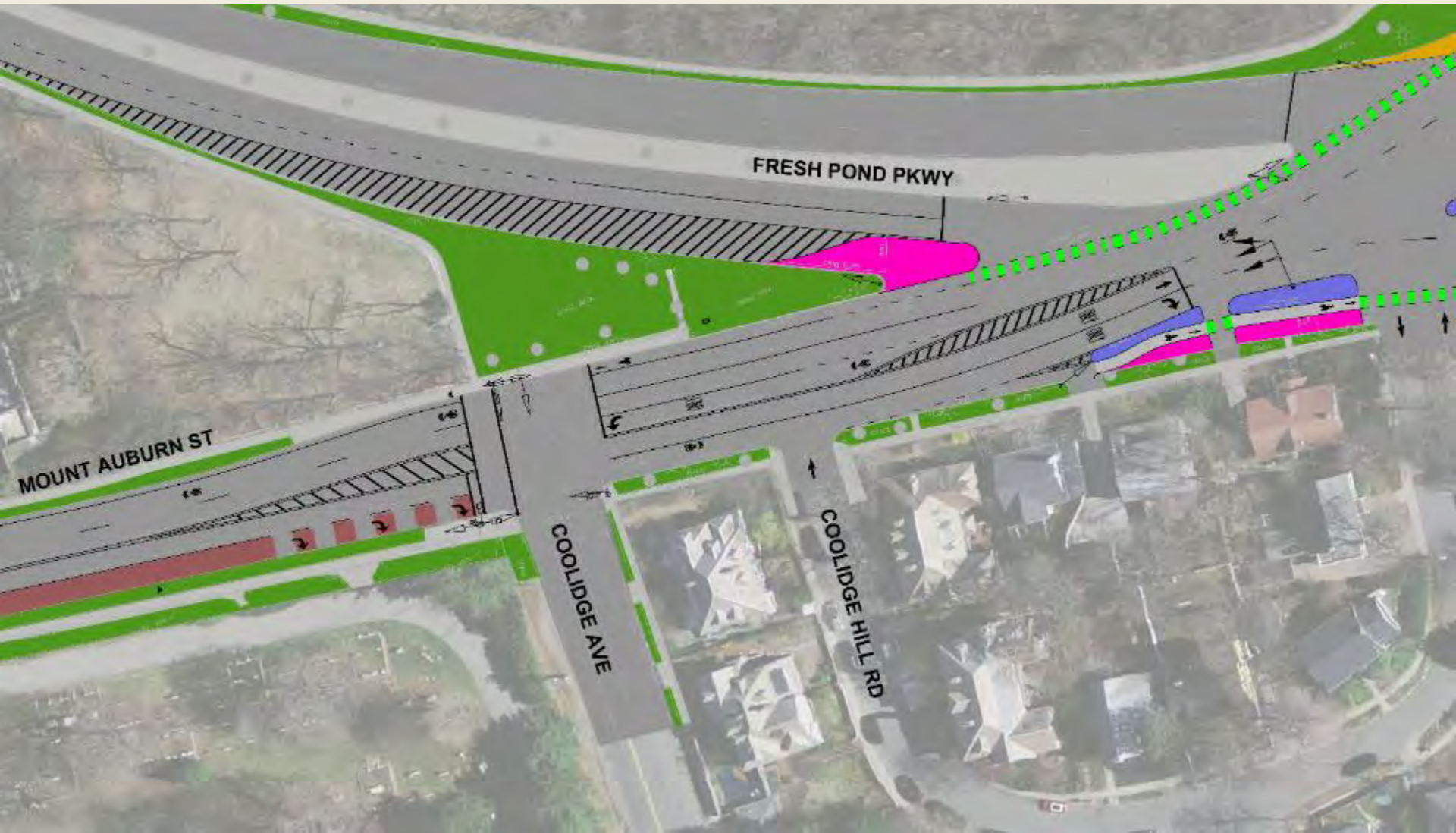
Short-Term Design – Crossing to Charles River



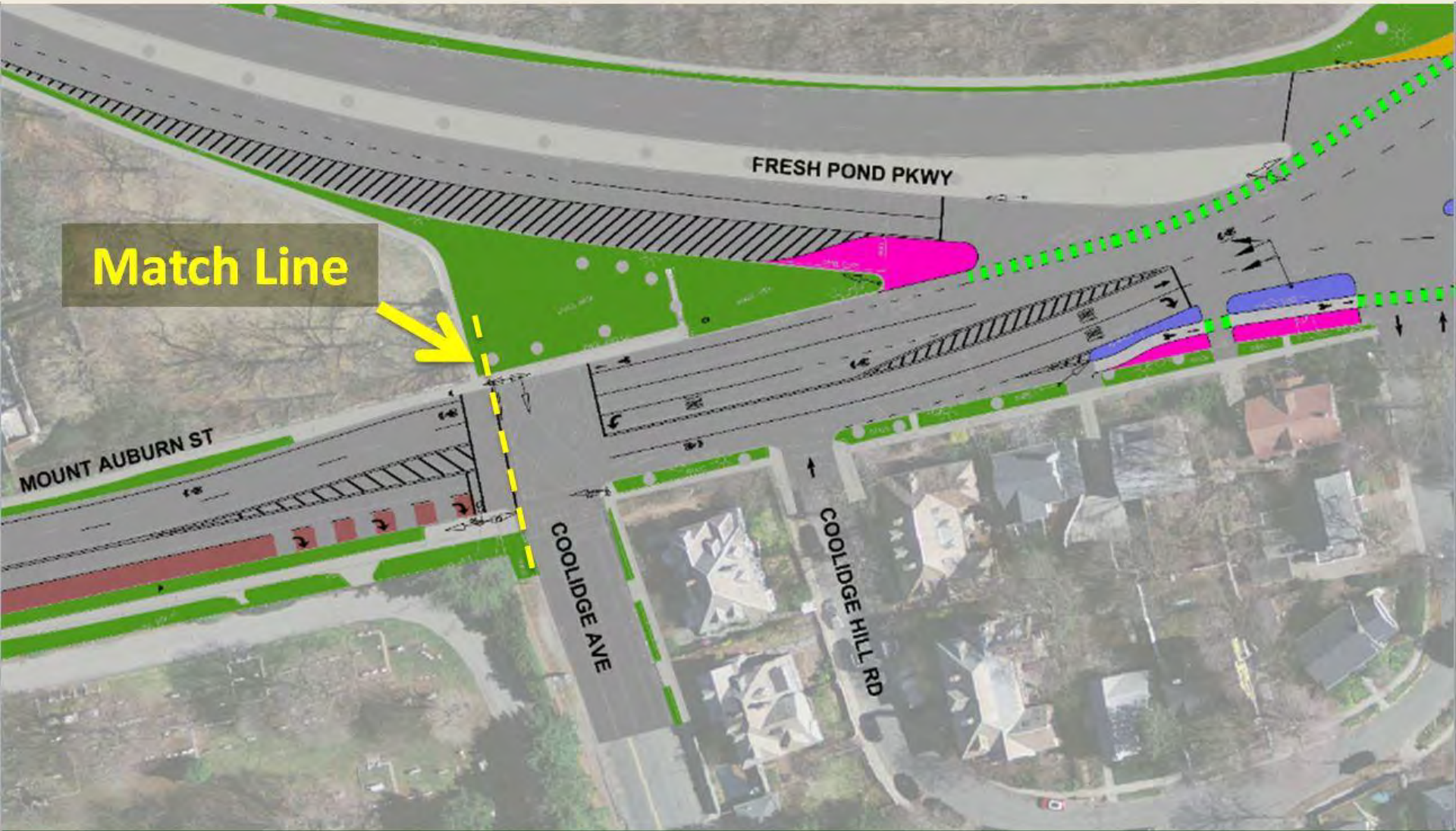


Bus Improvements

Where Cambridge and DCR Short-Term Meet



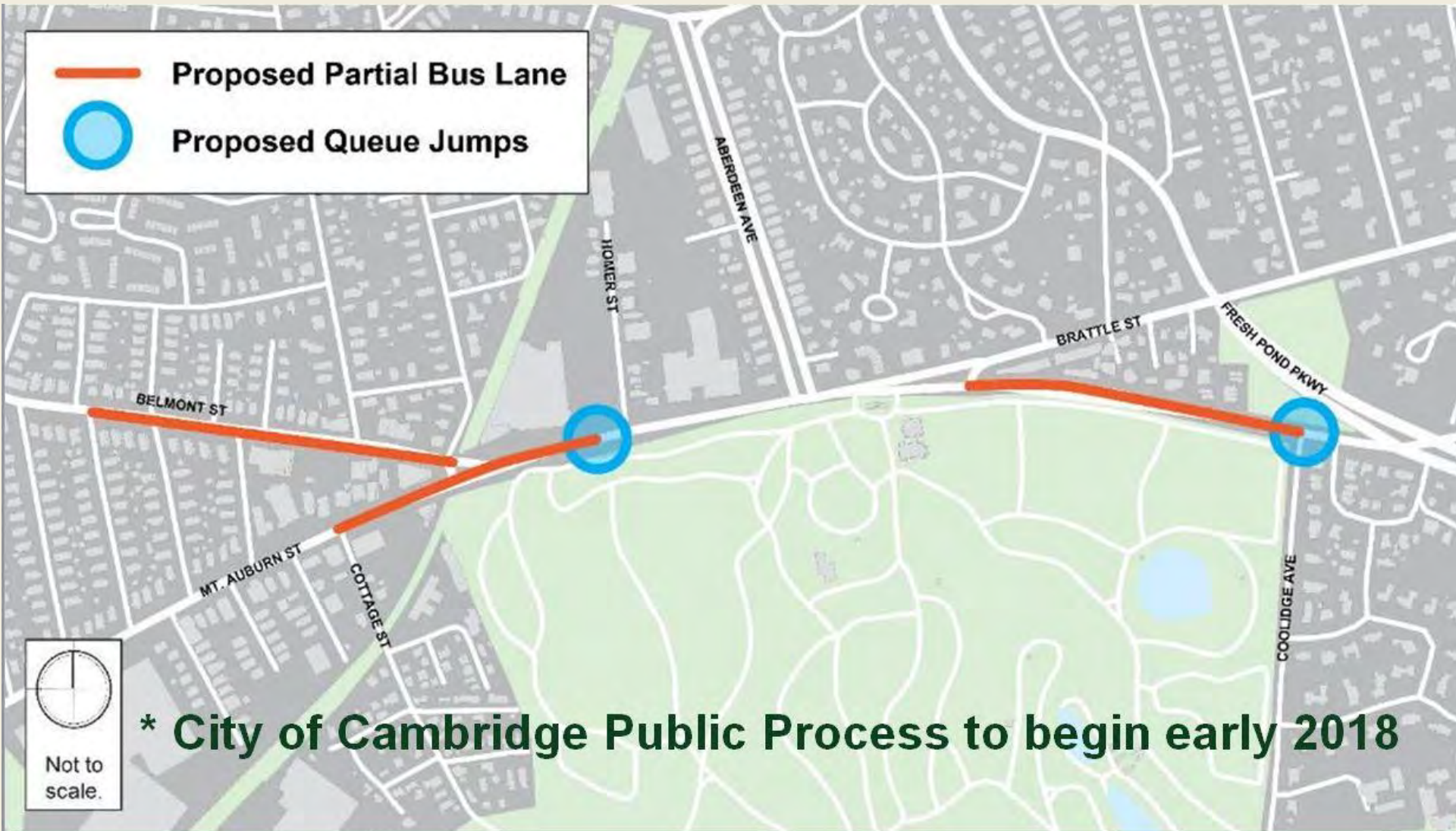
Where Cambridge and DCR Short-Term Meet



Project Area – DCR Short-Term Design



Proposed Bus Lanes



Belmont St. to Homer Ave. (AM Peak)



Belmont St. to Homer Ave. (AM Peak)

Vehicles



People

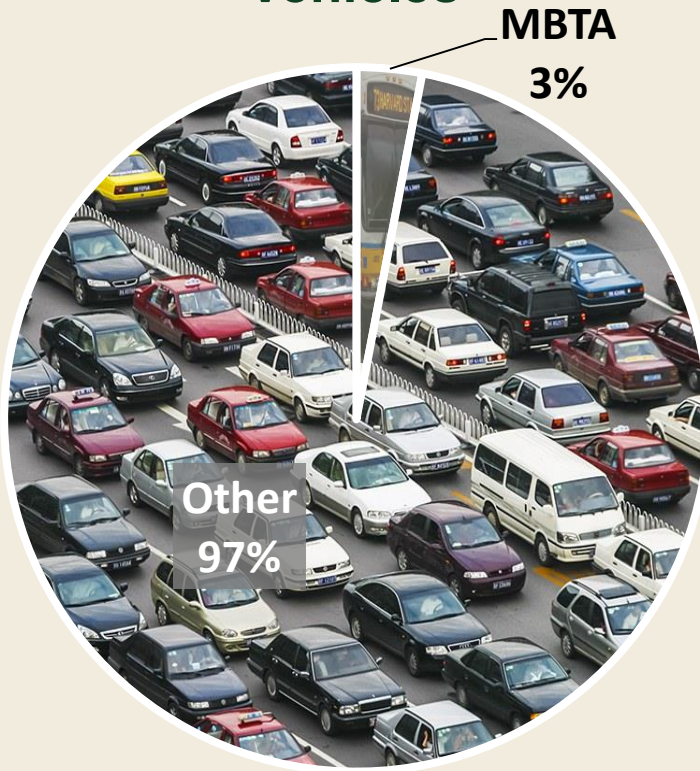


Brattle St. to Coolidge Ave. (AM Peak)



Brattle St. to Coolidge Ave. (AM Peak)

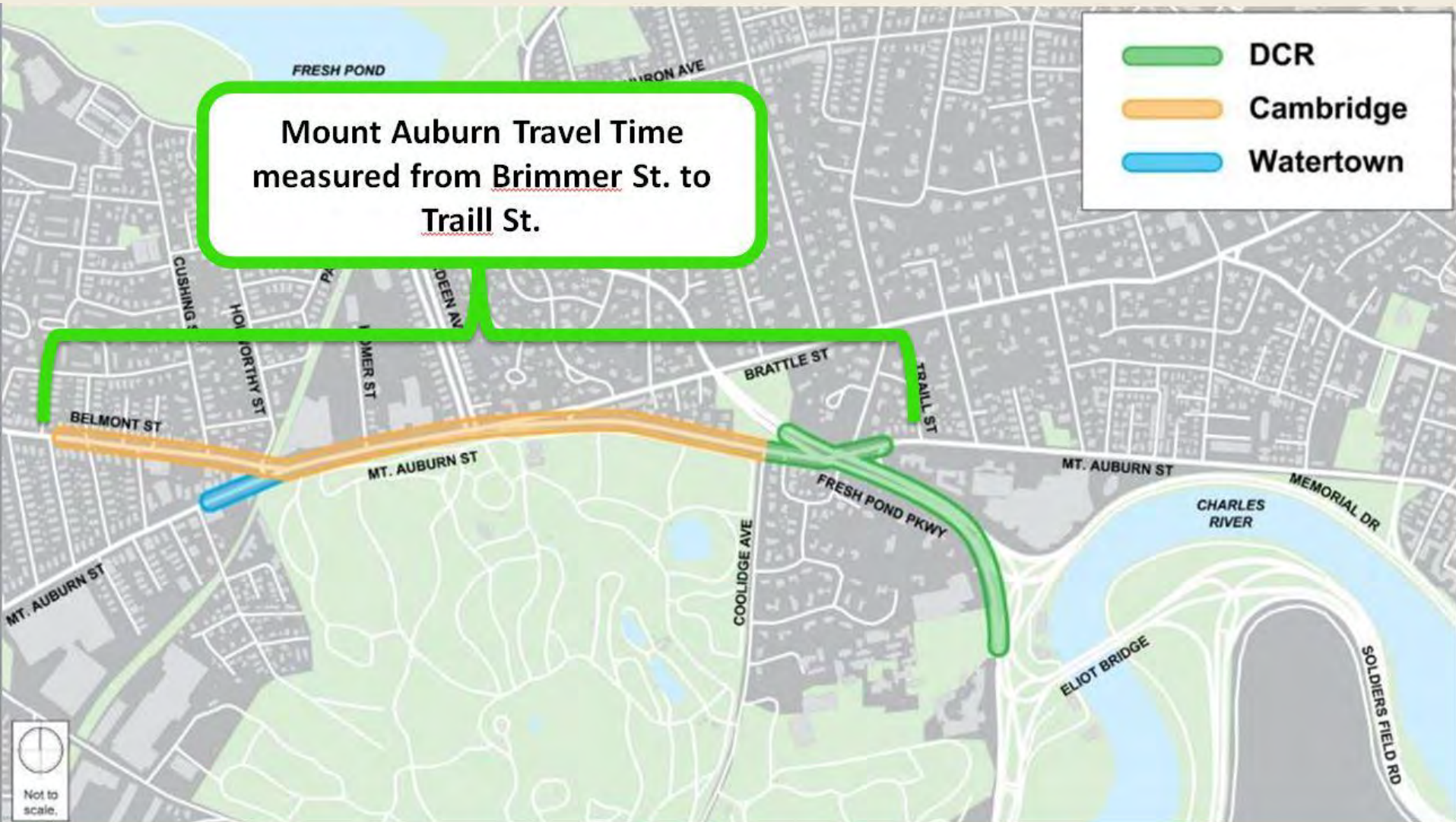
Vehicles



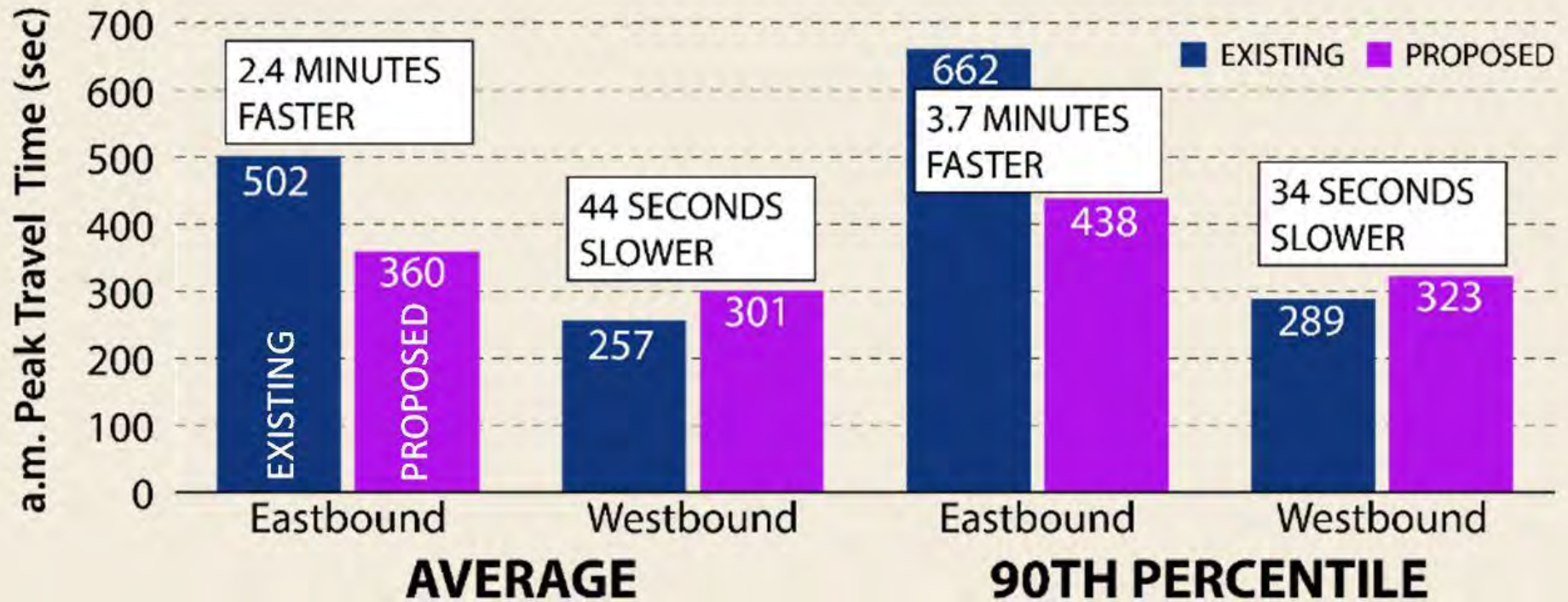
People



Mount Auburn Travel Time Measure

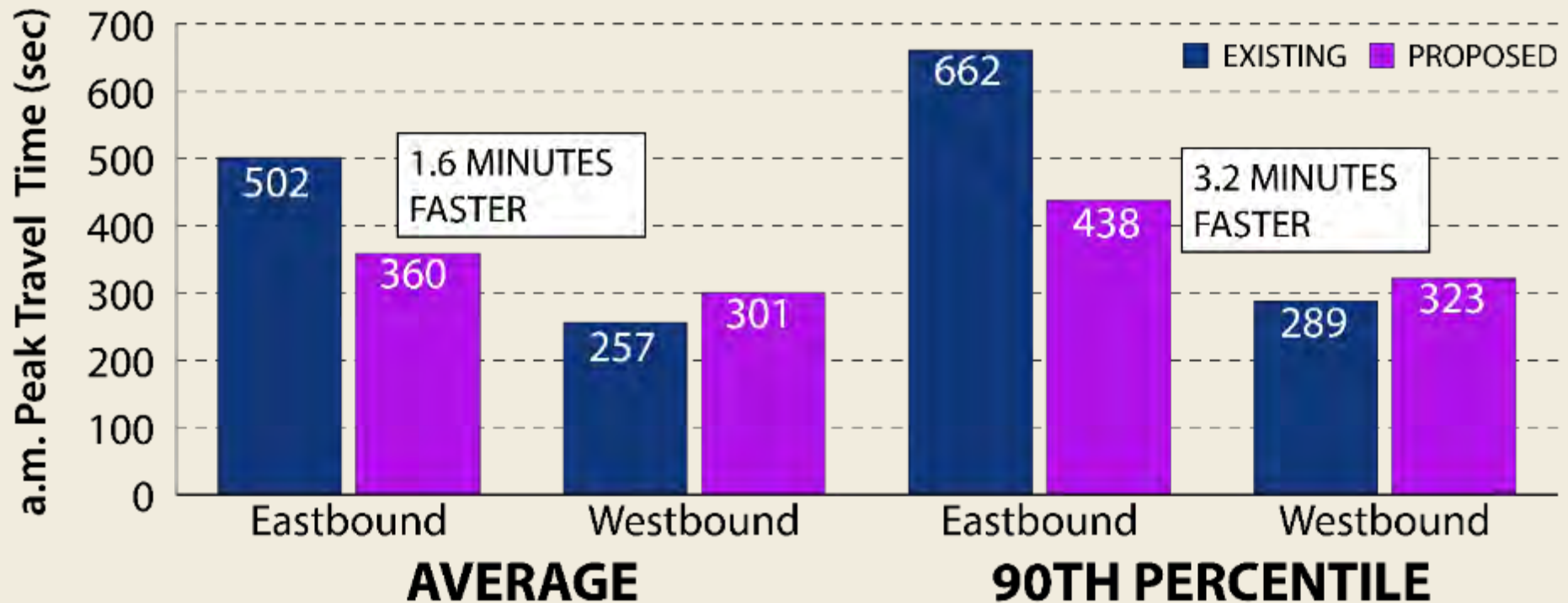


Bus (AM Peak) – Passenger Time Savings



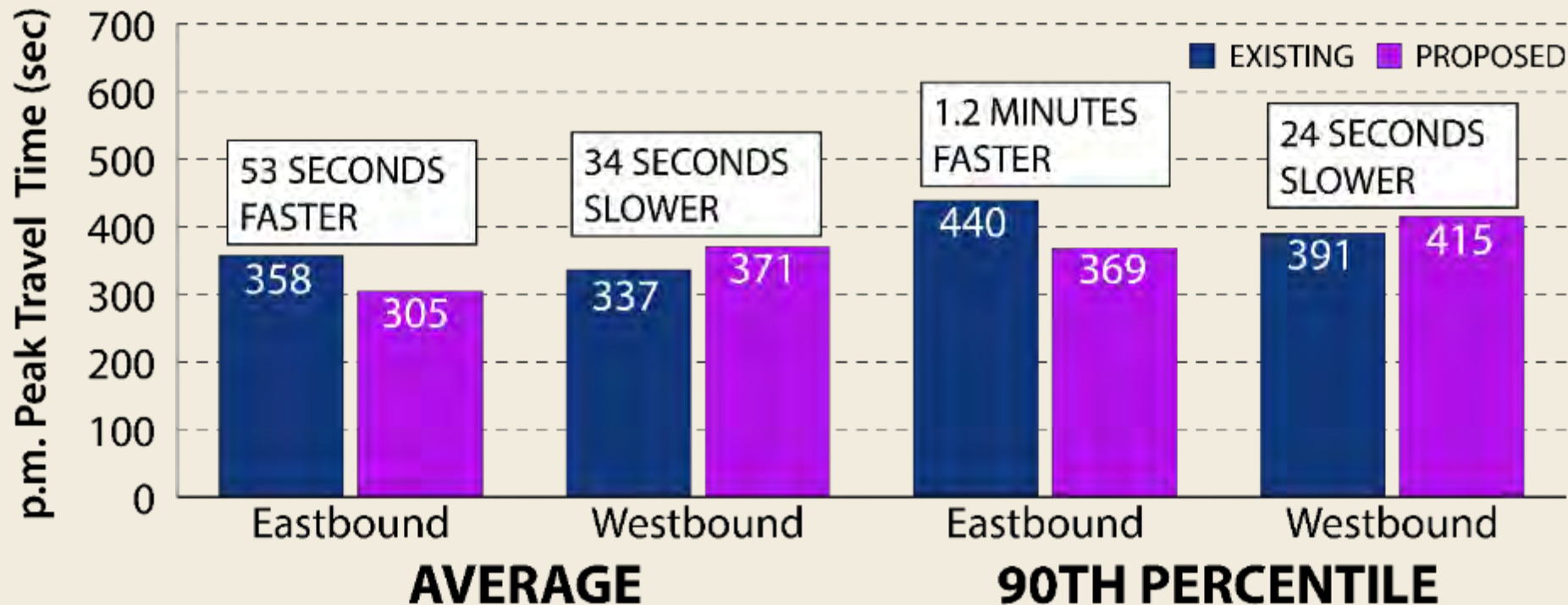
**Mount Auburn Street
(Brimmer St. to Traill St.)**

Bus (AM Peak) – Round Trip Travel Time Savings



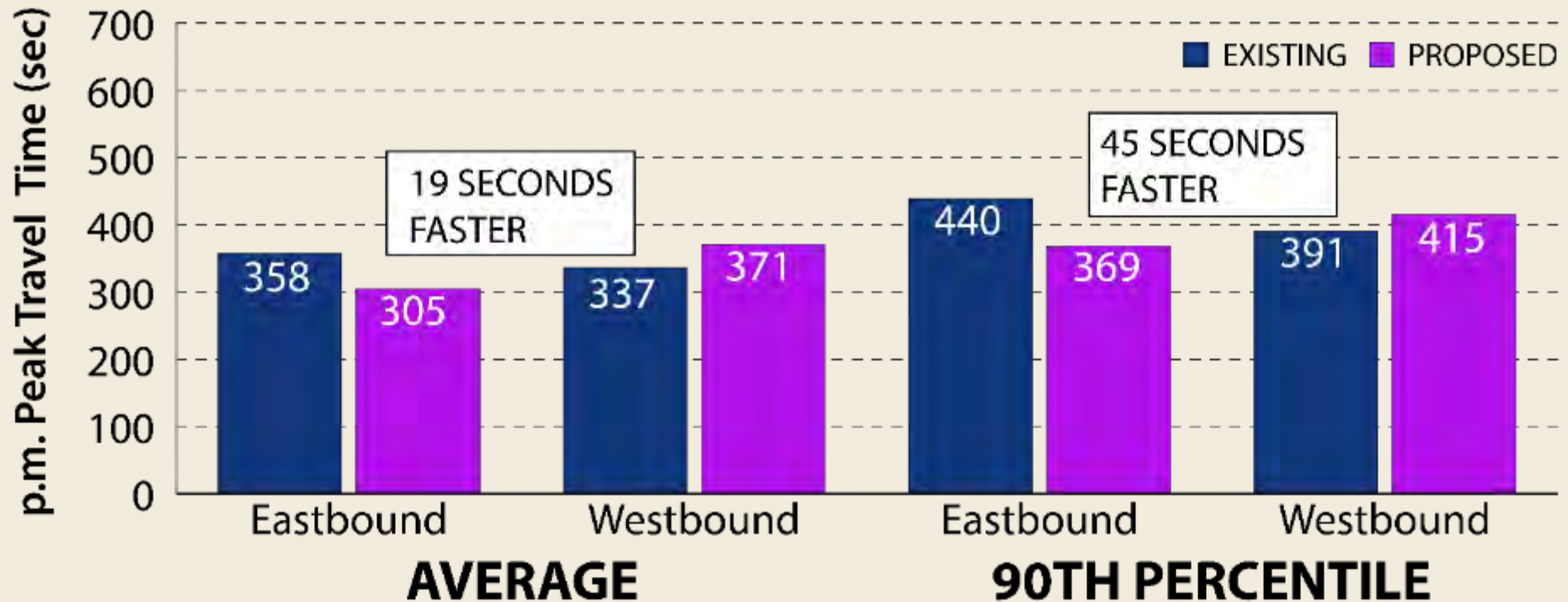
**Mount Auburn Street
(Brimmer St. to Traill St.)**

Bus (PM Peak) – Passenger Travel Time Savings



**Mount Auburn Street
(Brimmer St. to Traill St.)**

Bus (PM Peak) – Round Trip Travel Time Savings



**Mount Auburn Street
(Brimmer St. to Traill St.)**

Transit Improvements: Benefits for Passengers

- Faster
- More reliable
- Potential for 9 percent increase in frequency at a.m. peak
- Less “bunching”
- Less crowding



Transit Improvements: Benefits for Car Commuters

- **Estimated 5-8 percent increase in bus ridership possible**
- **Fewer cars on the road**



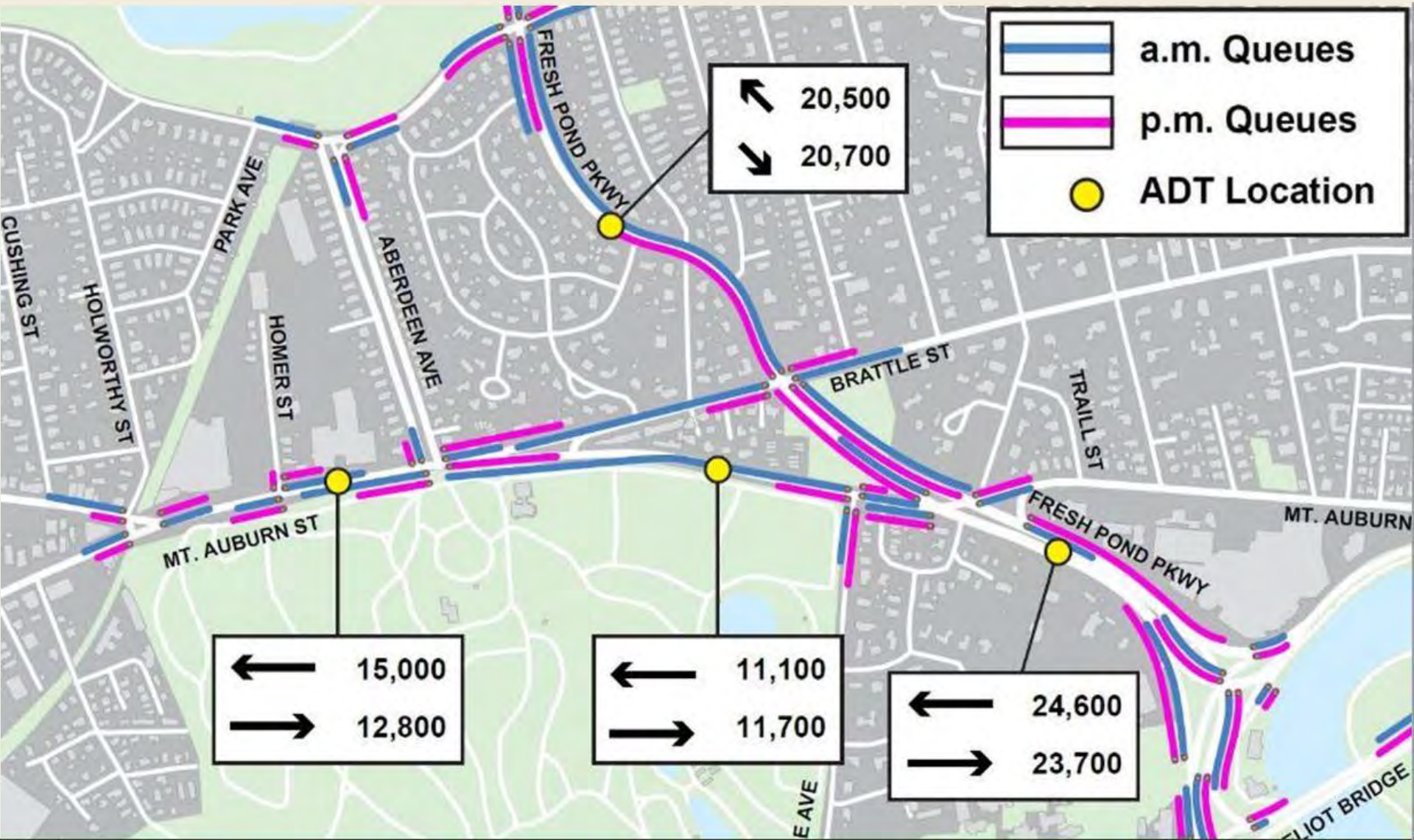
Cambridge/Watertown BRT Pilot Grant Awarded!

- Barr Foundation, Marion Institute, ITDP funded grant includes:
 - Technical, planning, and outreach support to plan and pilot bus priority
 - \$100,000 for pilot materials
- Piloting bus priority for the 71/73
 - Bus lane concept will be refined by Cambridge and Watertown
 - No parking impacts on Mt. Auburn
 - Will also include bicycle lanes where possible without construction
- Will be evaluated before any longer term work is done
- Additional public outreach: late winter – early spring 2018

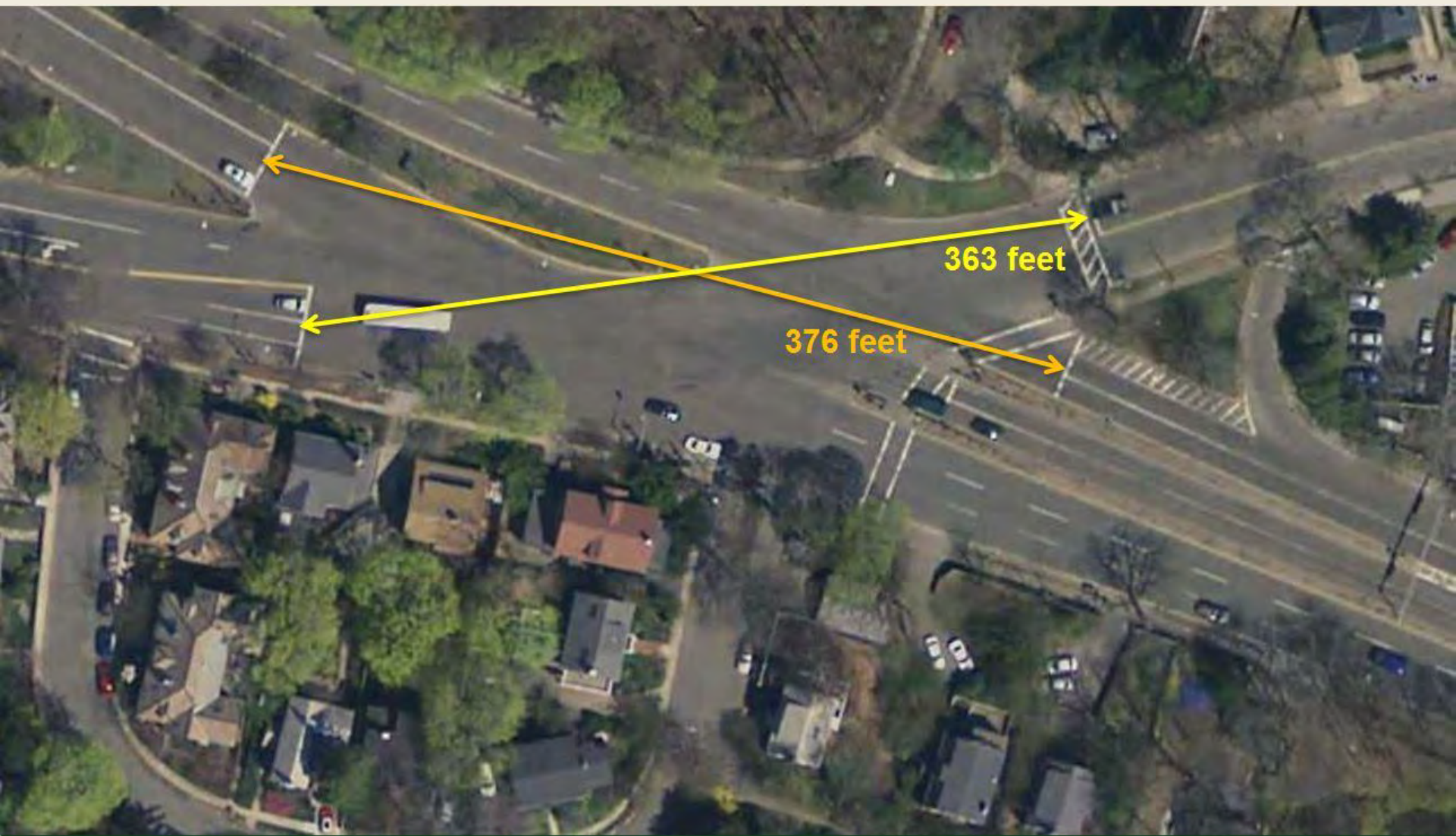


Maintain Traffic Flow

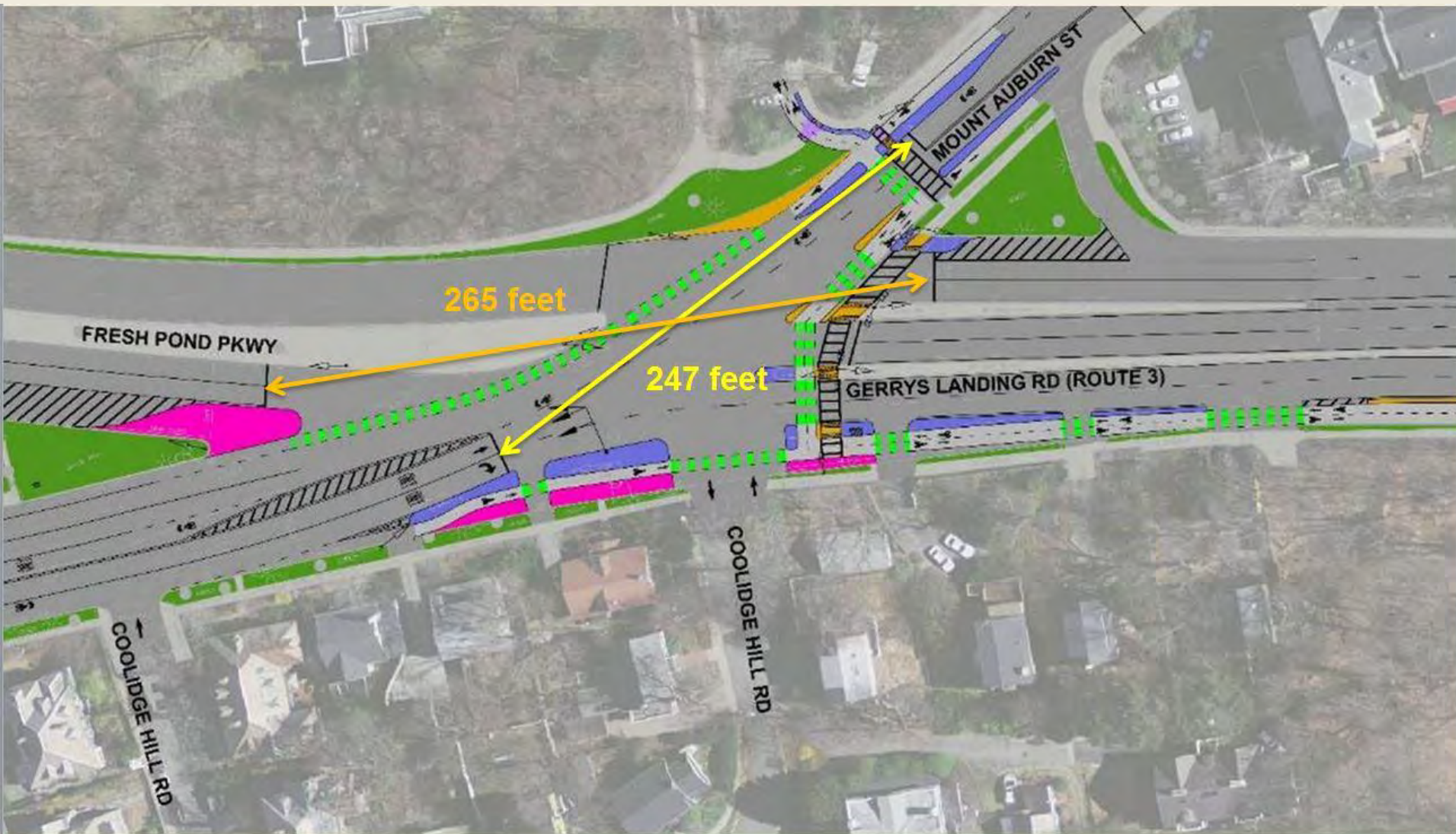
Existing Traffic Queues



Stop Bar Distances – Existing

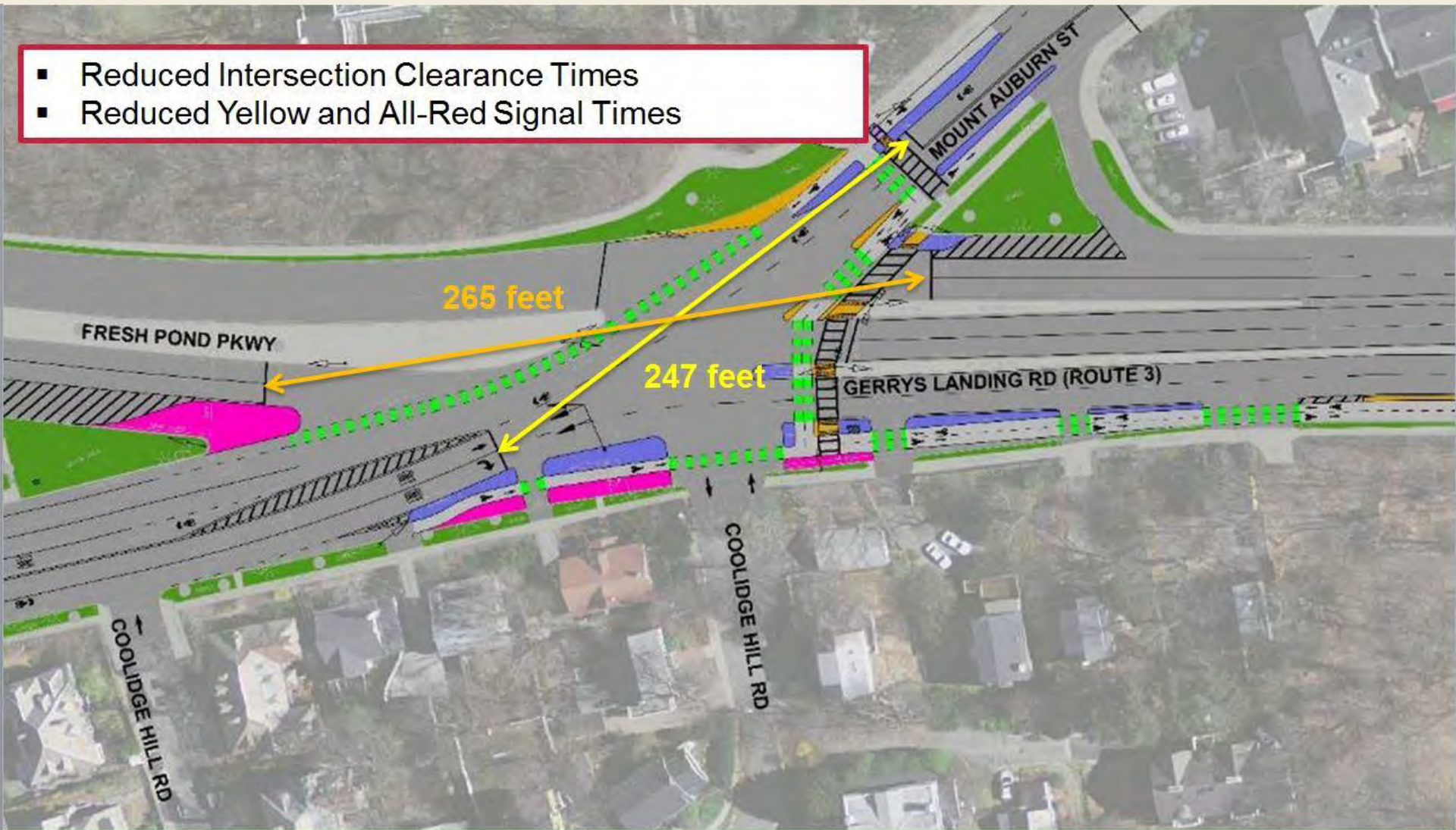


Stop Bar Distances – Short-Term



Stop Bar Distances = Signal Cycle Efficiency

- Reduced Intersection Clearance Times
- Reduced Yellow and All-Red Signal Times

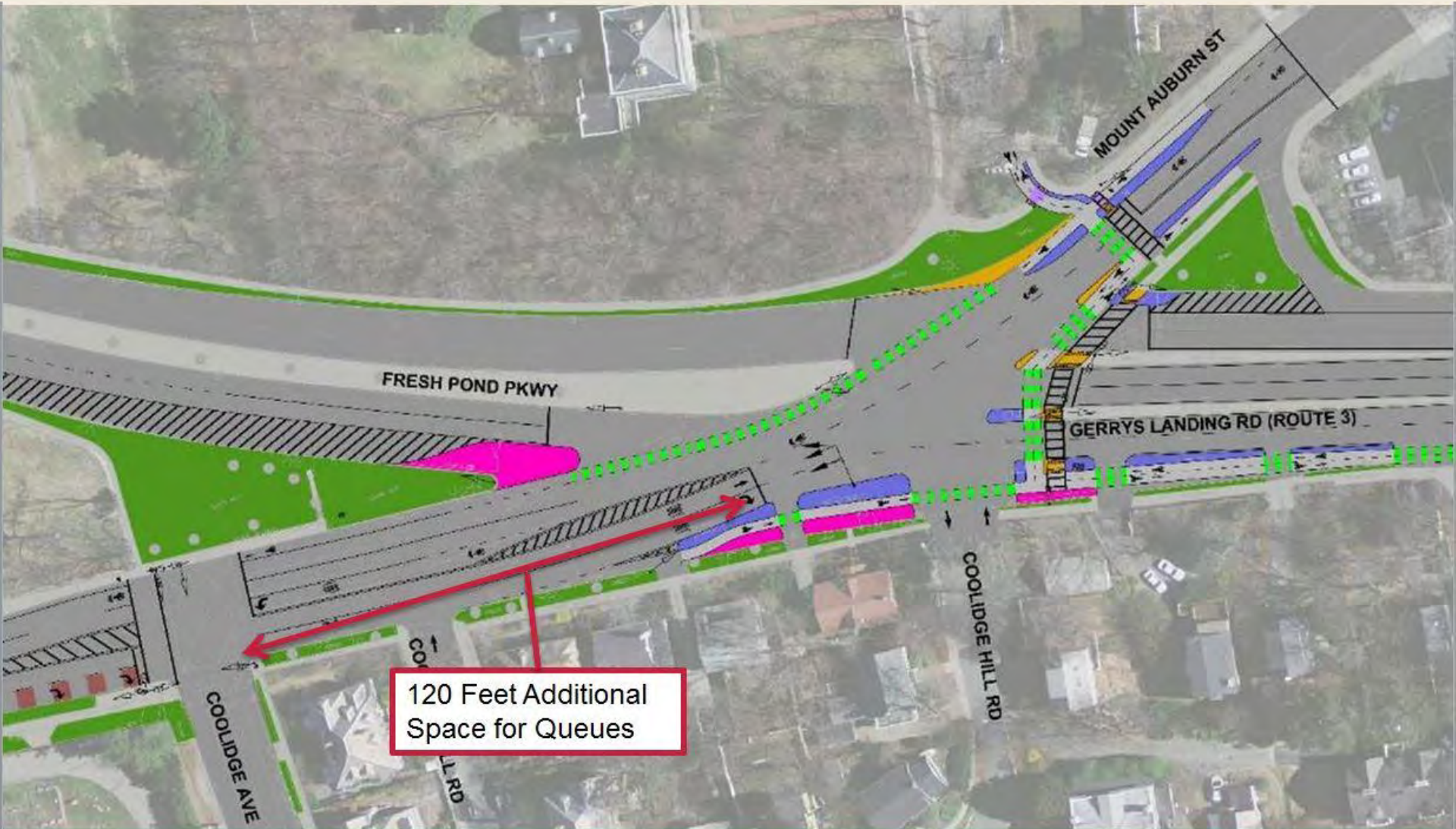


Time for Standard Clearance Times

From start
of yellow
light –
Existing:
10 seconds
Proposed:
8.5 seconds

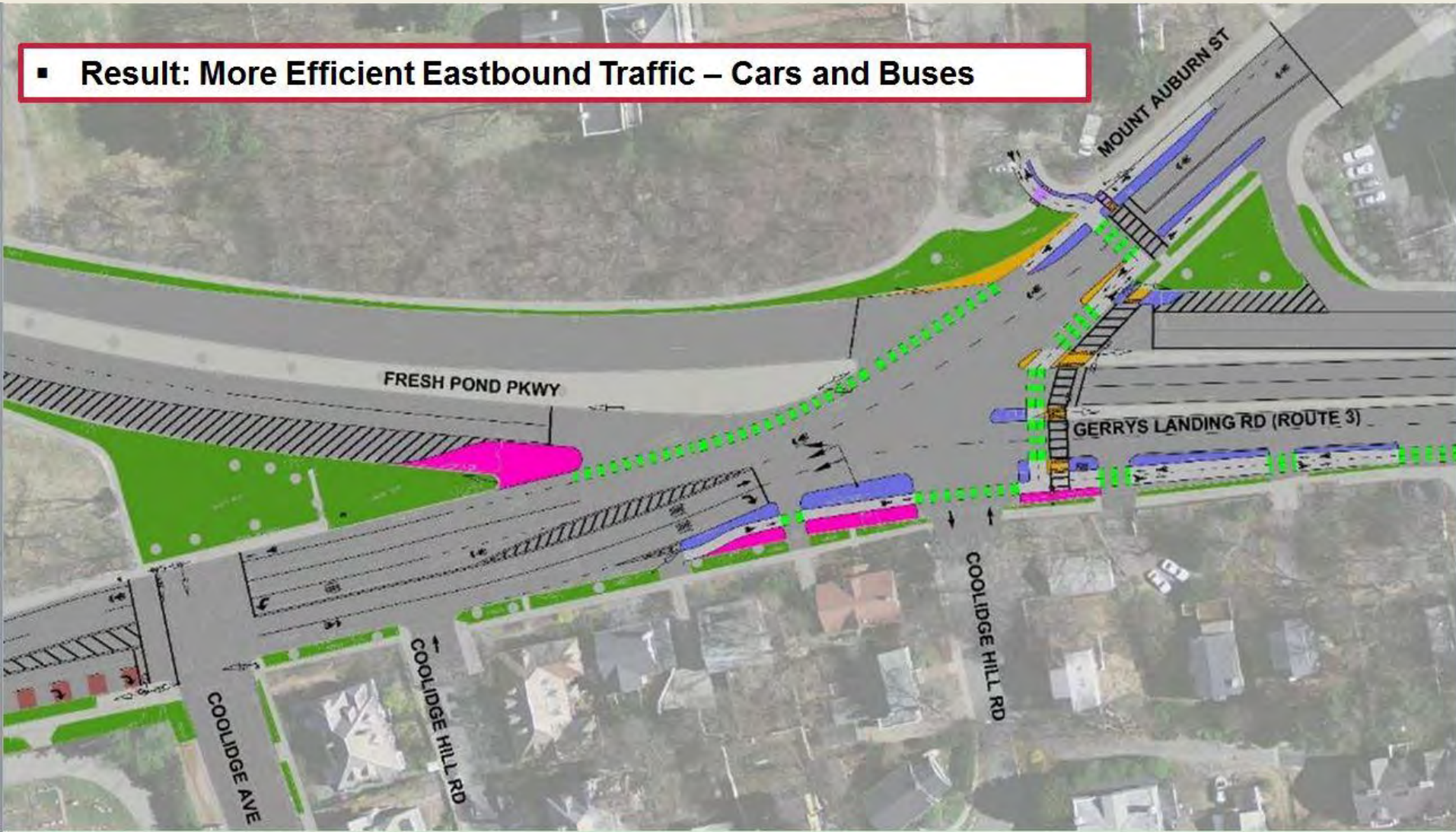


New Queuing Space = Signal Cycle Efficiency



Balance Green Time from Fresh Pond Pkwy to Mt. Auburn

- Result: More Efficient Eastbound Traffic – Cars and Buses



Road Safety Audit Result Review



Increased Pedestrian Safety & Signal Cycle Efficiency

Existing:

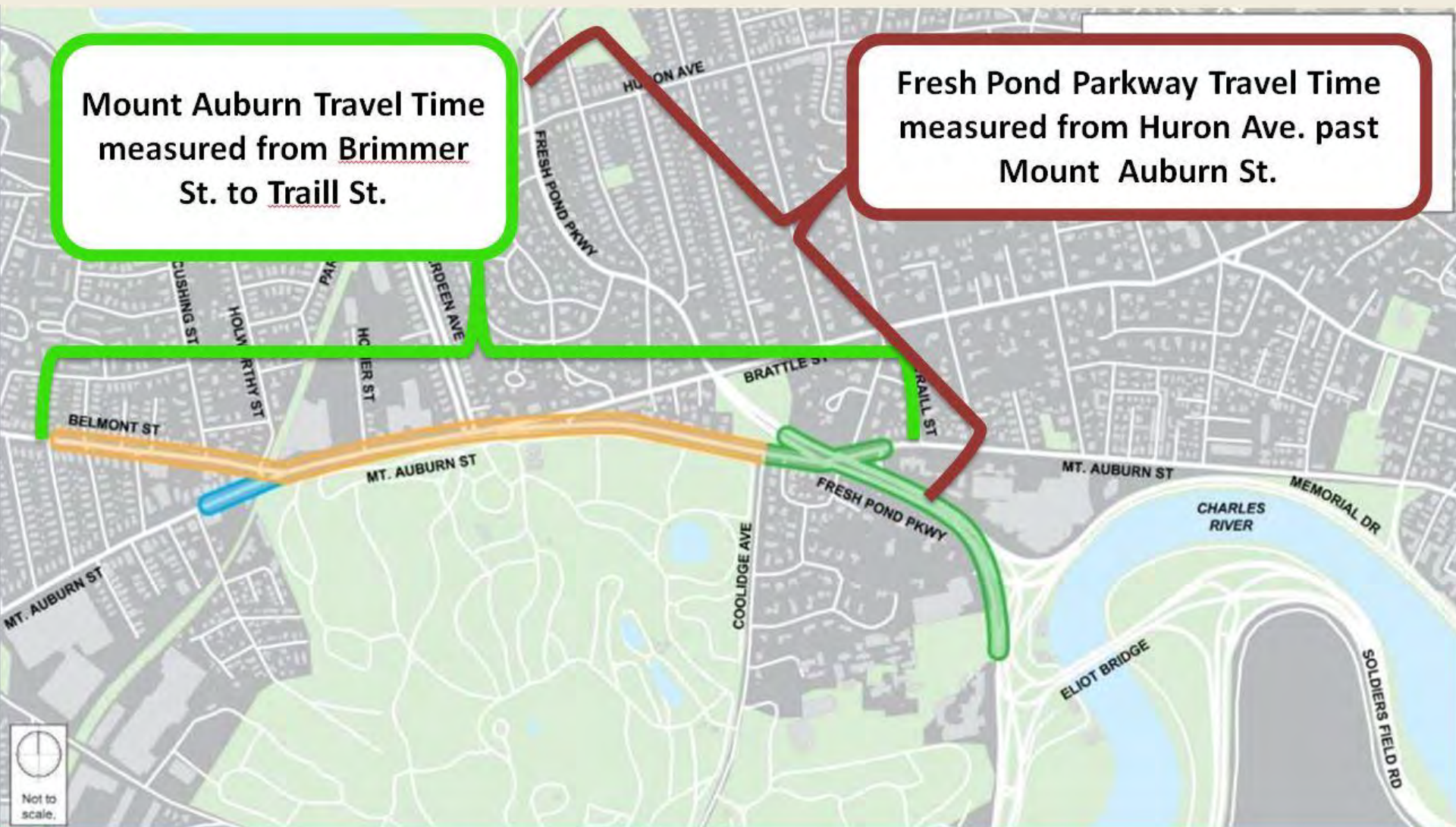
- 132 feet to walk
- 38 seconds

Proposed:

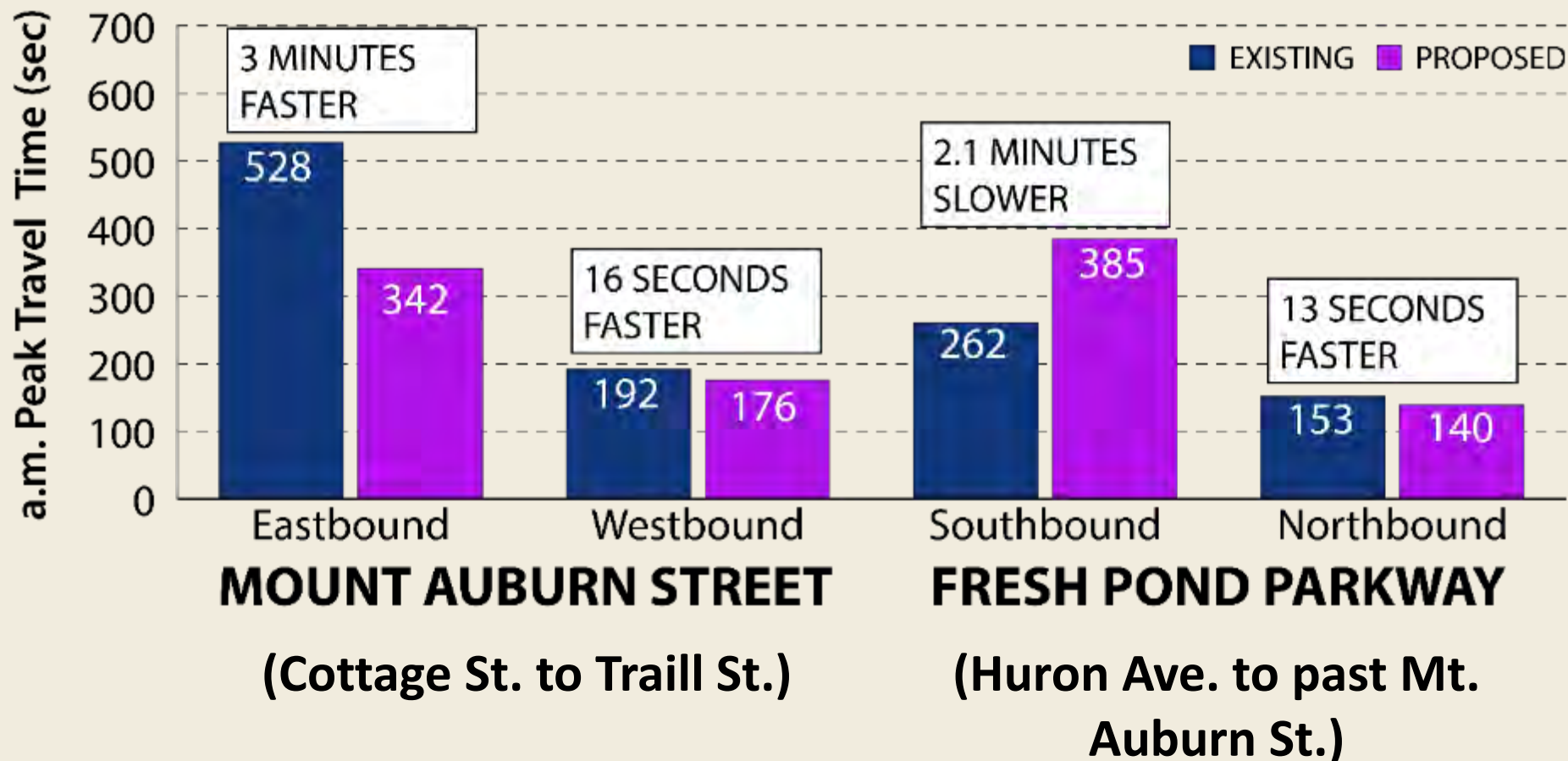
- 104 feet to walk
- 30 seconds



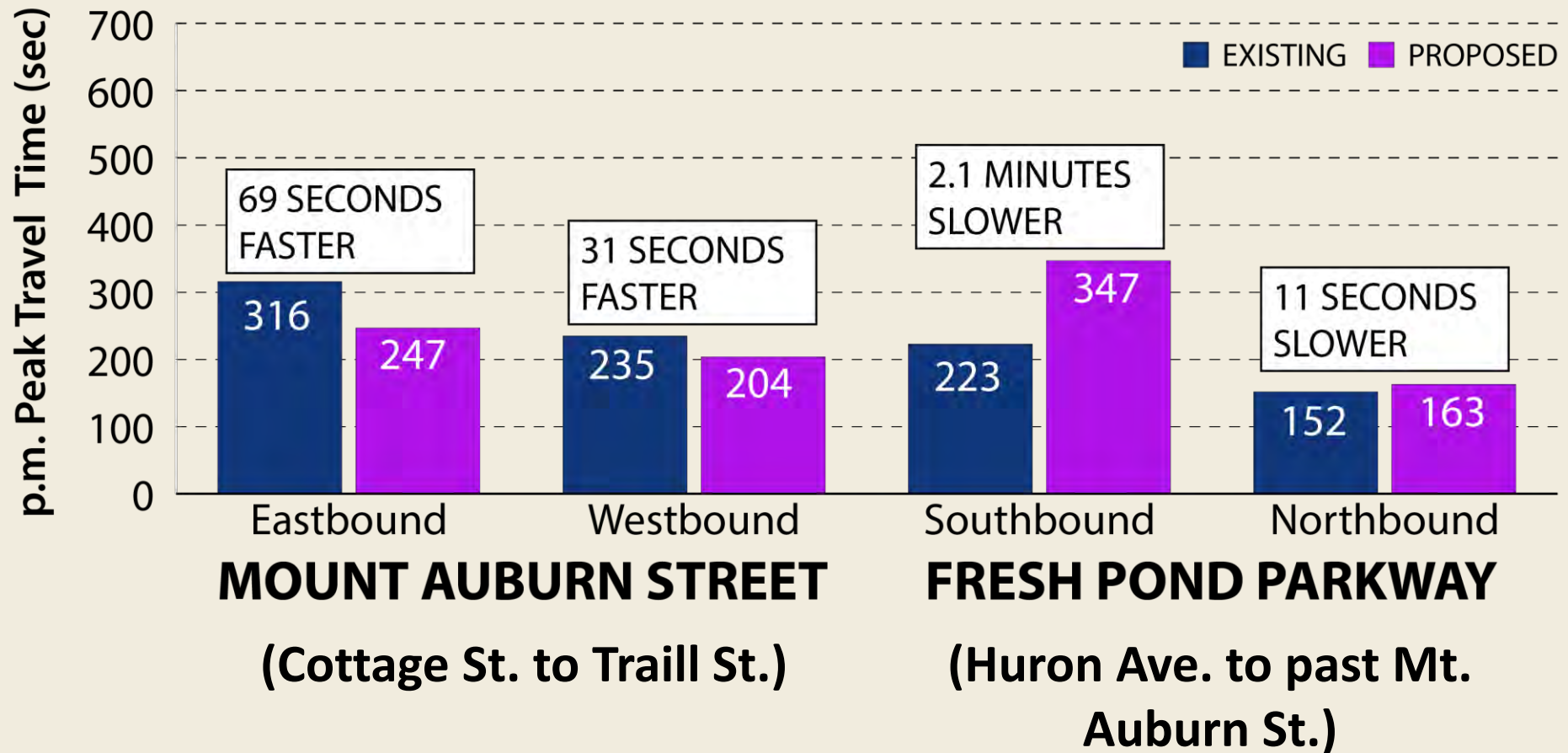
Travel Time Measures



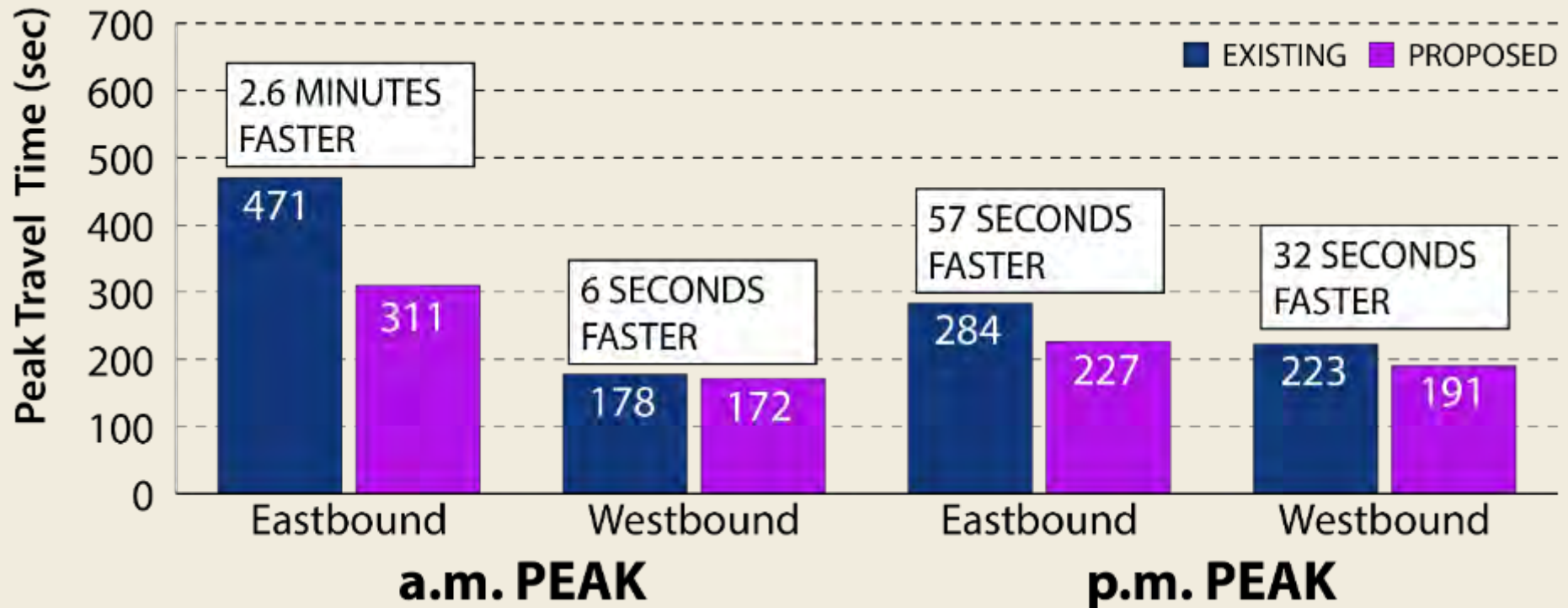
Auto Travel Time (AM Peak)



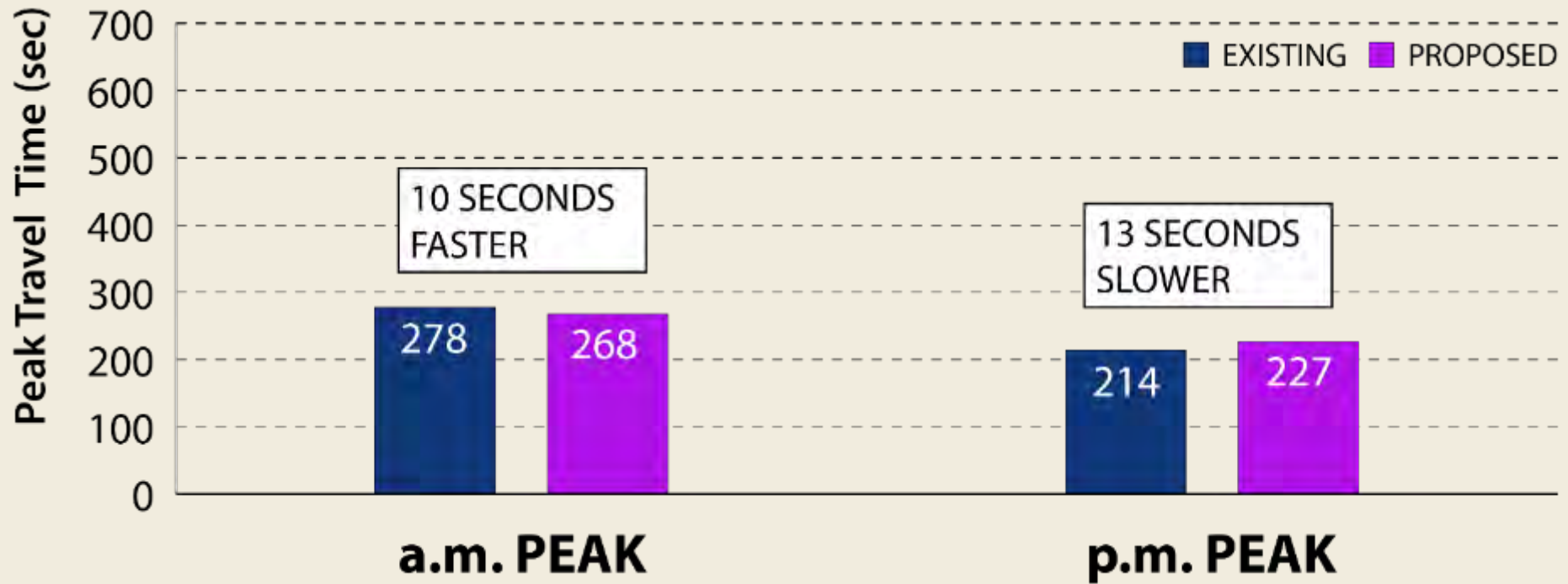
Auto Travel Time (PM Peak)



Person Travel Time – Mount Auburn Street (without ridership increase)



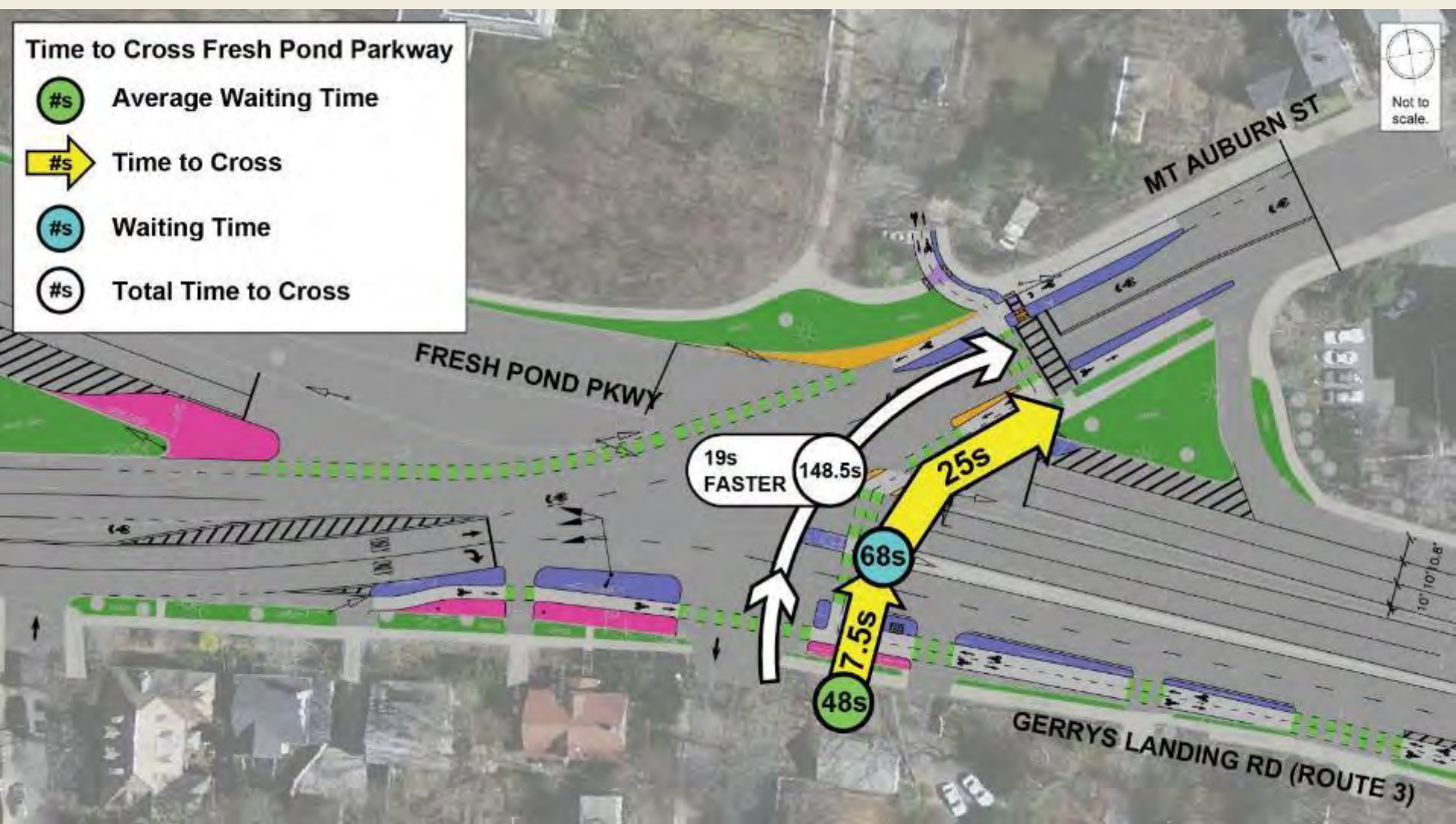
Person Travel Time – Mt. Auburn and Fresh Pond Pkwy



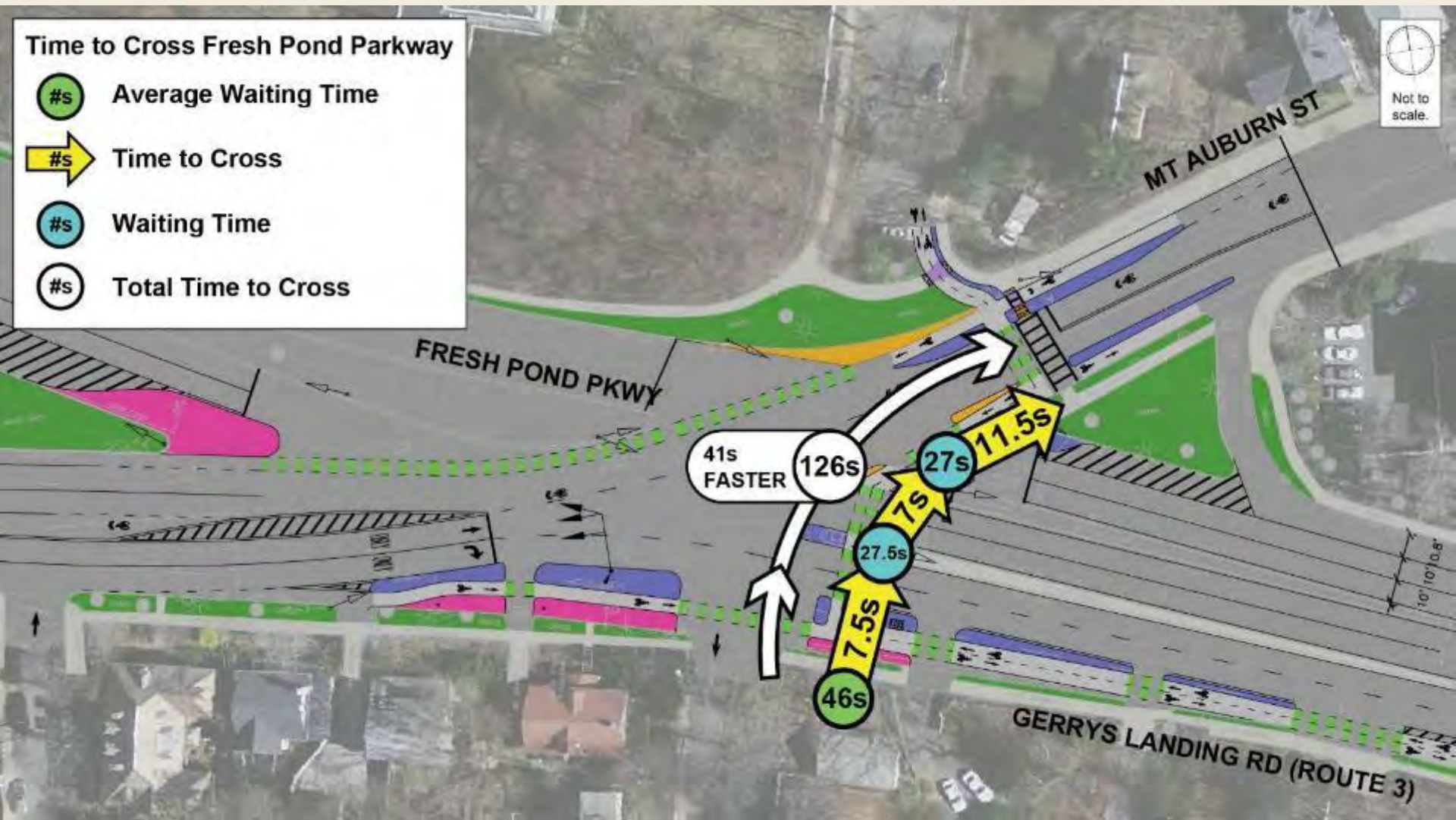


Q & A

Short-Term Option A – Eastbound Two-Stage Crossing



Short-Term Option B – Eastbound Three-Stage Crossing





Next Steps



Draft Report – Mount Auburn Corridor Study



Mount Auburn Street
Corridor Study
Draft Report | October 2017

Table of Contents

Background.....	1
History.....	1
Today.....	2
Building the Stakeholder Group.....	6
Existing Conditions.....	7
Pedestrians and ADA Conditions.....	13
Bicycle Conditions.....	13
Transit Conditions.....	15
Motorist Conditions.....	20
Defining the Problems and Establishing Shared Goals.....	23
Walk Through.....	23
First Public Meeting.....	24
The Shared Goals.....	25
Design Development and Concepts.....	27
Design Alternatives and Discussions.....	27
Long-term Design Concept.....	33
Key Issues Explained.....	34
Pedestrian and ADA Improvements.....	38
Parklands.....	39
Public Realm Improvements.....	39
Bicycle Improvements.....	41
Transit Improvements.....	42
Traffic Safety and Traffic Calming Improvements.....	43
Ongoing Discussion Topics.....	48
Short-Term Design Concept.....	51

List of Figures

Figure 1. Local Area Projects.....	4
Figure 2. Stakeholder Group Members.....	5
Figure 3. Stakeholder Group Membership Distribution.....	6
Figure 4. Project Limits.....	7
Figure 5. Curb Use and Edge Character.....	10
Figure 6. Pedestrian and ADA Conditions.....	11
Figure 7. Average Pedestrian Delay Times.....	12
Figure 8. Bicycle Level of Comfort.....	14
Figure 9. Average a.m. Peak Hour Bus Delay.....	16
Figure 10. Average p.m. Peak Hour Bus Delay.....	17
Figure 11. Daily Bus Passenger Boardings by Stop.....	18
Figure 12. Daily Bus Passenger Alightings by Stop.....	19
Figure 13. Crash Severity.....	20
Figure 14. Crash Type Comparison.....	21
Figure 15. Average Daily Traffic (ADT) Volumes and a.m. and p.m. Peak Hour Traffic Queues.....	22
Figure 16. Fresh Pond Parkway, Huron Avenue to Mount Auburn Street.....	47
Figure 17. Mount Auburn Street Corridor.....	48
Figure 18. Gery's Landing, Memorial Drive, and Greenough Boulevard.....	50
Figure 19. Fresh Pond Parkway at Mount Auburn Street and Gery's Landing.....	62

Project Area – DCR Long-Term Design



Next Steps:

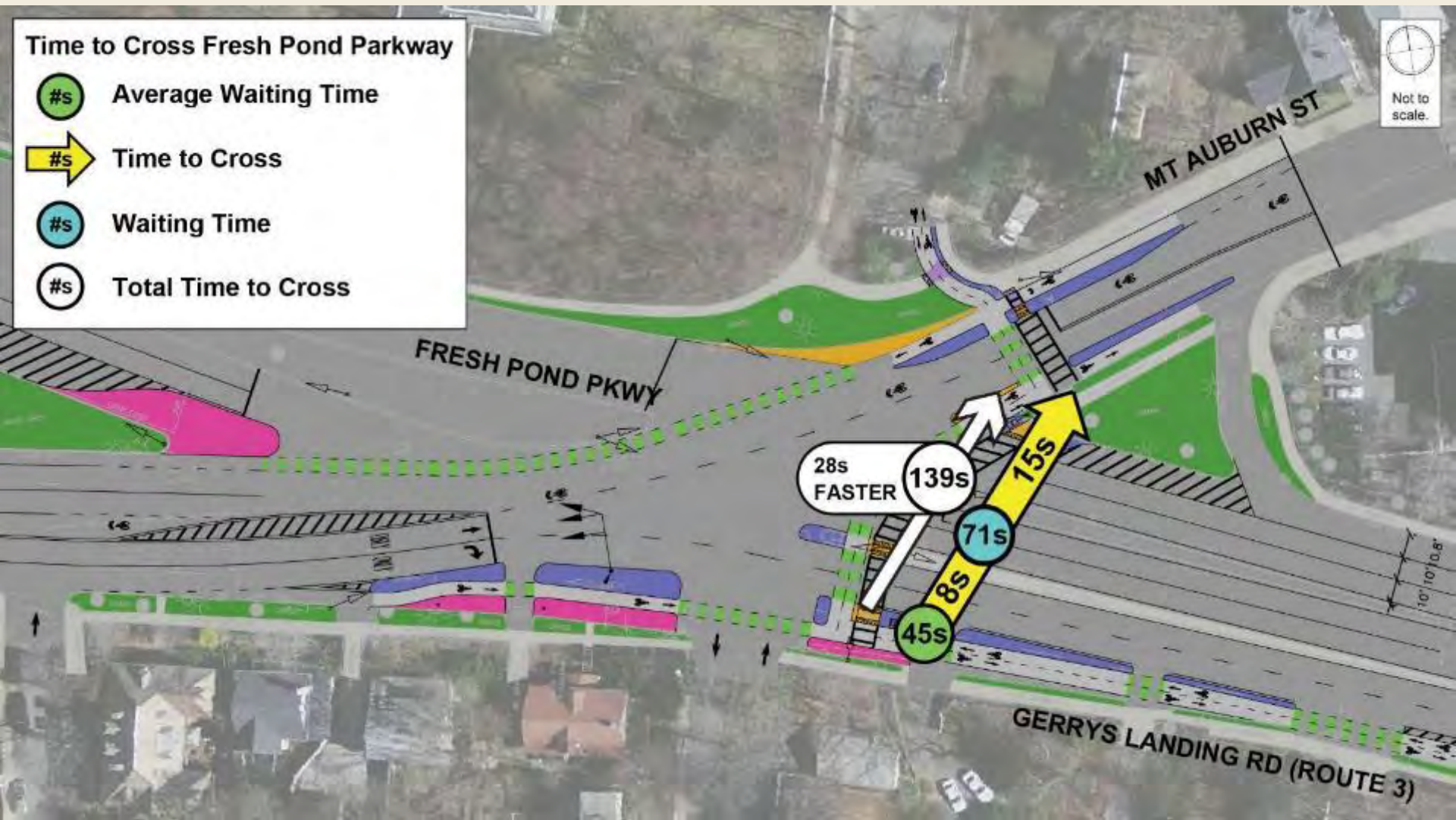
- DCR Final Report Release: January 2018
- Cambridge/Watertown BRT Public Outreach: Winter-Spring 2018
- DCR Pre-Construction Public Meeting: June 2018
- Anticipated DCR Construction: Summer 2018
- Cambridge/Watertown BRT Pilot: Summer 2018
- Long-Term – Seeking Funding



For More Information:

- **Project Website:** www.mass.gov/dcr/mt-auburn-corridor-study
- **Comments on Draft Final Report:**
 - *Submit online at:* <https://www.mass.gov/forms/dcr-public-comments>
 - *Write:* Department of Conservation and Recreation, Office of Public Outreach, 251 Causeway Street, Suite 600, Boston, MA 02114
 - *Comment Deadline: January 5, 2017*
 - *Note: Public comments submitted to DCR may be posted on the DCR website in their entirety, and no information, including personal information, will be redacted.*
- If you have questions or concerns or would like to subscribe to a DCR project-specific or general information listserv, please email Mass.Parks@state.ma.us or call 617-626-4973.

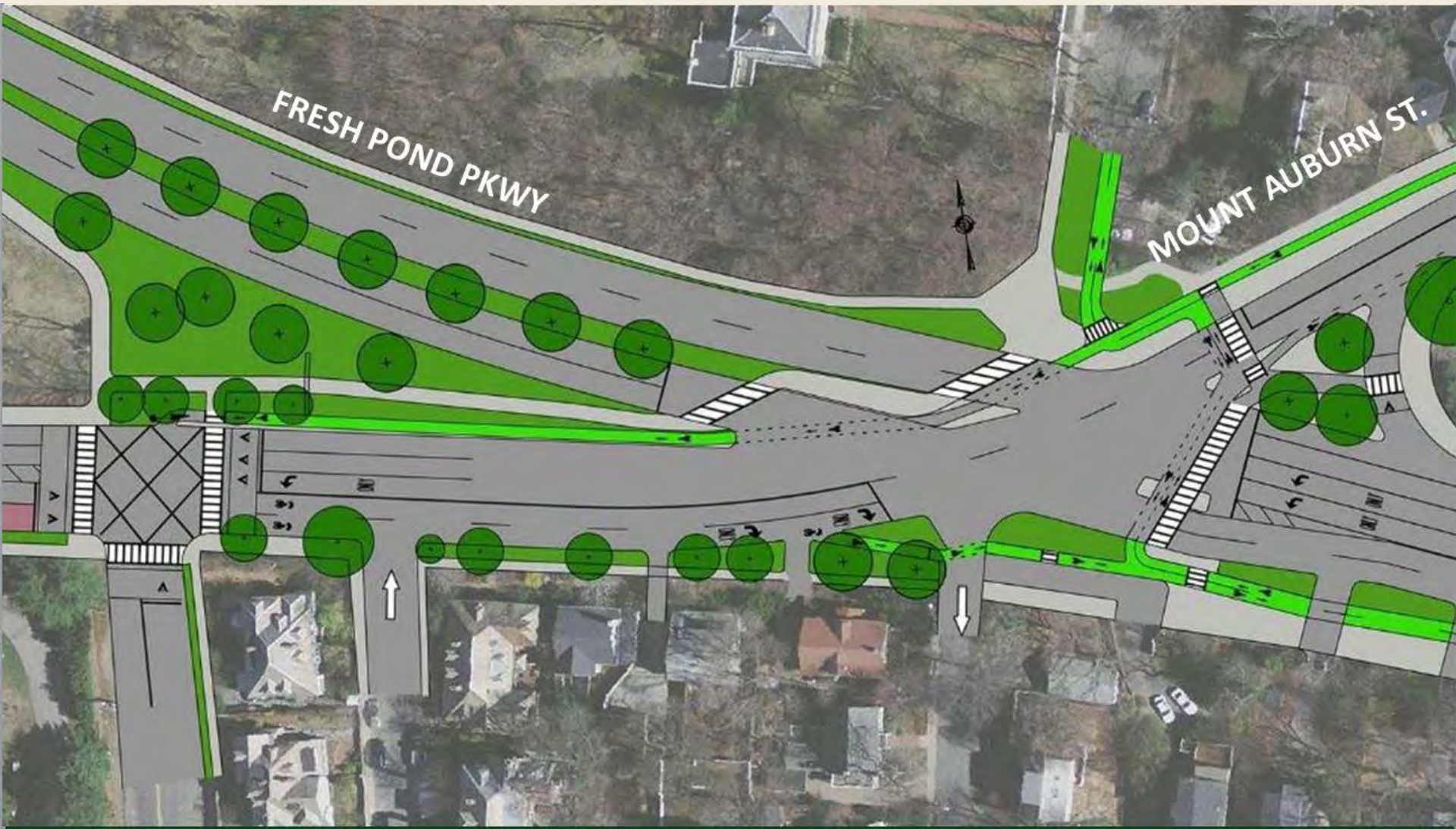
Long-Term Improvements



Long-Term Concept



Long-Term Concept



Long-Term Concept

