Welcome to the Newton Transportation Strategy Workshop #2

Newton in motion
A Transportation Strategy for Newton

Newton-in-Motion Process Overview

Newton-in-motion is a **strategic process**

that will create a **comprehensive guide** towards a more equitable, economically and environmentally sustainable **multimodal transportation system.**

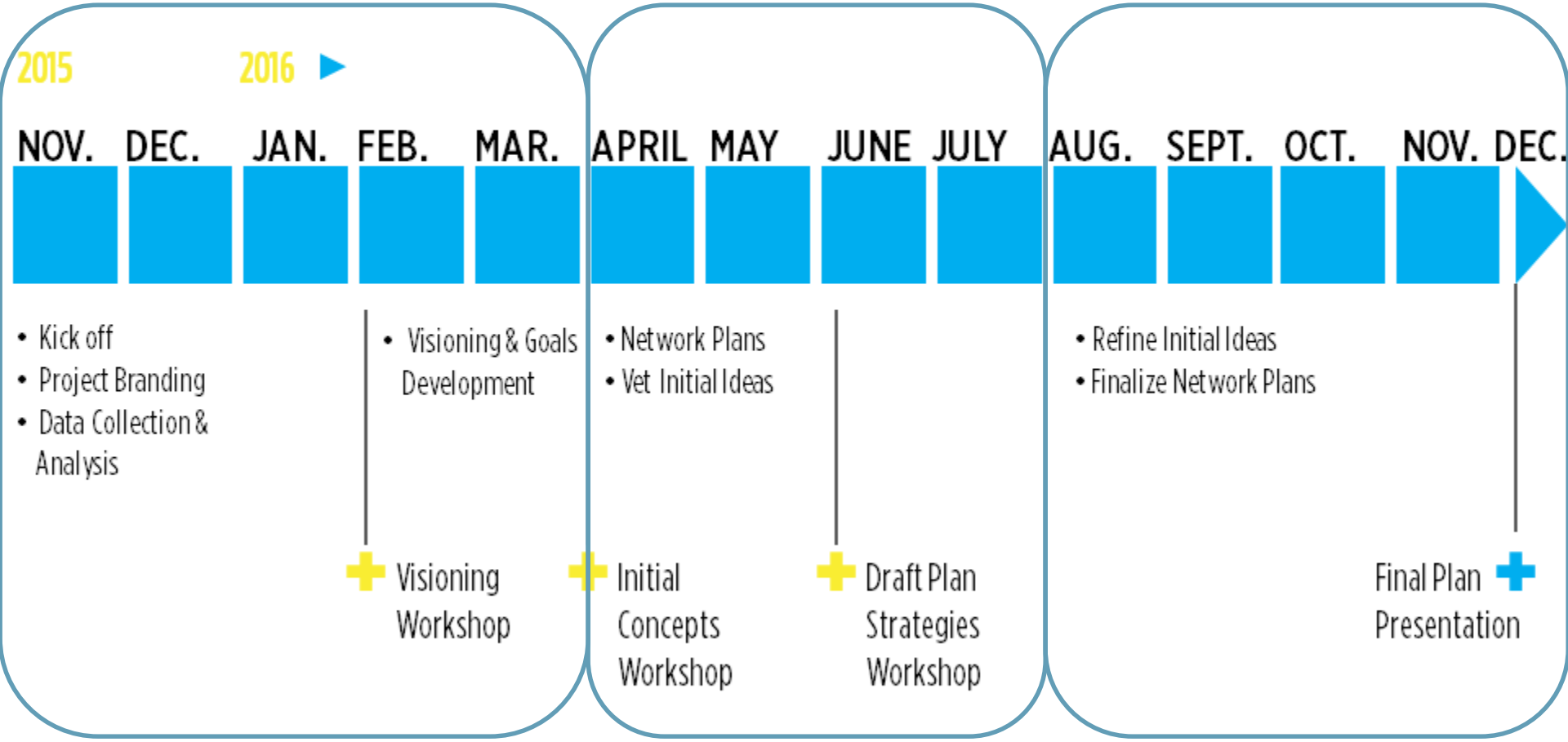
This plan will go **hand-in-hand with other plans and strategies**

that carry Newton forward in a future of changing travel patterns and growing transportation options.

Take your part in sharing **your vision** for Newton's dynamic transportation future!

Newton in motion
A Transportation Strategy for Newton

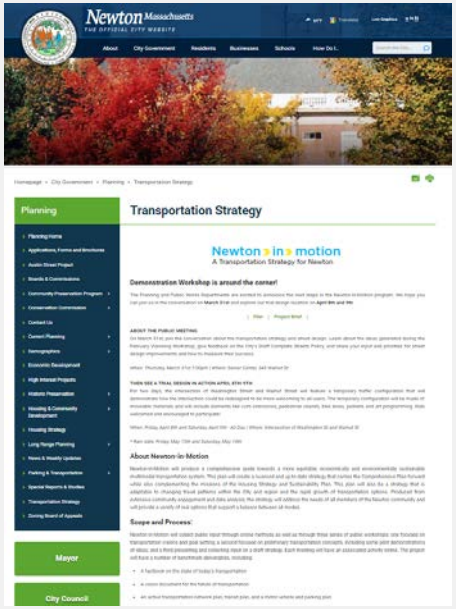
NEWTON TRANSPORTATION STRATEGY PROJECT SCHEDULE



Develop Framework | **Generate Ideas** | **Evaluate and Create Plan**

Project Website

- www.newtonma.gov/transportationstrategy
- Project information
- Mailing list sign up
- Survey links
- Contact transportationstrategy@newtonma.gov



DRAFT

TRANSPORTATION FACTBOOK + VISION REPORT PART 1

Newton in motion

A Transportation Strategy for Newton

March 2016

Contents

A VISION FOR NEWTON TRANSPORTATION

VISIONING PROCESS

Newton-in-Motion is a project dedicated to an interactive and ongoing public involvement process. To reach as broad of a population as possible, the project began with a multi-day, multi-location workshop, plus simple online tools to garner input to set the project direction. Based on the input received through the month of February 2016, the project team was guided on what is most important to residents, commuters, employees, business owners, and others. The February events were the first of several efforts to engage the public.

The Visioning Process kicked off the entire project. The intent was to hear from as many people as possible, plus from many different voices and perspectives. Before any rigorous or technical analysis, the Visioning sessions identified priority values, geographic areas, and issues that are being used to shape the scope of the rest of the project.

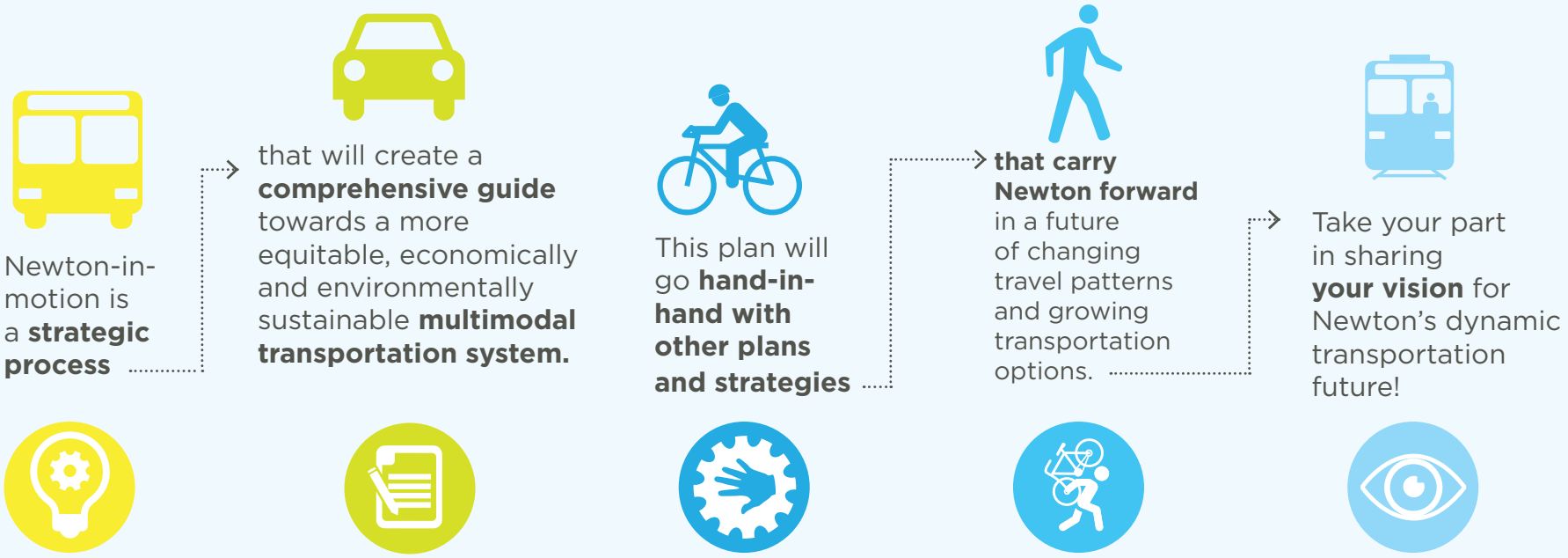
PUBLIC WORKSHOP AND POP-UPS

Workshop and online participants ranged in ages from under 20 to over 60 years old. A variety of hands-on exercises provided multiple opportunities for people of all ages and interests to offer input. Workshop stations included:

- Goals prioritization of goals identified by the Newton Transportation Advisory Committee in 2011
- Goals identification of new or modified community priorities
- Objectives brainstorming - generating ideas of how the City and community can achieve identified goals
- Geographic and travel mode issue identification on citywide map, including "mode journaling"
- Regional route mapping to draw most frequent route by mode
- A number of supportive interactive exercises, including a "Wheel of Questions" to provoke ideas and awareness of current and future transportation trends, a kid's coloring station, and a "What's your Transportation Vision?" open concept clothesline project
- An exhibit of more than a dozen display boards that showcased initial transportation findings, such as transit access, demographic trends, and crash rates
- A complete street design station, where, with a kit of "street parts" like sidewalks, travel lanes, trees, lighting, sidewalks and bike lanes, participants could choose what elements they want to include on various Newton streets

In addition, the team met one-on-one with several local and regional organizations, such as Newton-Needham Chamber, Route 128 Business Council, BikeNewton, Safe Routes to School, and GreenNewton, and others, plus City departmental staff and the City Council.

During the visioning workshop, a mobile pop-up workshop moved throughout different neighborhoods, including the Newton Senior Center, Newton Free Library, Newtonville, West Newton, Newton Centre, and Newton Highlands. Participants answered questions about their current travel habits, and they provided ideas on how they thought the City should address its transportation challenges. A major issue expressed both at the Senior Center and at other locations was the need to expand travel options for seniors who do not have access to a vehicle, particularly for more spontaneous trips. Other primary concerns included lack of parking availability, safety, and access to transit outside of major hubs.



Newton in Motion Visioning Process

WHO PARTICIPATED? *

OVER 60 YEARS OLD

75

51-60 YEARS OLD

53

41-50 YEARS OLD

55

31-40 YEARS OLD

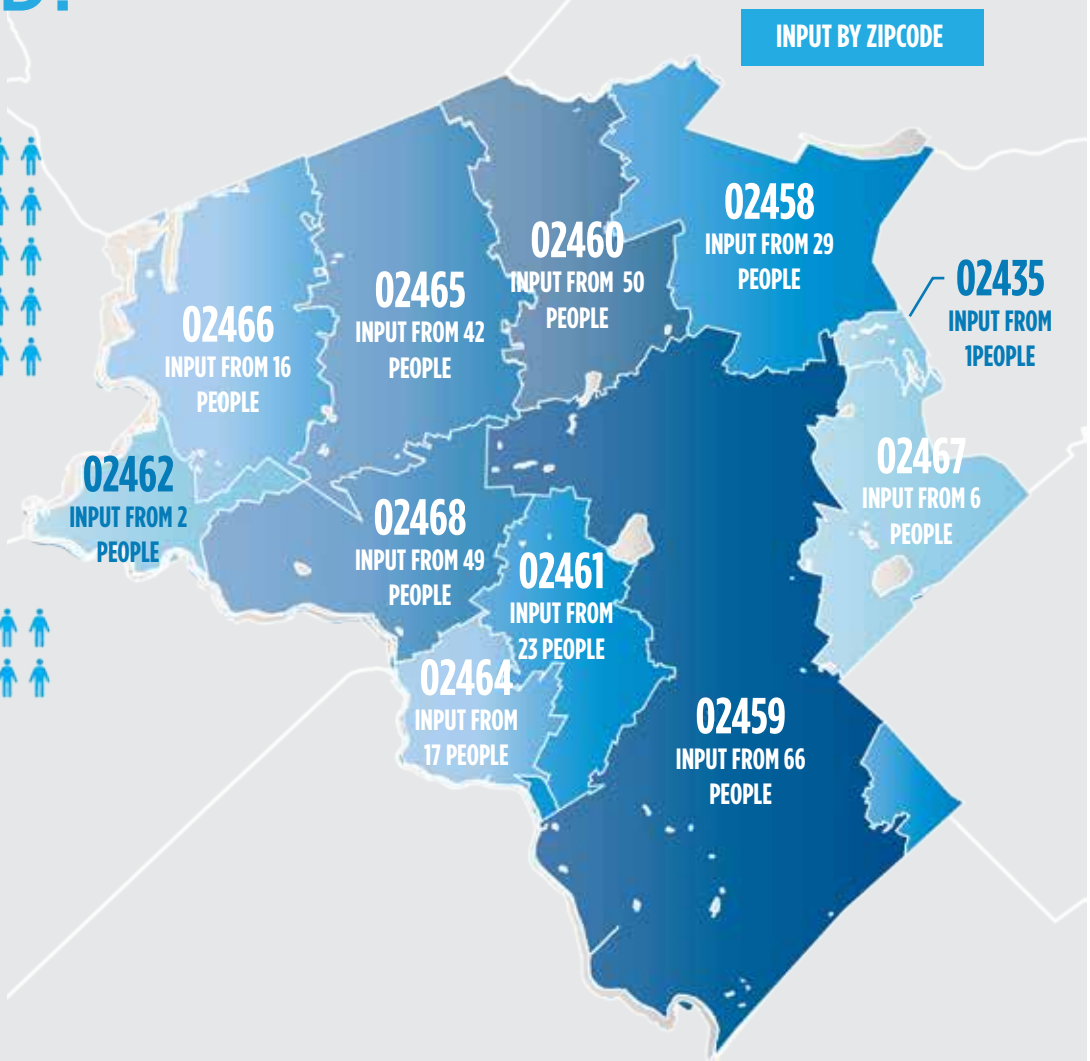
24

21-30 YEARS OLD

7

20 & UNDER 20 YEARS OLD

4



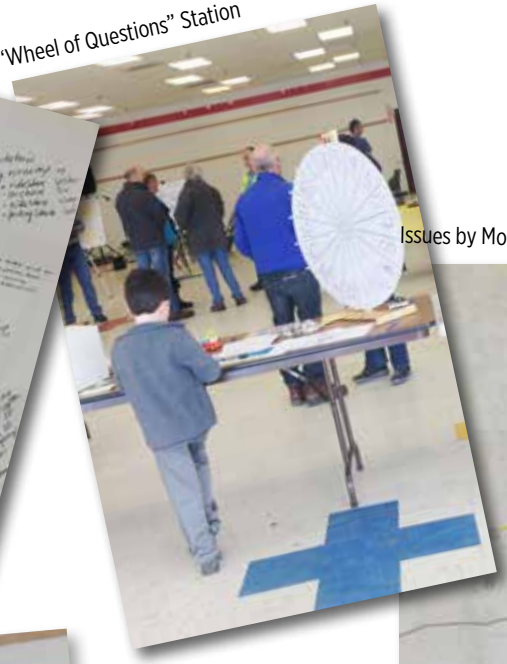
* Age and zip codes collected voluntarily; this infographic reflects information reported by participants.

Photos from the workshop

Goals Prioritization and Objectives Identification

Additional Goals

"Wheel of Questions" Station



Issues by Mode and Location

Gallery of Transportation Information

Stakeholder Meetings

Kids Station

Most Frequent Routes by Mode

"What's Your Transportation Vision?"

Design Your Street Cross-Sections

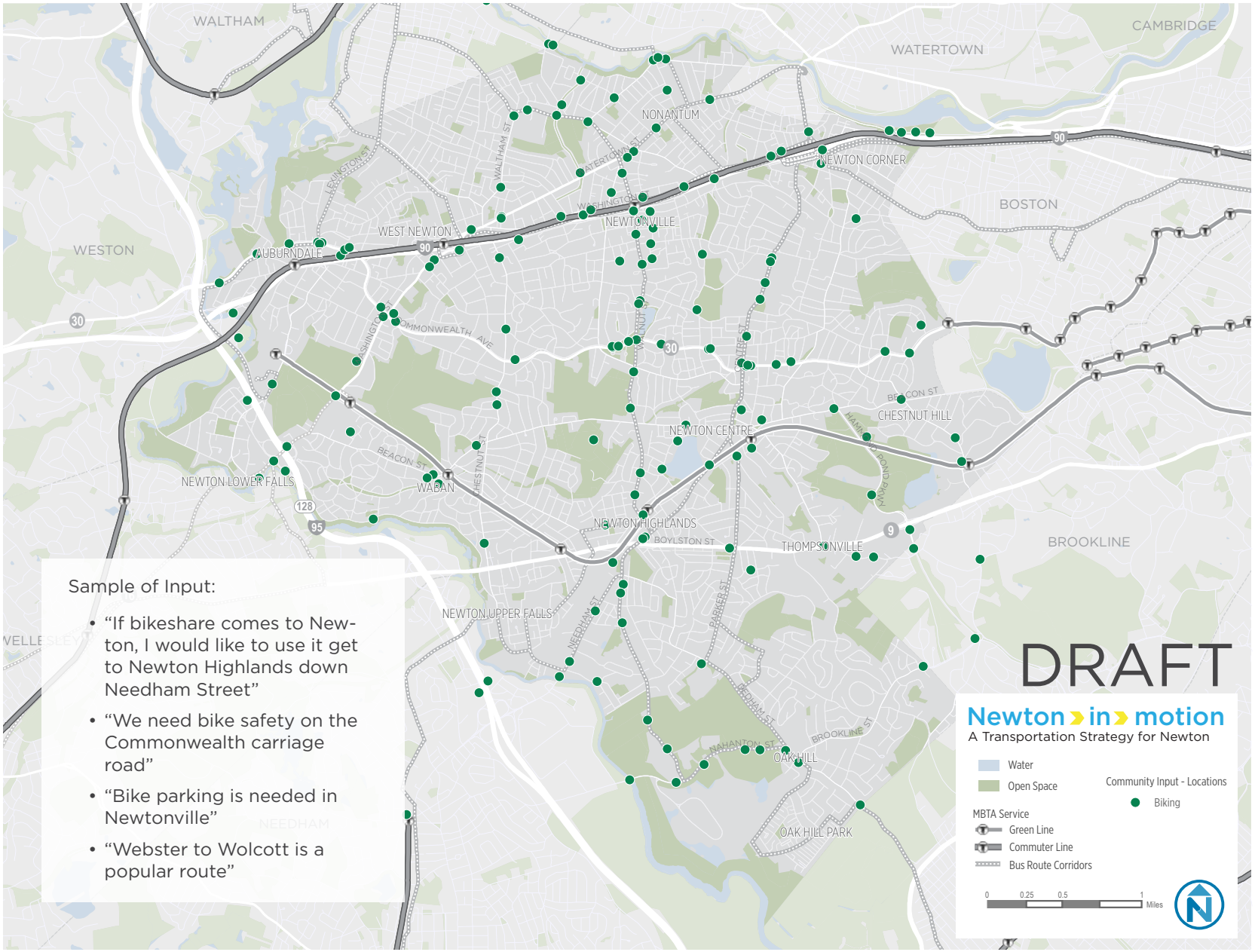
Design Your Street Pieces

Project Overview Presentations

Sign-In and Sign-Up

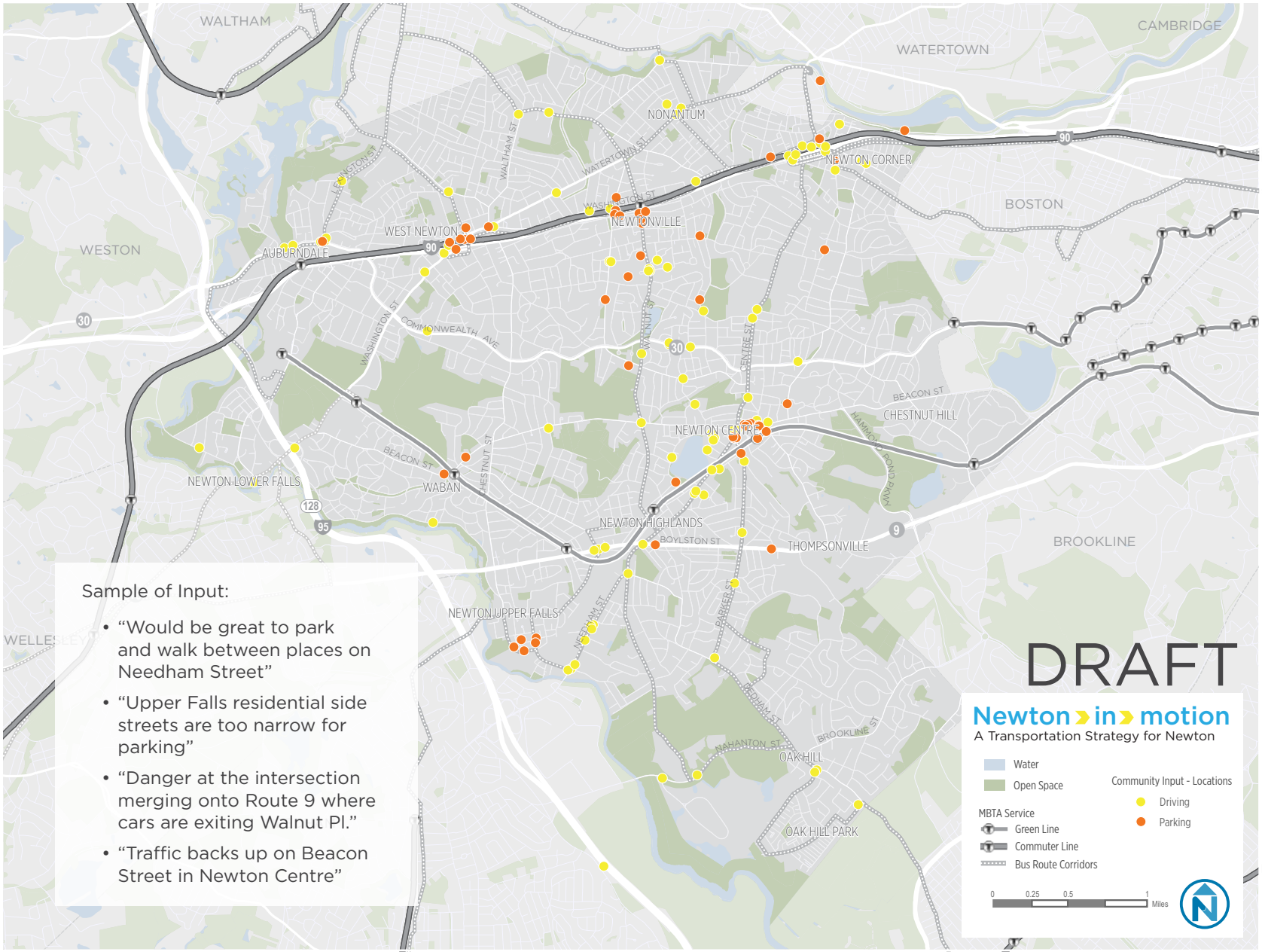
Biking Location Priorities: Community Input Collected Online and at Workshop

FIGURE 56 BIKING ISSUES



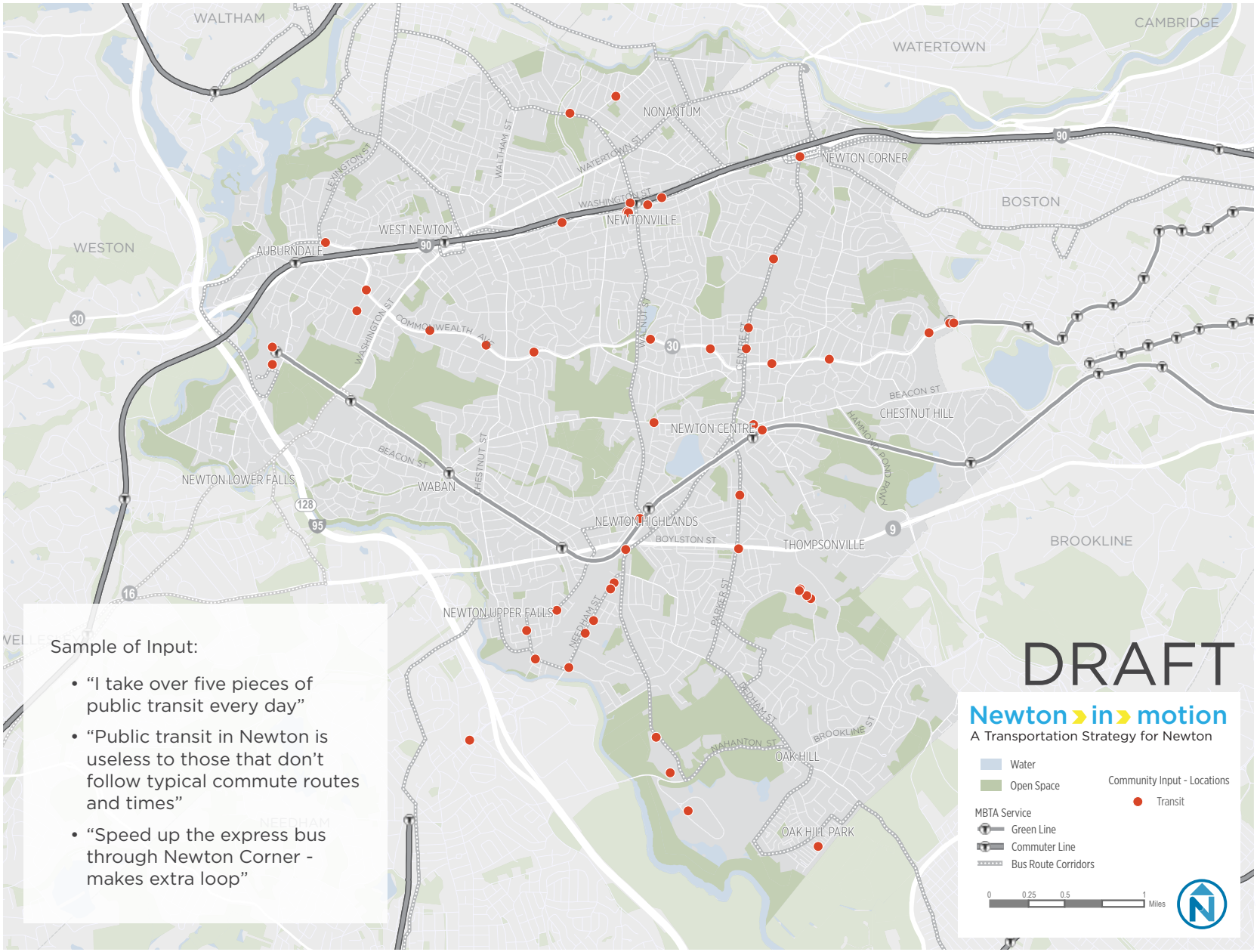
Driving & Parking Location Priorities: Community Input Collected Online and at Workshop

FIGURE 57 DRIVING AND PARKING ISSUES



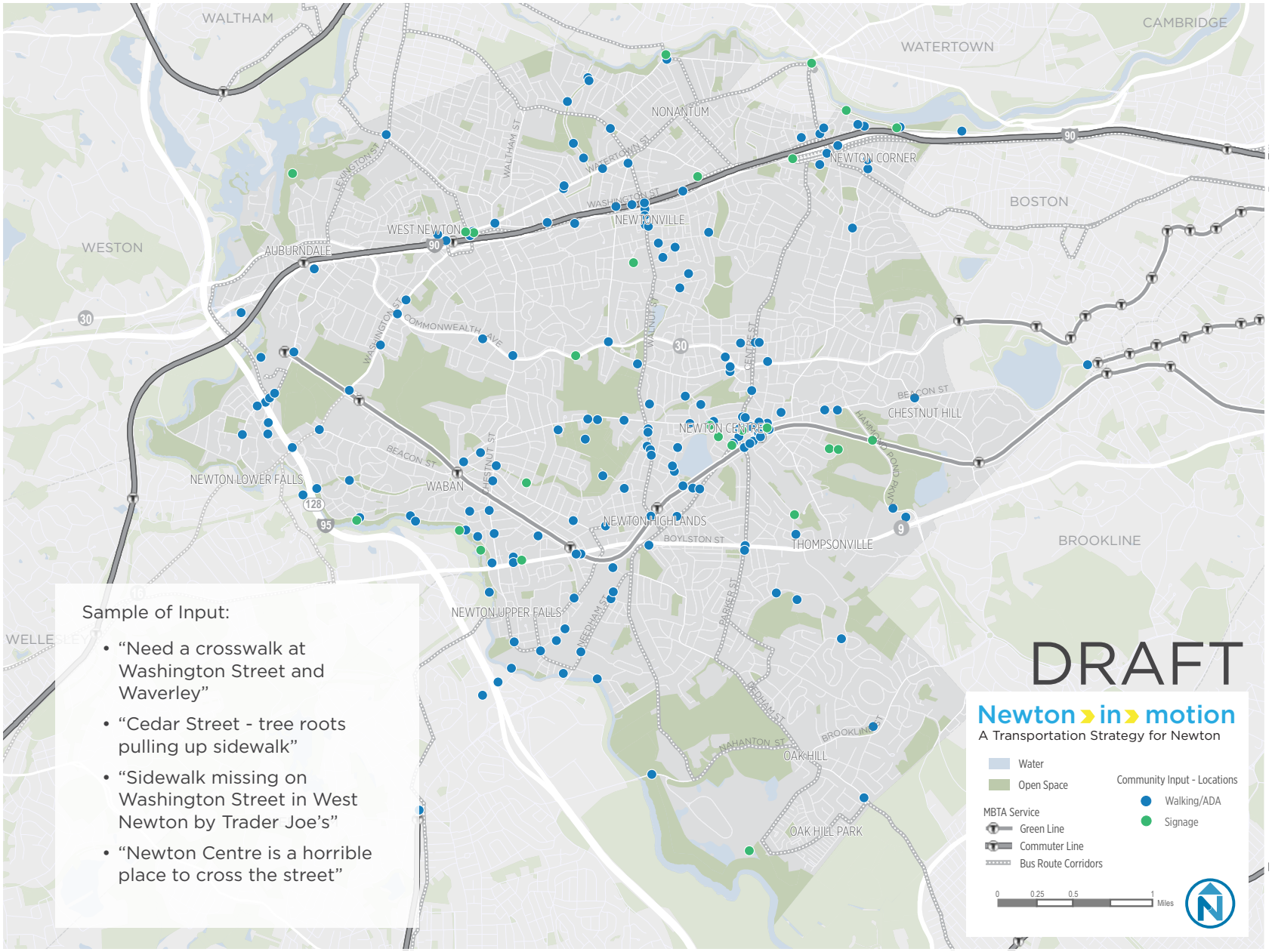
Transit Location Priorities: Community Input Collected Online and at Workshop

FIGURE 58 TRANSIT ISSUES



Walking Location Priorities: Community Input Collected Online and at Workshop

FIGURE 59 WALKING AND ADA ISSUES



CITY'S TRANSPORTATION VISION AND GOALS

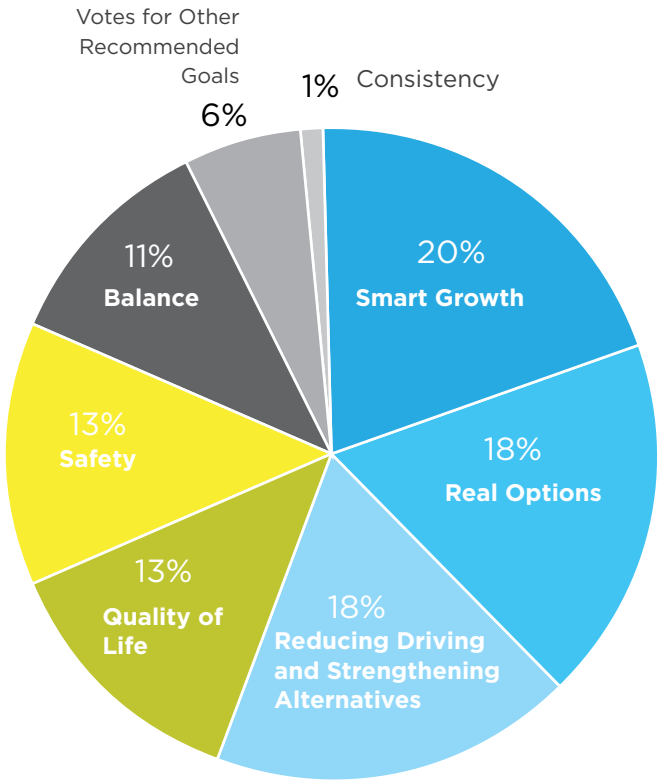
Vision Statement DRAFT

Newton's transportation programs, projects, and policies should support economic development, champion a sustainable City, and provide equitable access for all people.

The vision for today and future transportation in Newton was developed from conversations with stakeholders, the public, and the City.

The statement is reflective of a common theme heard among all groups: the transportation system exists to serve people to get to and from the City's and region's destinations, including neighborhoods and village centers; schools, institutions, and places of work; and entertainment and recreational areas.

FIGURE 60 PERCENTAGE OF VOTES FOR EACH GOAL



Primary Goals

Hundreds of Newton residents, employees, business owners, and others vetted, augmented, debated, and prioritized proposed transportation goals to guide the Transportation Strategy and future decision-making on transportation projects and policies. The initial transportation goals were developed by the Transportation Advisory Committee in 2011, were slightly adapted for the Transportation Strategy, and then were evaluated by the public process in February 2016.

Top Goals

- **Smart Growth** - Transportation, planning, and land use decisions to enable more walking, biking, and use of public transportation
- **Real Options** - Provide a variety of options for getting to destinations
- **Reducing Driving and Strengthening Alternatives** - focusing on reducing motor vehicle travel

Secondary Goals

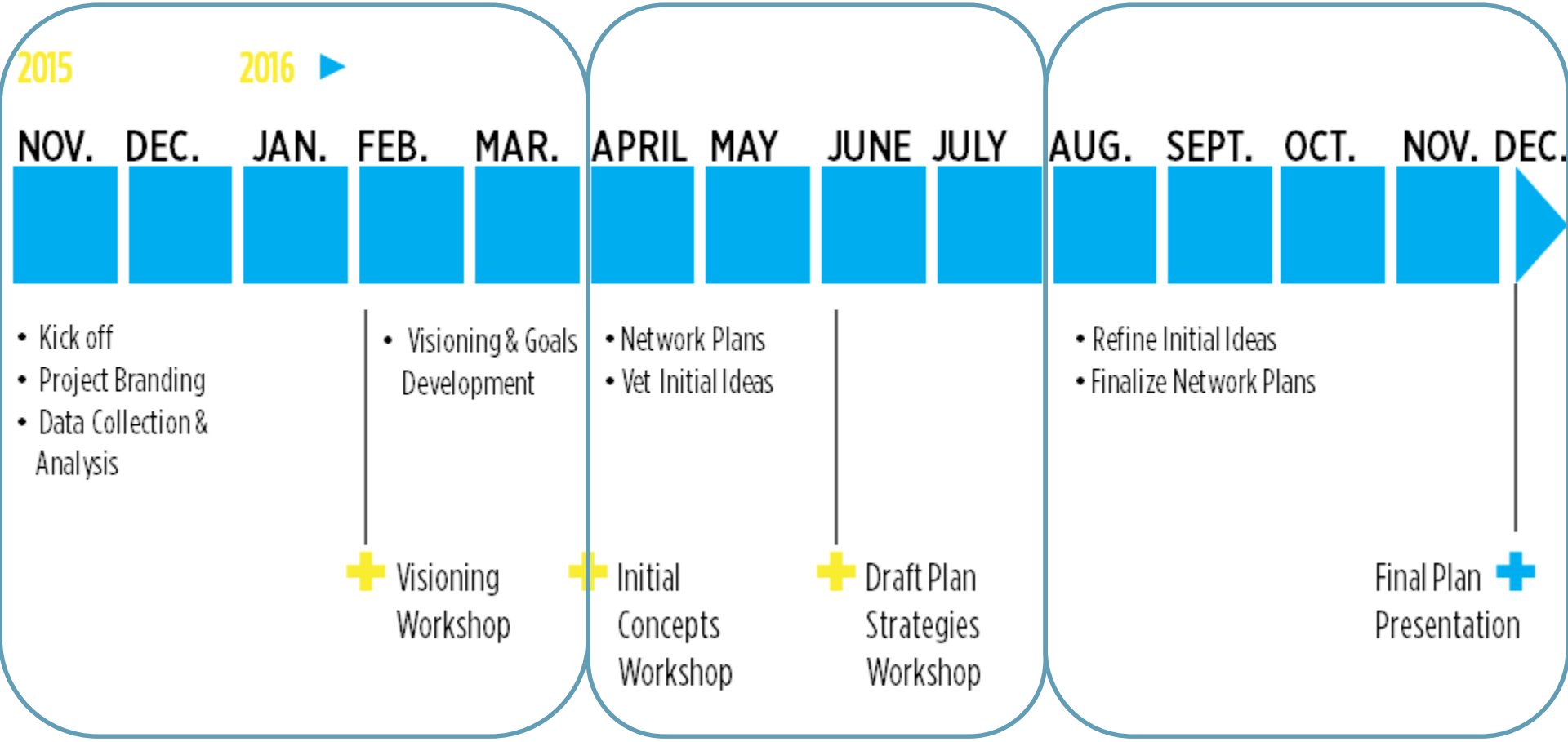
- **Quality of Life** - The experience of using the transportation system should reflect Newton's high quality of life
- **Safety** - Policies, investments, and enforcement based on "safety first"
- **Balance** - Address and improve performance across all modes of travel and balance needs of users
- **Consistency** - Transportation investment and decision-making will be consistent with plans and policies

GOAL	SAMPLE OF COMMUNITY COMMENTS ON HOW TO ACHIEVE THESE GOALS		
REDUCE DRIVING AND STRENGTHEN ALTERNATIVES Number of Responses: 99	"Reduce speed limits on residential streets. Focus on pedestrian safety vs. drivers / commuters trying to get through Newton Centre."	Join the bike sharing service that is in other nearby communities and cities.	"Better plowing of sidewalks in winter...Very dangerous to walk in the winter if you have to go into the road to walk."
REAL OPTIONS Number of Responses: 94	"Meaningful shuttles for intra-city short trips"	"Separated bike lanes, bike lanes connecting villages on major streets, pedestrian greenways"	"Trains that run on the tracks in our underserved transit hubs, eg Newtonville, West Newton, Auburndale"
SAFETY Number of Responses: 88	"There seems to be a HUGE lack of traffic enforcement when it comes to speeding and stopping at STOP signs and also for crossing guards in Newton Centre."	"Traffic calming configurations, complete street on Washington, stricter school drop off policy"	"Fix the commuter rail station. It is not ADA-compliant. The stairs are steep and slippery in winter."
QUALITY OF LIFE Number of Responses: 86	"Traffic is ruining quality of life, time suck, road rage, air pollution."	"Clean, safe, well-lit and safe walking and biking paths."	"Slow the growth in the city. Every development brings more cars to over crowded streets."
SMART GROWTH Number of Responses: 84	"DO NOT approve or encourage large apartment complexes, even near public transit. It will not work in Newton!"	"Rezone area surrounding commuter rail and T stations to permit as of right Multifamily housing"	"Smart growth should only be used if provisions severely limit auto use or if street capacity is expanded to accommodate the added auto trips."
BALANCE Number of Responses: 43	"Focus on the needs of the under-served, not the over-"cared""	"We should now invest in biking as much as we have invested in other transport (cars/bus/train)"	We need to understand that Newton is a city that is car first.
CONSISTENCY Number of Responses: 34	"Make the T reliable. Allow Charlie Cards on commuter rail. Add commuter rail trains."	"Roads are so terrible in some parts of Newton, so good in others. I'd like more consistent maintenance."	"Make these changes city-wide not just in certain villages."

What's Next?

- Host demonstration project – next week! April 8-9
- Refine Factbook and Vision Document
- Develop project, program, and policy ideas
- Develop metrics and targets based on goals
- Present draft plan week of June 13

NEWTON TRANSPORTATION STRATEGY PROJECT SCHEDULE



Develop Framework | **Generate Ideas** | **Evaluate and Create Plan**

City of Newton

Complete Streets & Complete Streets Funding

March 31, 2016

James D. Fitzgerald, P.E., LEED AP
Director of Transportation
Environmental Partners GROUP
A partnership for engineering solutions.
www.envpartners.com

OBJECTIVES:

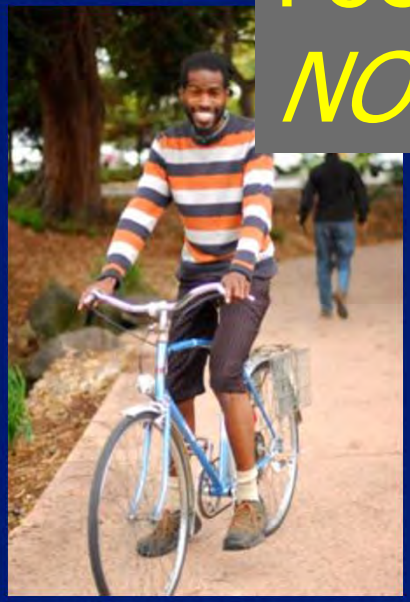
To gain an understanding of:

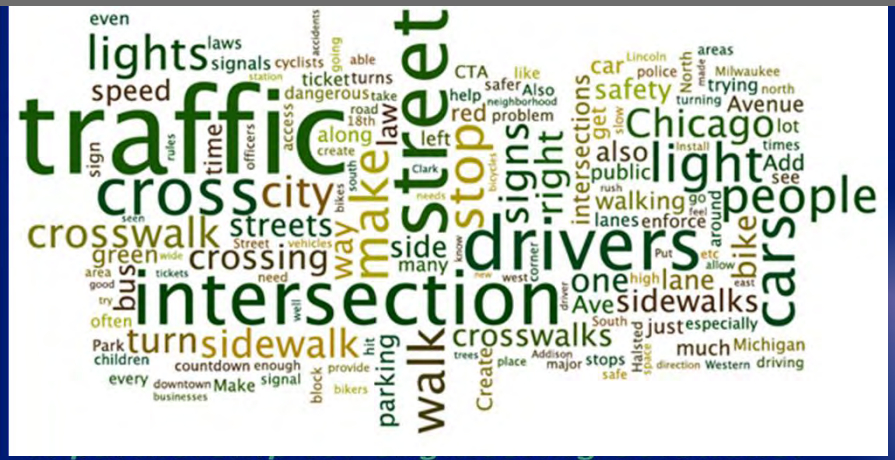
- WHAT are Complete Streets?
- WHY use them?
- What are the COMPONENTS of a Complete Street?
- How can TRAFFIC CALMING help promote safe Complete Streets?
- The Complete Streets Funding program in Massachusetts

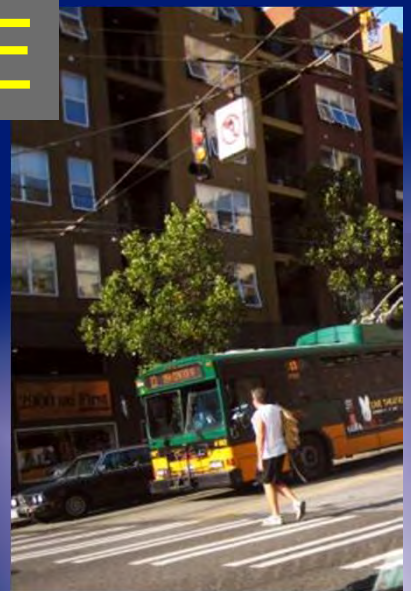
What are Complete Streets?

Provide safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation

Focus on the COMMUNITY, *NOT* just on the COMMUTE







WHY COMPLETE STREETS?

IMPROVES:

- SAFETY
- HEALTH
- ECONOMY
- ENVIRONMENT

WHY COMPLETE STREETS?

SAFETY

Roadway fatalities involve all modes of transportation:

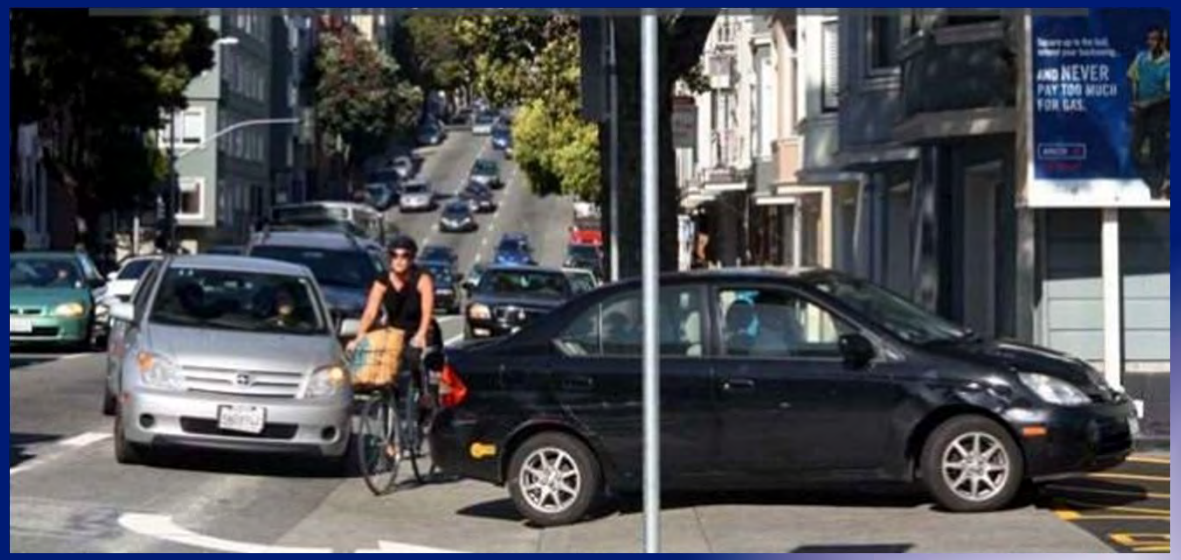
- 32,719 traffic fatalities in the U.S. in 2013 of which:
  - 21,132 in cars
  - 4,735 walking
  - 743 on bicycles

(National Highway Traffic Safety Administration: Fatality Analysis Reporting System 2010)

Many accidents take place where accommodations are not provided:

- More than 40% of pedestrian deaths occur where no crosswalk are available

(National Highway Traffic Safety Admin. Fatality Reporting System, 2007-2008)



WHY COMPLETE STREETS?

SAFETY

Complete Streets contribute to improve Multi-Modal Safety

Pedestrian Fatalities decrease by	88% when	sidewalks are added*
	69% when	Hybrid Signals are added**
	39% when	Medians are added**

*FHWA-RD-01-101 Feb 2002
**"The Many Benefits of Complete Streets" Smart Growth America March 2015

NYC: Safe Routes to School program areas
Pedestrian Injuries decrease by 44% (5-19 year olds)
(Smart Growth America, National Complete Streets Coalition, Five State Study)

Bicycle Accidents decrease by	50% when	Bike Lane provided
	90% when	Barrier provided

"Dedicated Bike Lanes Dramatically Reduce Accidents", October 2012

WHY COMPLETE STREETS?

HEALTH

More than 1/3 of children in U.S. are overweight or obese

Unhealthy weight = higher risks for diabetes, high cholesterol, high blood pressure, sleep apnea and joint problems

More people with safe places to walk meet daily required physical activity than those without

Risk of Obesity:

- **Increases** 6% for each hour spent in a car
- **Decreases** 4.8% for each additional km walked

(Obesity relationships with Community Design, Physical Activity and Time spent in cars. American Journal of Preventative Medicine 27(2))

Complete Streets promoted by:

- Institute of Medicine
- National Conference of State Legislators
- Center for Disease Control and Prevention

WHY COMPLETE STREETS?

ECONOMY

Complete Streets have proven to Stimulate local economies

Lancaster, CA (50 businesses, 800 jobs, Sales Tax up 26%)
(The Many Benefits of Complete Streets, Smart Growth America, 2015)

9th Ave, NYC (49% increase in retail sales)
NYC DOT, 2012, Measuring the Street: New Metrics for 21st Century Streets

Union Square, NYC (49% decrease in commercial vacancies)
NYC DOT, 2012, Measuring the Street: New Metrics for 21st Century Streets

Barracks Row, Washington D.C. (32 New Businesses, Sales Tax up $80k) $8M public investment 2003; $8M private
(The Many Benefits of Complete Streets, Smart Growth America, Barracks Row at 8th Street 2015)

For each $1M invested:

Bicycle Projects… 11.4 jobs created
Pedestrian Projects… 9.6 jobs created
Auto-only Projects… 7.8 jobs created

(The Many Benefits of Complete Streets, Smart Growth America, 2015)

PLUS save costs of unnecessary widening or maintaining unnecessarily wide roadways

WHY COMPLETE STREETS?

ENVIRONMENT

Transportation accounts for nearly 1/3 of all greenhouse gas emissions

50% of all trips < 3 miles
28% of all trips < 1 mile
YET 60% of all trips are driven
(National Household Travel Survey, 2009)

Switching to walking or biking for short trips…
reduces CO_2 emissions by 12 to 22 mill. ton/year

IF YOU BUILD IT, WILL THEY COME?

Infrastructure improvements and promotional programs increase walking by 45%.
(Smart Growth America, National Complete Streets Coalition, Five State Study)

Improvements in 4 communities over 4 years:

- 22% increase in walking
- 49% increase in biking
- 23% increase in utilitarian trips made by foot
- 5% increase in utilitarian trips made by bike

So 16 million miles on foot or bike that would have otherwise been driven in one year
(The Many Benefits of Complete Streets, Smart Growth America, 2015)

Complete Streets Considerations

- **Design & Space Allocation**
- **Multi-Modal Accommodations**
  - *Vehicle Accommodations*
  - *Bicycle Accommodations*
  - *Pedestrian Accommodations*
  - *Transit Accommodations*
- **Traffic Calming**

DESIGN & SPACE ALLOCATION

DOES ONE SIZE FIT ALL?

NO

VS.

Many influencing factors:

- Right of Way
- Obstructions
- Likelihood/Prioritization of each mode
- The intended vision of that location
- Parking needs, etc.

DESIGN & SPACE ALLOCATION

"CONTEXT SENSITIVE DESIGN"

CHANGE FROM...

CONVENTIONAL DESIGN

"DESIGN FROM THE INSIDE OUT"

ADD UP (WIDE) TRAVEL LANE, RUN OUT OF R.O.W.
RESULT: PREDOMINANTLY VEHICULAR ACCOMMODATIONS

DESIGN & SPACE ALLOCATION

"CONTEXT SENSITIVE DESIGN"

TO...

COMPLETE STREETS DESIGN

"DESIGN FROM THE OUTSIDE IN"

ADD UP DESIRABLE ELEMENTS THAT CAN FIT IN R.O.W.

RESULT: ***BALANCED*** *MULTI-MODAL DESIGN*

Multi-Modal Accommodations

- *Vehicle Accommodations*
- *Bicycle Accommodations*
- *Pedestrian Accommodations*
- *Transit Accommodations*

VEHICLES

EXCESSIVE WIDTH INCREASES SPEED

Range of Travel Lane Widths (In Feet)

Area Type	Roadway Type			
	Freeways	Arterials[1]	Collectors[2]	Local Roads
Rural Natural	12	11 to 12	10 to 12	9 to 12
Rural Developed	12	11 to 12	10 to 12	9 to 12
Rural Village	N/A	11 to 12	10 to 12	9 to 12
Suburban Low Density	12	11 to 12	10 to 12	9 to 12
Suburban High Density	12	11 to 12	10 to 12	9 to 12
Suburban Village/Town Center	N/A	11 to 12	10 to 12	9 to 12
Urban	12	11 to 12	10 to 12	9 to 12

1 Lane widths less than the values shown above may be used if a design exception is obtained. See Chapter 2 for a description of the design exception procedure. Situations where narrower lanes may be considered are described below.
2 Minimum 11-foot lanes are required for design speeds of 45 miles per hour or greater.
N/A Not Applicable

Source: Adapted from A Policy on Geometric Design of Highways and Streets, AASHTO 2004, Chapter 4 Cross-Section Elements.

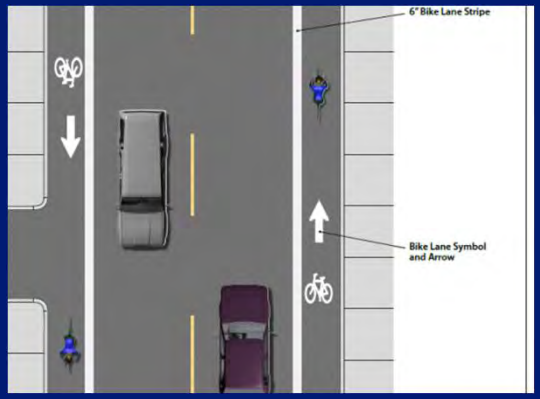
(MASSDOT PROJECT DEVELOPMENT AND DESIGN GUIDE – 2006)

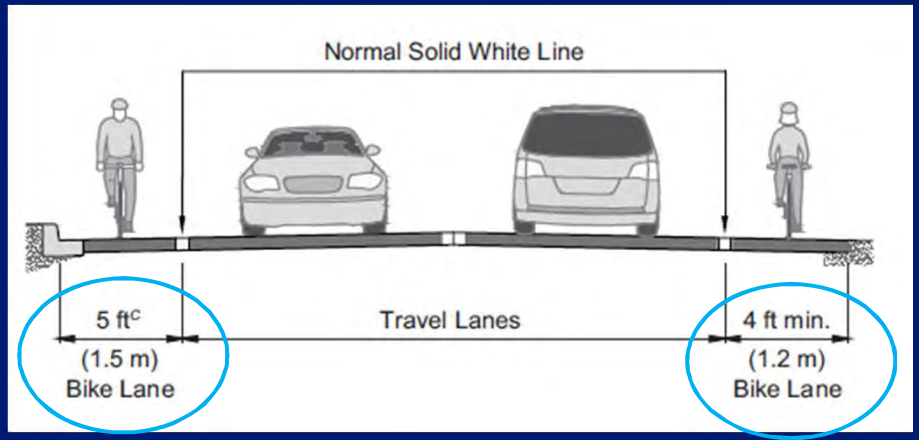
BICYCLE

LANES (*WITHOUT* PARKING)

In locations with:

- **High level of vehicle/bike activity**
- **Speed differential between vehicle/bike users is large**





(AASHTO – GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES – 2012)

Bicycle Lane Dimensions:

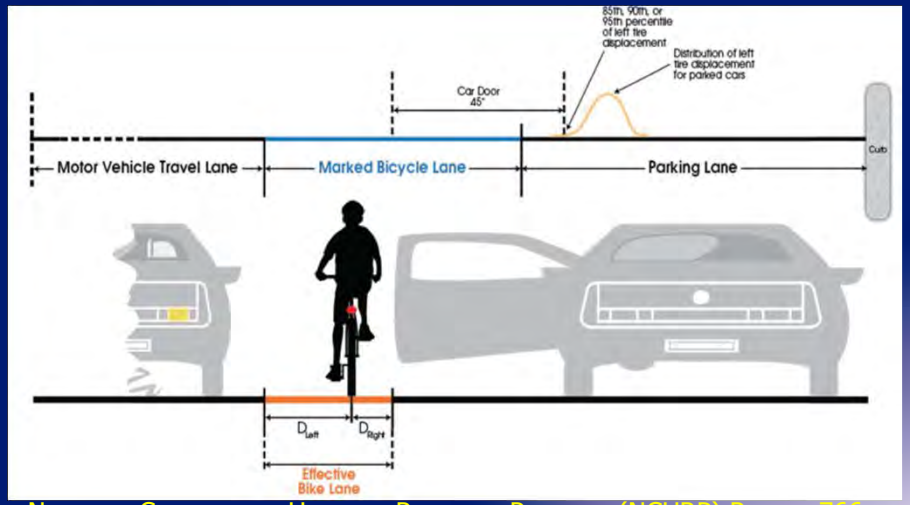
AASHTO: 4' min. when adjacent to edge of pavement; 5' min. when adjacent to curbside parking, vertical curb, or guardrail

MassDOT: 5' min. **Regardless**
(<5' require Design Except.)
(MassDOT Engineering Directive E-14-006)

MassDOT: Required both sides for arterials and collectors
(MassDOT Engineering Directive E-14-006)

BICYCLE

LANES (*WITH* PARKING)



NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 766

BICYCLE

LANES (*WITH* PARKING)

BUFFERED BIKE LANE

Table 19. Suggested lane widths for urban and suburban two-lane undivided roadways with on-street parking and constrained roadway widths.

Widths (ft)—One Direction of Travel						Curb to Curb (ft)	Travel Conditions[1]
Parking Lane	Buffer	Bike Lane	Buffer	Travel Lane	Curb to CL		
8	3*	4	2	10	27	54	All conditions
7	3*	4	2	10	26	52	All conditions
7	2*	4	2	10	25	50	High volume or high truck percentage
7	3	5	0	10	25	50	Low volume and low truck percentage
7	1.5	4	1.5	10	24	48	High volume or high truck percentage
7	3	4	0	10	24	48	Low volume and low truck percentage
7	2	5	0	10	24	48	Low volume and low truck percentage
7	2	4	0	10	23	46	All conditions
7	0	5	0	10	22	44	All conditions
7	1**	4	0	10	22	44	All conditions

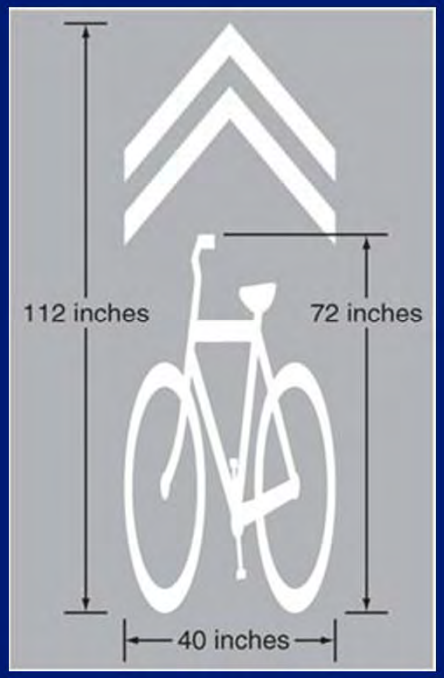
* May consider combining buffers to create a 4-ft buffer between parking and bike lanes.
** Caution that striping of double white lines may cause confusion.
[1] The suggested threshold for distinguishing between low and high traffic volume is 20,000 vpd, and the suggested threshold for distinguishing between low and high truck percentage is 10% trucks in the vehicle mix.
Note: CL = center line.

NCHRP, REPORT 766

BICYCLE

SHARED USE LANES

- Speed limit 35 mph and under
  AASHTO "Guide for the Development of Bicycle Facilities", 2012
- Low/Moderate volumes
- Constrained locations, not room for bike lanes
  (variance req'd for MassDOT projects)
- Consider "***Sharrow***" pavement markings



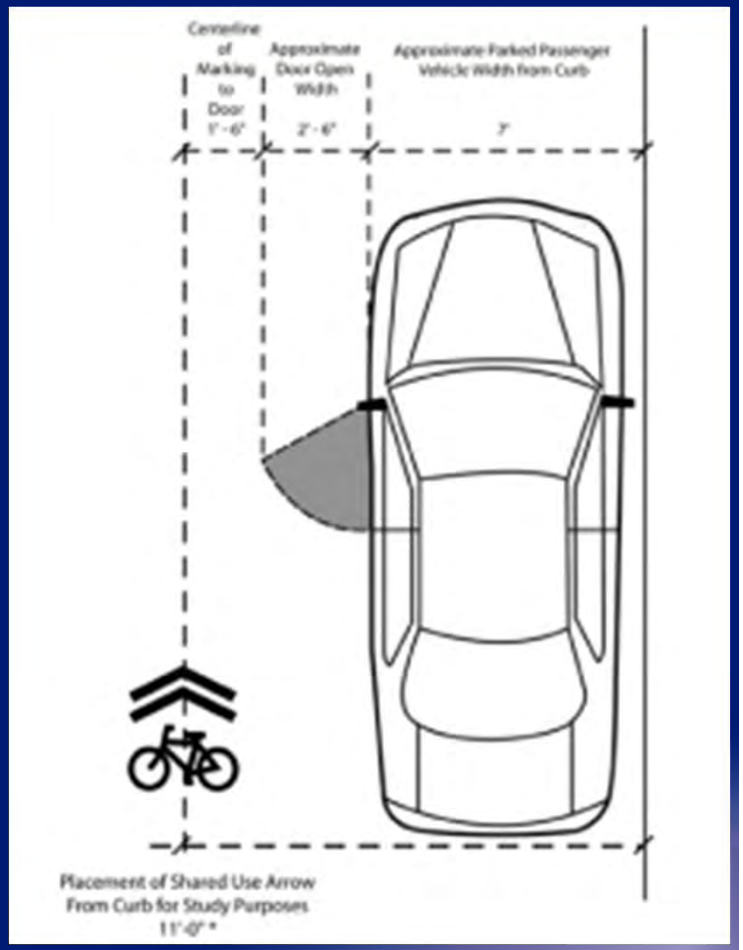
A partnership for engineering solutions.

BICYCLE

SHARED USE LANES

Sharrow Pavement Markings:

- Pavement Markings that highlight Shared Lanes for Vehicles and Bicyclists
- Assists bicyclists with lateral positioning
  (avoids impacts of open doors of parked vehicles and keeps bicyclists in proper location)

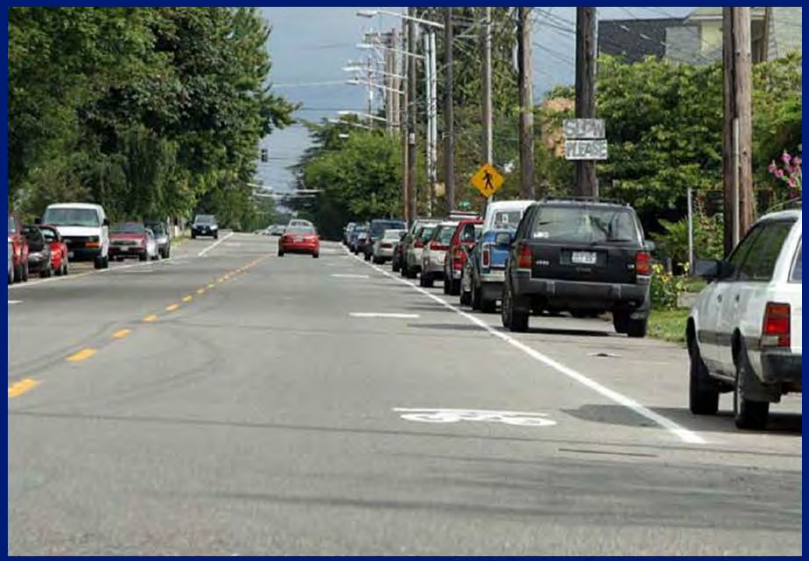


BICYCLE

SHARED USE LANES

Sharrow Pavement Markings:

- Studies show:
  - ***increases distance cyclist to parked car***
  - ***increases distance motorist to cyclist***
  - ***reduces cyclists on sidewalks***
  - ***reduces wrong way cyclists***



SPACING:
- quiet location with wide lanes=250' or more
- busy street with narrow lanes=100' or less

BICYCLE

SEPARATED BICYCLE LANE
(FORMERLY KNOWN AS CYCLE TRACK)

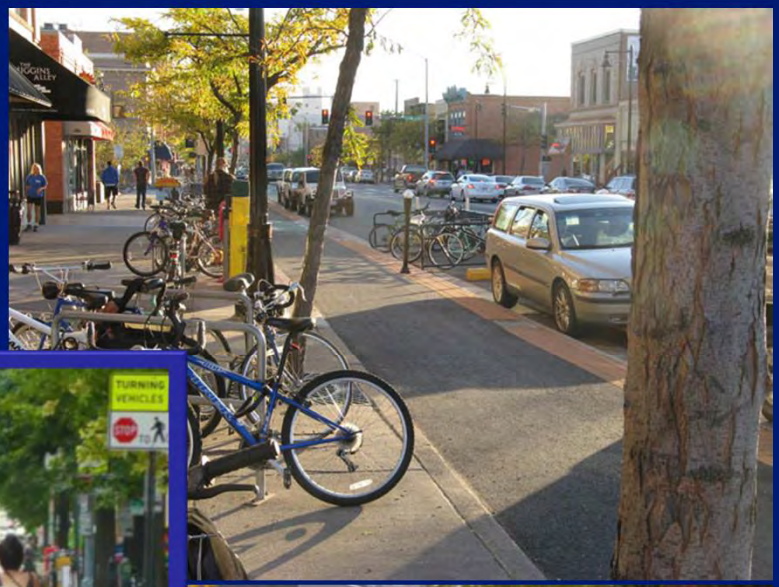
An exclusive bike facility separated from pedestrian traffic and physical (vertical) separation from vehicles

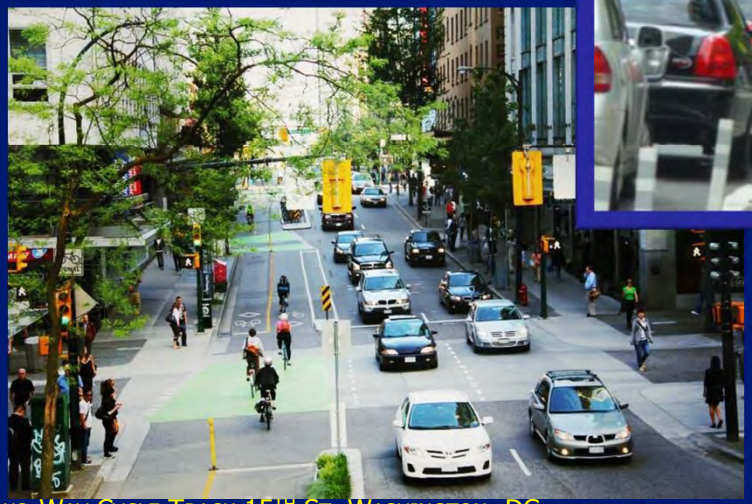
FHWA: Separated Bicycle Guidelines (May 2015)

BICYCLE

SEPARATED BICYCLE LANE

(FORMERLY KNOWN AS CYCLE TRACK)



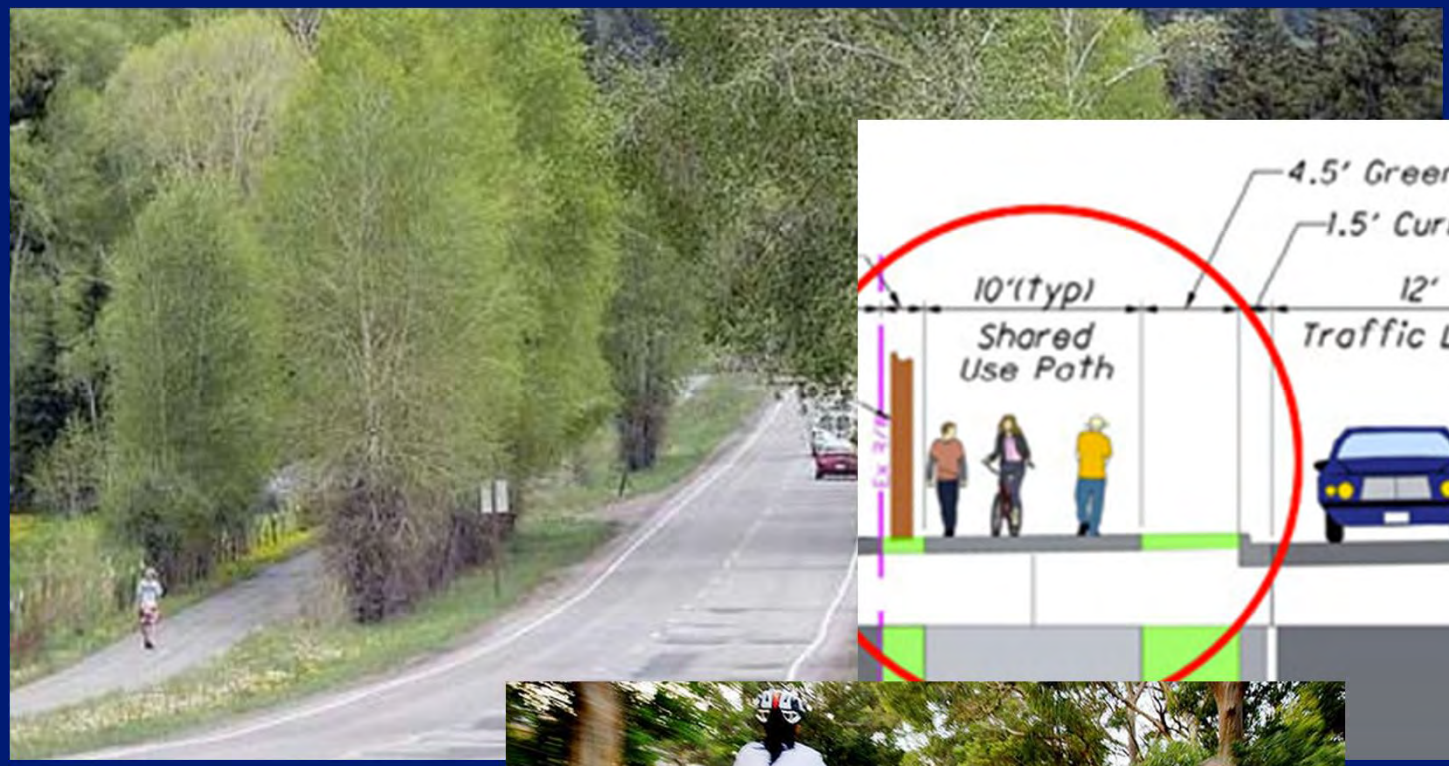


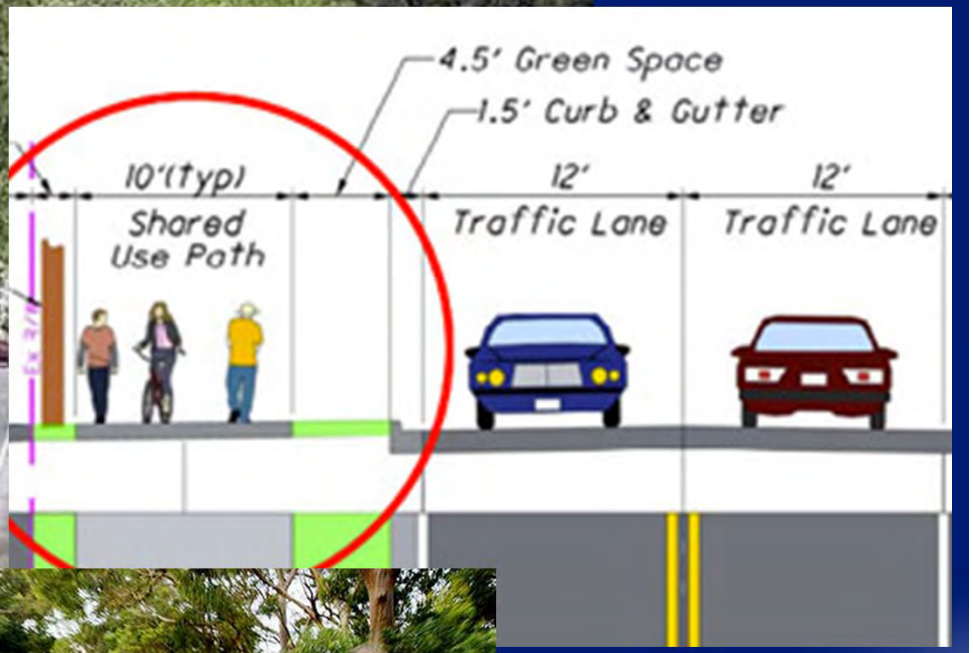
TWO-WAY CYCLE TRACK 15TH ST, WASHINGTON, DC

ONE-WAY CYCLE TRACK 9TH AVENUE, NYC

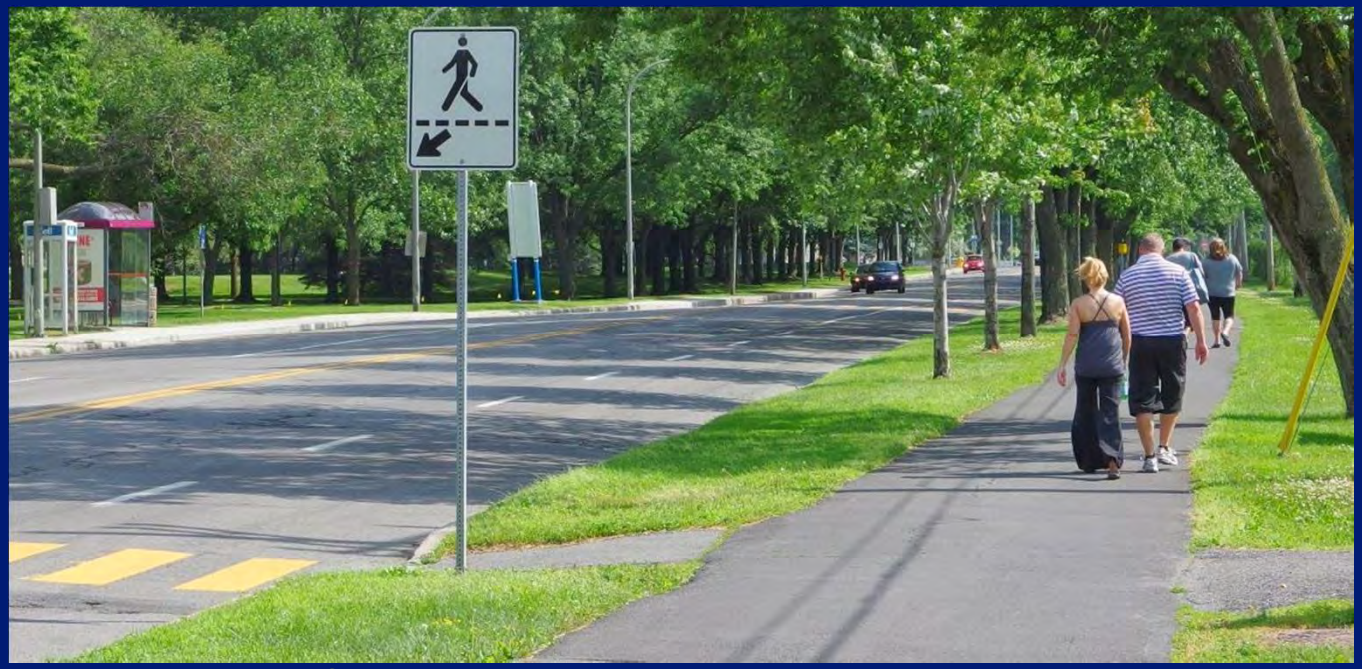
Bicycle / Pedestrian

Shared Use Path





PEDESTRIANS



CONTINUOUS ACCOMMODATIONS

PEDESTRIANS

Sidewalk Width Requirements:

Architectural Access Board(AAB) 521 CMR:

- 4′-0″ minimum excluding curb

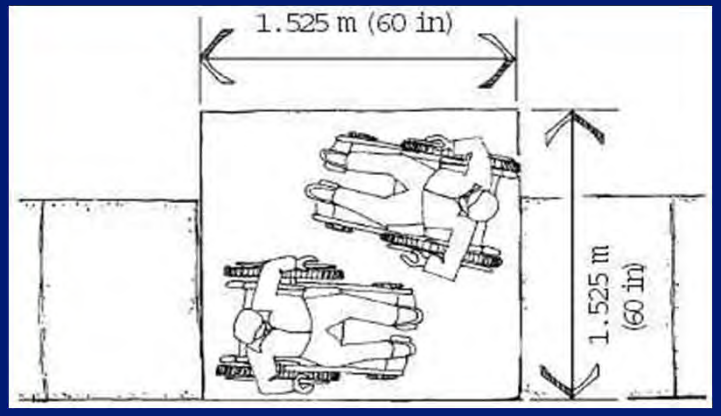
Americans with Disabilities Act (ADA) Guidelines:

- passing areas of 5′-0″x5′-0″ is provided every 200 feet
- 3′-0″ Minimum Unobstructed clear path

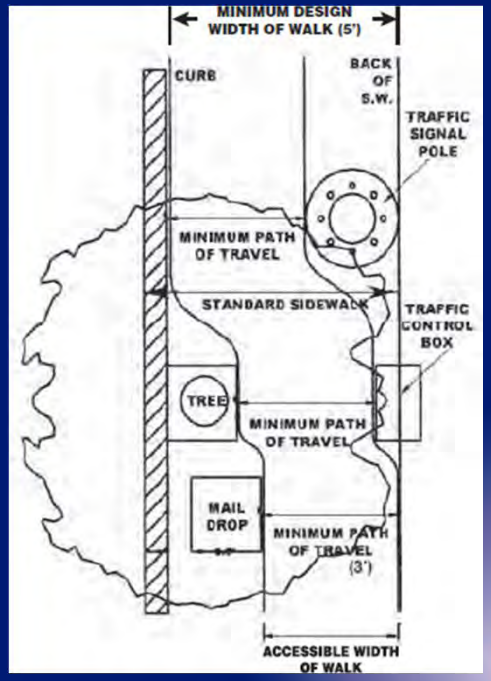
MassDOT (Engineering Directive E-12-005):

- Same as AAB and ADA ***EXCEPT*** 5′-0″ minimum excluding curb stone (recommended)

-4′-0″ sidewalk requires a variance
-Sidewalks req'd ***BOTH SIDES*** (for MassDOT)



AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES
PASSING AREA



(MASSDOT PROJECT DEVELOPMENT AND DESIGN GUIDE – 2006)

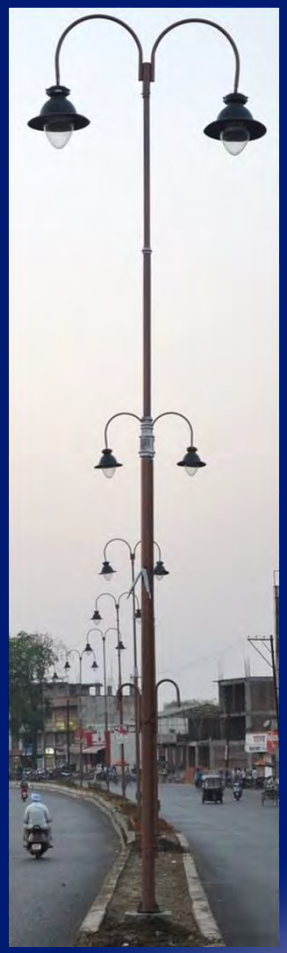
PEDESTRIANS

HANDICAP ACCESSIBLE FEATURES

PEDESTRIANS

PEDESTRIAN FEATURES
(BENCHES, TRASH RECEPTACLES, TREES/PLANTINGS)

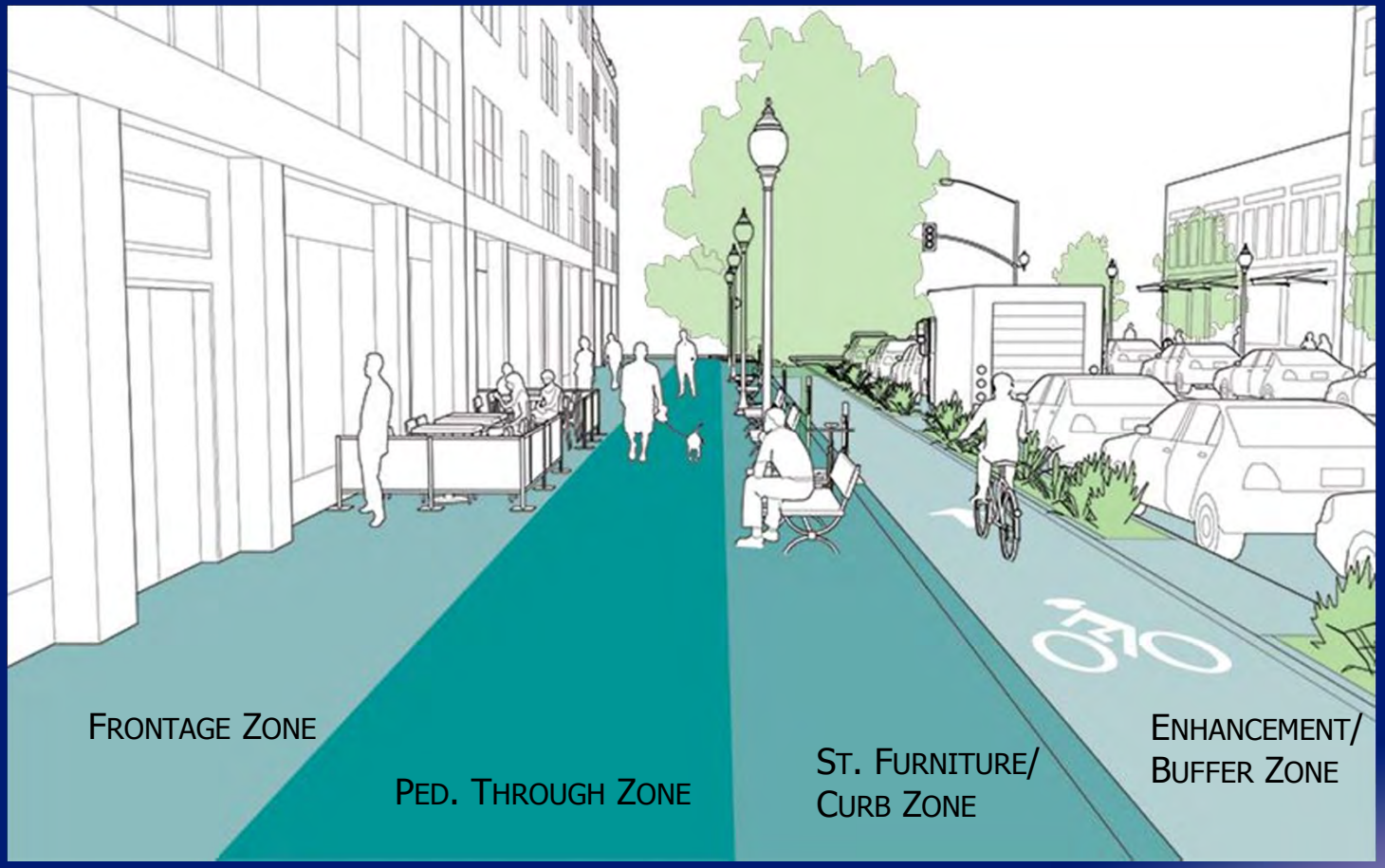
ACCESSIBLE PEDESTRIAN SIGNALS (APS)
(COUNTDOWNS, AUDIBLE, ETC.)



STREET LIGHTING

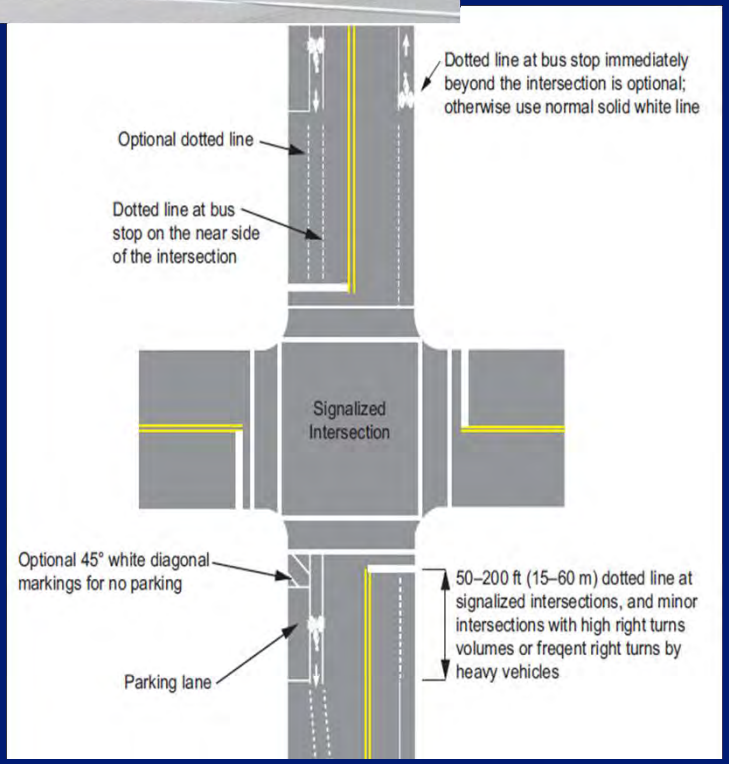
HIGHLY VISIBLE CROSSWALKS

PEDESTRIANS



NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS (NACTO) URBAN STREET DESIGN GUIDE

TRANSIT



(AASHTO, GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES , 2012)

Bus stop Dimensions:

Transportation Research Board (TRB):

- At Mid-Block = 150'
- Far-Side Corner = 90'
- Near-Side Corner = 100'

MassDOT (Design Guide):

- At Mid-Block = 80' Min.
- At Intersection = 60' Min.

Boston (Complete Street Guide):

- At Mid-Block = 130'
- Far-Side Corner = 80'
- Near-Side Corner = 100'

TRANSIT

ADA COMPLIANT PROVISIONS

TRANSIT

BUS PULL-OUT LANES

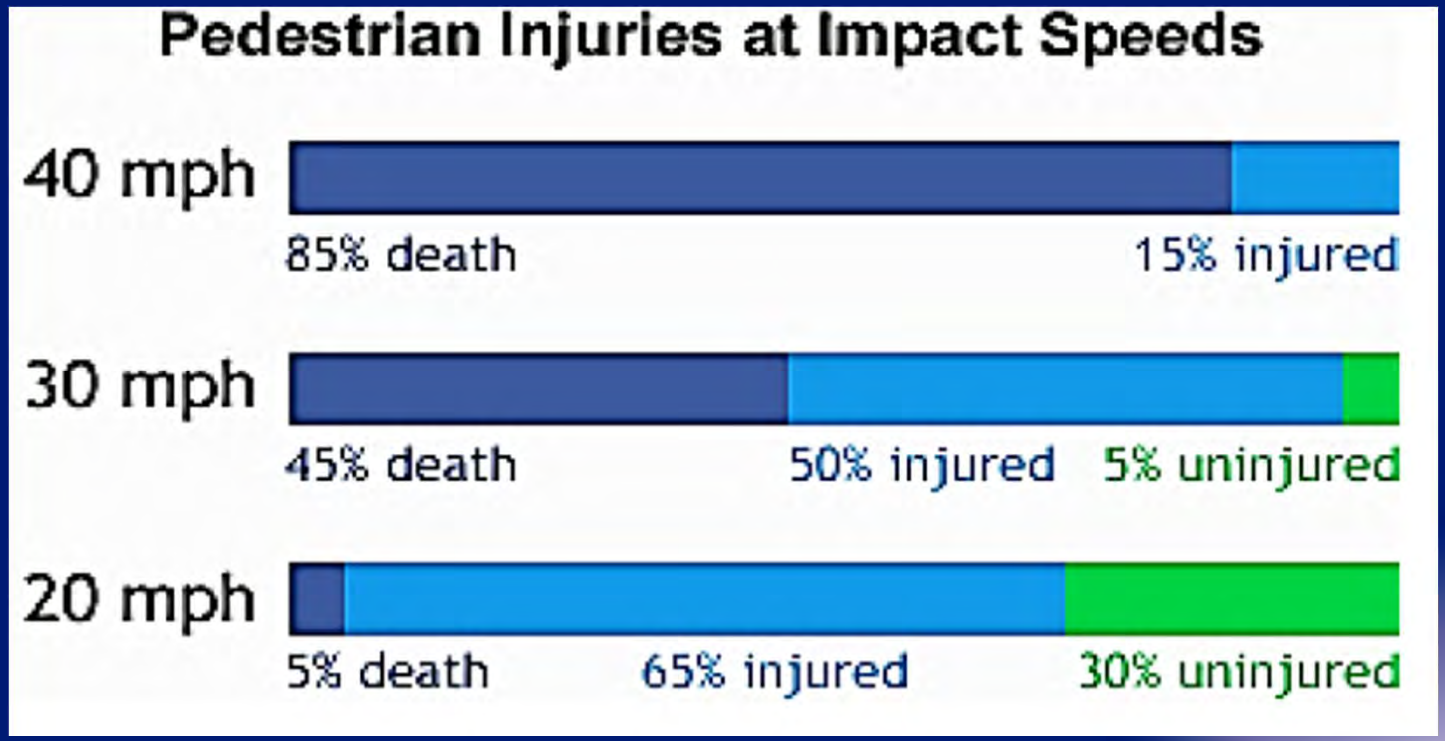
SCHEDULES & ROUTES

SIGNAGE: BUS STOP SIGN

TRAFFIC CALMING

can improve safety on Complete Streets

SLOWER VEHICULAR SPEEDS = IMPROVED SAFETY



MASSDOT: COMPLETE STREET DESIGN PRESENTATION

TRAFFIC CALMING

"A strategy to introduce self-enforcing capacity and speed reduction" along the appropriate roads.

(Traffic Calming Guidelines, New England ITE Technical Committee, November 2000)

BALANCE

Retain Mobility

Reduce Travel Speeds

Keeping the right traffic on the right roads…

TRAFFIC CALMING

Traffic Calming examples that promote **Complete Streets**:

- Bump-Outs / Curb Extensions
- Median Island / Gateway treatment
- Road Diet
- Raised Intersection / Raised Crosswalk
- Roundabout
- Etc.

Traffic Calming

Bumpouts / Curb Extensions

Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Curb Extension	Curb Extension/ Choker/ Bulb-Out	$10,150	$13,000	$1,070	$41,170	Each	19(28)

Costs for Pedestrian and Bicyclists Infrastructure Improvements, Univ. of North Carolina, Oct. 2013

Traffic Calming

Median Islands / Gateway Treatment

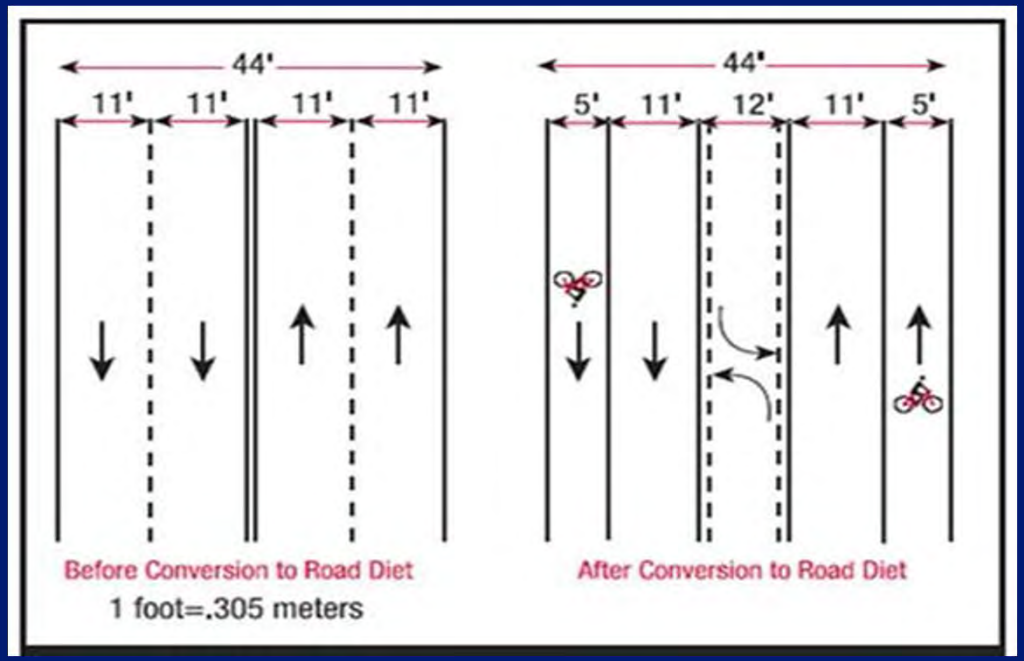
Complete Streets, HART- Promoting Sustainable Transportation, Hunterdon County, New Jersey

Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Island	Median Island	$10,460	$13,520	$2,140	$41,170	Each	17 (19)

Costs for Pedestrian and Bicyclists Infrastructure Improvements, Univ. of North Carolina, Oct. 2013

TRAFFIC CALMING

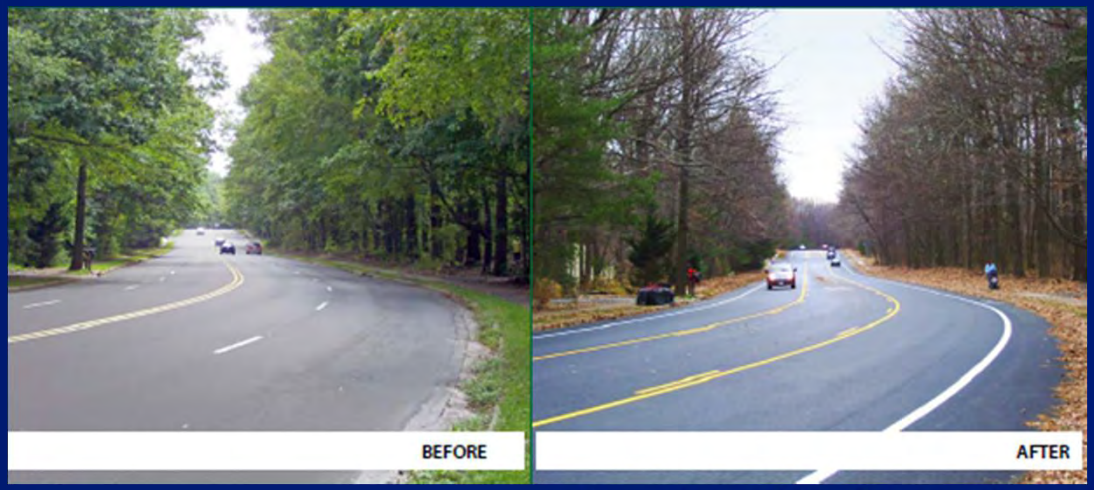
ROAD DIET



Road Diet Crash Reduction Impacts (Seattle DOT)

Roadway Location	Date Change	ATD Before	ADT After	Collision Reduction
Greenwood Ave N, N 80th St to N 50th	April 1995	11,872	12,427	24 to 10 (58%)
N 45th Street, Wallingford Area	December 1972	19,421	20,274	45 to 23 (49%)
8th Ave NW, Ballard Area	January 1994	10,549	11,858	18 to 7 (61%)
Martin Luther King Jr Way, North ofI90	January 1994	12,336	13,161	15 to 6 (60%)
Dexter Ave N, Queen Ann Area	June 1991	13,606	14,949	19 to 16 (59%)
24th Ave NW, NW 85th to NW 65th	October 1995	9,727	9,754	14 to 10 (28%)

Streetscape Improvements- Enhancing Urban Roadway Design, Victoria Transport Policy Institute, April 2015



Consider when:

- **<20,000 vpd**
- **Significant left turns**
- **Significant bikes in lanes**
- **Minimal impacts to transit**
- **Engineering Study performed**

A partnership for engineering solutions.

Traffic Calming

Raised Intersection / Crosswalk

Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Raised Crossing	Raised Intersection	$59,160	$50,540	$12,500	$114,150	Each	5 (5)

Costs for Pedestrian and Bicyclists Infrastructure Improvements, Univ. of North Carolina, Oct. 2013

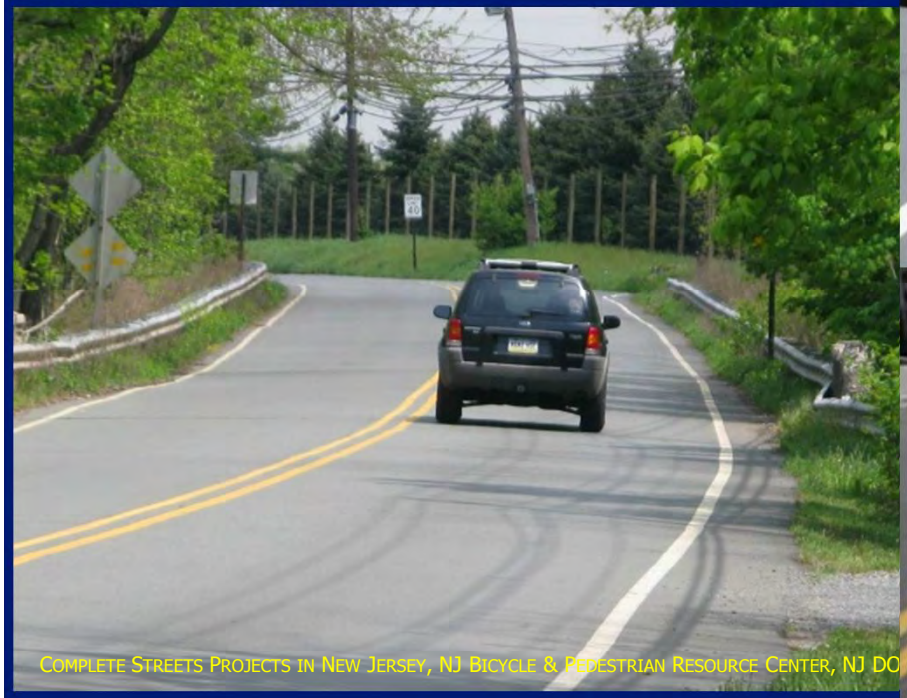
TRAFFIC CALMING

ROUNDABOUT

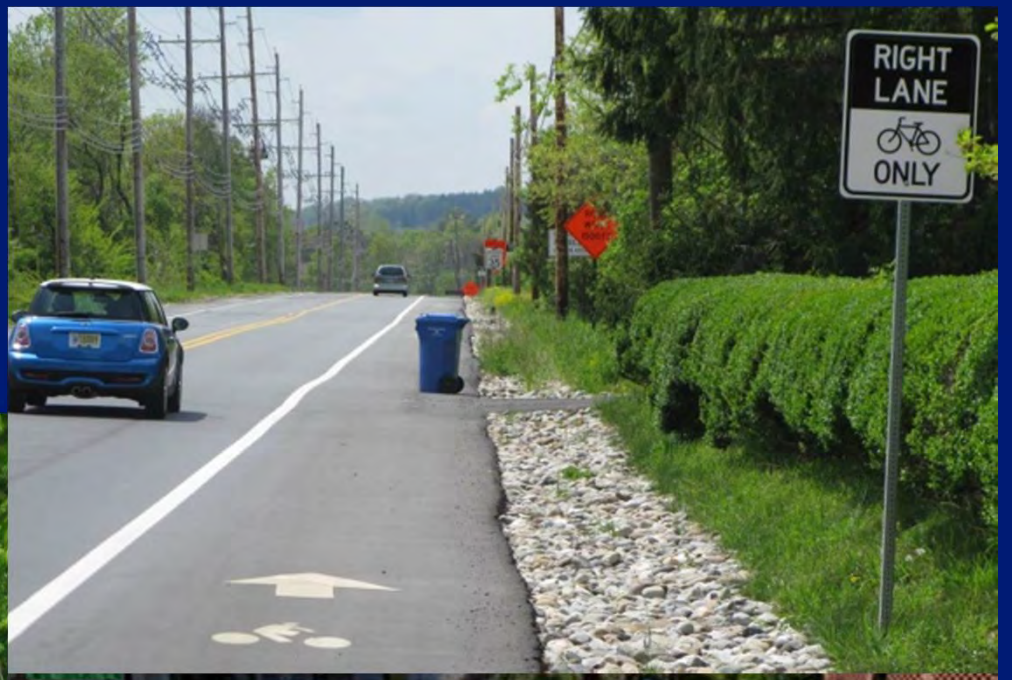
Infrastructure	Description	Median	Average	Minimum Low	Maximum High	Cost Unit	Number of Sources (Observations)
Roundabout/ Traffic Circle	Roundabout/ Traffic Circle	$27,190	$85,370	$5,000	$523,080	Each	11 (14)

COSTS FOR PEDESTRIAN AND BICYCLISTS INFRASTRUCTURE IMPROVEMENTS, UNIV. OF NORTH CAROLINA, OCT. 2013

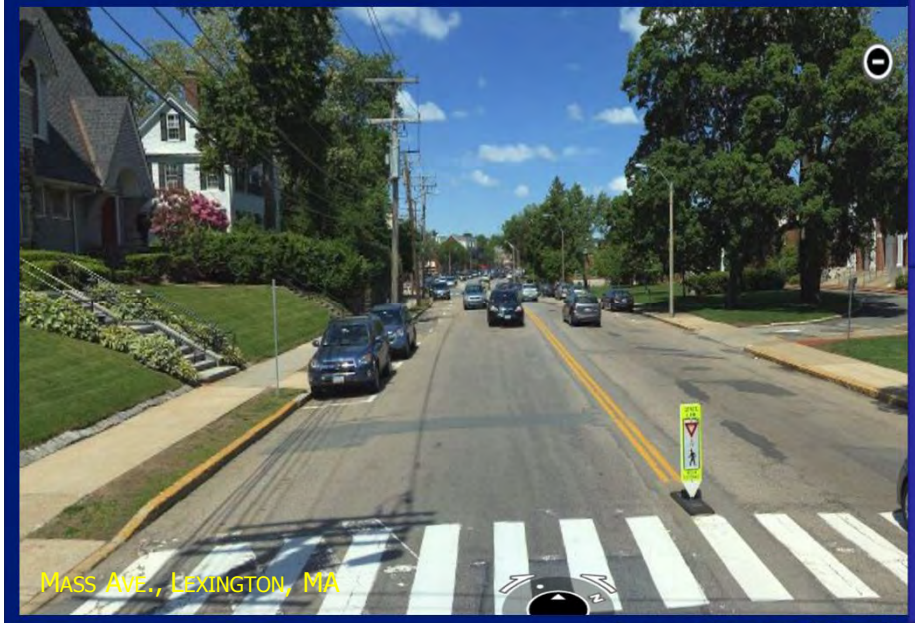
IDENTIFYING REALISTIC OPPORTUNITIES



Complete Streets Projects in New Jersey, NJ Bicycle & Pedestrian Resource Center, NJ DO



North High St., Holyoke, MA



Mass Ave., Lexington, MA

Inside of Knoxville- Your Urban Connection, Complete Streets, Oct., 2014

A partnership for engineering solutions.


SMART GROWTH AMERICA, OCT. 2011


After
07/31/2006

COMPLETE STREETS PROJECTS IN NEW JERSEY, NJ BICYCLE & PEDESTRIAN RESOURCE CENTER, NJ DOT

TIGHTER CURB RADII = SHORTER CROSSING DISTANCE

SUPPORT & FUNDING

State Support

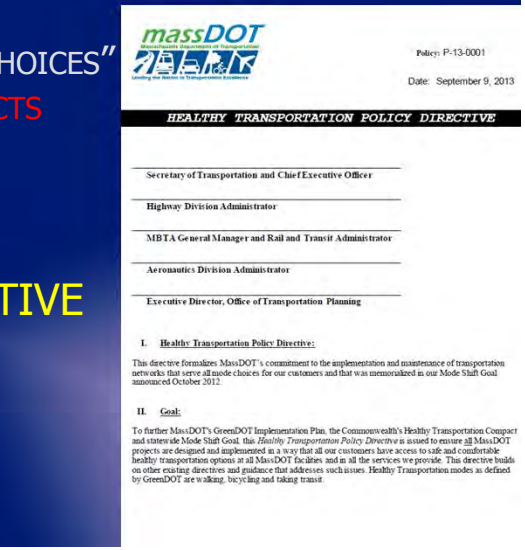
massDOT
Massachusetts Department of Transportation

2006 Adopts **Complete Streets** approach
& **Context Sensitive Design**

2010 MassDOT launched its **GreenDOT Policy**
Establish goals for promoting sustainability in transportation

2013 MassDOT's **Healthy Transportation Policy**
"Implementation and maintenance of transportation networks that serve all mode choices"
"Walking, bicycling and taking transit" For MassDOT funded or designed projects
https://www.massdot.state.ma.us/Portals/0/docs/GreenDOT/DirectiveHealthyTransportation.pdf

2014 MassDOT's **Healthy Transportation Engineering Directive**
Identifies new controlling criteria for ped. & bike accommodations
For MassDOT funded or designed projects
https://www.massdot.state.ma.us/Portals/0/docs/GreenDOT/DirectiveHealthyTransportation.pdf


massDOT

Policy: P-13-0001

Date: September 9, 2013

HEALTHY TRANSPORTATION POLICY DIRECTIVE

Secretary of Transportation and Chief Executive Officer

Highway Division Administrator

MBTA General Manager and Rail and Transit Administrator

Aeronautics Division Administrator

Executive Director, Office of Transportation Planning

I. Healthy Transportation Policy Directive:

This directive formalizes MassDOT's commitment to the implementation and maintenance of transportation networks that serve all mode choices for our customers and that was memorialized in our Mode Shift Goal announced October 2012.

II. Goal:

To further MassDOT's GreenDOT Implementation Plan, the Commonwealth's Healthy Transportation Compact and statewide Mode Shift Goal, this *Healthy Transportation Policy Directive* is issued to ensure all MassDOT projects are designed and implemented in a way that all our customers have access to safe and comfortable healthy transportation options at all MassDOT facilities and in all the services we provide. This directive builds on other existing directives and guidance that addresses such issues. Healthy Transportation modes as defined by GreenDOT are walking, bicycling and taking transit.

STATE SUPPORT

2014 ADOPTS DIRECTIVE EX.O.-31

2012 ADOPTS POLICY DIRECTIVE

2012 ADOPTS COMPLETE STREETS GUIDANCE

2014 ADOPTS COMPLETE STREETS POLICY
(FORMALIZING PRACTICES)

(CURRENTLY ESTABLISHING POLICY)

LOCAL SUPPORT


Town of Acton
COMPLETE STREET POLICY
Effective Date July 28, 2014

TOWN OF NATICK
COMPLETE STREETS POLICY
APPROVED March 23, 2015

Town of Stoughton
COMPLETE STREET POLICY
Effective Date 10/7/14

City of Salem
COMPLETE STREET POLICY

Effective Date	June 28, 2014
Expiration Date	None
Date Last Revised	
City Council Vote to Adopt Resolution	June 27, 2014

COMPLETE STREETS POLICY

Vision and Purpose

Core Commitment

"Complete Streets Policy":

- Establish a process for ***selecting*** complete streets
  funding
  planning
  designing
  building
- Provide a *realistic approach* to create a continuous network of multimodal accommodations during rehabilitation

So far, 712 jurisdictions nationwide have C.S. Policies (states, MPOs, counties, & municipalities including 20 in MA)

National Complete Streets Coalition ranks policies 2014 nationwide top 10 (in New England) include:

- Acton, MA
- Middleton, MA
- Reading, MA
- Salem, MA
- Stoughton, MA

LOCAL SUPPORT

Establishing a "Complete Streets Policy":

Town of Acton
COMPLETE STREET POLICY
Effective Date July 28, 2014

TOWN OF NATICK
COMPLETE STREETS POLICY
APPROVED March 23, 2015

Town of Stoughton
COMPLETE STREET POLICY
Effective Date 10/7/14

City of Salem
COMPLETE STREET POLICY

Effective Date	June 28, 2014
Expiration Date	None
Date Last Revised	
City Council Vote to Adopt Resolution	June 27, 2014

COMPLETE STREETS POLICY

Vision and Purpose:

Core Commitment:

- Å Vision and Purpose
- Å Core Commitment
  - to look for opportunities where multi-modal accommodations can be provided
  - Not where costs or impacts outweigh the need or use
- Å Best Practices
  - Identify reference documents and design standards
- Å Implementation
  - Can establish individuals responsible to increase communication and oversee
  - Highlight/prioritize projects needed for continuous accommodations
- Å Evaluation of Effectiveness
  - Periodic review of progress

www.smartgrowthamerica.org

Adopt by town officials (voted by Selectmen, City Council, etc.)

FUNDING

MA: "COMPLETE STREETS FUNDING"

- ***$12.5 million to be spent over the next two years (2016 – 2017)***
- ***Provides incentive for municipalities to incorporate Complete Streets using a strategic and comprehensive approach***

FUNDING

MA: "COMPLETE STREETS FUNDING"

Eligible projects: *(partial list)*

- Traffic & Safety
  - Traffic calming measures
  - Intersection improvements
  - Pavement markings/signs
  - Widening/curbing
- Transit Facilities
  - Bus pull out areas
  - Transit shelter
- Pedestrian Facilities
  - New sidewalks/repairs
  - Crossings/bumpouts
  - Wheelchair ramps
  - Pedestrian signals
- Bicycle Facilities
  - Bicycle lanes or separated bicycle lanes
  - Shared lanes (sharrows)
  - Bicycle parking

FUNDING

MA: "COMPLETE STREETS FUNDING"

Prioritization Plan:

Take a holistic view of existing Complete Streets accommodations & needs:

- *Identify gaps in accommodations*
- *Develop a hierarchy of funding priorities that align with:*
  - *Locations of significance (schools, recreational areas, etc.)*
  - *local plans*
  - *roadway work*
- *Establish construction costs and schedules*

Thank you!

James D. Fitzgerald, P.E., LEED AP

Environmental Partners Group, Inc.

617-657-0256

jdf@envpartners.com

A partnership for engineering solutions.

What is a transportation demonstration project?

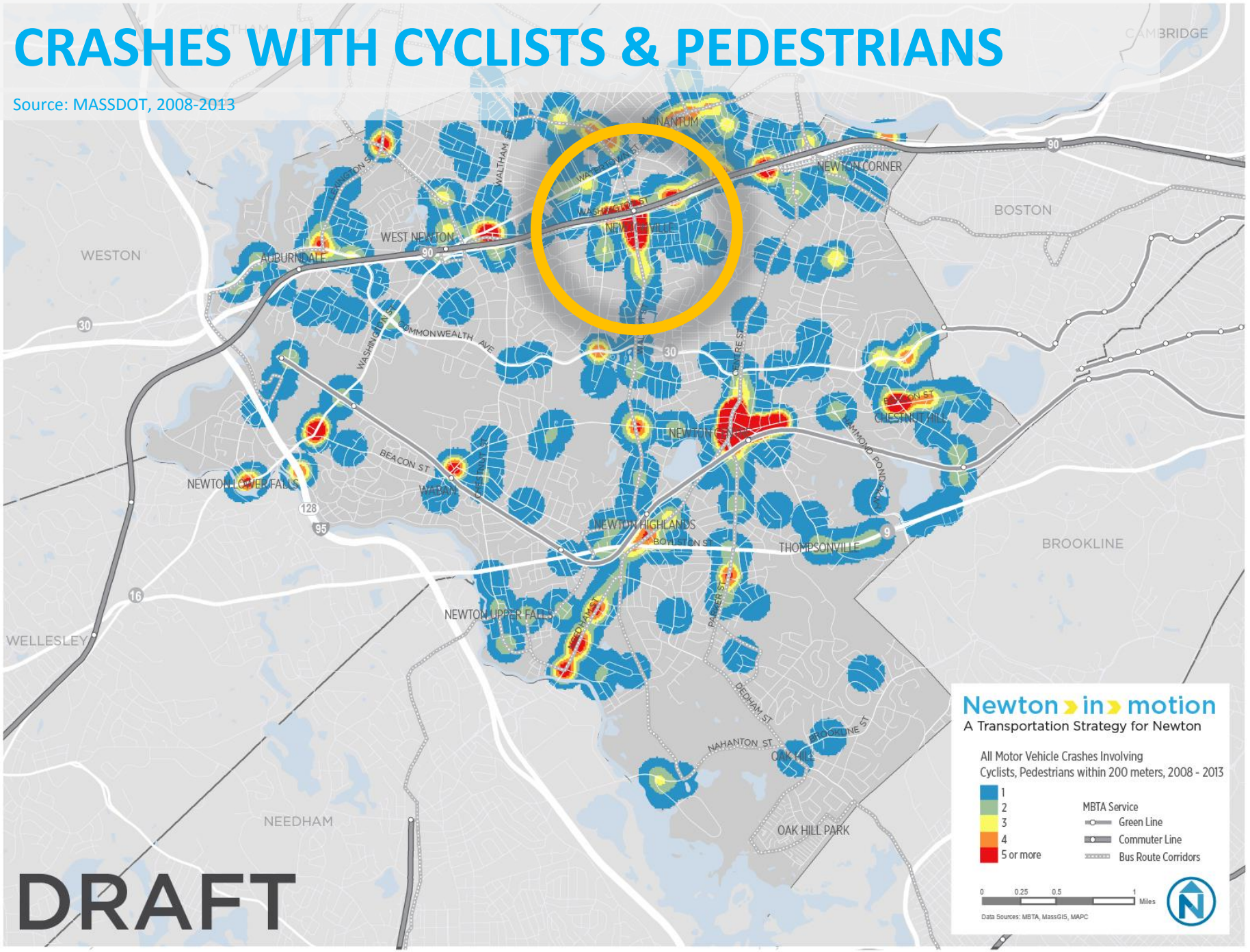
- Short-term
- Test of ideas
- Movable parts
- National practice

Washington & Walnut Street Demonstration

- High volume of feedback at Visioning Workshop
- Current compliance design underway
- Supportive of transportation goals
- STUDIES:
  - Washington Street Walkability Assessment (MassDOT)
  - Washington Street 2015 Corridor Plan (MPO)
  - Walnut Street, Newtonville Livable Community Workshop (MPO)
  - Bicycle Network Plan (TAG)
  - Development Traffic Impact Study

CRASHES WITH CYCLISTS & PEDESTRIANS

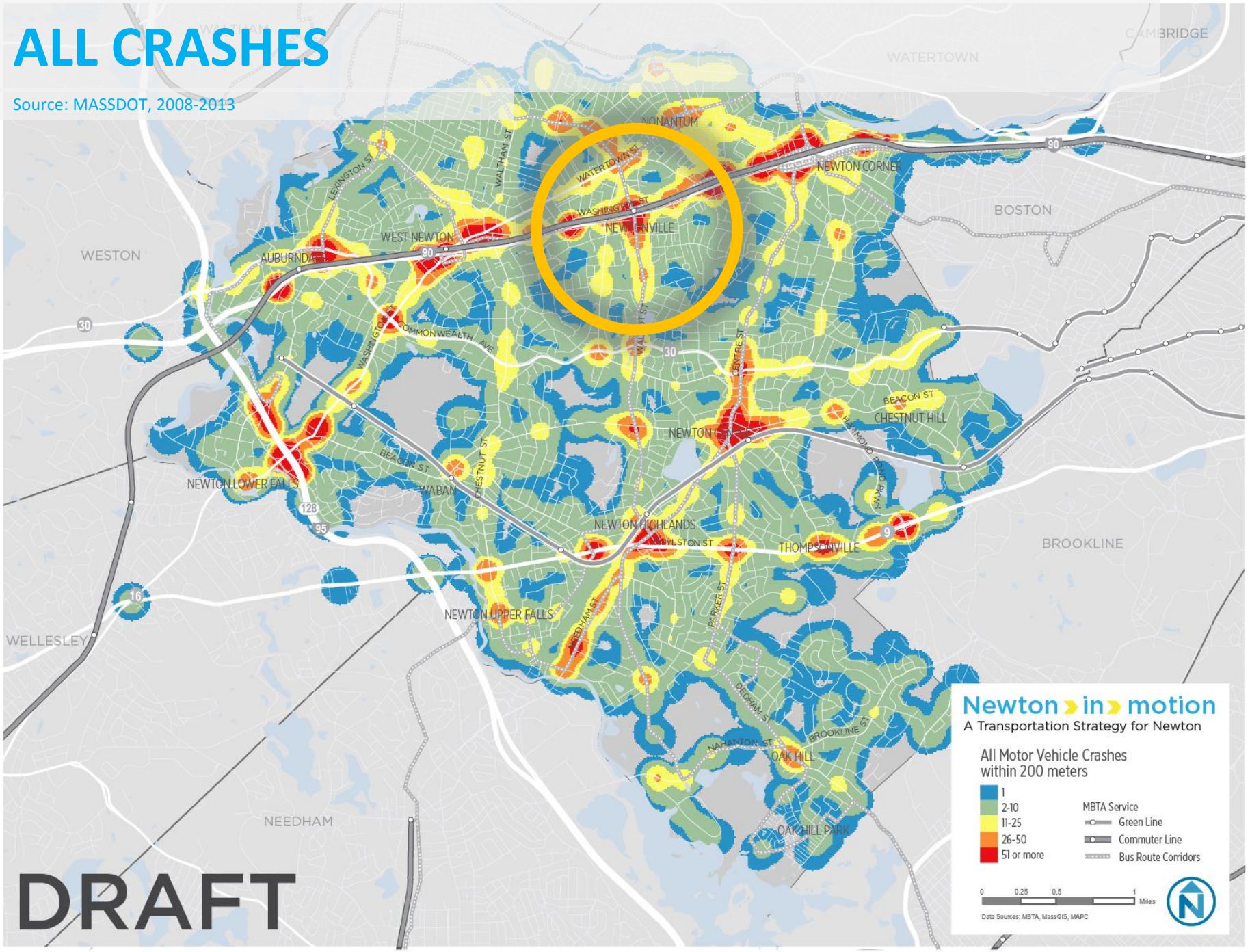
Source: MASSDOT, 2008-2013



DRAFT

ALL CRASHES

Source: MASSDOT, 2008-2013

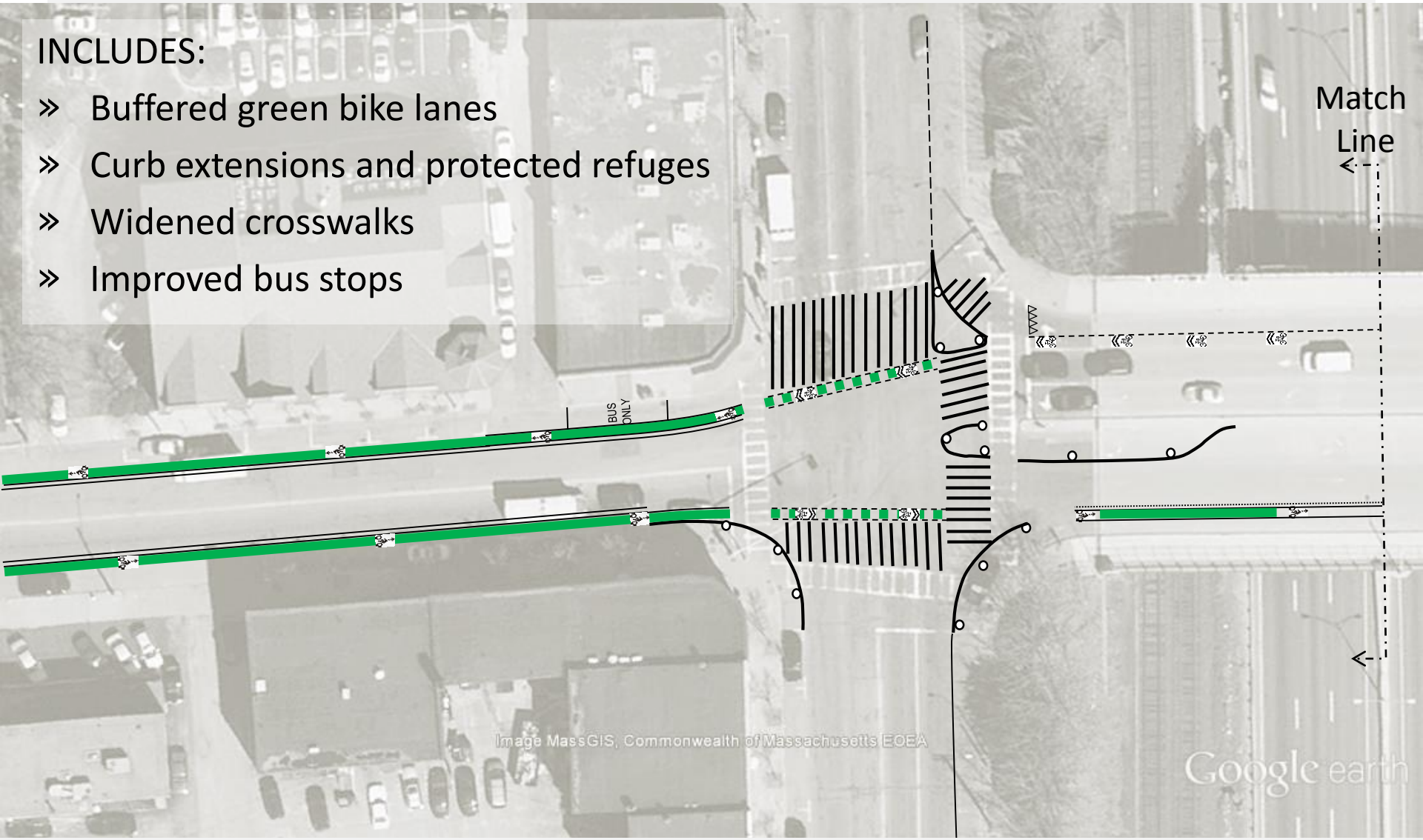


DRAFT

Walnut Street Temporary Improvements

DRAFT

Markings Layout: Foster to Washington



Walnut Street Temporary Improvements

DRAFT

Markings Layout: Madison to Washington

INCLUDES:

- Buffered green bike lanes
- Curb extensions and protected refuges
- Widened crosswalks
- Improved bus stops

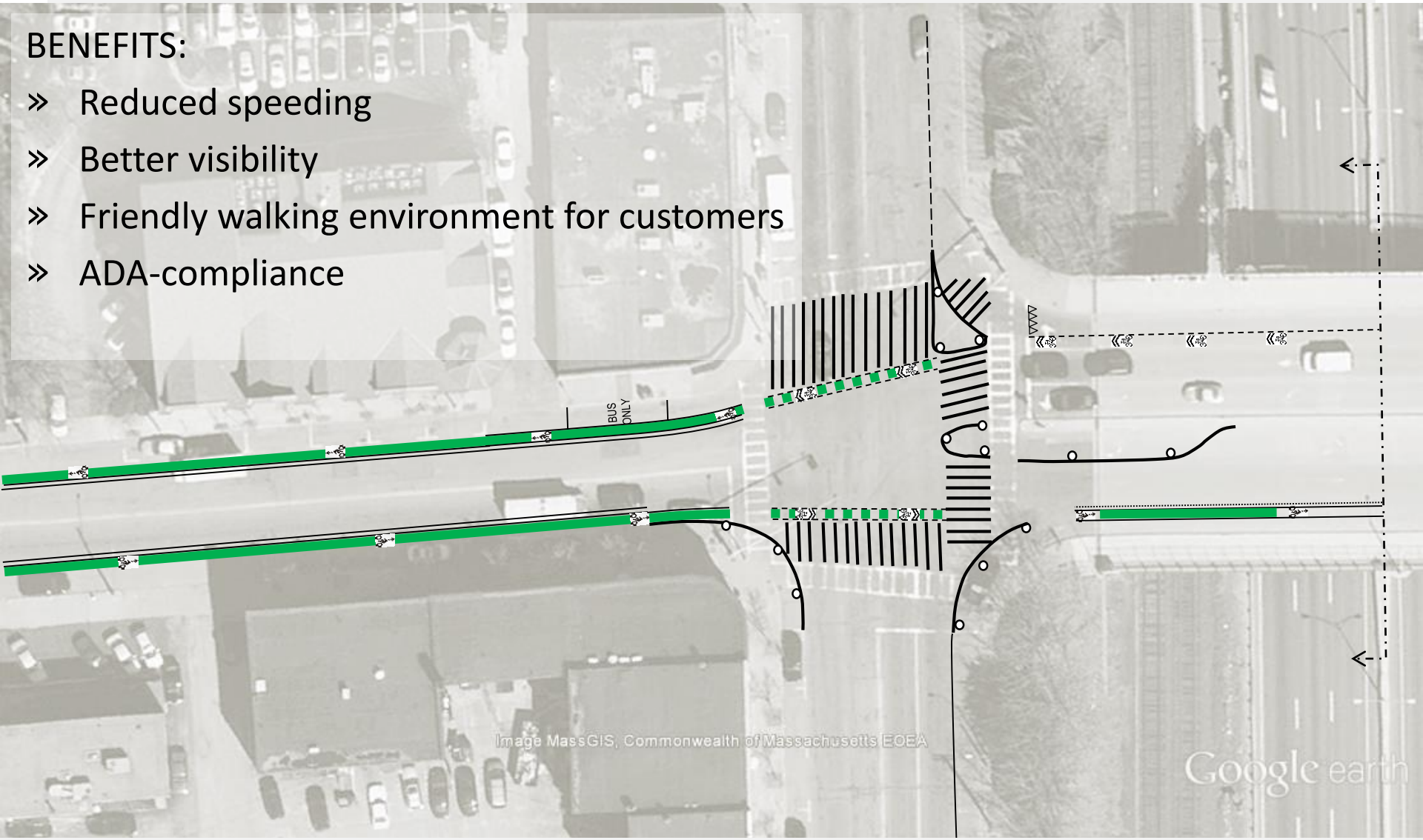
Walnut Street Temporary Improvements

DRAFT

Markings Layout: Foster to Washington

BENEFITS:

- Reduced speeding
- Better visibility
- Friendly walking environment for customers
- ADA-compliance



Volunteer On-site Next Weekend!

Transportation Demonstration Volunteer Sign Up

We need volunteers to bring their energy and excitement about Newton's future to the transportation demonstration site and show everyone else who happens by on their way to and from work, lunch, etc. that Newton is a City that is energized about its transportation future. Join our team of staff and advocates. Wear a bright blue t-shirt and your job will be to give people an orientation to the project elements and get their feedback on the event and the trial intersection layout.

FRIDAY APRIL 8th

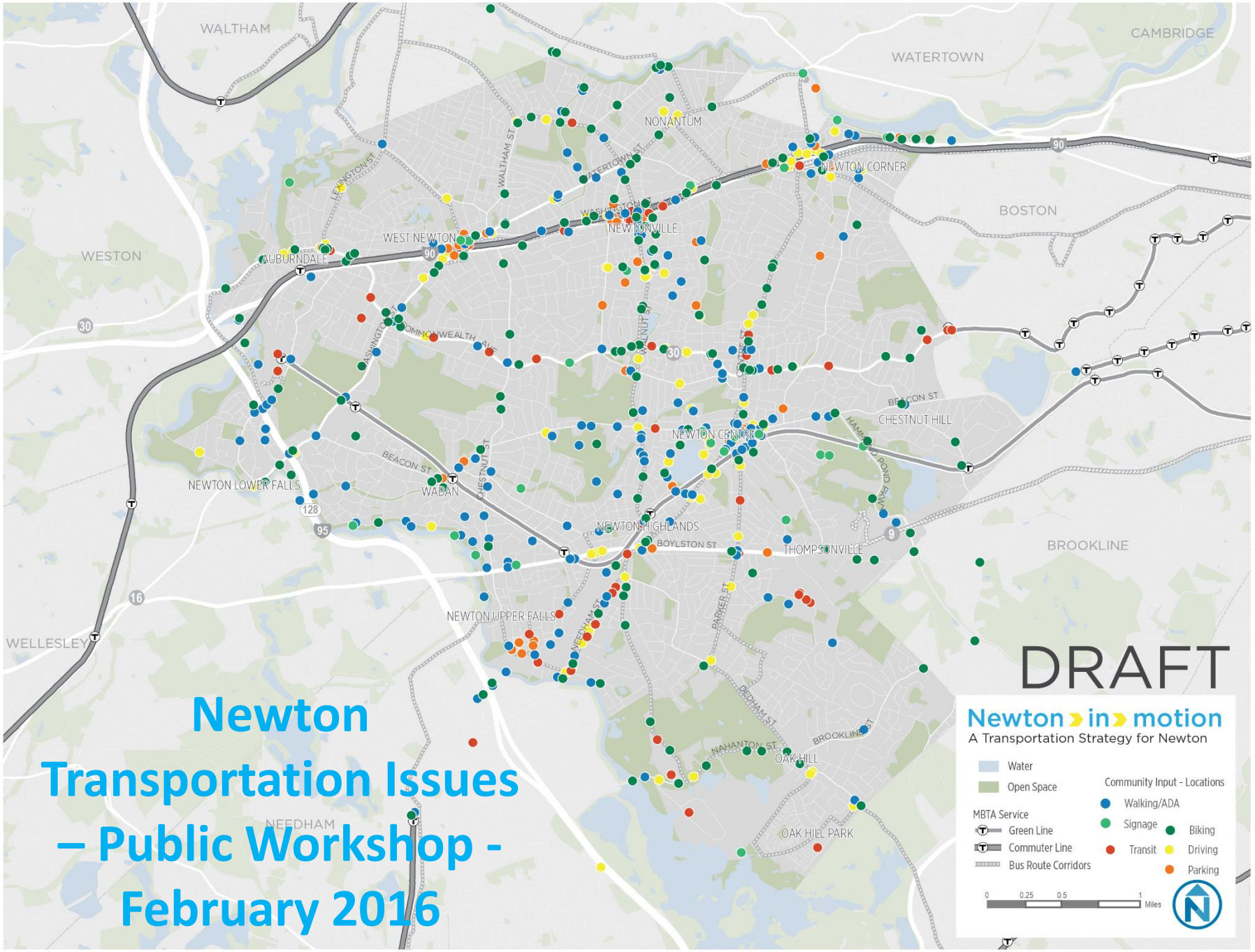
Fri 4/8, 8:00 am – 12:00pm		
Name	**Email**	**Phone**

Fri 4/8, 12:00 pm – 4:00pm		
Name	**Email**	**Phone**

Tonight's Workshop Activities

- February Workshop: Vision and Needs

- Tonight: Initial Concepts
  - "Streetmix" Complete Streets Mashup
  - Infrastructure Priorities
  - Programs and Policies Priorities



Newton Transportation Issues – Public Workshop - February 2016