

#220-18

Washington Street Transportation Vision

Zoning & Planning Committee #220-18

April 4, 2019

Planning Department



Tonight

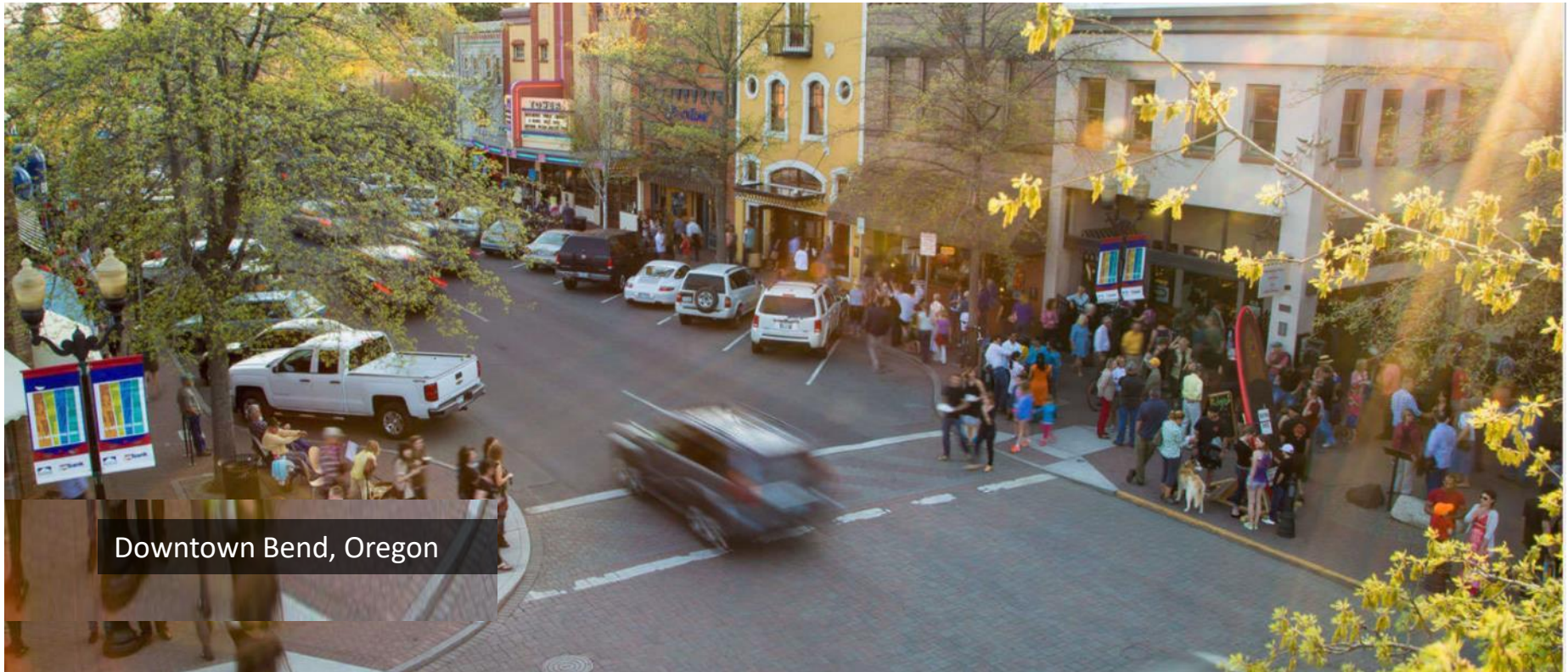
1. Washington Street Roadway
2. Vision Plan
3. Parking
4. Transportation Demand Management



If you Build It
They Will Come...



Design the Future You Want...



Supportive Design Elements



Trees, benches, lights

Outdoor cafes

Narrow curb-to-curb

On street parking

Slow vehicle speeds

Wide sidewalks

Safe prioritized crossings

Non-Supportive Design Elements



Sea of parking lots

Narrow, un-inviting sidewalk

Wide multi-lane road

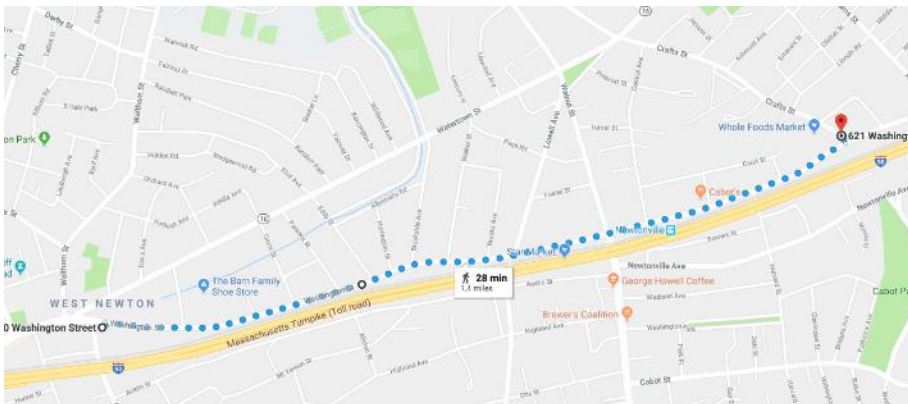
High vehicle speeds

No sidewalk life

Minimal & unsafe crossings



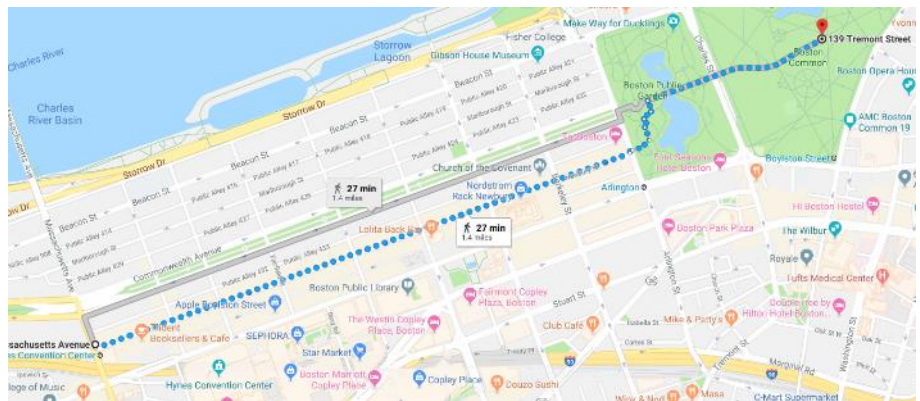
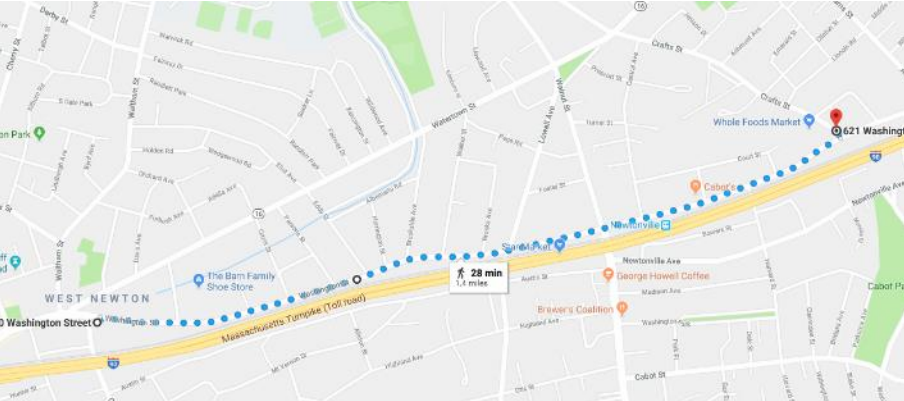
Washington Street
West Newton to Crafts Street
1.4. miles





Washington Street
West Newton to Crafts Street
1.4. miles

Newbury St
Mass Ave to Boston Common
1.4. miles

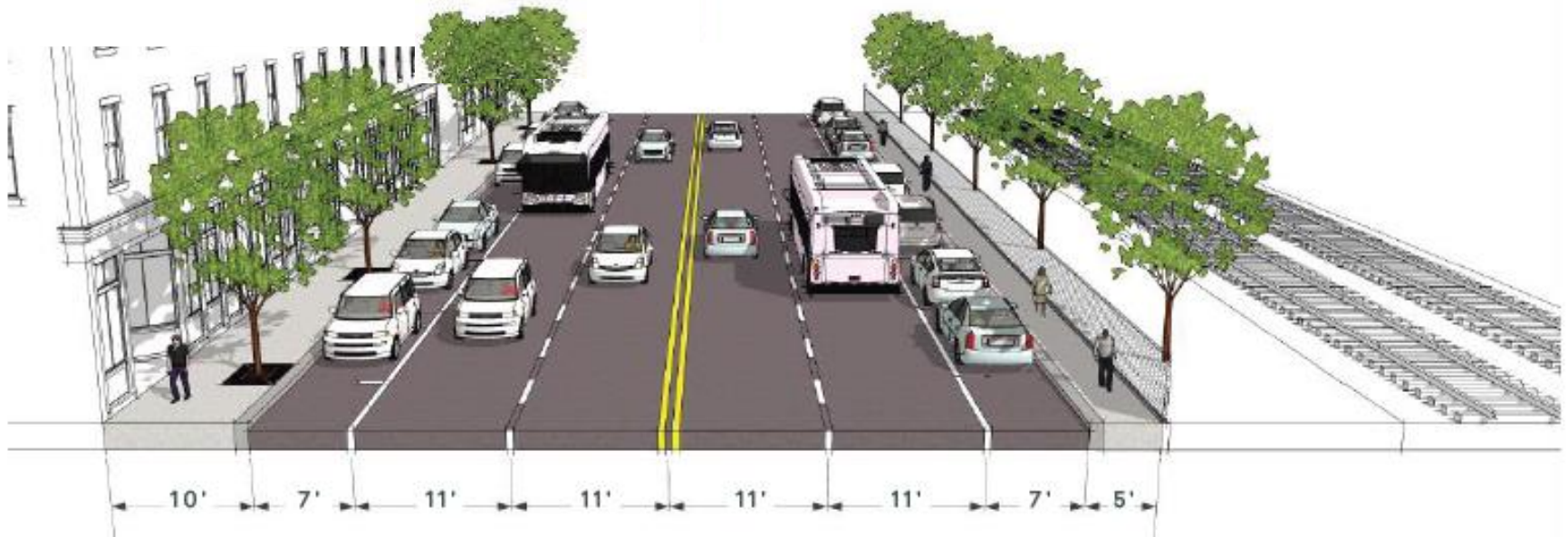


Public Input

- Vibrant village centers
- Thriving local businesses
- Places to gather, meet, sit
- Safe, convenient crossings
- Safe bicycling
- Manageable traffic

Unparalleled Opportunity

- Wide ROW
- Four Lane Road
- Parallel highway
- Parallel commuter rail



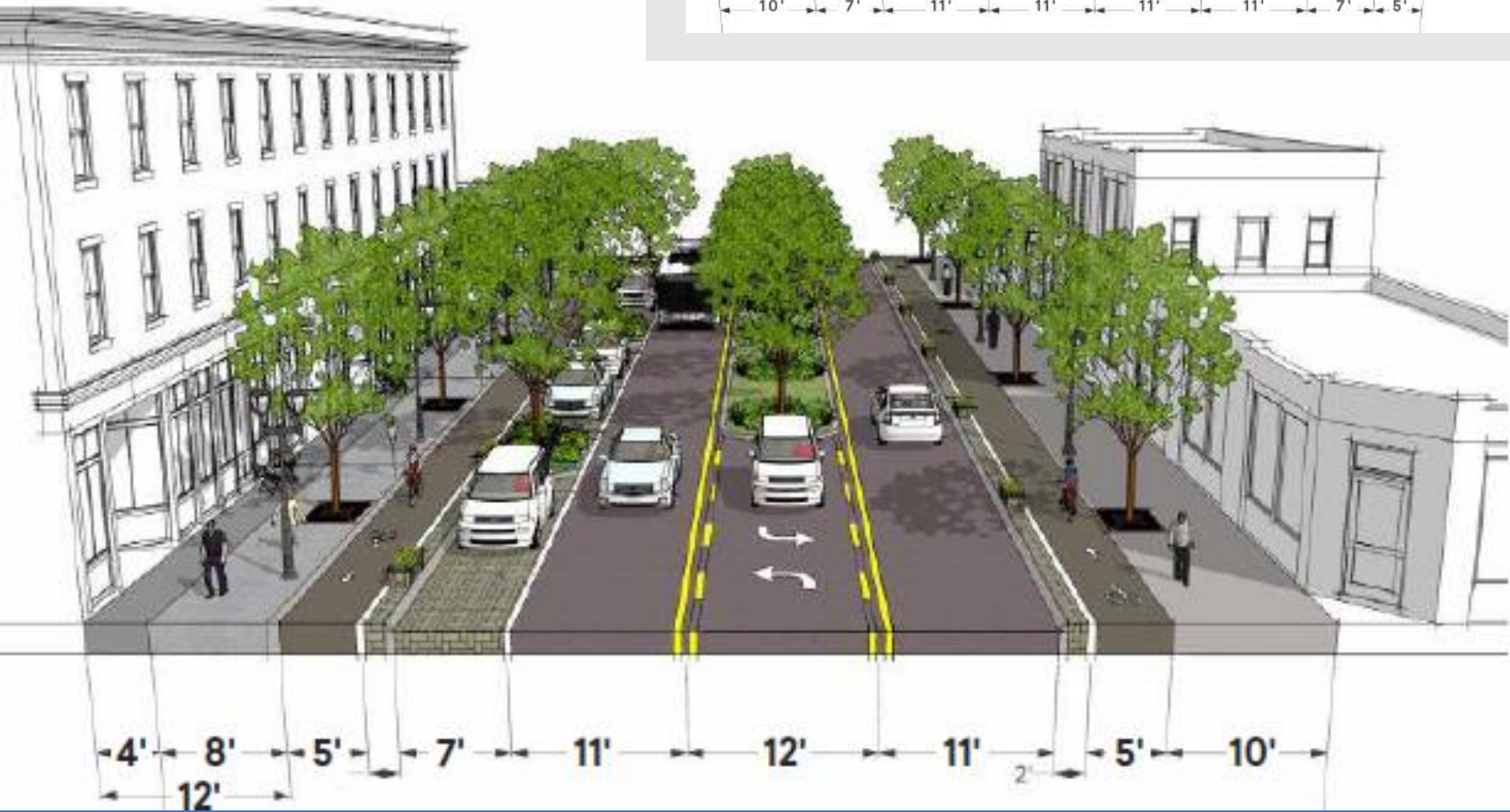
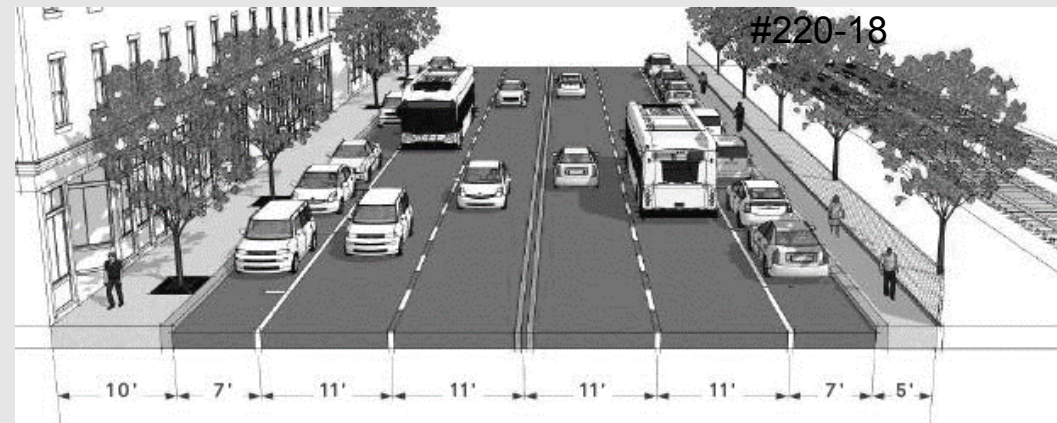
4: 3 Lane Conversion

- Maintains traffic flow (up to 20-26,000 ADT)
- ↑ Safety (up to 50% crash reduction)
- ↑ Ped, Bike, Transit Facilities
- ↑ Livability
- ↑ Property Values/Economic Dev

- FHWA, Road Diet Manual



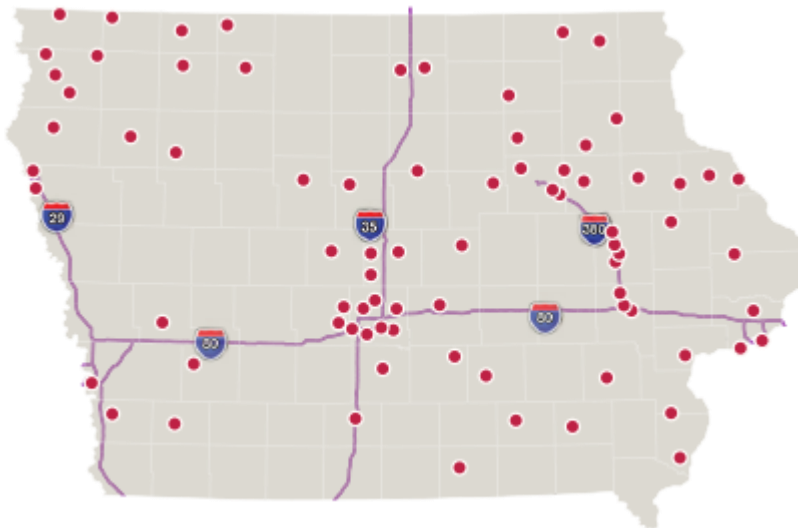
4: 3 Lane Conversion



Iowa? Yes, Iowa

Supersized, multilane roadways are fast-moving, unattractive and often impossible to cross. Learn how the streets near you can slim down, spruce up and become safer for all users

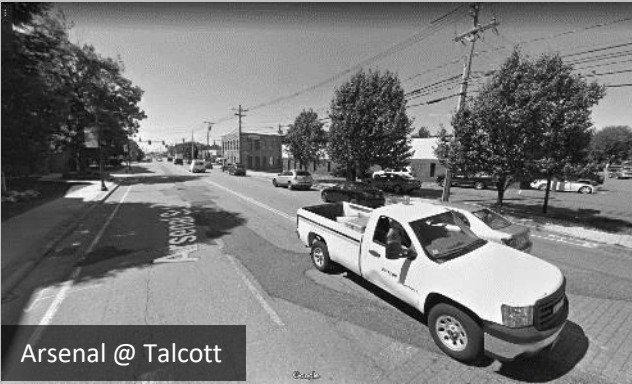
– *AARP Road Diet Fact Sheet*



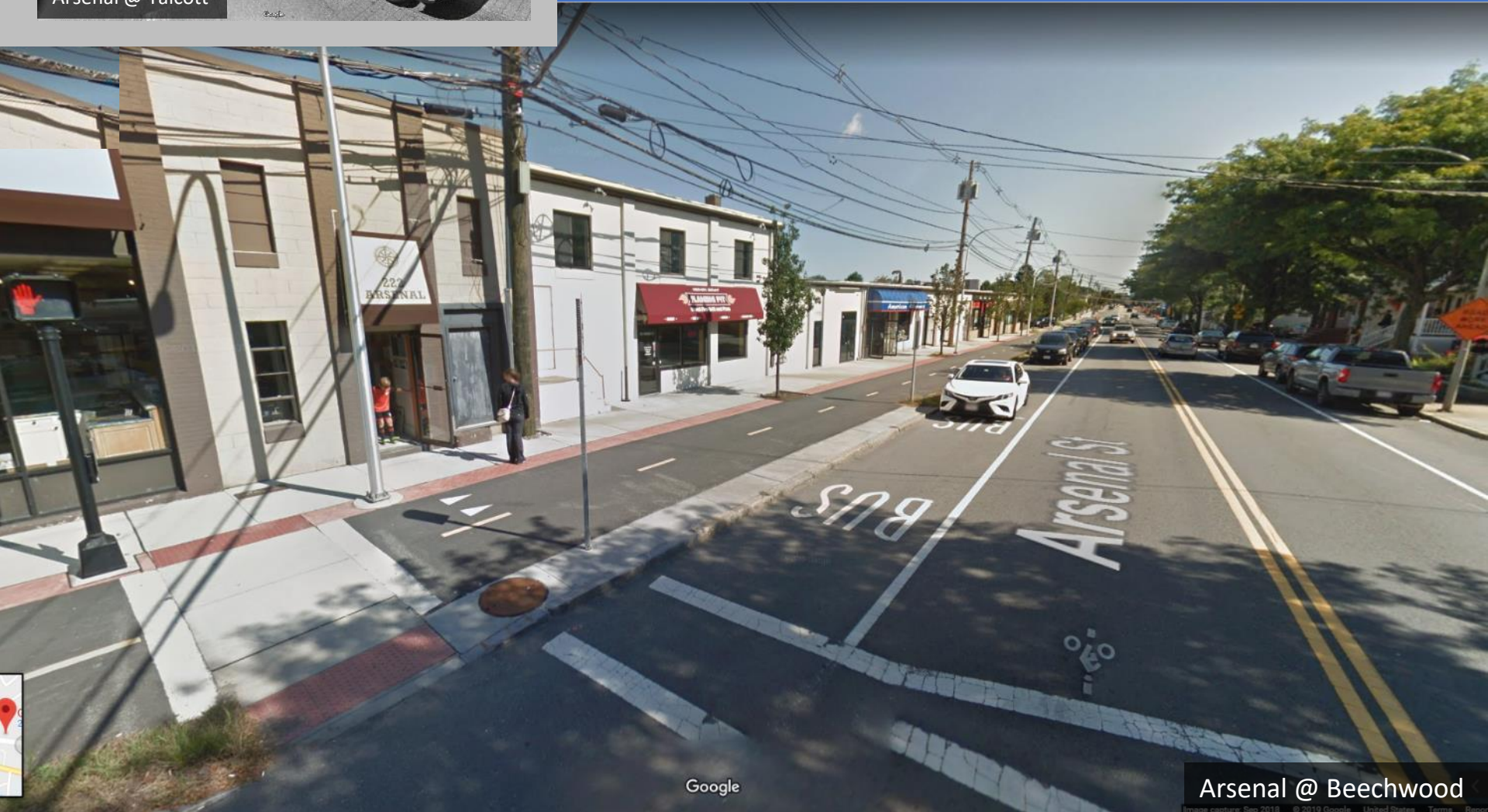
And the AARP too!

#220-18

Arsenal Street, Watertown



Arsenal @ Talcott



Google

Arsenal @ Beechwood

Image capture: Sep 2018 © 2019 Google, United States, Terra

Main Street, Peabody, MA



Nonantum Rd, Newton



Nonantum Rd, Newton



#220-18

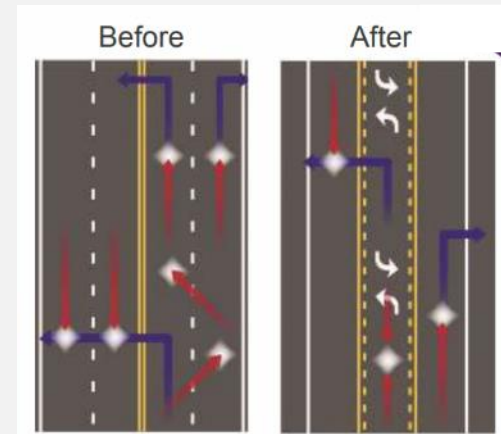
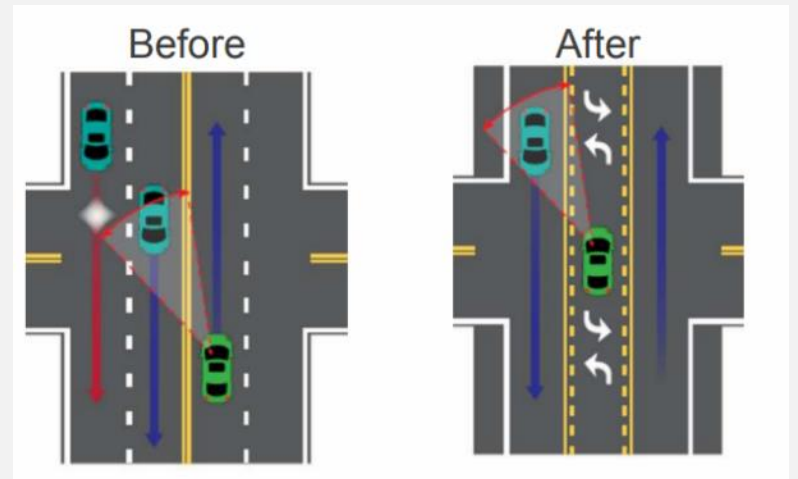
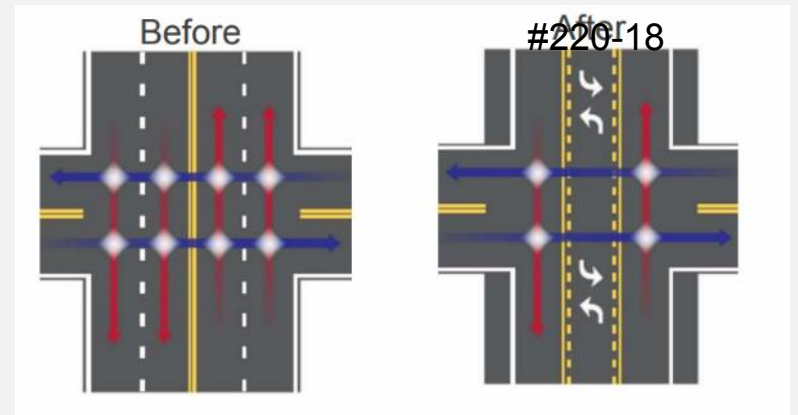
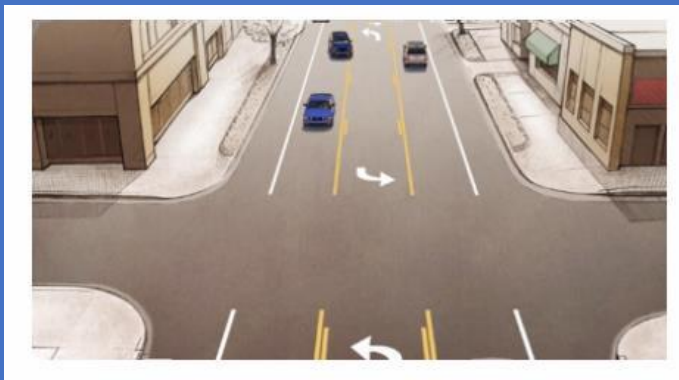
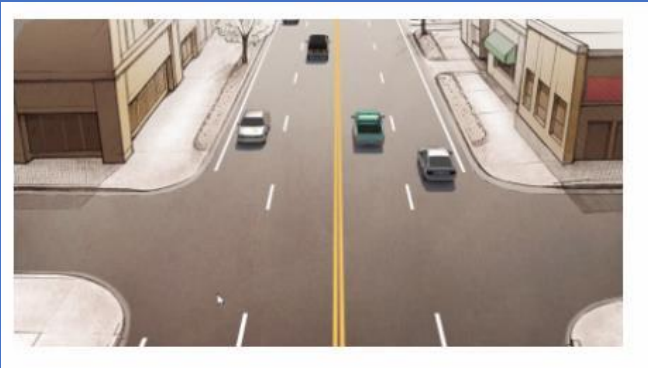


Video: <https://youtu.be/naCbw7lwcVw>

Safety & Traffic Benefits

- Midblock
- Intersections
- Turning

Source: (right) FHWA Road Diet Presentation, 6/14/16; below Iowa DOT



Commonwealth Ave

- 14,000-15,500 daily vehicles
- 1 lane each direction
- Turn lanes and Medians as appropriate

Counts from various sources, 2010-2017, taken just east of College, Lowell and Lexington



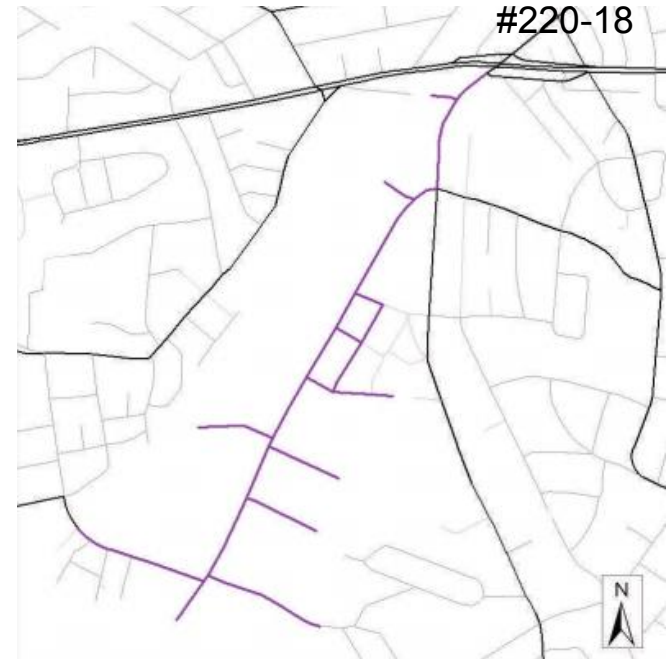
Washington St (envisioned)

- Daily vehicles : 13,800-18,000
- 1 lane each direction
- Turn lanes and Medians as appropriate

Traffic volumes from Washington St Vision Plan, West of Cross Street to Harvard Street.

Needham St

- 1 lane in each direction
- Turn lane continuous throughout
- No network of connecting streets
- Tons of driveways



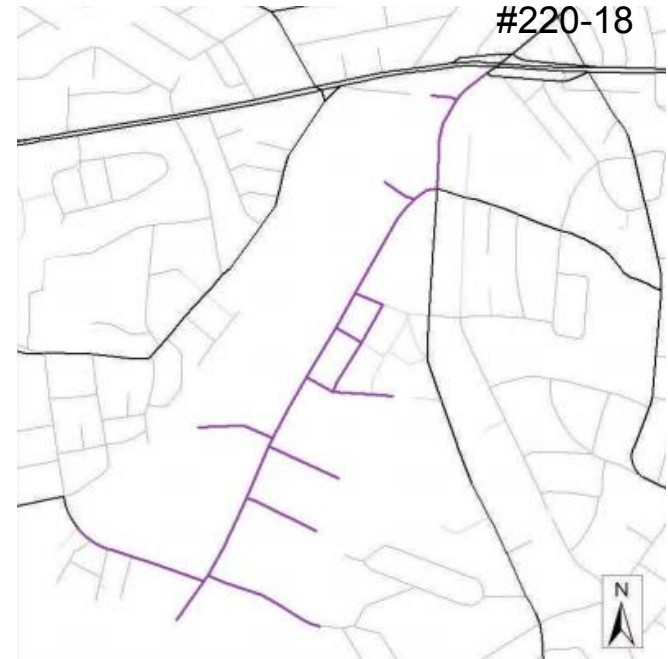
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Washington Street 5-Year Crash Data

- 434 crashes
- 37 bike/ped crashes
- 5 annual bike/ped crashes

Source: 2007-2011 MassDOT Crash Data



Myth Busters - Traffic

MYTH: TRAFFIC WILL BACK UP

False. Studies have consistently shown that, for roads with less than 20,000 vehicles per day, 4- to 3-lane conversions will not worsen congestion. In fact, operations and safety improve on a 3-lane road because left turns are shifted into the center turn lane, allowing traffic to flow more freely in the thru lanes.

MYTH: DRIVERS WILL BE DIVERTED FROM THE AREA

False. For the majority of 4- to 3-lane conversions, traffic volumes remain about the same through the corridor. In addition, 3-lane roads are generally more efficient than 4-lane roads because vehicles no longer need to stop in the thru lane to make left turns.

Myth Busters - Other

MYTH: ECONOMIC DEVELOPMENT WILL BE STIFLED

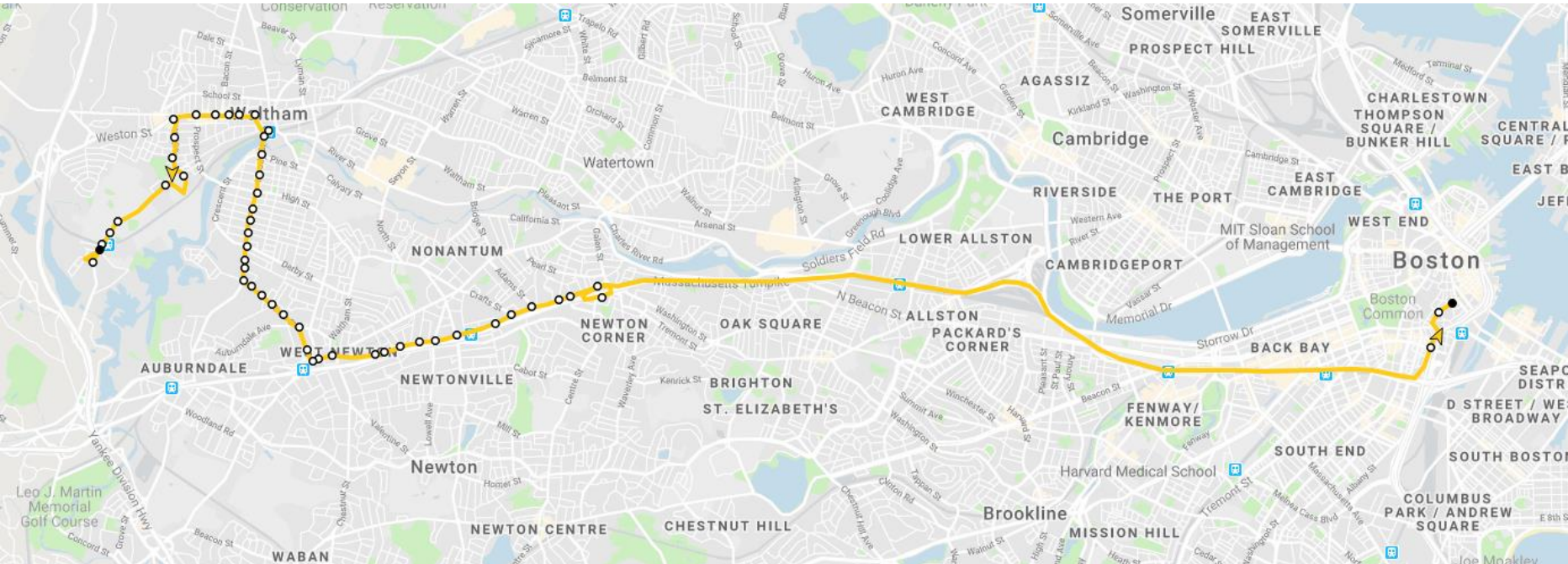
False. Converting to a 3-lane road can positively impact property values and businesses. When converting a 4-lane road to a 3-lane road, additional features can be added in the unused space, such as parking and/or bicycle lanes. These features can improve livability and transform the corridor into one people want to drive on versus drive through. Additional parking can provide a benefit to businesses and the center left turn lane improves access.

MYTH: EMERGENCY RESPONSE TIMES WILL INCREASE

False. Contrary to beliefs, a 4- to 3-lane conversion does not increase emergency response times. In fact, response times usually improve because emergency vehicles can utilize the center turn lane when responding to an incident. This avoids bottlenecks that can occur on 4-lane roads when drivers in the middle lanes try to move over for the emergency vehicle, but can't.

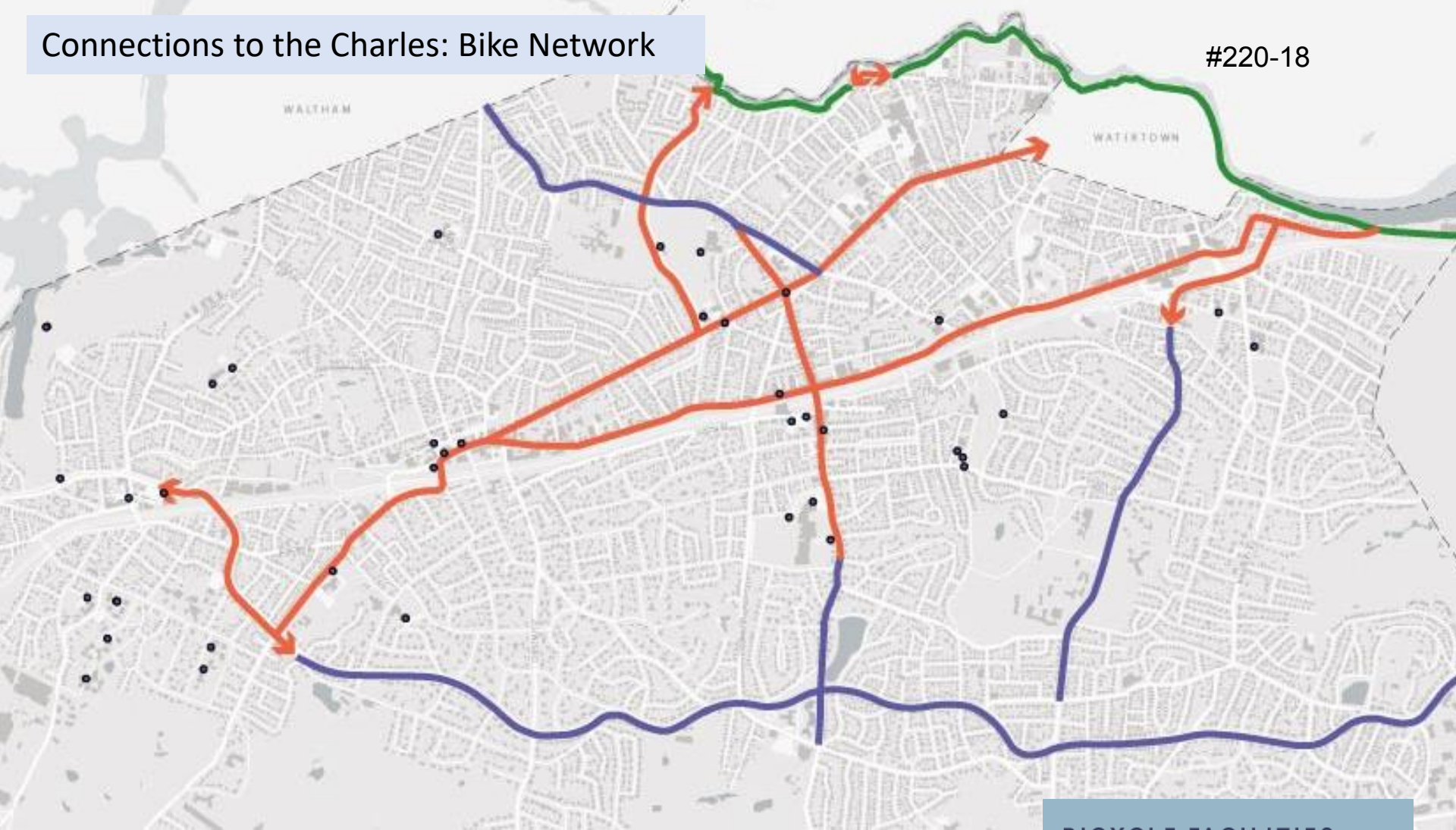
Dedicated Bus Lanes?

- Pickup for express buses 553,554
- Commuter Rail Vision
- Better Bus infrastructure (TSP, AFC 2.0, stop spacing)



Connections to the Charles: Bike Network

#220-18



BICYCLE FACILITIES

Bike Rack	○
Existing Lanes	—
Existing Bike Path	—
Proposed Bike Lane	—

Process & Timeline For Roadway

Almost Complete

- ✓ CTPS Roadway Analysis and Study 2015
- ✓ Washington Street Vision Plan 2019

Next Steps

- Conceptual Design, \$2M
 - Traffic Study
 - Survey
 - Alternatives Analysis
- 25% Design
 - Functional Design Report
 - Apply, MassDOT TIP \$
- Final Design & Construction

2020

2021

TBD



The Electric Avenue road diet in Lewistown, Pa., was **opposed by 95 percent** of residents when it was first proposed;

after completion, nearly **95 percent of residents are supportive** of the changes

-AARP, Road Diet Fact Sheet

Councilor Comments

1. Washington Street Roadway
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3. Parking
4. Transportation Demand Management



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Sections of the Vision Plan relating to transportation





5.1
Build Protected Bicycle Lanes to Separate Bicyclists from Moving Vehicles

5.2
Design Streets to Prioritize People

5.3
Slow Down Traffic Speeds and Improve Flow

5.4
Design Accessible and Inviting Sidewalks with School Children and Seniors in Mind

5.5
Make Safe Crossing Locations Every 400 Feet Maximum

5.6
Build Pedestrian Comforts for Winter

5.7
Test Ideas Before You Invest



Suggested Actions

- Neighborhood traffic calming
- Detailed study of Washington Street redesign
- Trial ideas when possible
- Use Street Design Guide & Complete Street Policy
- Lighting for pedestrians
- Plow sidewalks and bike lanes early

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- 8.1
Create a Parking Plan and Implement Curbside Parking Management
- 8.2
Implement Dynamic Pricing
- 8.3
Adjust Parking Requirements for New Development to Reduce New Local Traffic
- 8.4
Build Vertical Municipal Parking in Strategic Locations

- 8.5
Prioritize Local Travel over Commuter Travel, but Plan for and Manage Both
- 8.6
Design to Accommodate a Driverless Future



Suggested Actions

- Use and expand Shared Parking Pilot
- Curbside Management including taxi and rideshare
- Smart meters for dynamic pricing
- Eliminate parking requirements in zoning
- On-street parking 24/7 over 12 months per year
- Study if/where municipal parking garage is warranted
- Direct and implement TDM

**8.1
Create a Parking Plan and Implement
Curbside Parking Management**

**8.2
Implement
Dynamic Pricing**

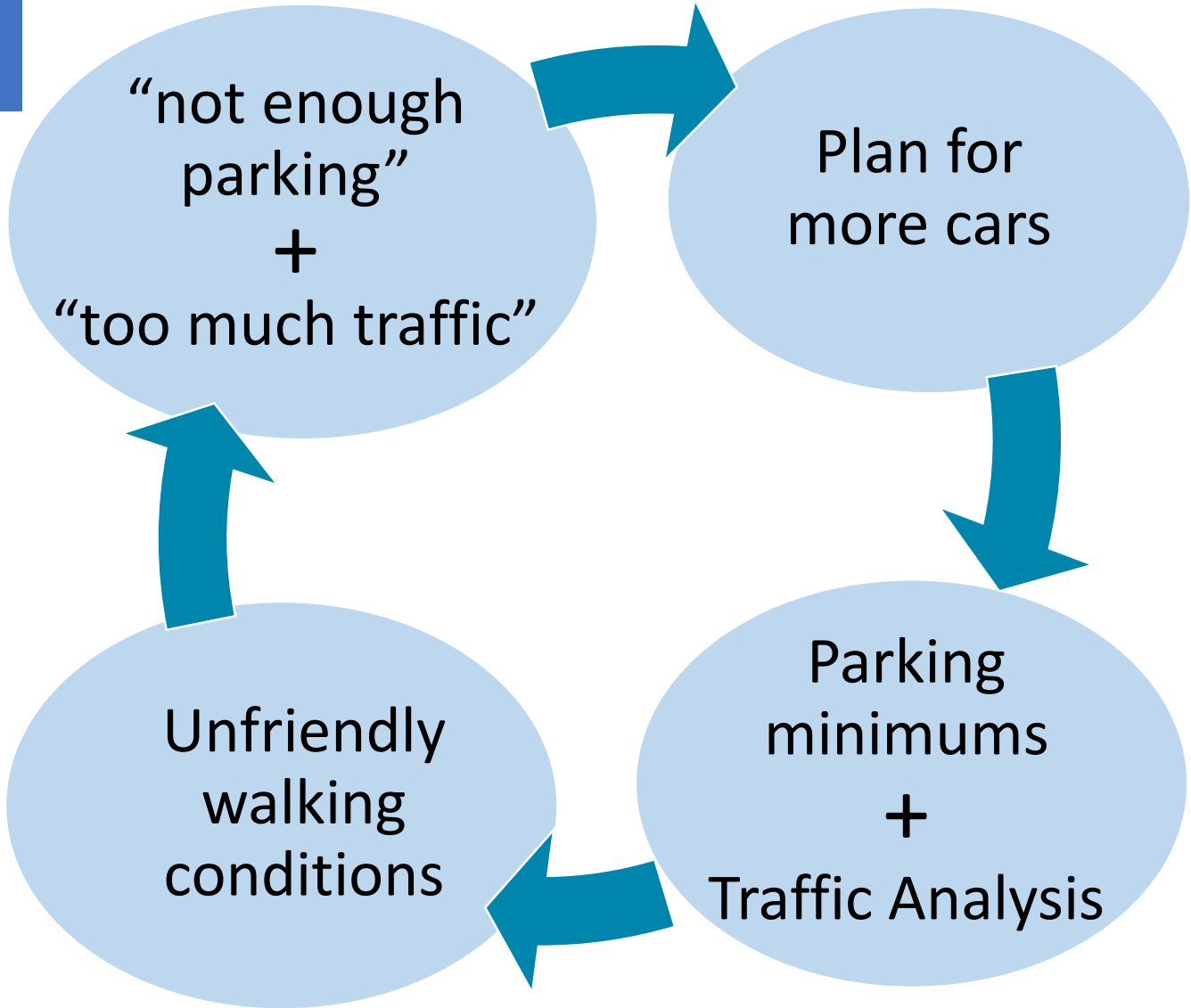
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Driverless Future**

Parking



You get what you zone for...

Current zoning asks for...

- Worst-case traffic projections
- High minimum parking

We get...

- More traffic
- Large empty parking lots



Parking

8 Step Program for Managing Parking and Traffic

City planning research has made it increasingly clear that when you build ample convenient parking, more people will choose to drive and park rather than using other forms of transportation. Where parking is constrained, people are more likely to find creative ways to get to their destination that do not involve driving a personal vehicle. The following 8 steps would help Newton transition from a community that invites driving and traffic to a place that provides a more balanced range of options.

1. Allow on-street parking overnight, year round.
2. Improve the graphic design and placement of signage for where one can and cannot park within a 1/2 mile of the village center.
3. Provide safe and comfortable options for walking and biking so more people will choose those options. This includes a number of tactics. For example, seniors are more likely to walk if they know they have frequent places to sit and rest, so adding benches every 200 to 250 feet can improve walkability.
4. Adopt market-based pricing strategies to improve parking availability and convenience, so that in places with a higher demand for parking, the price for parking is higher.
5. Require developers to "unbundle" parking so that parking spaces are rented at market prices, separately from residential units or commercial space.
6. Focus on transportation demand management (TDM) strategies and require that all new development include a TDM program.
7. Improve bus and transit access, infrastructure, and frequency.
8. Create opportunities for district parking solutions, including shared, publicly accessible parking garages.

Example of a building designed to meet existing parking requirements.



Example of a building with no on-site parking.



What does Requiring On-Site Parking in Zoning Do?

Pros

- Limits, to an extent, spillover parking adjacent to neighborhoods

Cons

- Increases the cost of housing and commercial rents
- Contributes to climate change
- Contributes to traffic
- Generates water pollution
- Creates “heat island” effect
- Reduces tax revenue
- Results in larger, taller buildings

How is Newton Managing Parking as a Public Resource?

- Public Parking
 - On-Street Parking Management
 - Public Parking Lots
- Metered Parking
- Winter Overnight Parking Program
- Senior Parking Stickers
- District Parking Plans
- Tiger Permits at NNHS



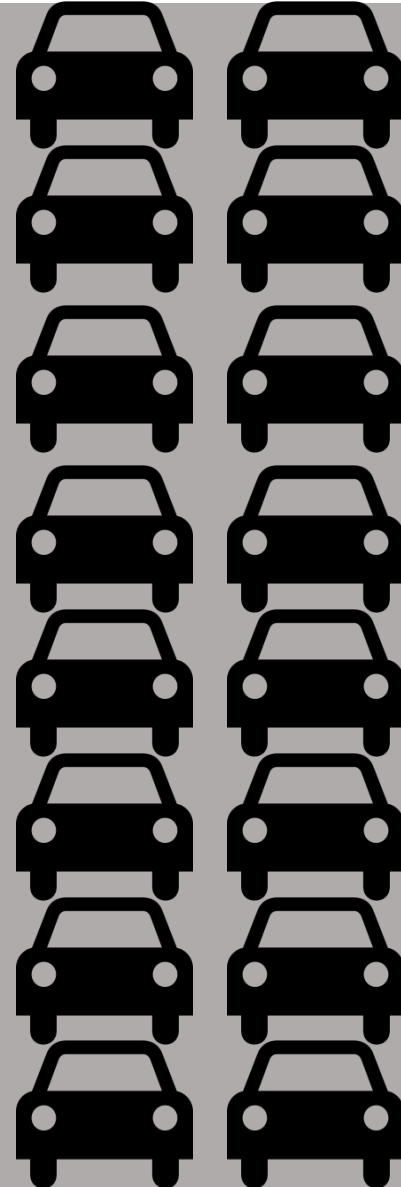
On-Site Parking in the Draft Washington Street Zoning

- Zoning would not require parking minimum
- Instead zoning regulates the location and design of on-site parking

- Building Types
 - Limit shape and size of all buildings
 - Certain building types are shaped around parking
- Building Groups
 - Require underground parking garage
- Standards
 - Design and location standards for parking

Transportation Demand Management (TDM) ^{#220-18}

Instead of
driving in
rush hour



Transportation Demand Management (TDM)

Leave late/go in early

Telecommute

Carpool

Rideshare (Uber/Lyft)*

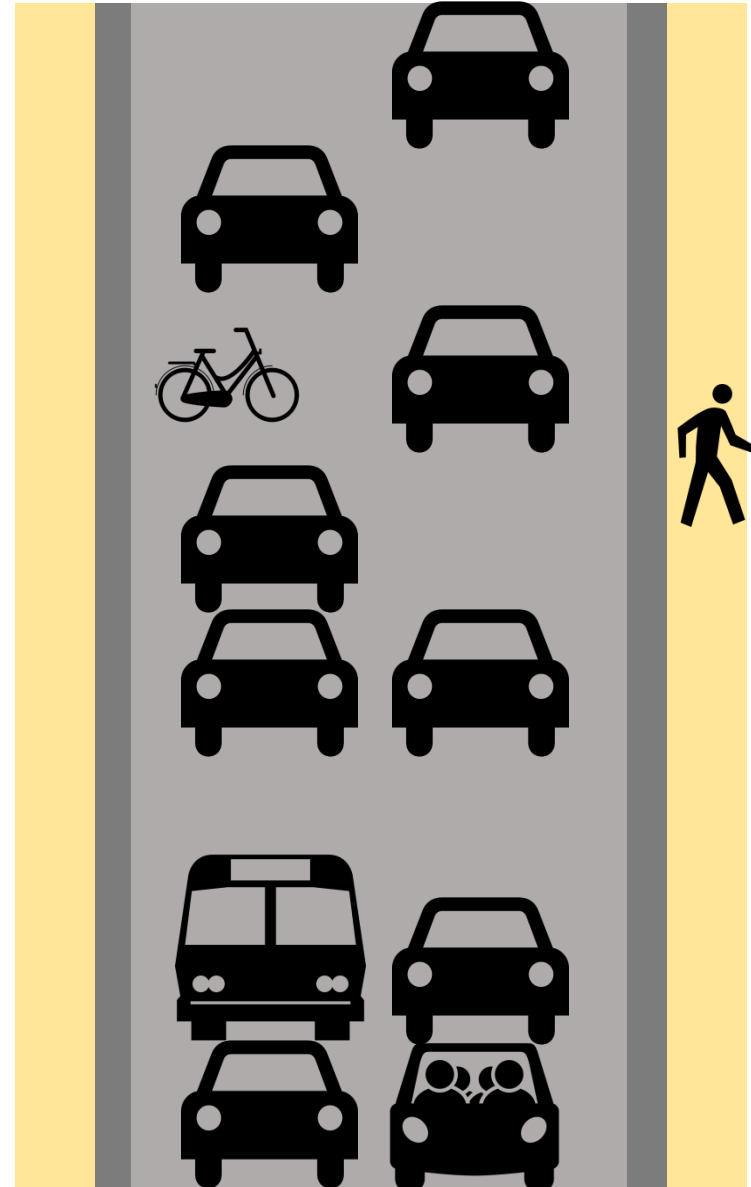
Walk

Bus

Green Line

Commuter Rail

Bike



Transportation Demand Management (TDM)

Locate housing near transit and jobs

Invest in walking, biking, and transit infrastructure

Distribute information about transportation options



Transit Passes

Separate housing and residential parking costs



Bike parking & locker rooms

Emergency ride home programs

On Site Carshare (e.g. zipcar)

Transportation Demand Management

Small Projects:

- Easy physical investments

Medium Projects:

- Easy physical investments
- Full package of incentives to tenants

Large Projects:

- Easy physical investments
- Full package of incentives to tenants
- Routine reporting and dedicated staff

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Thank you
