

# Complete Streets Implementation and its Impact on Health and Wellness

**William G. Paille, PE**

*BSC Group, Complete Streets Manager  
Boston, MA*



**Sustainability & Multimodal Planning Workshop** //



# The Reality

## Safety

6,227 pedestrians  
killed in the US in 2018  
An increase of 250  
from 2017

855 cyclists  
killed in the US in 2018  
An increase of 78  
from 2017

## Cultural/Financial/Policy

According to SRTS walking and  
bicycling is on the decline

- In 1969, 48% children (grade K-8) walked/biked to school
- In 1969, 89% children (grade K-8) who lived within 1 mile of school walked/biked to school

← In 2009 it was 13%

← In 2009 it was 35%



Pedestrians & Cyclists =



Conflicts



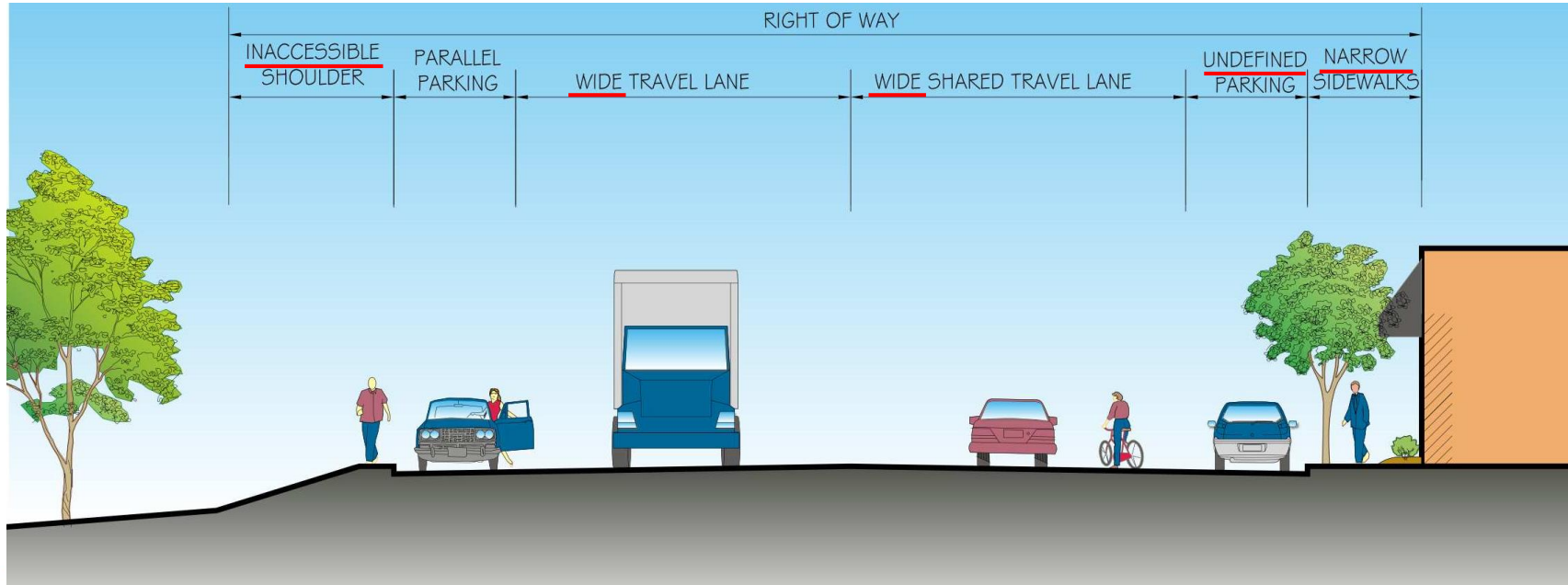
Complete Street Upgrades

# Benefits of Complete Streets

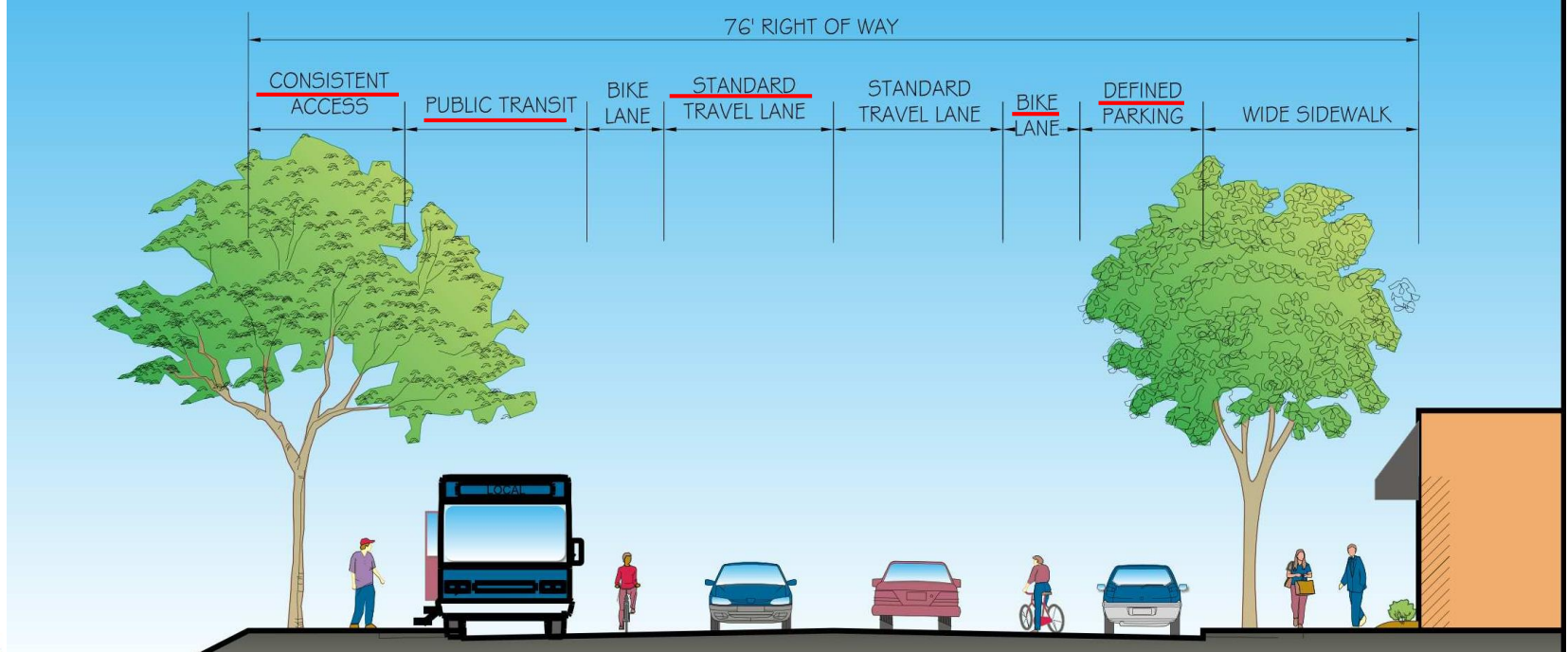
- **Economic** – Accessible & efficient connections between residences, schools, parks, public transportation, offices, and retail destinations
- **Safety & Mobility** – Allow all users to travel with same level of safety & convenience
- **Transportation Cost** – Users spend less income on fuel – increased savings, disposable income or money for investment
- **Congestion & Capacity** – Provide travel options to avoid traffic jams, increase overall capacity of network, reduce congestion & travel time, increase quality of life
- **Health** – Encourage more walking and bicycling in response to obesity epidemic, reduced doctor visits and overall health costs, reduce no. cars increasing air quality



# Typical Roadway Configuration



# Complete Streets Approach



# MassDOT Complete Streets Program

- Launched **February 1, 2016** – Reimbursable Municipal Funding Program
- MassDOT provides training on Program requirements, Complete Streets Basics and Advanced Design
- **Three** Tiers (Adopt Policy/Training; Develop 5-year plan; Approval & NTP for Const.)
- Technical Assistance (**Max. \$50,000**); Construction (**Max. \$400,000**)
- Full Program Guidance & Online Portal
- Since inception **201** municipalities have approved policies; **161** approved prioritization plans; **71** projects (**\$30+ Million**) awarded to date



# MassDOT Program Objectives

- **Provide** incentive for municipal adoption of Complete Streets concept thru approved policy, planning and implementation thru best practices
- **Encourage** municipalities to adopt a strategic and comprehensive approach to Complete Streets based on their needs
- **Facilitate** better pedestrian, bicycle, and transit travel for users of all ages and abilities by addressing critical gaps in infrastructure and safety
- **Achieve** equity in program participation and award distribution



# Eligible Projects

## Pedestrian Facilities

- Sidewalks
- Crosswalks
- Wayfinding

## Bicycle Facilities

- Shared Use Paths
- Bike Lanes
- Intersections

## Traffic and Safety

- Street Lighting
- Traffic Calming
- Signs and Markings

## Transit Facilities

- Bus Stops
- Transit Signal Priority
- Access Improvements





# Complete Street Applications



Eliminating Sidewalk Gaps



Driver Feedback Radar Signs



Crosswalk Upgrade



Separated Bike Lanes



# Complete Street Upgrades



Off-Road Bicycle Trails



ADA Compliant Crossings



On-Road Bicycle Lanes

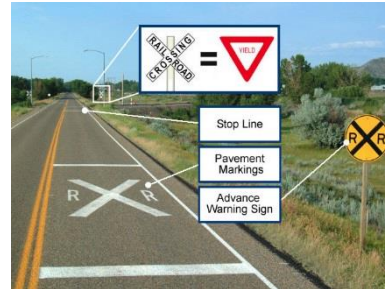


# Complete Street Upgrades



Signage

Traffic Signals



Crossings



Pathway Lighting

# Measuring Performance

## Infrastructure

- Miles of repaired/new sidewalk
- No. ADA ramp upgrades
- No. new bus stops with shelters
- Installation of new pedestrian countdown
- Miles of new bicycle facilities

## Usage

- Walker/bicycle counting at key locations including intersections, schools, trailheads, parks
- Bus ridership
- Vehicle counts

## Regional

- Air Quality
- Crash Data
- Health Care Costs

