

# Pedestrian and Bicycle Program and Safe Routes to School Program Overview 2016

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and  
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Local Programs  
Washington State Department of Transportation

# Webinar Overview

- Program Purpose
- Review Criteria
- Program Specifics
- Examples of Eligible Improvements
- Questions



# Pedestrian and Bicycle Program Purpose

Reduce pedestrian and bicycle collisions and increase the number of people who choose to walk and bike for transportation.



# Safe Routes to School Program Purpose

Increase the number of children walking and biking to school safely.



# Pedestrian and Bicycle Program

Two types of projects are eligible:

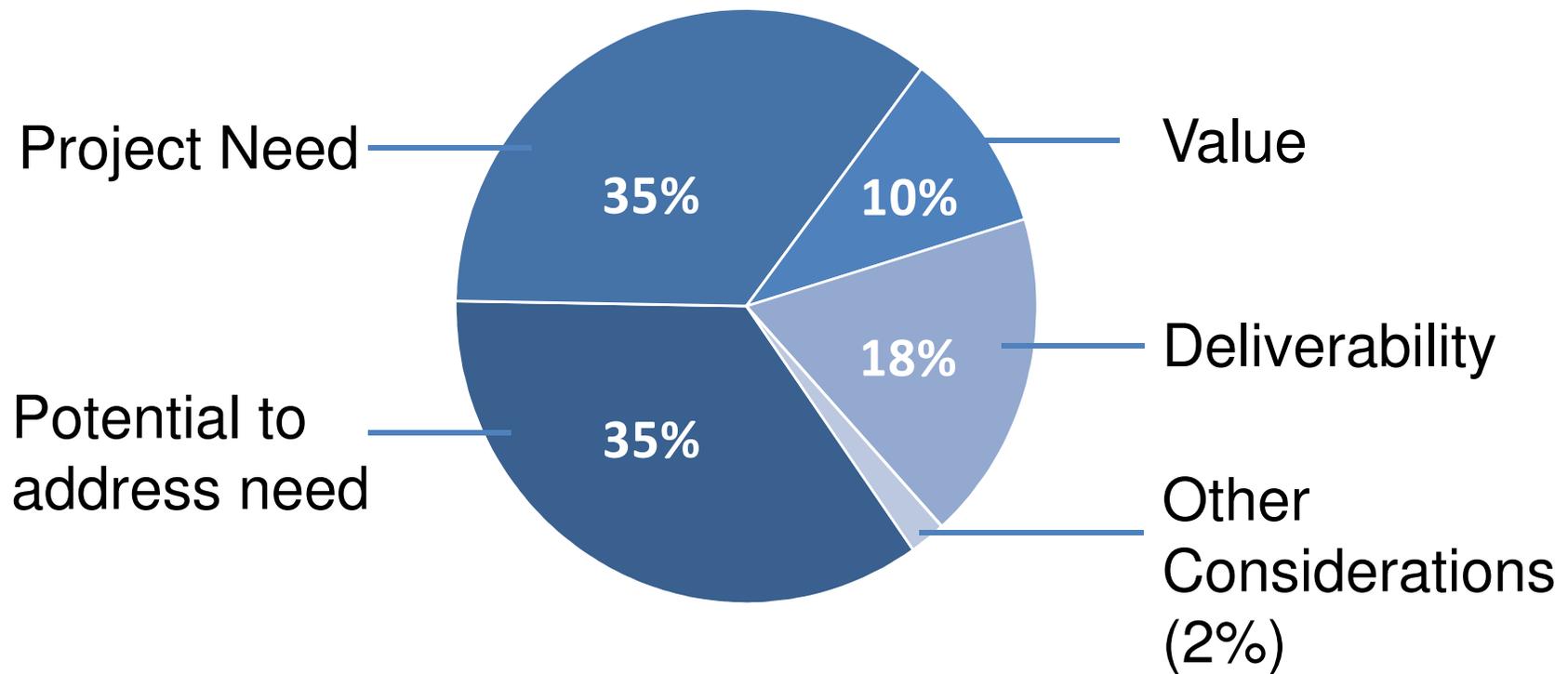
- 1) Project development/planning only projects
- 2) Construction projects (may include engineering)

# Safe Routes to School

Infrastructure improvements within two miles of a school – may include local transportation safety programs (education and encouragement activities).



# Prioritization Criteria Based On:



# Need

- Safety
- Mobility and Connectivity
- Health Equity



## 2016 DRAFT Pedestrian and Bicycle Program and Safe Routes to School Application



**Preferred funding program:**  Pedestrian and Bicycle Program  Safe Routes to School

For Pedestrian and Bicycle Program applications only, indicate the type of project proposed:

Design-only project  Infrastructure project (may include preliminary engineering)

**Project title:**

**Lead agency and project manager:**

Lead Agency:  
Project Manager:  
Title:  
Address:  
Phone:  
Email:

**Project location:**

Beginning project limit:

Ending project limit:

**Is this project on a state route?**

No \_\_\_\_\_ Yes \_\_\_\_\_ Route # \_\_\_\_\_ Milepost(s) \_\_\_\_\_

**State legislative district #(s):**

**Congressional district #(s):**

**Need/purpose/deficiency:** Check all that apply

Safety  Pedestrian Mobility  Bicycle Mobility  Community Health  Economic Development

Explain why this project is needed, who it will serve for what purpose (include: safety concerns, gaps in the system/non-motorized network connectivity; target population; and/or origin(s)/destination(s) connected by the project.

There have been \_\_\_\_\_ crashes; there is a \_\_\_\_\_ ft. gap between....

# Safety Need

Locations with a known collision history (application comparison based on number and severity of collisions)

Or

Locations where there are high pedestrian/bicycle volumes and unprotected conflict points, high vehicle speeds, and/or a lack of compliance with the rules of the road.

# History of bicyclist/pedestrian collisions between 2013-2015

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History of bicyclist/pedestrian collisions between 2013-2015 at the project location: ¶

¶

Number of fatal pedestrian/bicycle collisions, include contributing factors: ¶

¶

Number of serious injury pedestrian/bicycle collisions, include contributing factors: ¶

¶

Number of evident injury collisions: \_\_\_\_\_; Possible injury collisions: \_\_\_\_\_; Unknown injury or property damage collisions:

Number of other bike/pedestrian collisions within 1 mile of the project that would be addressed by the project: \_\_\_\_\_ ▣



## Request for Crash Data for the Pedestrian and Bicycle Program and/or Safe Routes to School Program 2016 Call for Projects

Please complete this request form and email or fax to the address shown below. In order to ensure efficient service, please provide as much information as you can.

**Federal highway safety laws require the state to create this collision database for use in obtaining federal safety improvement funds. Under Section 409 of Title 23 of the United States Code, collision data is prohibited from use in any litigation against state, tribal or local government that involves the location(s) mentioned in the collision data. By checking the box below, you agree to comply with these terms – failure to do so will be grounds for denying your request.**

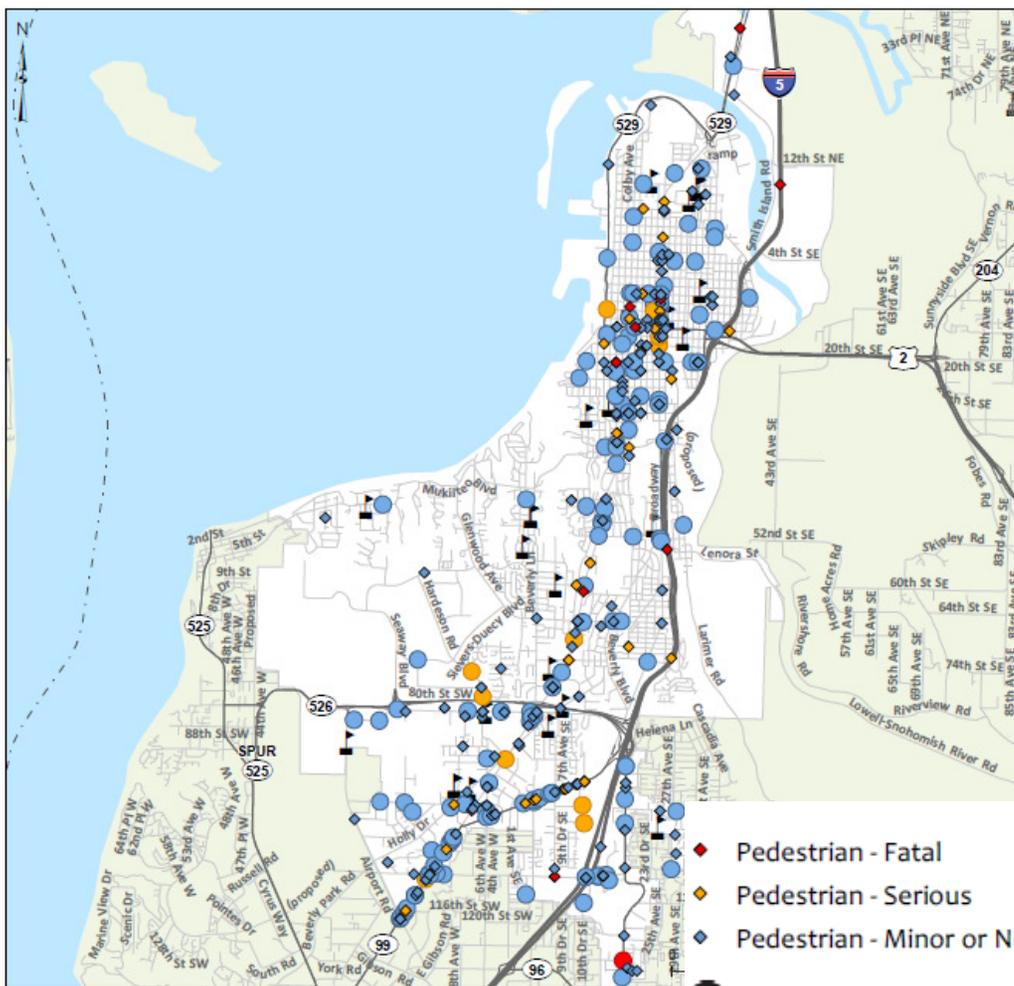
I hereby affirm that I am not requesting this collision data for use in any current, pending or future litigation against state, tribal or local government involving a collision at the location(s) mentioned in the data.

### Requester Information

Name		Company/Agency Name		
Address		City	State	Zip Code
Phone No.		Email		

[http://www.wsdot.wa.gov/mapsdata/collision/pdf/2016\\_PedestrianBicycleAndSafeRoutesToSchoolPrograms\\_web.pdf](http://www.wsdot.wa.gov/mapsdata/collision/pdf/2016_PedestrianBicycleAndSafeRoutesToSchoolPrograms_web.pdf)

# 2013 – 2015 Pedestrian and Bicycle Involved Crashes



Washington State Department of Transportation Crash Data & Reporting Branch - TDGO

# Number of People Walking and Biking

## Washington State Student Travel Survey 2014

Method of transportation from home to school for participating school districts and schools

- as reported by a random sample of parents.

School District	School	Walk	Bike	School Bus	Family Vehicle	Carpool
ABERDEEN SD	CENTRAL PARK ELEMENTARY	7.0%	0.0%	41.9%	51.2%	0.0%
ANACORTES SD	ISLAND VIEW ELEMENTARY	17.3%	3.8%	32.7%	44.2%	0.0%
AUBURN SD	ALPAC ELEMENTARY	5.0%	0.0%	65.0%	30.0%	0.0%
AUBURN SD	HAZELWOOD ELEMENTARY	5.7%	0.0%	43.4%	50.9%	0.0%
AUBURN SD	LEA HILL ELEMENTARY	34.0%	0.0%	24.5%	37.7%	3.8%
AUBURN SD	OLYMPIC MIDDLE	26.8%	1.8%	50.0%	21.4%	0.0%
AUBURN SD	RAINIER MIDDLE	4.2%	0.0%	53.5%	39.4%	2.8%
BATTLE GROUND SD	AMBOY MIDDLE	0.0%	0.0%	98.4%	1.6%	0.0%
BATTLE GROUND SD	DAYBREAK MIDDLE	50.0%	4.7%	20.3%	25.0%	0.0%
BATTLE GROUND SD	DAYBREAK PRIMARY	30.0%	1.7%	16.7%	51.7%	0.0%

<http://www.wsdot.wa.gov/NR/rdonlyres/02F8978F-FF80-4CDD-925A-1090B4585AB1/0/2014STStable.pdf>



Washington State  
Department of Transportation

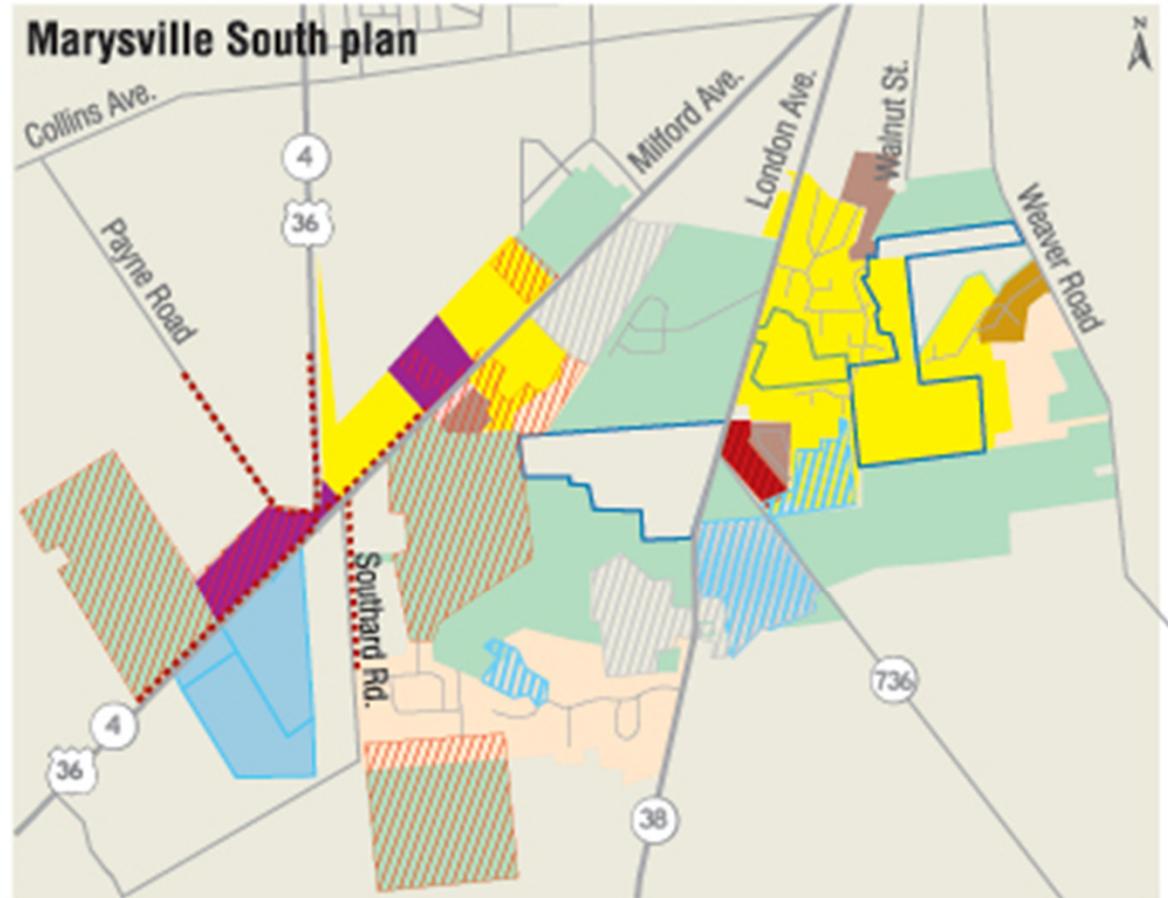
# Mobility/Connectivity Need

Where there is a gap in the network, a need for transitions, and/or a lack of way-finding tools for which improvements would help to increase walking and biking.

Where there is potential to connect pedestrians/bicyclists to businesses, community resources, and/or job opportunities.



# Example Zoning/ Land Use Map



### Legend

- Traffic study area
- ▨ Potential development area
- ▧ Development under construction
- ▭ Formal plan submitted (not constructed)
- ▭ Existing park
- ▭ Public services uses

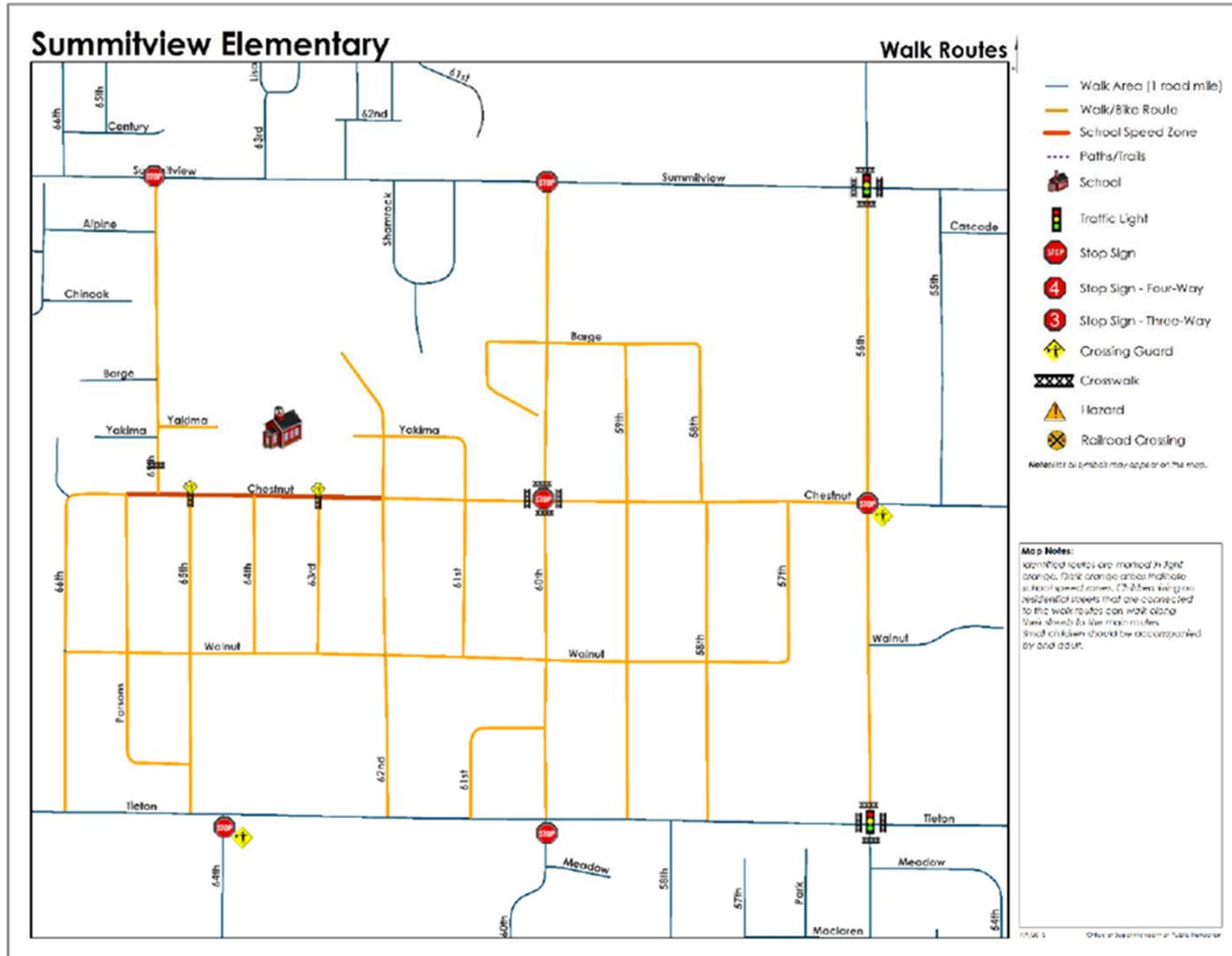
### Current zoning

- Service business
- Business residential
- Government
- High-density multi family
- Medium-density single family Residential
- ▨ Planned unit development
- Light manufacturing
- Low-density single family
- Low-density multi family
- High-density single family
- Suburban residential

Source: City of Marysville

By Erin Holl/ThisWeek

# School Walk Route Map



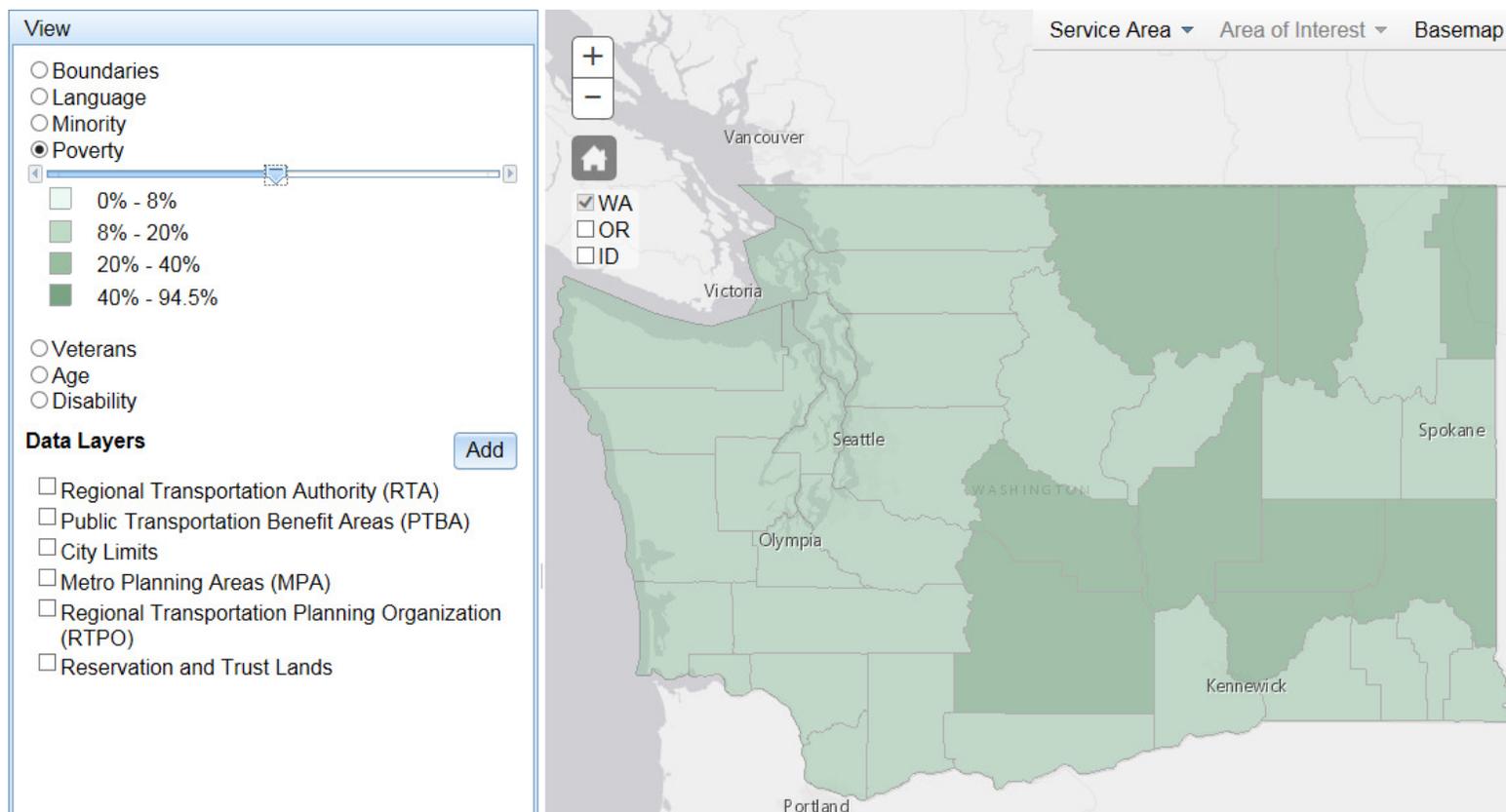
# Health Equity Need

Projects that would serve populations at a higher risk for inactivity and/or poor health outcomes, including people living in poverty, minorities, the elderly, and/or people with disabilities.



# Target Population Demographics

## Application for Local Planning and Community Accessibility



<http://www.wsdot.wa.gov/Transit/Grants/ALPACAtool.htm>

**District** Non-District ESD P-20 High School Feedback **Tools:** Compare My School

**Summary** AYP CTE AMO WaKIDS HS Dual Credit Graduation Progress Report

MSP/HSPE EOC Smarter Balanced WAAS PORT WA-AIM WELPA NAEP

**Summary** Abraham Lincoln Elementary  **Search:**  School  District

District > Washington State > Office of Superintendent of Public Instruction > Wenatchee School District > **Abraham Lincoln Elementary**

**Abraham Lincoln Elementary**

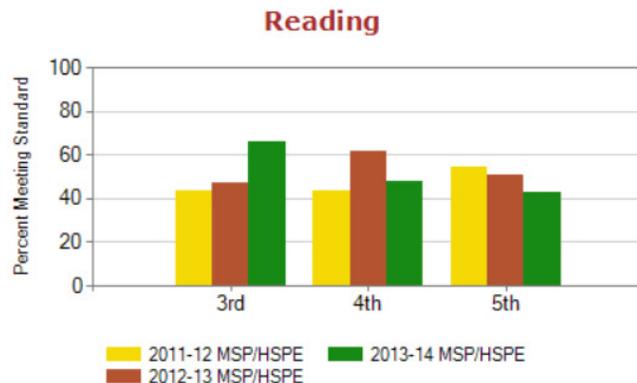
Principal Tim Sheppard  
 509.663.5710

1224 METHOW ST. WENATCHEE 98801-0000 Grade Span: K-5  
 Wenatchee School District

Select a year: 2013-14

**2013-14 Results (Administration Info)**

Grade Level	Reading	Math	Writing	Science
3rd Grade	65.8%	49.3%		
4th Grade	47.8%	26.5%	39.1%	
5th Grade	42.4%	30.7%		32.3%



**Student Demographics**

Enrollment		
October 2013 Student Count	502	
May 2014 Student Count	497	
Gender (October 2013)		
Male	241	48.0%
Female	261	52.0%
Race/Ethnicity (October 2013)		
Hispanic / Latino of any race(s)	356	70.9%
American Indian / Alaskan Native	2	0.4%
Asian	1	0.2%
Black / African American	2	0.4%
White	136	27.1%
Two or More Races	5	1.0%
Special Programs		
Free or Reduced-Price Meals (May 2014)	415	83.5%
Special Education (May 2014)	64	12.9%
Transitional Bilingual (May 2014)	253	50.9%
Migrant (May 2014)	145	29.2%
Section 504 (May 2014)	5	1.0%

<http://reportcard.ospi.k12.wa.us/summary.aspx?groupLevel=District&schoolId=1&reportLevel=State&year=2014-15>

# Potential to Address Program Purpose and Need

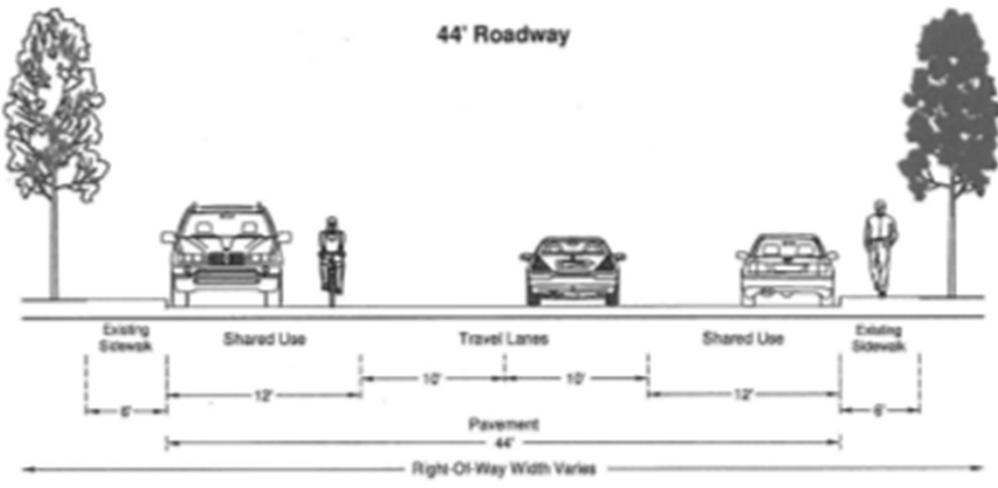
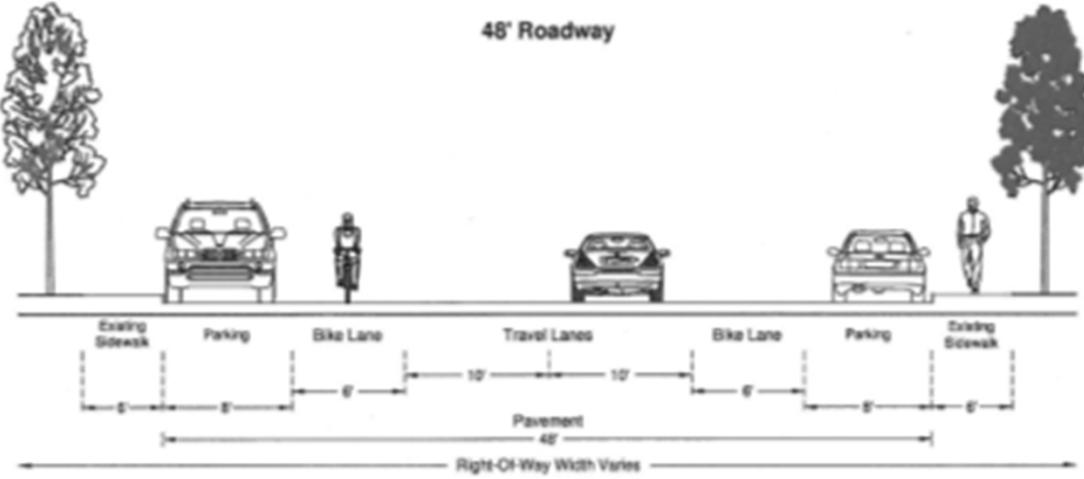
## Construction and/or local transportation safety projects

- Are improvements consistent with program purpose?
- Will the proposed treatments address identified need?
- What is the potential effectiveness of treatment?

# Project Detail Examples

1. Install 1,650 linear feet of 6ft wide sidewalk, 3ft wide planter strip, curb, and gutter.
  - Location: Smith Rd. between H Street and M Street
2. Roadway reconfiguration (road diet) restripe to include 5 ft bicycle lanes, maintaining two 10ft wide travel lanes and 7ft wide side street parking.
  - Location: Johnson Rd. #33445, MP 0.00-0.3125

# Example Cross Section





# Potential to Address Program Purpose and Need

## Project Development/ Design Only Projects

- Will the work result in projects that are ready to construct and that address the project need?

# Project Detail Example

## Design/Project Development Application

1. Conduct \_\_\_\_\_ outreach efforts and hold \_\_\_\_\_ number of meeting(s) at \_\_\_\_\_ location to engage target population and get their input for the project
2. \_\_\_\_\_% project design complete
3. Complete ROW project funding estimate/true cost estimate
4. Complete preliminary environmental analysis

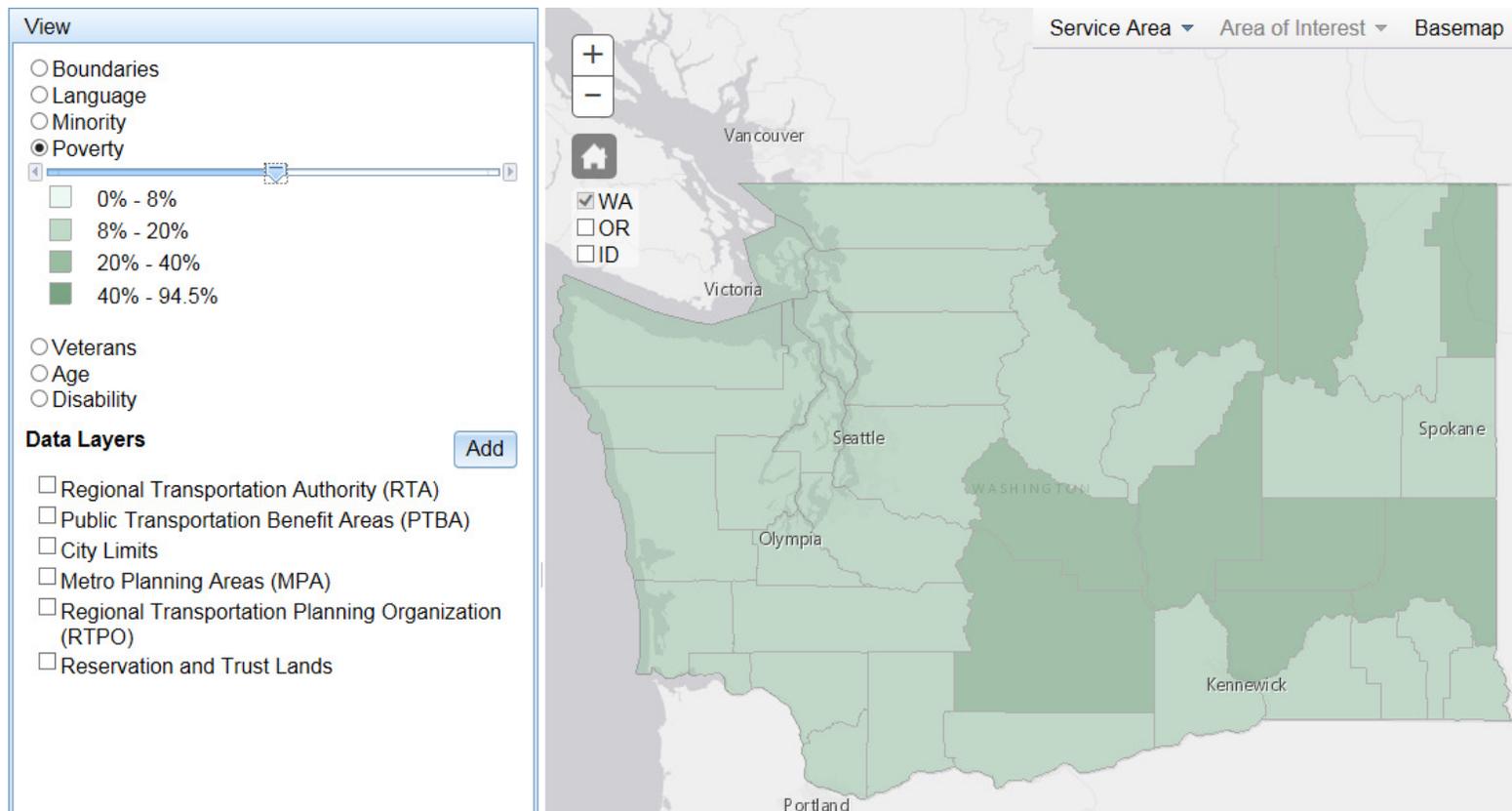
# Value

Amount of request compared to number of people served or population density within 1 mile of the project location.



# Target Population Demographics

## Application for Local Planning and Community Accessibility



<http://www.wsdot.wa.gov/Transit/Grants/ALPACAtool.htm>

# Deliverability

- Consistency with community plans
- Community engagement (target population)
- Applicant history of successful past projects
- Quality of proposed schedule and budget
- Match

# Cost Estimate Example

<b>Sidewalk Construction Costs</b>					
Item	Description	QTY	Unit	Unit Price	EXT
1	Mobilization	#	LS	\$X	\$X
2	Traffic Control Labor	#	HR	\$X	\$X
3	Project Temporary Traffic Control	#	LS	\$X	\$X
4	Straw Wattles	#	LF	\$X	\$X
5	Catch Basin Inserts	#	EA	\$X	\$X
6	Gravel Base	#	TN	\$X	\$X
7	Cement Conc Curb and Gutter	#	LF	\$X	\$X
8	Cement Conc Sidewalk	#	LF	\$X	\$X
9	Concrete Driveway	#	SY	\$X	\$X
10	LED Streetlight	#	EA	\$X	\$X
11	Truncated Domes	#	EA	\$X	\$X
12	Landscaping Restoration	#	SY	\$X	\$X
	Etc.			\$X	\$X
	Contengency (XX%)			\$X	\$X
<b>Total</b>				\$X	\$X



# Costs for Pedestrian and Bicyclist Infrastructure Improvements

A Resource for Researchers,  
Engineers, Planners, and the  
General Public



[http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs  
Report Nov2013.pdf](http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf)

# Other

- ADA transition plan or ADA Compliance planning for public right-of-way
- Adopted greenhouse gas emissions policy

# Both Programs 2017-2019

- All roads
- All public agencies are eligible
- Projects must:
  - Comply with funding requirements
  - Be in or be put in the local transportation improvement plan
- No match is required



# Pedestrian and Bicycle Program

- \$18 million expected
- State funds
- Application due - May 6, 2016
- 2015-2017 range of funded requests  
\$10,600 to \$1,586,821
- May include design only type projects

# Safe Routes to School Program

- \$19 million expected
  - \$11,400,000 federal
  - \$7,750,000 state
- Application due May 13, 2016
- 2015-2017 range of funded requests \$90,000 to \$1,200,000
- Nonprofit entities are eligible



# Selection Process

- Internal review to tier projects
- Review Committee evaluation
- Site visits
- Prioritized list to Governor and Legislature
- Selection of projects by June 2017



# Inappropriate Uses of Funding

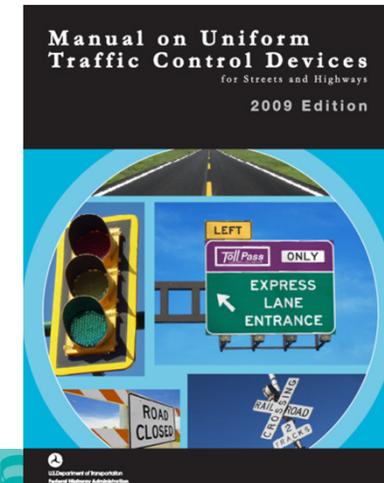
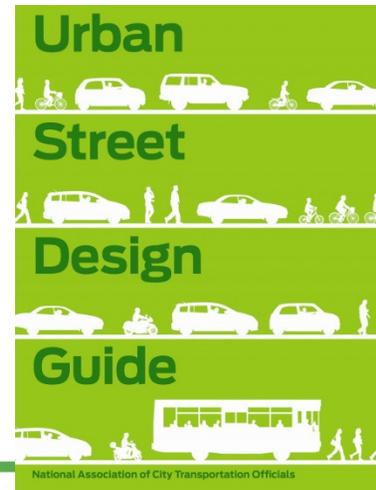
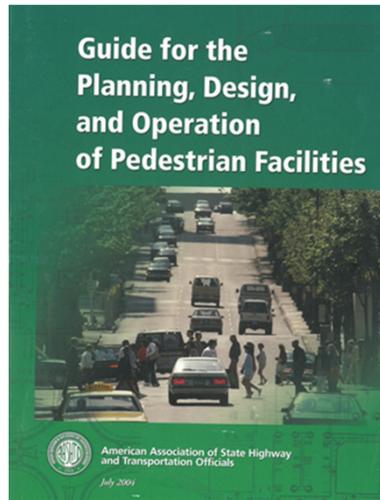
- Re-occurring costs
- Pavement resurfacing, or pavement preservation;
- Motor vehicle improvements that could negatively impact pedestrian and bicycle safety

# Inappropriate Uses of Funding

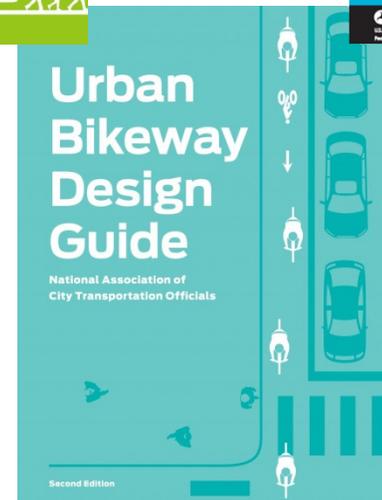
- School bus safety projects
- Portable enforcement equipment;
- Gifts or stipends.



# Resources for Project Guidelines and Standards



Guide for the Development of Bicycle Facilities  
2012 • Fourth Edition



# Example Project Elements

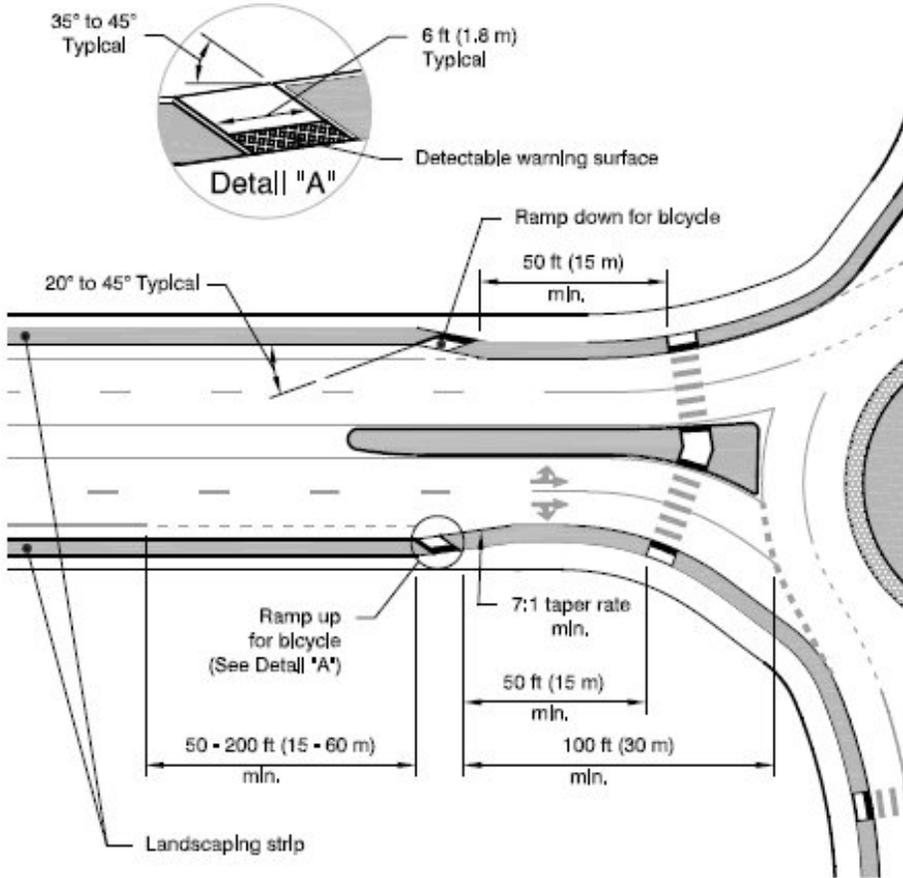
- Infrastructure Improvements
- Design-Only Projects—Ped-Bike Program
- Education and Encouragement— SRTS



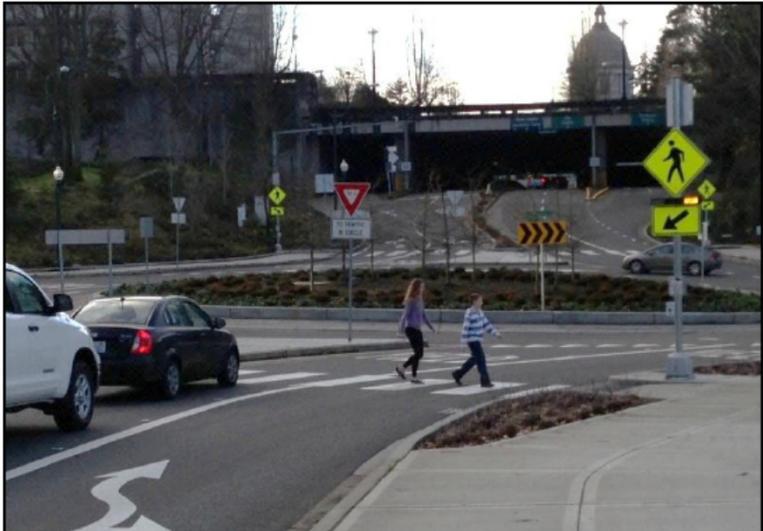
# Crossings and Intersection Improvements



# Roundabouts

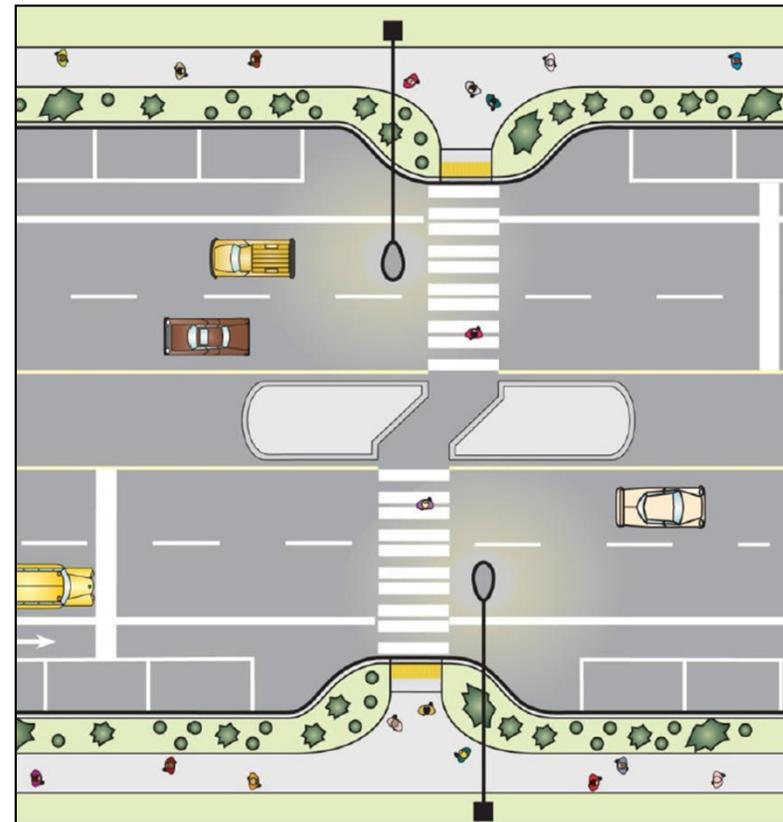
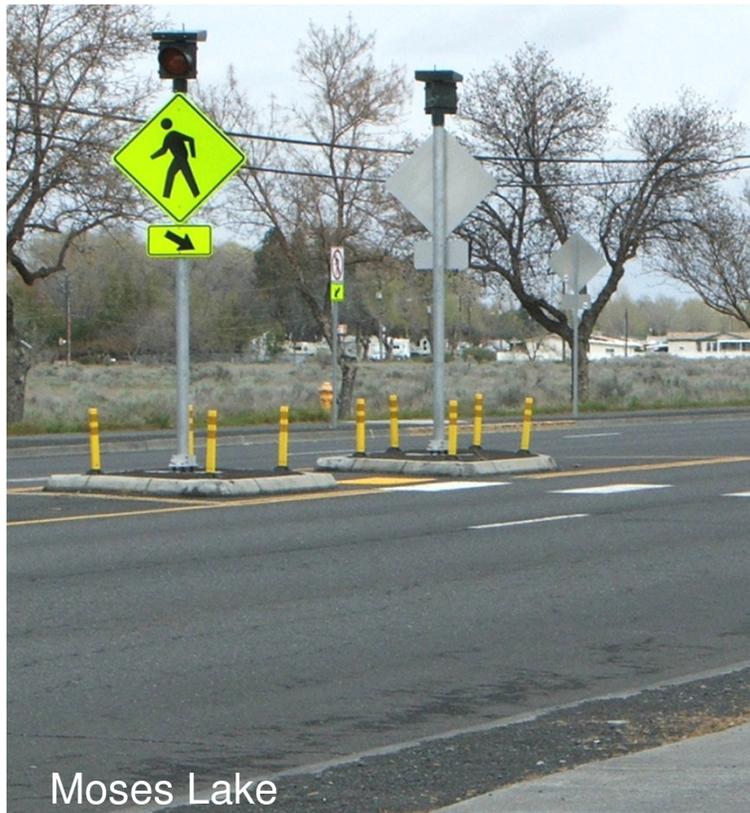


AASHTO



# Crossing Improvements

## Median Refuge Islands



# Crossing Improvements

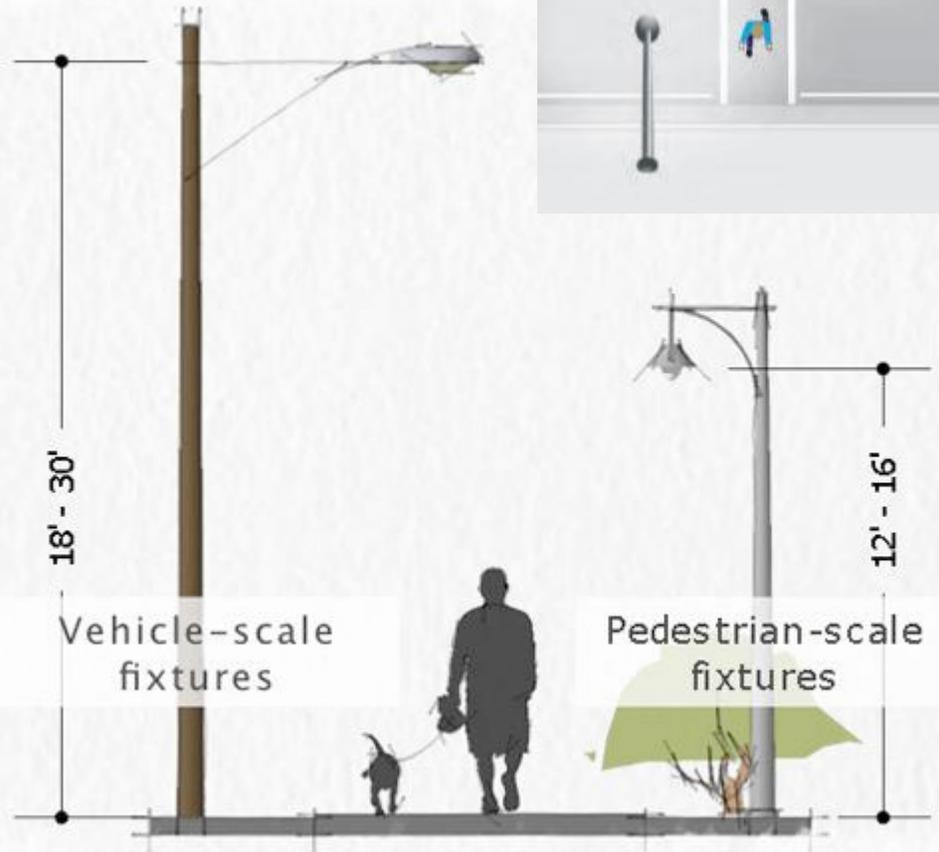
## Raised Crossings



*NACTO Urban Street Design Guide*

# Crossing Improvements

## Pedestrian Scale Illumination



*Spokane Municipal Code*

# Crossing Improvements

## Signage and Pavement Markings



Spokane County



# Crossing Improvements

## Overhead Signs



## In Street Signs



# Crossing Improvements

## Rectangular Rapid Flashing Beacon



# Crossing Improvements

## Pedestrian Hybrid Beacon/ HAWK Signal



Spokane



Sequence for Coordinated HAWK, Bicycle and Pedestrian Signal.

Interval	Motor Vehicle	Bicyclist	Pedestrian
1			
2			
3			
4			
4			
5			
6			
7			
8			
1			

# Other Traffic Control Devices

School Zone Flashing Beacon



Pedestrian Countdown Signal Heads



# Other Traffic Control Devices

No Right On Red Signs



Passive Actuation



# Speed Enforcement Engineering Treatments

## Speed Feedback Signs



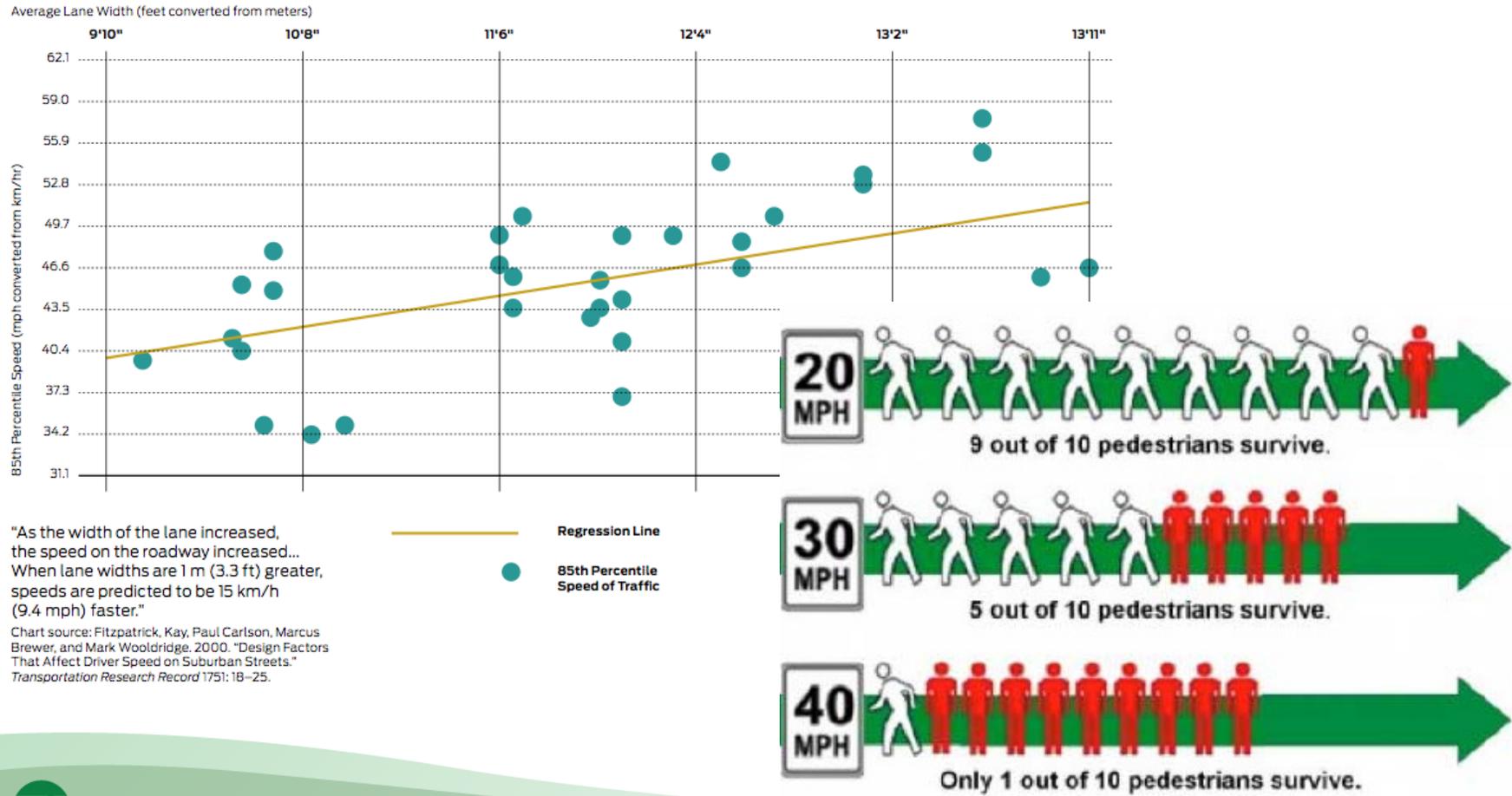
## Photo Enforcement



# Traffic Calming

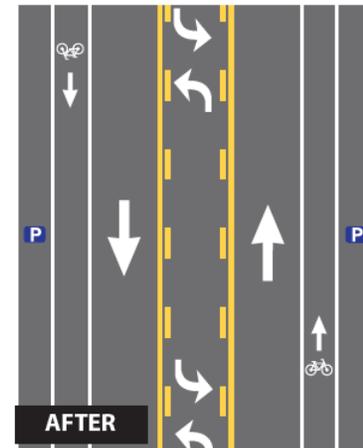
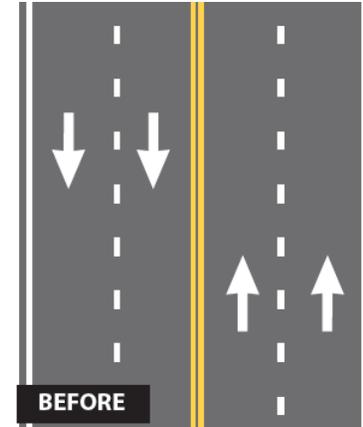
## Lane Width Reductions

**Wider travel lanes are correlated with higher vehicle speeds.**



# Traffic Calming

## Road Reconfigurations

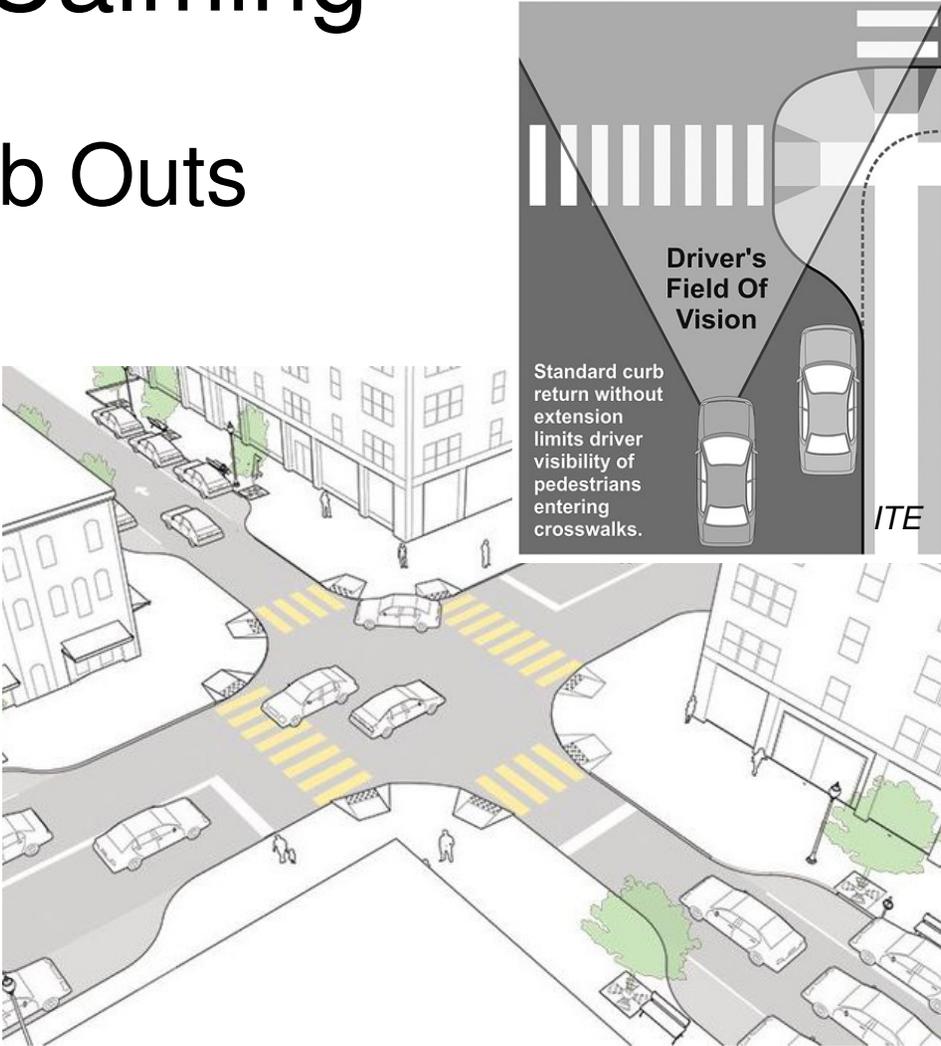


# Traffic Calming

## Curb Extensions/ Bulb Outs



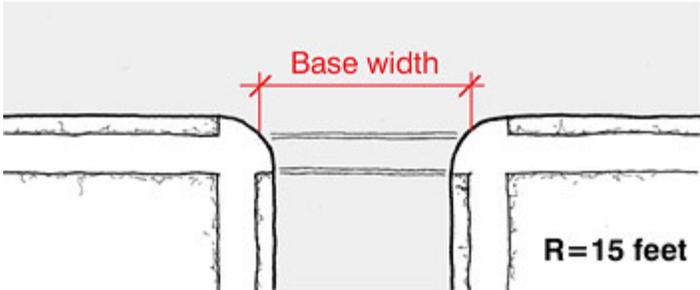
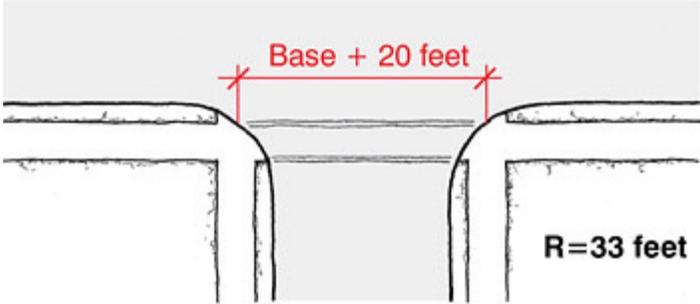
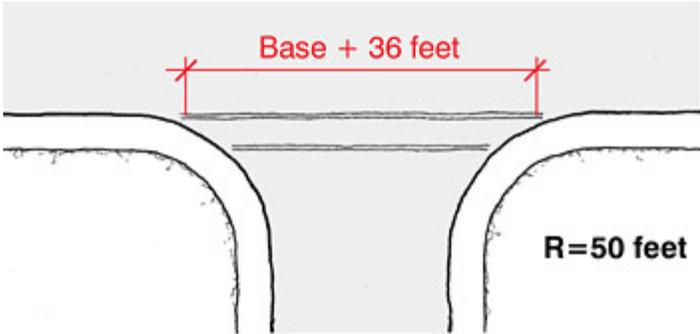
Anacortes



NACTO Urban Street Design Guide

# Traffic Calming

## Reducing Curb Radii



# Traffic Calming

## Speed Humps



## Speed Tables



## Speed Cushions



# Traffic Calming

## Chicanes

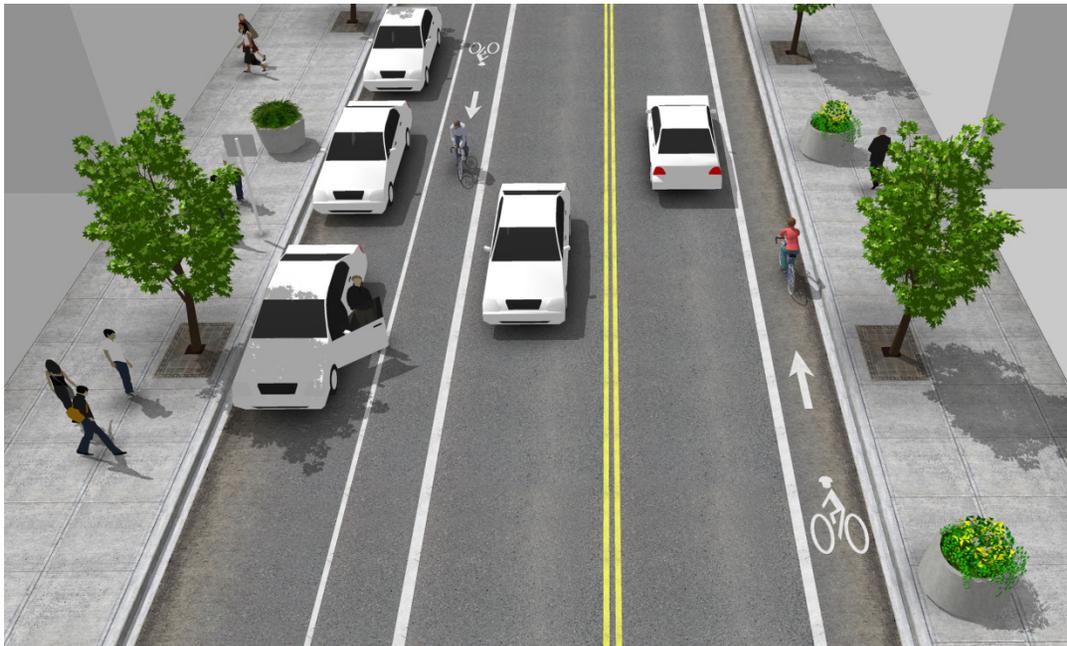


## Traffic Circle/ Mini Roundabout

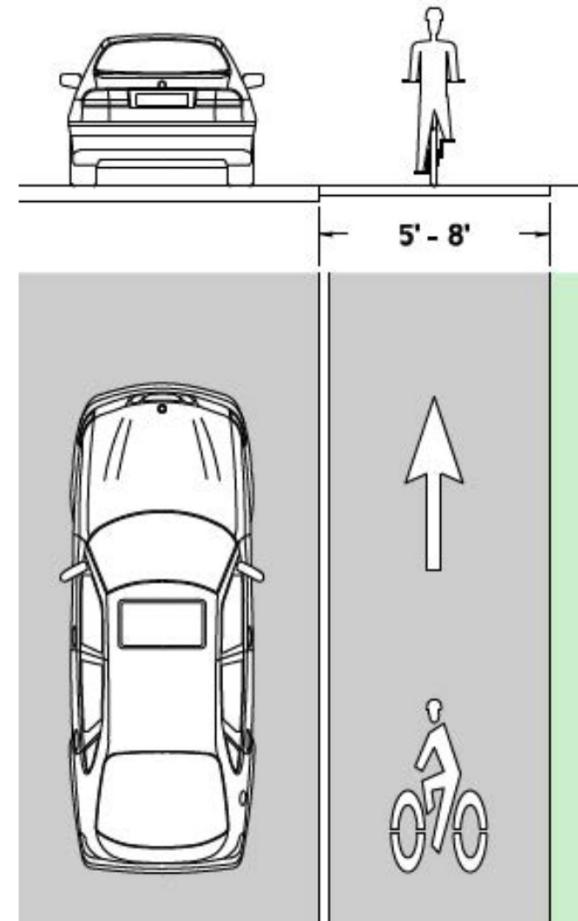


# On-Street Bicycle Facilities

## Conventional Bicycle Lanes



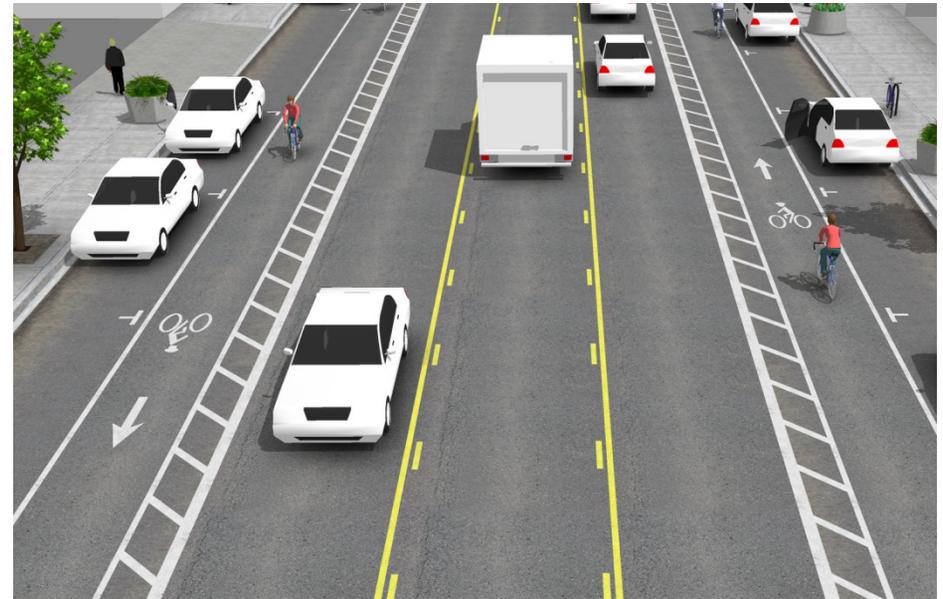
*NACTO Urban Bikeway Design Guide*



*WSDOT Design Manual*

# On-Street Bicycle Facilities

## Buffered Bicycle Lanes



*NACTO Urban Bikeway Design Guide*

# On-Street Bicycle Facilities

## Separated Bicycle Lanes



Tubular Markers



Movable Planters



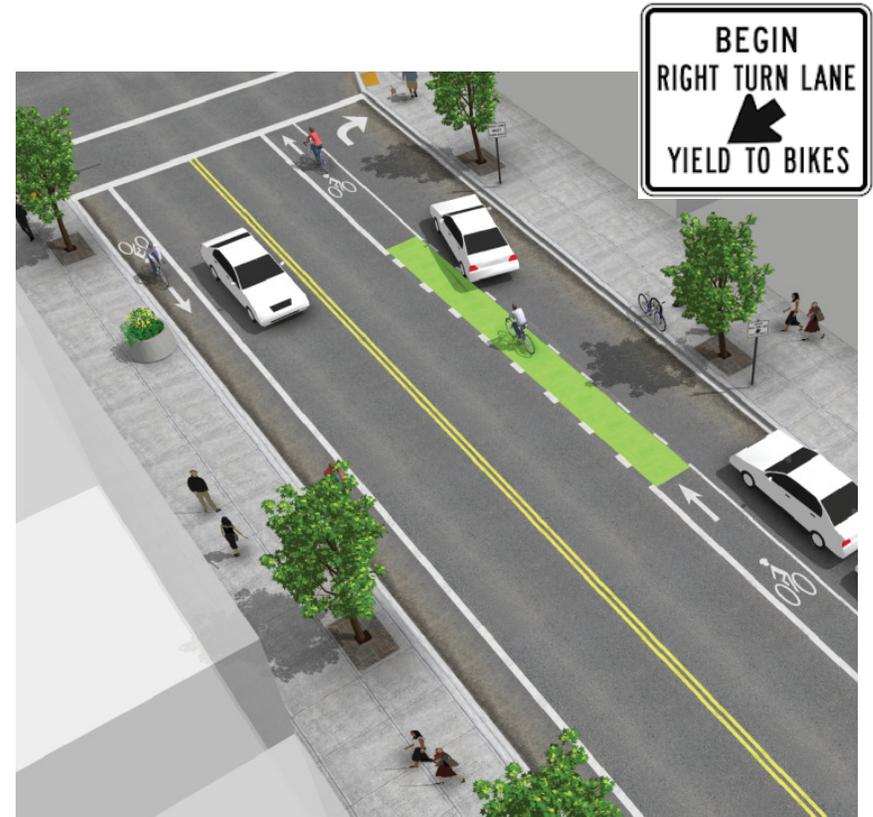
Raised Curb



*NACTO Urban Bikeway Design Guide*

# On-Street Bicycle Facilities

## Intersection Treatments



*NACTO Urban Bikeway Design Guide*

# On-Street Bicycle Facilities

## Bike Boulevards/ Neighborhood Greenways

- Signage and Pavement Markings
- Speed Management
- Volume Management
- Crossings
- Green Infrastructure



# Wayfinding



# Bicycle Parking Facilities

## Bike Racks



## Bike Lockers



# Shared Use Paths

- Exclusive multi-use bicycle and pedestrian trails or pathways
- Side Paths
- Crossings



*Olympia*



*Lummi Tribe*

# Sidewalks & Separations

Sidewalk and Bike Lane

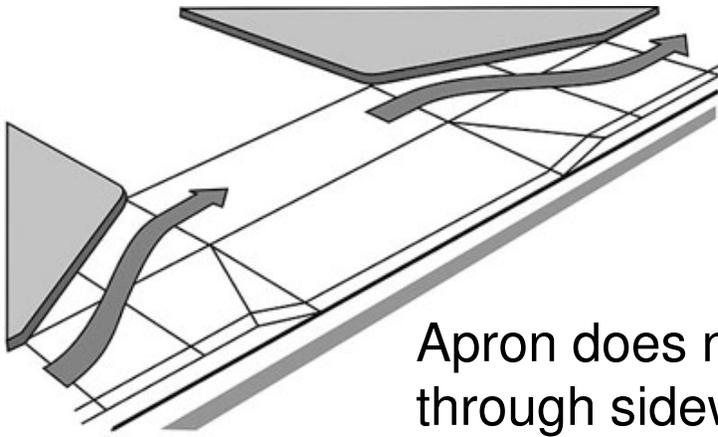


Planter Strip and Parking

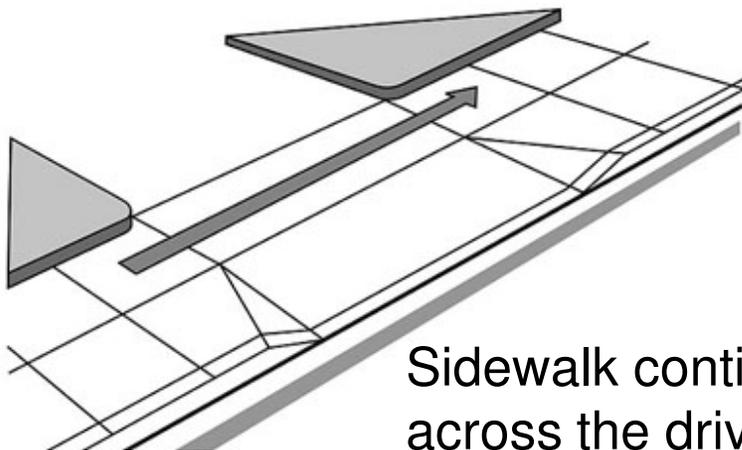


*Seattle*

# Sidewalk/Driveway Treatments



Apron does not go through sidewalk



Sidewalk continues across the driveway

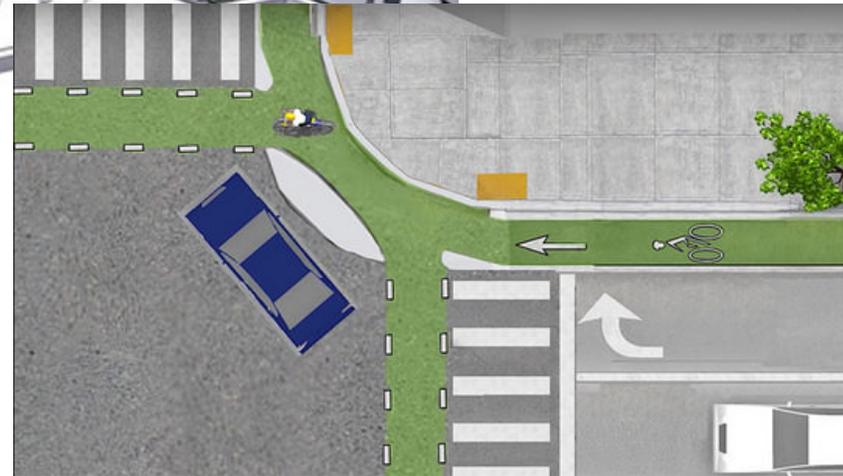




# Protected Intersections



Nick Falbo



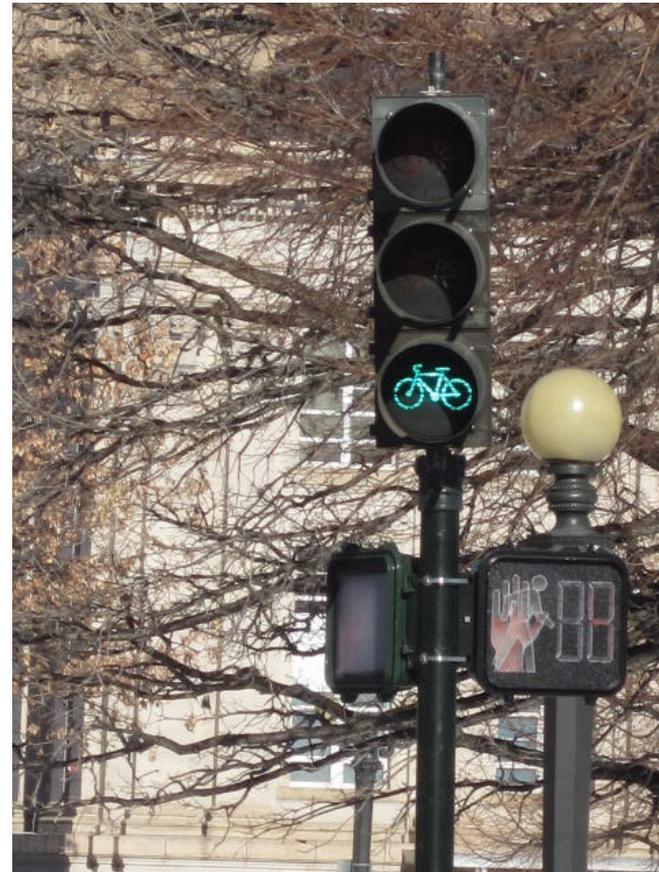
Mark Waagenbuur

# Other Traffic Control Devices

## Bike Actuation

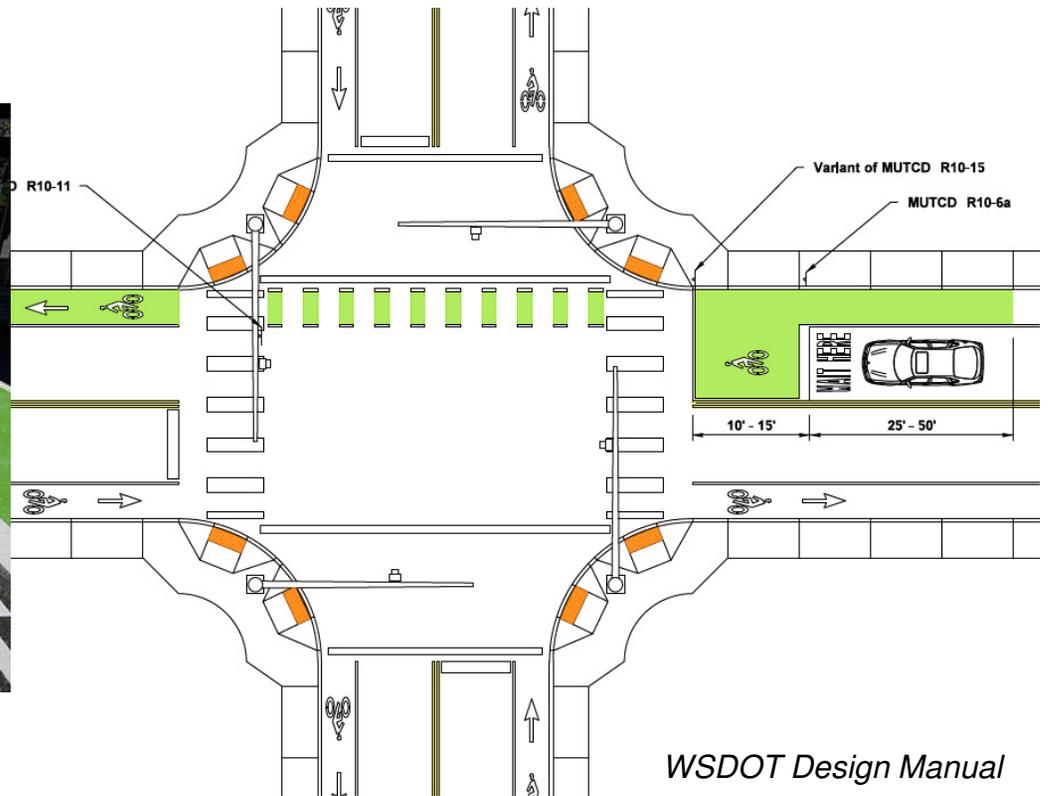


## Bicycle Signal



# On-Street Bicycle Facilities

## Bike Box



*WSDOT Design Manual*



Washington State  
Department of Transportation

# On-Street Bicycle Facilities

## Two-Stage Turn Box

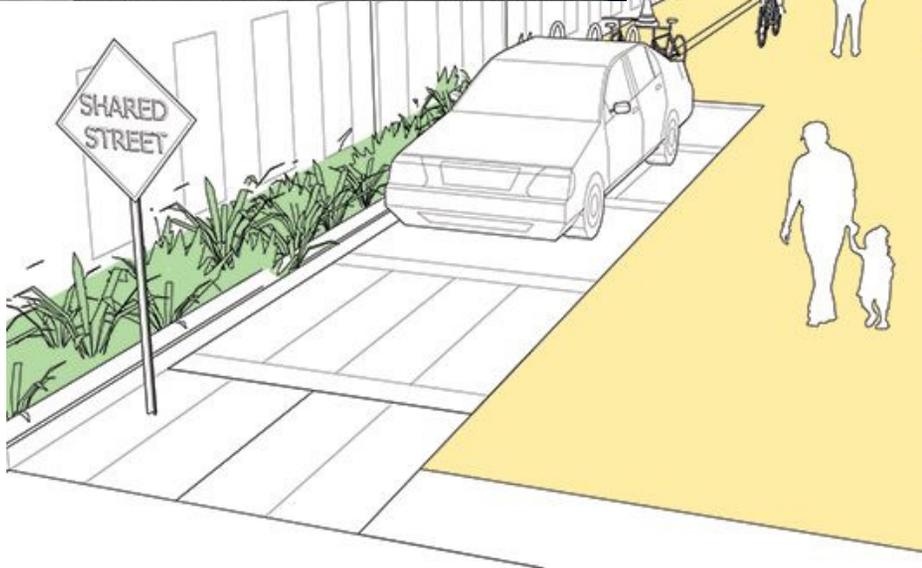


*NACTO Urban Bikeway Design Guide*



*SFMTA*

# Shared Street/ Woonerf Concept



*NACTO Urban Street Design Guide*

# Pedestrian and Bicycle Program

## Design and Scoping Only Projects

- Pedestrian and bicycle volumes
- Public engagement/ awareness
- Project specific network planning/ analysis
- Preliminary right of way
- Preliminary environmental
- Preliminary engineering design
- Interim treatments

# Safe Routes to School Program

## Education and Encouragement

- Walking school buses/  
Bicycle trains
- Bicycle and Pedestrian  
Safety Education



*Feet First*

# Contacts

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Safe Routes to School

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# Local Programs Engineers

## ***Northwest Region***

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## ***Eastern Region***

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Local Programs Engineer  
(509) 324-6080  
[martink@wsdot.wa.gov](mailto:martink@wsdot.wa.gov)



## ***Olympic Region***

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Local Programs Engineer  
(360) 357-2666  
[campben@wsdot.wa.gov](mailto:campben@wsdot.wa.gov)



## ***South Central Region***

Roger Arms, PE  
Local Programs Engineer  
(509) 577-1780  
[armsr@wsdot.wa.gov](mailto:armsr@wsdot.wa.gov)



## ***Southwest Region***

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