

AGENDA

Rogue Valley Metropolitan Planning Organization Technical Advisory Committee



Date: Wednesday, June 13, 2018

Time: 1:30 p.m.

Location: Jefferson Conference Room
RVCOG, 155 N. 1st Street, Central Point
Transit: served by RVTD Route #40

Contact: Stephanie Thune, RVCOG: 541-423-1368
RVMPO website: www.rvmpos.org

1	Call to Order / Introductions / Review Agenda	Mike Kuntz, Chair
2	Review / Approve Minutes	Chair
<i>Attachment</i>	#1 RVMPO TAC Draft Minutes 180509	
3	Public Comment Items not on the agenda <i>Comments on agenda items allowed during discussion of each item</i>	Chair
Action Items		
4	2018-2021 RVMPO Transportation Improvement Program (TIP)Amendments	Ryan MacLaren
<i>Background</i>	<p>The TAC is being asked to make a recommendation to the Policy Committee on proposed TIP amendments to add the following projects:</p> <ul style="list-style-type: none"> • Southern Oregon Signal Upgrades • East Nevada Street Extension • Washington Street Extension • OR 140: Exit 35 Blackwell Road • OR 99 Birch St to Coleman CK. Culvert (Phoenix) • Region 3 VMS Upgrades <p>The 21-day public comment period and public hearing was advertised on June 2nd in the Medford Tribune, and information is currently available on the RVMPO website.</p>	

<i>Attachment</i>	#2 Memo: RTP/TIP Amendments	
<i>Action Requested</i>	Forward recommendation to Policy Committee.	
Presentations		
5	“All Ages and Abilities”	Gary Shaff Harlan Bittner
Background	This presentation by Siskiyou Velo President, Harlan Bittner, and board member Gary Shaff is a concise overview of the National Association of City Transportation Officials’ Designing for All Ages and Abilities. The “All Ages and Abilities” design shifts the paradigm of bicycling from the realm of the “strong and fearless” cyclist (who make up less than one percent of the population) to a model that serves everyone, every day. Cycling, as a mode of travel, offers the potential to reduce carbon emissions from the transportation sector by 10 percent or more--provided local governments create bicycle networks that are safe and convenient for the general population. In addition, there are benefits to the local economy and human health, as well as a significant reduction in traffic congestion. This presentation contributes to ongoing efforts to make the Rogue Valley’s bicycle transportation system safe and convenient for all including youth, adults, seniors, disabled people, and families.	
Attachment	#3 Change in Demand with Safe and Convenient Bike Facilities #4 Bike Mode Share – Experience from Other Cities #5 AJPB Safer Cycling Through Improved Infrastructure #6 Side Streets Bikeways Document	
Action Requested	None; information only.	
Discussion Items		
6	Reprogramming of Discretionary Funds	Karl Welzenbach
Background	With the approval of the Washington Street Extension, additional funding has become available. These funds may now be reprogrammed for another project or projects. The question is which project from which year?	
Attachment	#7 Funding Allocation Spreadsheet	
Action Requested	Staff is seeking guidance from the TAC as to how they wish to proceed regarding the \$498,155 recently freed up from the project swap in Ashland.	

Discussion Items Continued...		
7	Public Comment	Chair
Regular Updates		
8	MPO Planning Update	Karl Welzenbach
9	Other Business / Local Business Opportunity for RVMPO member jurisdictions to talk about transportation planning projects.	Chair
10	Adjournment	Chair

- The next RVMPO TAC meeting will be **Wednesday, July 11, at 1:30 p.m.** in the Jefferson Conference Room, RVCOG, Central Point.
- The next RVMPO Policy Committee meeting *has been rescheduled to* **Monday, June 25*, at 2:00 p.m.** in the Jefferson Conference Room, RVCOG, Central Point.
- The next RVMPO PAC meeting is scheduled for **Tuesday, July 17, at 5:30 p.m.** in the Jefferson Conference Room, RVCOG, Central Point.

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT RVCOG, 541-664-6674. REASONABLE ADVANCE NOTICE OF THE NEED FOR ACCOMMODATION PRIOR TO THE MEETING (48 HOURS ADVANCE NOTICE IS PREFERABLE) WILL ENABLE US TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

**Summary Minutes
Rogue Valley MPO Technical Advisory Committee
May 9, 2018**



The following attended:

Voting Members	Organization	Phone Number
Alex Georgevitch, Vice Chair	Medford	774-2114
Craig Anderson	Jackson County	774-6907
Dan Roberts	ODOT	774-6383
Ian Horlacher	ODOT	423-1362
Jon Sullivan	RVTD	608-2448
Josh LeBombard	DLCD	414-7932
Karl Johnson	Ashland	488-5587
Kyle Kearns	Medford	774-2375
Matt Samitore	Central Point	664-3321 x205
Mike Kuntz, Chair	Jackson County	774-6228
Paige West	RVTD	608-2429
Ray DiPasquale	Phoenix	535-2226
Alternate Voting Members Present	Organization	Phone Number
Scott Fleury	Ashland	552-2412
Staff	Organization	Phone Number
Karl Welzenbach	RVCOG	423-1360
Andrea Napoli	RVCOG	423-1369
Ryan MacLaren	RVCOG	423-1338

Interested Parties	Organization	Phone Number
Jim Herndon	RVMPO PAC	840-0741
Matt Crall	DLCD	934-0046
Mike Montero	Montero & Associates, LLC	779-0771

[RVMPO TAC May 9, 2018 Agenda Packet](#)

Full meeting recording: [2018-05-09 RVMPO TAC Meeting Audio](#)

NOTE: Due to server space restrictions, the hyperlinks to cut audio files for specific items have been eliminated. Please use the times listed behind each agenda item to forward to the segment you wish to listen to using the link to the full meeting recording above.

1. Call to Order / Introductions / Review Agenda 00:00 – 02:16

1:30 | *Quorum:* Ashland, Central Point, Medford, Phoenix, Jackson County, ODOT, RVTD

2. Review / Approve Minutes 02:17 – 02:44

02:28 | *Ian Horlacher moved to approve the April 11 RVMPO TAC meeting minutes as presented. Alex Georgevitch seconded.*

The motion carried unanimously by voice vote.

3. Public Comment 02:45 – 02:59

Action Items

4. 2017-2042 Regional Transportation Plan (RTP) and 2018-2021 Transportation Improvement Program (TIP) Amendment 03:00 – 05:16

14:18 | *Alex Georgevitch moved that the RVMPO TAC recommend approval to the Policy Committee of the proposed amendment to the 2017-2042 RTP and 2018-2021 TIP as presented. Paige West seconded.*

The motion carried unanimously by voice vote.

5. Project Substitution for the Nevada Street Bridge 05:17 – 32:17

27:42 | *Craig Anderson moved that the RVMPO TAC recommend approval to the Policy Committee to move funding from the Nevada Street to the Washington Street project with the following conditions: 1) the IAMP recommendation regarding the median extension to prevent left outs must be part of the completion of the project, and 2) an additional \$30,000 over the funding amount stated in the revised application should be approved. Ray DiPasquale seconded.*

The motion carried unanimously by voice vote.

Discussion Items**6. Public Comment 32:18 – 32:26*****Regular Updates*****7. Updates on Currently Active Projects 32:27 – 37:17****8. MPO Planning Update 37:18 – 01:58:54****9. Other Business / Local Business 01:58:55 – 02:04:19****10. Adjournment 02:04:20 – 02:04:24**

3:35 p.m.

Scheduled Meetings

RVMPO Policy Committee | May 22, 2018 | 2:00 p.m.

RVMPO TAC | June 13, 2018 | 1:30 p.m.



Rogue Valley Metropolitan Planning Organization

Regional Transportation Planning

Ashland • Central Point • Eagle Point • Jacksonville • Medford • Phoenix • Talent • White City
Jackson County • Rogue Valley Transportation District • Oregon Department of Transportation

DATE: June 6, 2018
TO: RVMPO Technical Advisory Committee
FROM: Ryan MacLaren, Senior Planner
SUBJECT: TIP Amendments

The TAC is being asked to make recommendations to the Policy Committee on the proposed TIP amendments described below and on the following pages. The Policy Committee will hold a public hearing at 2:00 p.m. on Monday, June 25, 2018 to consider adoption of the proposed TIP amendments. The 21-day public comment period and public hearing will be advertised on or before June 2nd in the Medford Tribune, and information is currently available on the RVMPO website. Information on the new project is enumerated, below:

A. Add New Project to TIP: Southern Oregon Signal Upgrades (KN21308)

Description: 126 of the 183 ODOT owned signals within Region 3 do not meet current signal head design standards. There is an opportunity to reduce approximately 25% of rear-end crashes at these unimproved intersections by installing new signal lenses, reflectorized back-plates, and improving controller functionality. Additionally, there is an opportunity to re-configure the signal heads and phasing at several intersections within the region in order to improve efficiency and safety. *This amendment supports the State's target for the reduction of fatality's and serious injury as identified in the State Wide Safety Performance Measures Goals.*

Project Name	Project Description	RTP Project Number	Air Quality Status	Key #	Federal Fiscal Year	Phase	Federal		Federal Required Match		Total Fed+Req Match	Other		Total All Sources
							\$	Source	\$	Source		\$	Source	
ODOT														
Southern Oregon Signal Upgrades	Upgrade signals throughout the region to include new signal lenses and reflectorized back plates	n/a	Exempt - Table 2, Safety			Planning								
				21308	FFY2018	Design	\$ 100,000	FIX-IT R3			\$ 100,000			\$ 100,000
						Land Purchase				\$ -			\$ -	
						Utility Relocate				\$ -			\$ -	
				21308	FFY2018	Construction	\$ 2,775,000	FIX-IT R3			\$ 2,775,000			\$ 2,775,000
						Other				\$ -			\$ -	
					Total FFY 18-21		\$ 2,875,000		\$ -		\$ 2,875,000			\$ 2,875,000

B. Remove Project from TIP: East Nevada Street Extension (KN 21035)

Description: Remove project from TIP. Awarded funds will be reallocated to the Washington Street Extension project.

Project Name	Project Description	RTP Project Number	Air Quality Status	Key #	Federal Fiscal Year	Phase	Federal		Federal Required Match		Total Fed+Req Match	Other		Total All Sources
							\$	Source	\$	Source		\$	Source	
Ashland														
East Nevada Street Extension	Extend street over Bear Creek to link roadway at Kestrel: sidewalks and bike lanes	161	Non-Exempt			Planning								
				21035	FFY2018	Design	\$ 606,086	STBG (L)	\$ 69,369	Local	\$ 675,455		\$ 675,455	
				21035	FFY2018	Land Purchase	\$ 470,730	STBG (L)	\$ 53,877	Local	\$ 524,607		\$ 524,607	
						Utility Relocate				\$ -		\$ -		
						Construction				\$ -		\$ -		
						Other				\$ -		\$ -		
					Total FFY18-21		\$ 1,076,816		\$ 123,246		\$ 1,200,062			\$ 1,200,062

C. Adjust Project in TIP: Washington Street Extension (KN 19365)

Description: Add awarded funds from East Nevada Street Extension to the project

Project Name	Project Description	RTP Project Number	Air Quality Status	Key #	Federal Fiscal Year	Phase	Federal		Federal Required Match		Total Fed+Req Match	Other		Total All Sources
							\$	Source	\$	Source		\$	Source	
Ashland														
Washington Street Extension	Extend Washington Street to Tolman Creek Road consistent with the IAMP Exit 14 Access	162	Non-Exempt	19365	FFY2014	Planning						\$ 37,789	Local	\$ 37,789
				19365	FFY2018	Design	\$ 50,000	STBG (L)	\$ 5,723	Local	\$ 55,723	\$ 56,221	Local	\$ 111,944
				19365	FFY2017	Land Purchase					\$ -	\$ 381,778	Local	\$ 381,778
						Utility Relocate				\$ -			\$ -	
				19365	FFY2019	Construction	\$ 979,945	STBG (L)	\$ 112,159	Local	\$ 1,092,104			\$ 1,092,104
						Other				\$ -			\$ -	
					Total FFY 18-21		\$ 1,029,945		\$ 117,882		\$ 1,147,827			\$ 1,623,615

D. Adjust Project in TIP: OR 140: Exit 35 Blackwell Road (KN 18975)

Description: Increase project by \$2,680,836. Combine with Bear Creek Greenway / Hwy 140 shared use path (KN21030)

Project Name	Project Description	RTP Project Number	Air Quality Status	Key #	Federal Fiscal Year	Phase	Federal		Federal Required Match		Total Fed+Req Match	Other		Total All Sources		
							\$	Source	\$	Source		\$	Source			
ODOT																
OR 140: Exit 35 Blackwell Road	Add center turn lane, wide shoulders, add bike path	921	Exempt - Table 2, Safety	18975	FFY2014	Design	\$	192,937	STP<5K	\$	22,083	ODOT	\$	215,020	\$	215,020
				18975	FFY2014	Design	\$	168,923	STP-FLX	\$	19,333	ODOT	\$	188,256	\$	188,256
				18975	FFY2014	Design	\$	6,033	STATE-FLX	\$	691	ODOT	\$	6,724	\$	6,724
				18975	FFY2018	Design	\$	755,527	STP-FLX	\$	86,473	ODOT	\$	842,000	\$	842,000
				18975	FFY2018	Land Purchase	\$	920,630	STP-FLX	\$	105,370	ODOT	\$	1,026,000	\$	1,026,000
				18975	FFY2019	Utility Relocate	\$	97,806	STP-FLX	\$	11,194	ODOT	\$	109,000	\$	109,000
				18975	FFY2020	Construction	\$	4,468,554	STP-FLX	\$	511,446	ODOT	\$	4,980,000	\$	4,980,000
				18975	FFY2020	Construction	\$	500,000	CMAQ (L400)	\$	57,227	ODOT	\$	557,227	\$	557,227
				18975	FFY2020	Construction						\$	-	\$	442,773	ODOT
		Total FFY 18-21		\$	7,110,410		\$	813,817		\$	7,924,227		\$	8,367,000		

E. Adjust Project in TIP: OR 99 Birch St to Coleman CK. Culvert (Phoenix) (KN 20162)

Description: Reduce construction phase by \$2,719,580. The funding will be reallocated to the OR 140: Exit 35 Blackwell Road project (KN18975).

Project Name	Project Description	RTP Project Number	Air Quality Status	Key #	Federal Fiscal Year	Phase	Federal		Federal Required Match		Total Fed+Req Match	Other		Total All Sources
							\$	Source	\$	Source		\$	Source	
ODOT														
OR 99 Birch St to Coleman CK. Culvert (Phoenix)	Replace culvert, add sidewalk alks, bike lanes, pedestrian crossing. Install transit signal prioritization on OR 99 Ashland to Central Point	931	Exempt - Table 3			Planning								
				20162	FFY2017	Design	\$ 627,096	STBG-FLX	\$ 71,774	ODOT	\$ 698,870			\$ 698,870
				20162	FFY2019	Land Purchase	\$ 1,768,141	STBG-FLX	\$ 189,089	ODOT	\$ 1,957,230			\$ 1,957,230
				20162	FFY2019	Utility Relocate	\$ 417,155	NHPP	\$ 47,745	ODOT	\$ 464,900			\$ 464,900
				20162	FFY2020	Construction	\$ 2,035,076	STBG-FLX	\$ 232,924	ODOT	\$ 2,268,000			\$ 2,268,000
						Other					\$ -			\$ -
					Total FFY18-21		\$ 4,847,468		\$ 541,532		\$ 5,389,000			\$ 5,389,000

F. Add New Project to TIP: Region 3 VMS Upgrades (KN 20166)

Description: Upgrade VMS signs. *This amendment supports the State's target for the reduction of fatality's and serious injury as identified in the State Wide Safety Performance Measures Goals.*

Project Name	Project Description	RTP Project Number	Air Quality Status	Key #	Federal Fiscal Year	Phase	Federal		Federal Required Match		Total Fed+Req Match	Other		Total All Sources
							\$	Source	\$	Source		\$	Source	
ODOT														
Region 3 VMS Upgrades	Upgrade VMS signs: I-5 MP 28.0, 29.5, 36.0, 105.0 OR62 MP 14.00	n/a	Exempt - Table 2, Safety			Planning								
				20166	FFY2019	Design	\$ 234,195	STP-FLX	\$ 26,805	ODOT	\$ 261,000			\$ 261,000
						Land Purchase					\$ -			\$ -
				20166	FFY2020	Utility Relocate	\$ 9,870	STP-FLX	\$ 1,130	ODOT	\$ 11,000			\$ 11,000
				20166	FFY2021	Construction	\$ 1,723,713	STP-FLX	\$ 197,287	ODOT	\$ 1,921,000			\$ 1,921,000
						Other					\$ -			\$ -
					Total FFY 18-21		\$ 1,967,778		\$ 225,222		\$ 2,193,000			\$ 2,193,000

Change in Demand with Safe and Convenient Bike Facilities (before and after experience)

US Cities are highlighted. It should be noted that there is no indication of the extent of the connecting bike network associated with the protected bike lanes cited below. If they are isolated and do not connect to an “all ages and abilities” network the impact on bike ridership can be diminished. It is like building a freeway without on-ramps. No one can use it.

In 2007, the city of Seville, Spain, rapidly connected a network of protected bike lanes. They grew the bike network from 7.5 miles of protected bike lanes in 2006 to 94 miles in 2013. During the same time period the number of bike trips grew 435 percent from 3 million in 2006 to more than 16 million in 2013. At the same time, the risk of being involved in a crash with a motor vehicle dropped 61 percent.

R. Marqués and V. Hernández-Herrador - [On the effect of networks of cycle-tracks on the risk of cycling: The case of Seville](#)

38 percent of people biking on Sherbourne Street in Toronto switched to biking for that trip after Sherbourne got a protected bike lane. Of those, 24 percent switched from driving. People taking longer trips and people over age 40 were more likely to make a car-to-bike switch.

Raymond Ziemba, Raktim Mitra, Paul M. Hess - [Mode Substitution Effect of Urban Cycle Tracks: Case Study of a Downtown Street in Toronto, Canada](#)

On Washington DC's first protected bike lanes, bike traffic has been growing seven times faster than the citywide rate.

District Department of Transportation, 2009-2013 - [How high can they go? DC bike counts show continuing surge in protected lane use](#)

In Seville, an 80-mile network of protected bike lanes boosted biking from 0.6 percent to 7 percent of trips in six years.

London Cycling Campaign, 2012 - [Cycling increased tenfold in Seville after construction of miles of bike tracks.](#)

In Hangzhou, China, where 84 percent of main and secondary roads separate bikes from cars, 44 percent of middle school parents who own cars (and 62 percent of those who don't) ride a bike at least once a week.

Lusk et al, 2014 - [Gender and used/preferred differences of bicycle routes, parking, intersection signals, and bicycle type: Professional middle class preferences in Hangzhou, China.](#) Journal of Transport & Health.

In the two U.S. cities that first started building modern protected bike lanes, New York and Washington D.C., bike commuting doubled from 2008 to 2013.

US Census - [NYC and DC, protected lane pioneers, just doubled biking rates in 4 years](#)

The average protected bike lane sees bike counts increase 75 percent in its first year alone.

Monsere, C., et al., 2014 - [Lessons from the Green Lanes \(National Institute for Transportation and Communities\)](#)

Intersections in Montreal with protected bike lanes saw 61 percent more bike traffic than comparable intersections with no bike infrastructure.

The Journal of Transport and Land Use, 2013 - [Spatial modeling of bicycling activity at signalized intersections](#)

On D.C.'s Pennsylvania Avenue protected bike lane, bicycle volumes increased 200 percent after the facilities were installed.

District Department of Transportation, 2012 - [District Department of Transportation Bicycle Facility Evaluation](#)

NYC's Prospect Park West protected bike lane saw a 190 percent increase in weekday ridership.

NYC DOT, 2012 - [Prospect Park West: Traffic Calming & Bicycle Path](#)

After a protected bike lane was installed on Chicago's Kinzie Street: Bicycle ridership on increased 55 percent, according to morning rush hour counts; Forty-one percent of respondents changed their usual route to take advantage of the new lane; Bicyclists accounted for a majority of all eastbound traffic (53 percent) and more than one third (34 percent) of total street traffic during a CDOT traffic count conducted during morning rush hour in August 2011.

Chicago DOT, 2011 - [Initial Findings: Kinzie Street Protected Bike Lane](#)

After buffered bike lanes were installed on Philadelphia's Spruce and Pine streets, bike traffic increased 95 percent and the number of people biking on the sidewalks fell 22 percent.

Bicycle Coalition of Greater Philadelphia, 2009 - [Bicycle usage up 95% on Spruce and Pine bike lanes](#)

From 2006-2011, bicycling in San Francisco increased 71 percent. From 2010-2011, it increased 7 percent, making up 3.5 percent of all trips in the city. The greatest growth in bicycling came on Market Street, which has protected bike lanes. On Market Street, bicycling increased 115 percent from 2006, and 43 percent from 2010.

San Francisco Municipal Transportation Agency, 2012 - [2011 Bicycle Count Report](#)

After New York City installed a protected bike lane on Columbus Avenue, bicycling increased 56 percent on weekdays, crashes decreased 34 percent, speeding decreased, sidewalk riding decreased, traffic flow remained similar, and commercial loading hours/space increased 475 percent.

New York City Department of Transportation, 2011 - [Columbus Avenue parking-protected bicycle path preliminary assessment](#)

Source: <http://peopleforbikes.org/our-work/statistics/statistics-category/?cat=protected-bike-lane-statistics>

Attachment 4
(Agenda Item 5)

Bike Mode Share with Safe and Convenient Bike Facilities Experiences from Other Cities

- 1) “To increase cycling *mode share*, safety and comfort, *the City of Vancouver* has been expanding and upgrading cycling routes to be ‘*All Ages and Abilities*’ (AAA). Travel surveys suggest that since 2013 *the city-wide cycling mode share* has increased from four to seven per cent *of all trips*.” (source: <https://www.sciencedirect.com/science/article/pii/S2214140517304838>), M. Winters, 2017

2)

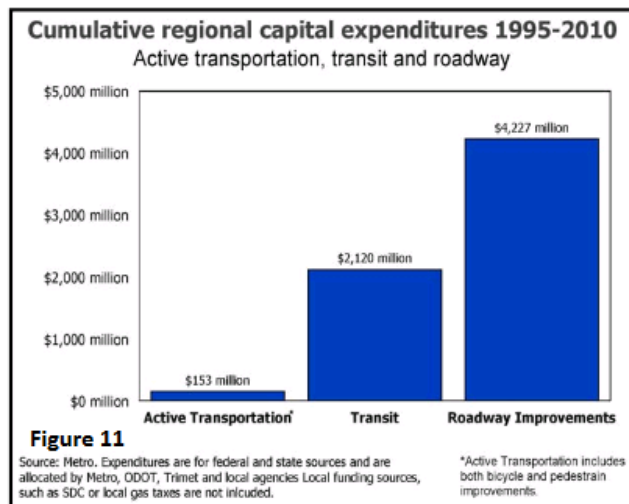
In regard to bicycle transportation, the experience of cities around the world demonstrates that a 25% mode split is achievable with high quality bikeways that provide a comfortable and safe experience. Compared to the world’s best bicycle transportation cities, Portland’s bicycle network is largely substandard and incomplete. Most of that 250% growth in bicycling in Portland since 1994 occurred in the face of bicycle facilities now recognized as inadequate for most people, that fail to match best practices in bikeway design

10/11

March 2013

and that do not directly serve the destinations found on most of Portland’s commercially zoned streets⁸. This is why, at 5.5% of trips city-wide, the potential for increases in bicycle transportation is largely untapped.

Will the city achieve 25% of all trips by bicycle by 2035? This paper demonstrates that there is a pathway to that goal and that there are still tremendous gains to be made in bicycle transportation. The juxtaposition of the potential for bicycle transportation together with the cumulative regional capital expenditures made in the period 1995-2010 (Figure 11) paint a clear picture about the affordability of bicycle transportation and the large return on investment it offers. In the world of non-automotive travel, bicycling is the low-hanging fruit. In order to achieve our goals for climate change, health, equity, and movement of goods we need to dramatically increase our heretofore limited investments in bicycling and active transportation.



Source:

**What Does the Oregon Household Activity Survey Tell Us About
the Path Ahead for Active Transportation in the City of Portland?**

a White Paper by Roger Geller
March 2013

<https://www.portlandoregon.gov/transportation/article/452524>

- 3) The link below is to a listing 700 cities worldwide and their individual low and high bike mode share estimates. The highest mode share cities are in Germany, Netherlands, Denmark, and Sweden. [Making Cycling Irresistible](#) notes that cities in Germany, Netherlands and Denmark have designed and built “all ages and abilities” networks. Remarkably, the mode share for these are clustered in the 10 to 50 percent bicycle mode share range. Impressive.

Bike mode share estimates for 700 cities: <http://www.cityclock.org/urban-cycling-mode-share/#.Wr8N9n8h2lp>

Safer Cycling Through Improved Infrastructure

It is crucial to improve cycling safety in the United States. The Centers for Disease Control and Prevention's injury statistics Web site (WISQARS) reports that in 2014, there were 902 cyclist fatalities and 35 206 serious cyclist injuries (requiring hospitalization). The United States has much higher fatality and serious injury rates per kilometer cycled than comparable high-income countries. Controlling for exposure levels, cyclist fatalities in 2010 per 100 million kilometers cycled were 4.7 in the United States versus 1.0 in the Netherlands, 1.1 in Denmark, and 1.3 in Germany.¹ Serious injury rates in 2010 were also much higher in the United States: 207 serious injuries per 100 million kilometers cycled versus 44 in Germany.¹

Clearly, the United States has a long way to go to achieve the Vision Zero goal described by Cushing et al.² As emphasized in that article, traffic fatalities and serious injuries are not inevitable, and they can be reduced to low levels by implementing the right policies, especially improved infrastructure and technology. Traffic safety experts now use the term "crashes" instead of "accidents" to emphasize that the design of the transportation system contributes to most traffic fatalities and injuries. Although Cushing et al. focus on Sweden, all Scandinavian countries—as well as the United Kingdom,

the Netherlands, Germany, Switzerland, and Austria—for decades have been implementing the sorts of policies advocated by Vision Zero, which applies to all means of travel. The new perspective of Vision Zero is that traffic fatalities and injuries can and should be reduced far below current levels and should not be accepted as an inevitable risk of travel.

Cushing et al. apply Vision Zero to the case of cycling and pose the question of whether improved cycling infrastructure can make cycling safer in the United States.² The article by Pedroso et al. shows that the large growth in bicycle infrastructure in Boston from 2007 to 2014 was associated with a reduction in the cyclist injury rate and a large increase in cycling levels.³

Except for some college towns and a few large cities, most roads in the United States have no cycling infrastructure, and what exists is often dangerously designed, poorly maintained, and not connected to form a useful network. Bicycle infrastructure with physical separation from motor vehicles is especially important on high-speed, high-volume arterials with large vehicles such as trucks and buses.⁴ In addition, intersections are dangerous for cyclists because of turning motor vehicles. Yet only a few American cities have been redesigning intersections to reduce that danger.

LESSONS FROM EUROPE

The Netherlands, Germany, and Denmark offer decades of experience on how to improve the safety, convenience, and comfort of cycling facilities.^{4–6} Many Dutch, German, and Danish cities have an extensive system of on-road bicycle lanes and off-road bicycle paths, often including priority traffic signals and advance stop lines for cyclists at intersections. Some large cities have recently been building "cycle superhighways," which increase the speed and safety of long-distance bicycle commuting to work. These express routes are usually separate bicycle paths parallel to major roads with minimal road crossings and with a green wave of synchronized traffic signals at intersections timed for faster cycling.

The bicycle networks in Dutch, German, and Danish cities also include special bicycling streets: narrow streets on which cyclists legally have the right of way over motorists for the entire width of the street.⁶ Most local neighborhood streets are traffic calmed with

speed limits of 30 kilometers per hour (20 mph) or less and with infrastructure modifications that force motor vehicles to slow down: speed humps, raised intersections, chicanes (curves added by design), parked cars on alternating sides, and road narrowing.⁶

Many such neighborhood streets feature dead ends for motor vehicles—via bollards or other barriers—but convenient passageways for cyclists. Providing deliberately circuitous routing for cars and direct routing for cyclists discourages through traffic from using neighborhood streets while encouraging cycling. It also improves cycling safety by reducing both the volume and speed of motor vehicle traffic in residential neighborhoods.

In addition to better infrastructure, many European cities provide mandatory traffic safety education in their schools—to teach safe walking and cycling skills—and require far stricter motorist training and licensing than those in the United States.⁶ Further promoting traffic safety, police enforcement of traffic regulations is much stricter in the Netherlands, Germany, and Denmark, both for motorists and nonmotorists.⁶ Confirming the Vision Zero recommendations of Cushing

ABOUT THE AUTHORS

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et al., improving cyclist safety in Europe has required a multifaceted approach that includes infrastructure, supportive programs, and car-restrictive policies—as is also shown in a recent literature review on this issue.⁵

LESSONS FROM THE UNITED STATES AND CANADA

Recent implementation of improved cycling infrastructure in some American and Canadian cities has led to significant improvements in cycling safety. Table 1 summarizes key statistics for 10 American cities that have been especially successful at improving cycling safety and

increasing cycling levels by greatly expanding their cycling infrastructure. All 10 cities have reduced the number of cyclist crashes and serious injuries (including fatalities) relative to the total number of bicycle trips, confirming the same relationship as found for Boston, Massachusetts, in the article by Pedroso et al.³

It is not simply a matter of expanding bicycle infrastructure, however. The specific type of bicycle infrastructure matters. Several studies show the crucial importance of physical separation of cycling facilities from motor vehicle traffic on heavily traveled roads. A study of different kinds of cycling facilities in Vancouver and Toronto, Canada, found that the safest kind of facility, by

far, were cycle tracks, which are on-street bicycle lanes that are physically separated from motor vehicles by raised curbs, bollards, or concrete barriers.⁷ Compared with major streets with parked cars and no bicycle facilities, cycle tracks on roads without parked cars were 89% safer; regular, unprotected bicycle lanes on major roads without parked cars were 53% safer; and lightly trafficked residential streets without any bicycle facilities were 56% safer. Thus, removing car parking and replacing it with cycle tracks is an ideal way to improve cycling safety on major streets. Traffic calming—discouraging through traffic and reducing speed limits—is key to improving safety on local neighborhood streets.

Similarly, a study of cycle tracks in Montreal, Canada—with the most extensive system of cycle tracks in North America—found that cycle tracks had an injury rate 28% lower than that on parallel roads without bicycle facilities and attracted 2.5 times more bicycle trips than did roads without cycle tracks.⁸

CONCLUSIONS

The answer to the question posed in the article by Cushing et al. is that bicycle infrastructure can indeed help improve cycling safety and increase cycling levels. That is clearly demonstrated by decades of evidence from Europe, by the 10 US cities listed in Table 1, and by the article on Boston by Pedroso et al. However, the type and quality of bicycle infrastructure matter as well. It is crucial to provide physical separation from fast-moving, high-volume motor vehicle traffic and better intersection design to avoid conflicts between cyclists and motor vehicles. More and better bicycle infrastructure and safer cycling would encourage Americans to make more of their daily trips by bicycle and, thus, help raise the currently low physical activity levels of the US population. **AJPH**

John Pucher, PhD
Ralph Buehler, PhD

TABLE 1—Better Bicycle Infrastructure, Improved Cyclist Safety, and Increased Cycling

City	Years	Growth in Bikeway Network, ^a %	Growth in Bicycle Trips, %	Change in Crashes per 100 000 Trips, %	Change in Fatalities and Severe Injuries per 100 000 Trips, %
Portland, OR	2000–2015	53	391	–62	–72
Washington, DC	2000–2015	101	384	–46	–50
New York, NY	2000–2015	381	207	NA	–72
Minneapolis, MN	2000–2015	113	203	–75	–79
San Francisco, CA	2000–2015	172	167	–36	NA
Cambridge, MA	2000–2015	27	134	–57	NA
Chicago, IL	2005–2015	135	167	–54	–60
Seattle, WA	2005–2015	236	123	–25	–53
Los Angeles, CA	2005–2015	130	114	NA	–43
Philadelphia, PA	2008–2015	17	51	NA	–49

Note. NA = not available. We extrapolated the numbers of daily bicycle trips following the methodology used by the New York City Department of Transportation. The extrapolation assumes that each daily bicycle commuter makes two trips per day, and that work trips account for one fifth of all urban bicycle trips, roughly corresponding to the 17% of all urban bicycle trips for the commute to work reported by the 2008–2009 National Household Travel Survey. The percentage growth in extrapolated bicycle trips is exactly the same as the percentage growth in daily bicycle commuters, which is the only nationally comparable source of data on cycling levels in individual American cities.

Source. Data on bikeway mileage and serious injuries and fatalities were provided by departments of transportation, departments of public health, and metropolitan planning organizations in each of the 10 cities. We obtained the number of daily bicycle commuters in each city from the 2000 US Census and the American Community Survey, 2005 (Chicago, Los Angeles, and Seattle), 2008 (Philadelphia), and 2015 (all cities).

^aBikeways included in the statistics for the table comprise on-road bike lanes (including buffered bike lanes and cycle tracks), off-road bike paths, paved multiuse trails such as greenways, and bike boulevards and neighborhood greenways. All 10 of these cities increasingly have been building cycle tracks, buffered bike lanes, and off-road greenways, which provide physical separation from motor vehicles and thus greater safety.

CONTRIBUTORS

J. Pucher took the lead in conceptualizing the editorial and writing the text. R. Buehler was responsible for the collection and analysis of the Table 1 data. Both authors were involved in improving successive versions of the text and table.

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A Public Health of Consequence: Review of the December 2016 Issue of *AJPH*

A recent effort by the US Department of Health and Human Services (HHS) Office of the Assistant Secretary for Health (OASH) articulated Public Health 3.0 as an effort that emphasize[s] cross-sectoral environmental, policy, and systems-level actions that directly affect the social determinants of health and advance health equity. This approach correctly notes that where we live remains a more important determinant of our health than do our genes, despite substantially more effort in recent years in understanding the latter rather than the former. As described in *AJPH* a few months ago, Public Health 3.0 represents a next-phase approach in public health, moving beyond the core functions of disease surveillance and environmental approaches to promote healthier communities, to an effort that incorporates health into all aspects of governance, at multiple jurisdictional levels.¹ This approach echoes the “health in all policies” approach that has long been embraced by the American Public Health Association, bringing to this effort the weight of the federal department that ultimately is responsible for promoting the health of Americans. These approaches clearly

aspire to tackle the foundational drivers of population health, the ubiquitous factors that we have urged public health scholarship to grapple with, in these pages, over the past year.

SCHOLARSHIP TO INFORM PUBLIC HEALTH ACTION

It seems to us that it falls to public health scholarship to provide the data that can inform Public Health 3.0, or a “health in all policies” approach. Several articles in this issue of *AJPH* do just that, starting with the essay by Ahern,² who focuses on the utility of population intervention parameters that can help bridge the gap between research findings and policy. This editorial provides a compelling argument for the provision of measures in our work that are readily interpretable for those who are in a position to shift policy. Ahern suggests that such measures “would make a substantial contribution to the effort to translate between research and policy.”^{2(pXX)} We could not agree more and look forward to more articles in *AJPH* that adopt this approach. We would see this as entirely consistent with the agenda we are

proposing here, one that engages population health scholarship with the conditions that foundationally make people healthy. While a methodological approach may not, at first blush, seem to portend a substantially new focus for public health scholarship, it may well provide a lens through which we present our findings that makes them more relevant, more immediately accessible, and more forward looking as public health transitions to a new era. Four empiric articles in this issue of *AJPH* contribute data that can also bolster this approach.

CREATING BETTER PLACES

Two articles focus directly on the influence of place on the health of populations. Branas et al.³ wonder if remediation of abandoned buildings and vacant lots can be a cost-beneficial

approach to mitigating firearm harms in the United States. Informed by broken windows thinking,⁴ the authors conducted a quasi-experimental study assessing the link between abandoned building remediation and firearm violence, finding a 40% reduction in the latter while finding no change in nonfirearm violence. The authors speculate that blighted structures may create physical opportunities for violence, and ample work in the field suggests that blighted urban neighborhoods may also result in an erosion of collective efficacy, also contributing to more violence.⁴ Importantly, Branas et al. show that taxpayer and societal returns on investment for the prevention of firearm violence were \$5 and \$79 for every dollar spent on abandoned building remediation. Given the scope of the firearm epidemic in the United States today, this seems indeed like money well spent.

Barber et al. tackle the issue of adverse neighborhood conditions and risk of cardiovascular disease among African Americans.⁵ The authors show that each standard deviation increase in neighborhood disadvantage was associated with a 25%

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Side-Street Bikeways Only Pay Off If You Have Protected Bike Lanes Too

By Michael Andersen, PlacesForBikes - Jan 6, 2017



A bike-friendly local street in southeast Copenhagen. Photos: Michael Andersen.

Can we, as a planet, please retire the idea that cities face a choice between putting all-ages bikeways on low-traffic side streets and putting all-ages bikeways on busy arterials?

The data show exactly the opposite — and also suggest that putting bikeways *only* on side streets might actually be the worst course of action.

Canada's national Globe and Mail newspaper offered the [latest installment](#) of this understandable but misguided narrative. It's part of a series about projects "that aren't often talked about because they actually work."

The idea is that the bike boulevards of Vancouver are uncontroversial, and therefore good:

[Protected bike lanes'] most ardent critic, CKNW radio shock jock Bruce Allen, has spent numerous segments railing against the "big ugly cement barriers that turned our streets into eyesores."

And yet, he is a fan of the more understated network of traffic-calmed residential streets that allow cyclists to traverse the city in relative safety and peace. ...

Urban-planning and transportation experts have long feted Vancouver's extensive system of bike-friendly side streets as a cheap and uncontroversial way for bike-resistant North American cities to create the infrastructure that gets people out of their cars and onto two wheels.

It's true that Vancouver's bike boulevards are relatively cheap and uncontroversial. It's also true that they're good.

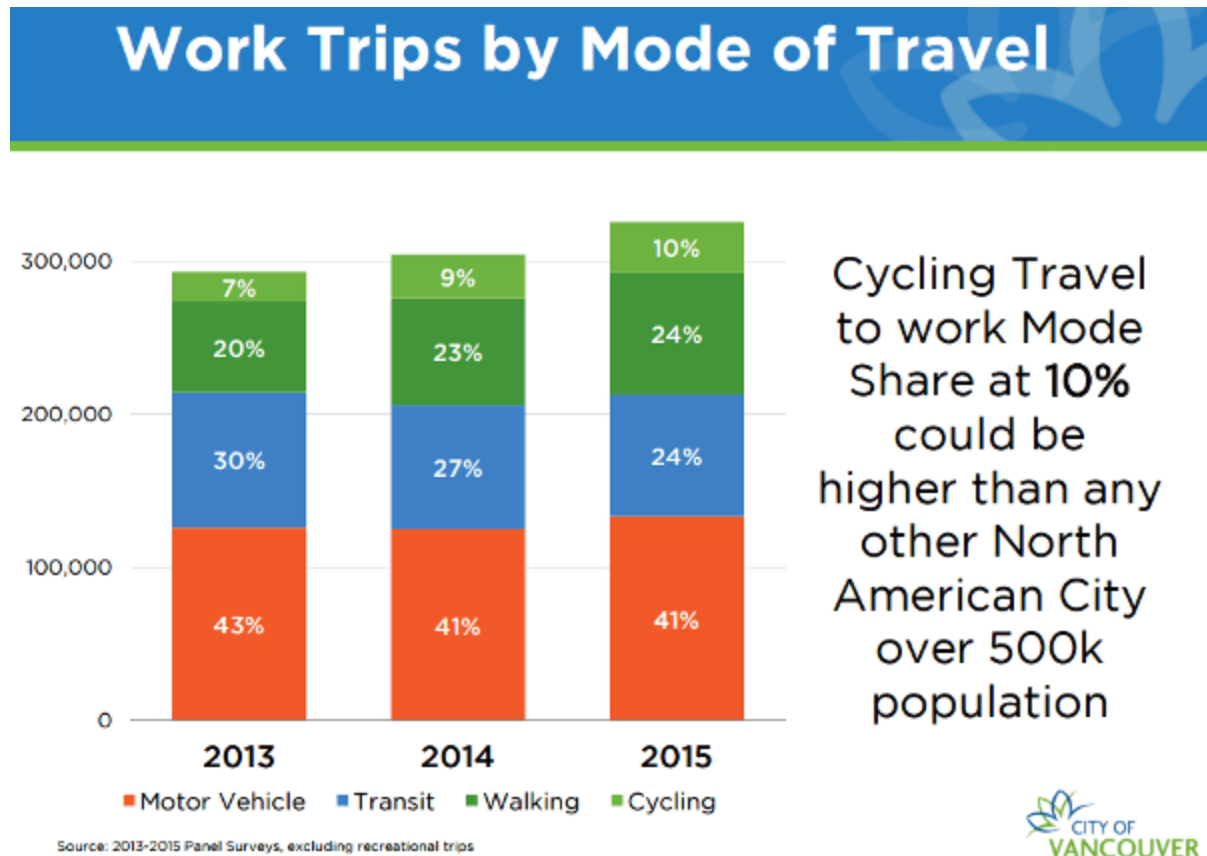
What isn't true is that bike boulevards (also known in various cities as "neighborhood greenways," "neighborhood bikeways" and even "neighborways") function as a good *alternative* to protected bike lanes.



Cyclists ride along the West 10th Avenue bike corridor near Yukon Street in Vancouver on Dec. 24, 2016.

In fact, Vancouver's recent experience tells the opposite story. In the 1990s and 2000s, the city built a network of bike boulevards and biking gradually edged upwards, reaching four percent bike commuting by 2011.

Then the city shifted toward building protected bike lanes to go with them ... and bike commuting [more than doubled in four years](#), rapidly turning Vancouver into the bikingest large city on the continent.



The truth is that protected bike lanes and bike boulevards are *complements*. As [the Dutch have been proving for decades](#), they work far better in combination.

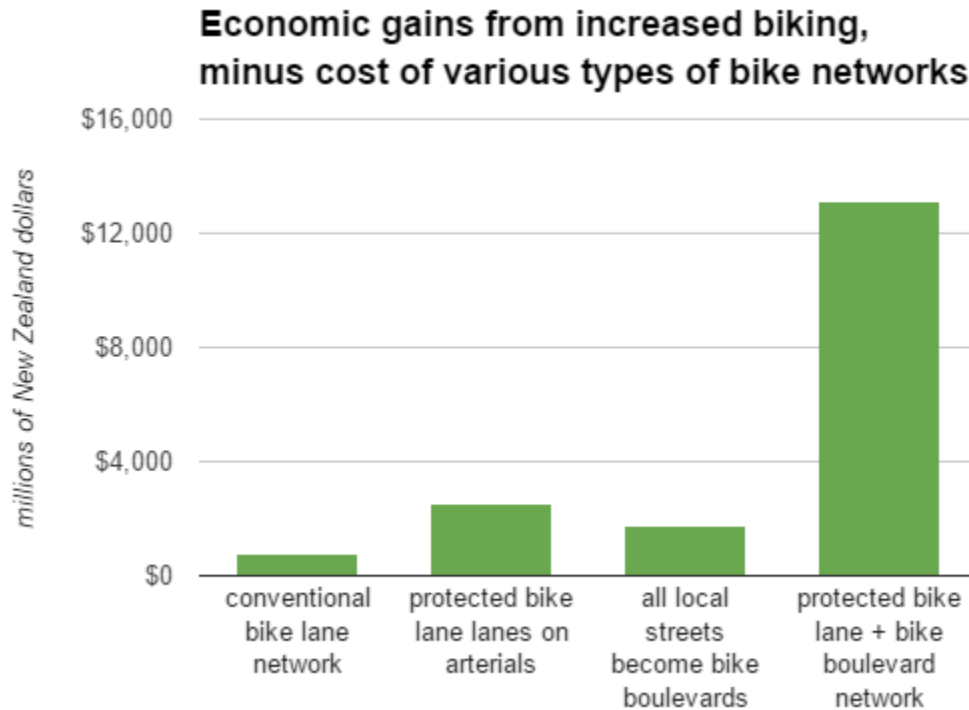
How much better? Let's spin the globe to Auckland, New Zealand, where a [2014 academic study](#) put some numbers on this question. Using available estimates of the ridership changes that result from various types of bikeways, a team of researchers simulated four scenarios for the future of Auckland: one with a network of mostly conventional striped bike lanes; one that put protected bike lanes on arterial streets; one that retrofitted all local streets into "self-explaining roads" (essentially, bike boulevards where bikes and cars can safely share the lane) and one that combined protected bike lanes with bike boulevards.

They concluded that a network entirely of bike boulevards would increase biking — but only to about five percent of trips, about the same as conventional bike lanes.

A network of protected bike lanes would do better, moving biking to something like 20 percent of trips.

But the real payoff, they found, was a network that combined comfortable biking on side streets with comfortable biking on main streets. That combo multiplied the impact of both treatments, leading to a whopping 40 percent of trips by bike.

And when 40 percent of trips in your city happen by bike, you start saving a huge amount of money from reduced fatality rates, hospitalizations, fuel costs and air pollution. ([Here's the full list.](#)) Those cost savings more than offset the cost of the infrastructure:



Which means that if you look at the true economics of bikeways, the best option for saving money is to build an all-ages biking network on both small and large streets:

There are a lot of assumptions embedded in these figures, and different researchers would doubtlessly tally things differently. But the fact is that we already know what cities with 40 percent biking look like — and they have protected bike lanes on big streets and traffic calming on side streets.

Do bike boulevards “work,” as the Globe and Mail puts it?

Absolutely.

They work to multiply the power of your protected bike lanes.

Michael Andersen blogs for [The Green Lane Project](#), a PeopleForBikes program that helps U.S. cities build better bike lanes to create low-stress streets. You can follow it on [LinkedIn](#), [Twitter](#) and [Facebook](#) or sign up for its [weekly news digest](#) about protected bike lanes.

RVMPO 2016 - 2018 Discretionary Funding Allocations

Project #	Agency	Project Name	Total Approved	Total STP Approved	Total CMAQ Approved	Federal Funding Allocations by Year 2014 - 2018							Local Funds	Other Funds
						FFY 2014	FFY 2016		FFY 2017		FFY 2018			
						CMAQ	STP	CMAQ	STP	CMAQ	STP	CMAQ		
		Funds Available				\$189,622	\$928,460	\$2,544,785	\$941,460	\$2,580,412	\$954,640	\$2,616,578		
2	Ashland	E. Nevada Street Extension	\$ 1,528,100	\$ 1,528,100	\$ -	\$ -	\$ 606,086	\$ -	\$ 470,730	\$ -	\$ 451,284	\$ -	\$ 3,527,400	\$ -
4	Eagle Point	E. Main St./Stevens Rd. Improvements	\$ 2,423,583	\$ 1,091,086	\$ 1,332,497	\$ -	\$ 117,000	\$ 197,000	\$ 470,730	\$ 1,135,497	\$ 503,356	\$ -	\$ 375,000	\$ -
5	Jackson County	Regional Active Transportation Plan	\$ 179,460	\$ 179,460	\$ -	\$ -	\$ 179,460	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,540	\$ -
6	Jackson County	Table Rock Rd	\$ 3,498,900	\$ -	\$ 3,498,900	\$ -	\$ -	\$ 589,526	\$ -	\$ -	\$ -	\$ 2,909,374	\$ 821,100	\$ 3,575,000
9	Medford	Foothill Rd. - Hillcrest to McAndrews	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ -	\$ 700,000	\$ -	\$ 2,300,000	\$ -	\$ -	\$ 10,000,000	\$ -
11	RVCOG	Hybrid Vehicle	\$ 25,914	\$ 25,914	\$ -		\$ 25,914	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,251	\$ -
13	RVTD	Valley Feeder Pilot Project	\$ 100,000	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,445	\$ -
	Total Funding Requests			\$ 2,824,560	\$ 7,931,397	\$ 100,000	\$ 928,460	\$ 1,486,526	\$ 941,460	\$ 3,435,497	\$ 954,640	\$ 2,909,374		
	Funds Available					\$ 189,622	\$ 928,460	\$ 2,634,407	\$ 941,460	\$ 3,728,293	\$ 954,640	\$ 2,909,374		
	Funds Remaining					\$89,622	\$0	\$1,147,881	\$0	\$292,796	\$0	\$0		