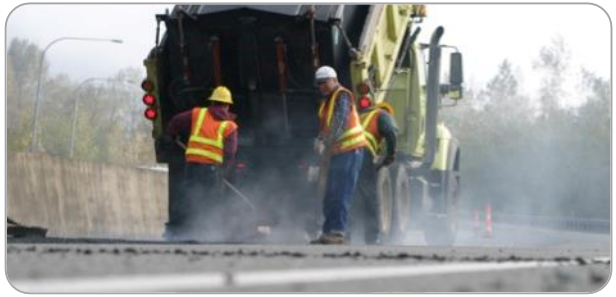
WSDOT
Practical Solutions







Lynn Peterson
Secretary of Transportation

Linea Laird
Chief Engineer

Cam Gilmour
Deputy Secretary

Joint Transportation Committee
September 18, 2014

WSDOT Practical Solutions Implementation

Least Cost Planning and Practical Design:

- Enables more flexible and sustainable transportation investment decisions

Legislative Direction:

- Implement Practical Design Strategy (ESSB 6001)

THE BELLINGHAM HERALD

BellinghamHerald.com Thursday, August 7, 2014 75 cents

Take 5

Pop in and check it out

LYNDEN FAIR TIME

Farm celebration starts Monday.
Week's entertainment: TAKE FIVE

LUKE RIDNOUR RETURNS TO BLAINE

NBA point guard leads youth basketball camp B1

PRIMARY ELECTION UPDATES

Top two candidates in political races emerge A2

Mini-roundabouts coming near Slater, I-5

Projects a fast, inexpensive fix for traffic congestion

RALPH SCHWARTZ
THE BELLINGHAM HERALD

FERNDALE — Whatcom County is fast-tracking construction of three mini-roundabouts near the Slater Road and Interstate 5 interchange to relieve rush-hour congestion.

County Public Works and the state Department of Transportation came up with a way to solve the Slater traffic problem at the on- and off-ramps and at Pacific Highway that will only take a couple of weeks and $280,000 to build, said county officials.

County engineer Joe Rutan said the work will be so simple, it will amount to a maintenance job more than a construction project. The work involves placing a three-inch-high island in the center of each of the three intersections, painting new stripes and placing roundabout signs.

Transportation officials considered stop signs for the ramps, but the signs wouldn't improve the congestion problem, Rutan said. Pull-size roundabouts or traffic signals would be more expensive, he said.

"These things cost $100,000 each, as opposed to a couple million," Rutan said.

Large trucks won't follow the roundabout but will drive over the low island to turn, he said.

Construction of what officials call the "compact roundabouts" — 62 to 67 feet in diameter, instead of up to 120 feet — should begin in mid-September, said DOT spokesman Tom Pearce.

Traffic at the interchange gets an "F," the lowest possible grade, during the evening rush hour. With a steady stream of traffic on Slater, the line of cars waiting to turn left onto Slater can extend back to the right lane of I-5, both northbound and southbound, Rutan said.

Drivers waiting to turn onto Slater become frustrated, he said.

"People who have been waiting for so long, they'll pull into traffic and just hope someone stops," Rutan said.

County officials have asked Lummi Nation, Ferndale and Bellingham to contribute to the construction cost. The interchange is on the southeast corner of the Ferndale city limits. Retail development, including a new Costco at the Bakerview Road interchange in Bellingham, is expected to increase traffic at Slater and I-5, officials said.

Lummi Nation has verbally committed to paying $70,000 for the work, said county Executive Jack Louws. Ferndale is considering a $10,000 contribution, said city spokesman Sam Taylor.

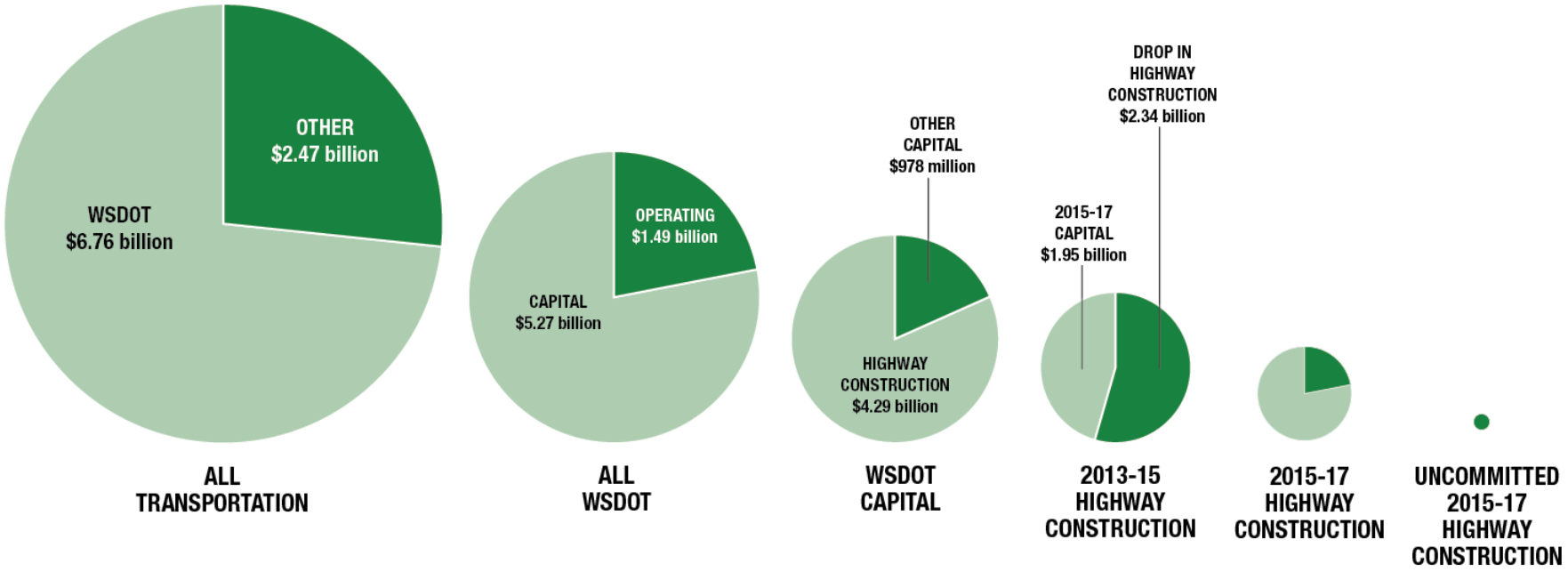
Bellingham's City Council is likely to consider paying for a share of the work at a meeting in September. City staff and Mayor Kelli Linville will meet to decide how much they should recommend the council spend on the project, said Public Works Director Ted Carlson.

Reach Ralph Schwartz at ralph.schwartz@bellinghamherald.com or 360-715-2289. Read his Politics blog at bellinghamherald.com/politics-blog or get updates on Twitter at @bhampolitics.

Woman | BELLINGHAM RESCUE | Two more

Washington State Department of Transportation

Transportation budget is large, but most of it is already committed



Practical Solutions: What it is vs. What it isn't

What it is

- Focuses on project purpose and need
- Engages local stakeholders at the earliest stages of defining scope to ensure their input is included

What is isn't

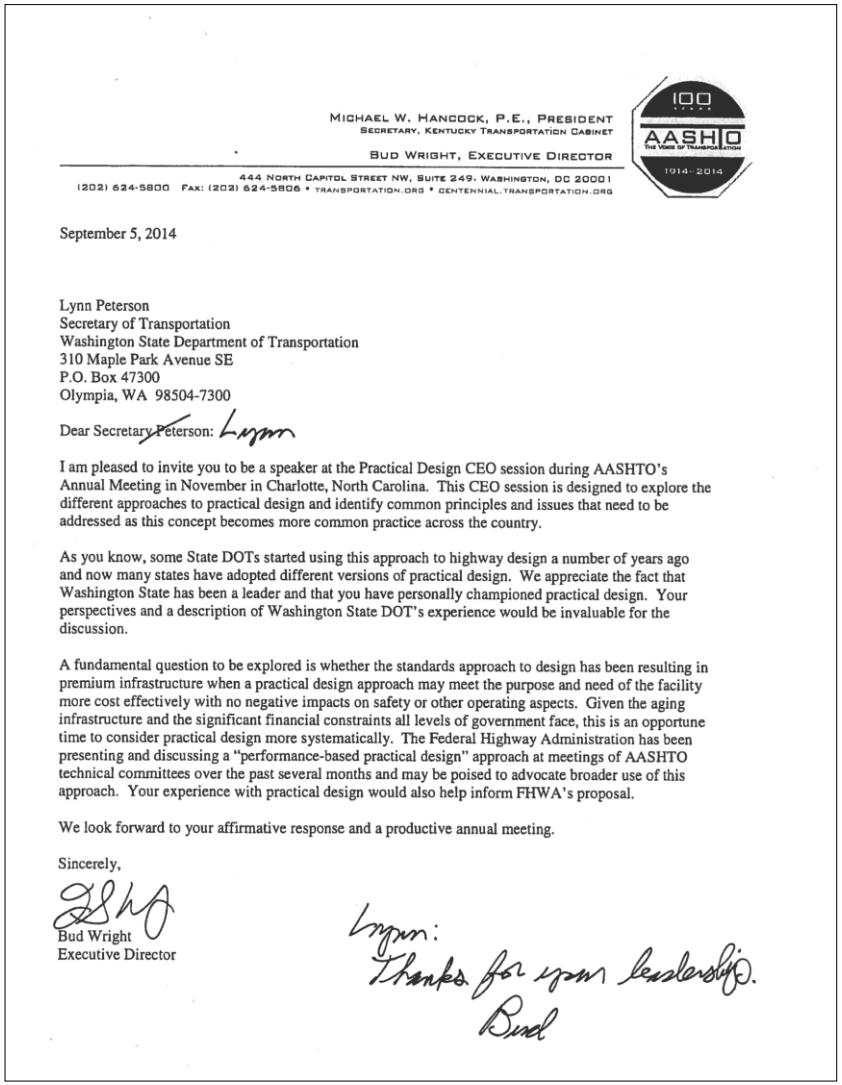
- Does not compromise safety
- Is not a "new tool" or "new method"

Most cost-effective approach

Other states

- Idaho
- Missouri
- New Jersey
- Oregon
- Pennsylvania
- Utah

FHWA is encouraging use of practical design and performance data



MICHAEL W. HANCOCK, P.E., PRESIDENT
SECRETARY, KENTUCKY TRANSPORTATION CABINET
BUD WRIGHT, EXECUTIVE DIRECTOR

444 NORTH CAPITOL STREET NW, SUITE 249, WASHINGTON, DC 20001
(202) 624-5800 FAX: (202) 624-5806 • TRANSPORTATION.ORG • CENTENNIAL.TRANSPORTATION.ORG

September 5, 2014

Lynn Peterson
Secretary of Transportation
Washington State Department of Transportation
310 Maple Park Avenue SE
P.O. Box 47300
Olympia, WA 98504-7300

Dear Secretary Peterson: Lynn

I am pleased to invite you to be a speaker at the Practical Design CEO session during AASHTO's Annual Meeting in November in Charlotte, North Carolina. This CEO session is designed to explore the different approaches to practical design and identify common principles and issues that need to be addressed as this concept becomes more common practice across the country.

As you know, some State DOTs started using this approach to highway design a number of years ago and now many states have adopted different versions of practical design. We appreciate the fact that Washington State has been a leader and that you have personally championed practical design. Your perspectives and a description of Washington State DOT's experience would be invaluable for the discussion.

A fundamental question to be explored is whether the standards approach to design has been resulting in premium infrastructure when a practical design approach may meet the purpose and need of the facility more cost effectively with no negative impacts on safety or other operating aspects. Given the aging infrastructure and the significant financial constraints all levels of government face, this is an opportune time to consider practical design more systematically. The Federal Highway Administration has been presenting and discussing a "performance-based practical design" approach at meetings of AASHTO technical committees over the past several months and may be poised to advocate broader use of this approach. Your experience with practical design would also help inform FHWA's proposal.

We look forward to your affirmative response and a productive annual meeting.

Sincerely,

Bud Wright
Executive Director

Lynn:
Thanks for your leadership.
Bud

Practical Design Policy and Support

What we are doing

- Support decisions that will focus on the need for the project
- Move from a standards-based to performance-based designs
- Empower engineers to make decisions
- Provide tools that support decision making
- Support our staff through training and development

Standards-based practice example

Basic functional classification and traffic volume information . . .

Project context for design is currently based on limited information . . .

. . . leads to critical design speed, lane, shoulder, and right of way dimensions

. . . so early decisions are made on critical design elements - regardless of the project need and deficiency

Design Cl			Two-Lane							
			P-3		P-4					
			Rural	Urban	Rural	Urb				
DHV in Design Year[2]		er 700[3]	Over 20[4] Over 301		61–200 101–300					
Access Control[5]		artial[6]								
Separate Cross Traffic										
Highways		re Justified	Where Justified		Where Justifie					
Railroads[7]	All	All	All[8]		Where Justified[9]		Where Justified[9]		Where Justified[9]	
Design Speed (mph)[10]										
Desirable[11]	80	70	70	60	70	60	60	60	70	60
Minimum[12]	60[13]	50[14]	50	40[14]	50	40[14]	40	30[14]	40	30[14]
Traffic Lanes										
Number		or 6 divided			2					
Width (ft)		12	12		12					
Shoulder Width (ft)[16]										
Right of Traffic			8[31]		6					
Left of Traffic		ariable[19][20]								
Median Width (ft)		equired for ncluding shy e 1140.10)								
Parking Lanes Width (		None	None		None	10				
Pavement Type[22]						High c				
Right of Way Width (ft)	[25]		120	80	120	80				
Structures Width (ft)[26]		dth[27]	40		36[33]					
Other Design Considerations–Urban			[28]		[28]					

Type of Terrain	Rural Design Speed (mph)									Urban Design Speed (mph)						
	40	45	50	55	60	65	70	75	80	30	35	40	45	50	55	60[29]
Level	5	5	4	4	3	3	3	3	3	8	7	7	6	6	5	5
Rolling	6	6	5	5	4	4	4	4	4	9	8	8	7	7	6	6
Mountainous	8	7	7	6	6	5	5	5	5	11	10	10	9	9	8	8

Grades (%)[30]

Geometric Design Data: Principal Arterial

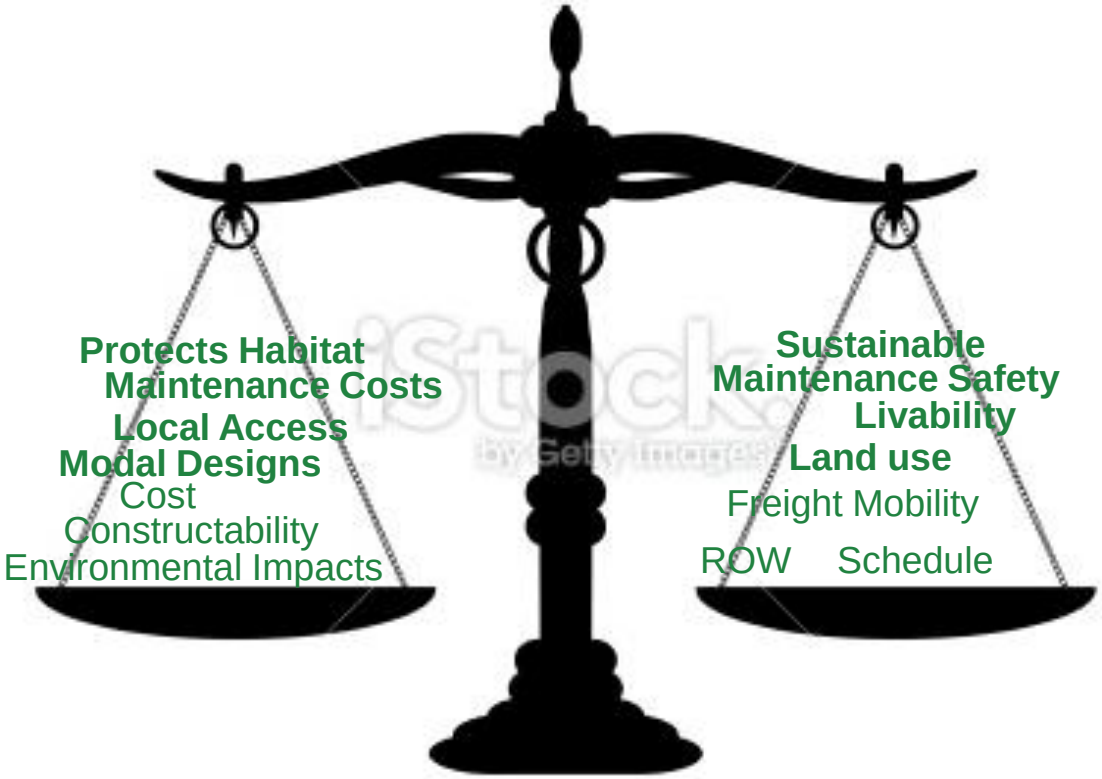
Exhibit 1140-6

Washington State Department of Transportation

Practical Design Policy

- **How does Practical Design work?**
  - More effective measurements of design performance
  - Evaluate tradeoffs in performance of design options

An INFORMED tradeoffs analysis supports implementation



South Central Region Example

I-82 – Valley Mall Boulevard in Union Gap