



Puget Sound Pedestrian Advocacy

October 22, 2004

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Councilmember Richard Conlin
Chair, Transportation Committee
Seattle City Council
600 4th Ave
Seattle, WA 98104

Subject: Alaskan Way Viaduct–35 mph Photo Radar Speed Enforcement

Dear Councilmember Conlin:

The question about the tunnel versus aerial replacement of the Alaskan Way Viaduct has caused people to overlook a fundamental assumption about the project and about the existing structure: speed. We believe much is to be gained from considering a 35 mph Viaduct strategy.

Feet First proposes that within the next year, the State Legislature and Washington State Patrol work together to authorize and install Photo Radar speed enforcement exclusively on the viaduct. With this in place, traffic on the viaduct could be slowed to below 35 miles per hour, with 24/7 compliance. This proposal could save lives, save downtown Seattle from the overwhelming noise, and result in many millions of dollars of cost savings.

Presently, the roadway has a posted 50 mph speed limit for cars and 40 mph speed limit for trucks and buses. Nevertheless, the WSDOT project office comments that the sharp turn and the sudden rise and dive of the roadway (super-elevation) at the transition to the Battery Street Tunnel create a geometric “design speed” of 30 mph. (Indeed, WSDOT has commented to Feet First that because both the aerial and tunnel alternatives make use of the existing Battery Street Tunnel, this geometry may not be possible to change, and a new structure could retain this 30 mph design speed at the transition.) Drivers already have to step down their speed as they travel northbound. What we are proposing would simply cause vehicles a travel time of approximately ten seconds more than at present, over a one-mile stretch of roadway.

The current roadway does not meet standards for safe highway conditions, due to (1) lane width, (2) turn radii, (3) ramp and merge distances, (4) frequent vehicular traffic backups onto the highway, (5) sight distances, and (6) the super-elevation problem. There are daily situations where traffic traveling in excess of 50 mph is passing stopped traffic. Both the entrance to the Battery Street Tunnel and the southbound turn in the transition back to grade are on the State's list of top High Accident Locations.

The primary concern driving replacement is the vulnerability of the Viaduct to an earthquake. Because fatalities could total in the hundreds if the Viaduct fails during a period of heavy usage, this issue merits close consideration. What is

1402 Third Ave
Suite 1121
Seattle, WA 98101
(206) 652-2310
info@feetfirst.info
www.feetfirst.info

rarely mentioned, however, is that many of the fatalities during an earthquake would result from vehicles colliding with or flying off the collapsing structure at high speeds. Slowing travel speeds will reduce this risk greatly. We need to do whatever is reasonable and affordable to save lives.

Noise is a constant concern of people who live or work near the Viaduct. We should also entertain the possibility that slowing traffic is a low cost option to reducing traffic noise. It will be at least 15 years before any replacement could be in place. Photo radar speed controls would cause noise to die down overnight. We recommend a study to model the specific conditions, but we believe that a reduction on the order of 4-5 decibels or more is plausible.

Feet First's Board urges the City of Seattle to continue to explore a no-replacement option for the Viaduct. Nevertheless, if the structure is to be replaced, imposing strict speed controls could change the context for roadway design. It generally costs more to build a higher speed roadway because lanes must be wider, tunnels must be larger, maintenance is more costly, and the whole structure must be designed to higher standards. Establishing a design speed of 35 mph could result in a substantial cost savings compared with a roadway designed for a speed of 50, 55, or even 60 mph. Using Photo Radar speed controls on the roadway could also generate Federal interest in a pilot program aimed at reducing urban highway costs.

Photo radar speed enforcement is not a new idea. It is used elsewhere in the United States to improve safety on dangerous roads. It is used Europe in combination with reduced lane widths to get the most out of roadways. We encourage the City of Seattle to introduce this tool to discussions as (1) a mitigation for current problems in the urban environment, (2) a way to save lives, (3) to increase lane capacity of I-5 during a shut-down of the Viaduct, and (4) save money in any new designs.

WSDOT is a champion of "Context Sensitive Design". The Viaduct is a unique roadway that doesn't fit neatly into a highway or arterial street category. We urge you to get Speed Control on the Viaduct now to expand the toolset available for us to solve these overlapping challenges.

Sincerely,

A handwritten signature in black ink that reads "David Levinger". The signature is written in a cursive, flowing style.

David Levinger, PE, PhD
Executive Director, on behalf of the Board of Directors

Cc: Grace Crunican, SDOT Director
Maureen Sullivan, WSDOT Viaduct Project