

JULY 2003

AMERICAN ASSOCIATION OF STATE HIGHWAY  
AND TRANSPORTATION OFFICIALS



# National Value Engineering Award

Presented by the  
AASHTO Value Engineering  
Technical Committee

July 17, 2003

*Honorable Mention  
For Most Value Added  
During Engineering  
Through  
Project Cost Savings,  
Reduction in Schedule,  
And Increased  
Value of the Project*

AASHTO  
Value Engineering  
Technical Committee

<http://www.wsdot.wa.gov/eesc/design/aashtove/>



View of the SR 509/I-5 Corridor Completion Project looking north from South 216<sup>th</sup> Street.

The **Washington State Department of Transportation (WSDOT)** was recognized for Value Engineering achievements at the 2003 AASHTO Value Engineering Conference held in Tampa, Florida.

On behalf of the Value Engineering Study Team and WSDOT, Peter E. Jobs, CVSL, Senior Principal of Olympic Associates Company, accepted Honorable Mention for Most Value Added During Engineering for the **SR 509/I-5 Corridor Completion Project Value Engineering Study**.

The award recognized the efforts of the SR 509/I-5 Corridor Completion Project Value Engineering Team, made up of WSDOT and Olympic Associates Company personnel, and representatives from HNTB, Rosewater Engineering, Department of Ecology, City of SeaTac, King County Department of Natural Resources, Cognosce Rem, Port of Seattle, National Marine Fisheries Service, and City of Kent.

**2003 AASHTO Value Engineering Award**

**Honorable Mention  
Most Value Added  
During Engineering**

**SR 509/I-5 Corridor  
Completion Project**

**Washington State  
Department of  
Transportation**



## SR 509/I-5 Corridor Completion Project

### Project Description

The SR 509/I-5 Corridor Completion Project will improve regional highway connections by building a 3.2 mile extension of SR 509 to serve future transportation needs in southwest King County and enhance southern access to the Seattle-Tacoma Airport. The project includes an interchange at I-5 and SR 509, and 6.67 miles of improvements to I-5 from the vicinity of South 210<sup>th</sup> Street and South 310<sup>th</sup> Street. The I-5 improvements will add two southbound lanes and one northbound lane and include major modifications to the SR 516 Interchange. The I-5/SR 509 interchanges include major structures, as does the SR 509 elevated alignment crossing the northeast corner of Des Moines Creek Park. The configuration of the SR 509 freeway extension is six lanes: two general purpose travel lanes and an inside HOV lane in each direction. The South Access Road to the airport will have two lanes in each direction. Right of way widths will be a minimum of 200 feet for the SR 509 freeway extension and a minimum of 120 feet for the South Access Road. The widths of the improvements to I-5 vary depending on location. The Value Engineering study scope was to review the stormwater and staging aspects of the project. The SR 509 portion of the project includes seven drainage basins, including fish habitat in Des Moines Creek. The I-5 portion of the project includes nine drainage basins.

### Most Value Added Proposal

**Total Dollar Amount Saved:** \$39 Million.

**Percentage of Total Project Cost Saved Through Use of VE:** Based on a projected overall project cost of \$102 million, 38 percent of the total project cost was saved through the use of Value Engineering.

**Increased Value of the Project:**

1. Follow Department of Ecology guidelines for compensatory stormwater treatment as an alternative to full mitigation when the existing pavement to remain is substantial. Stormwater control and treatment are based on additional impervious surfaces only.
2. Participate in the coordination and funding of the regional detention facility recommended by the Basin Plan. This facility will permit King County Level I flow control for proposed corridor improvements within the Des Moines Creek watershed.
3. Complete construction in five stages rather than six. The I-5 portion is the critical path for the project. Therefore, I-5 construction activities determine the 52-month project duration. The preliminary plan was 63 months.
4. Encourage bid competition, which will ultimately lead to a lower construction cost. Seven contracts were recommended, with three being design-build.

**Annual Savings:** Fewer stormwater facilities to maintain will result in annual savings.

**Reduction of Schedule:** As a result of the Value Engineering study, there is an eleven month reduction in the schedule.