MARK GOTTLIEB

Speaker Pro Tempore
Wisconsin State Assembly

Testimony of Rep. Mark Gottlieb
Assembly Bill 134
Assembly Committee on Transportation
April 19, 2007

Chairman Petrowski and Members:

Thank you for holding this public hearing on Assembly Bill 134 (AB 134), relating to engineering work for certain Department of Transportation highway projects.

Last year I served as co-chair of the Joint Legislative Committee on Transportation Needs and Finance, also known as the "Road to the Future" committee. This committee was created partially for the purpose of finding ways for Wisconsin to design, build, and maintain its transportation infrastructure more cost effectively. One unanimous recommendation of the Committee was to expand, where feasible, the use of a cost-saving highway design process known as "Value Engineering" (VE). The purpose of AB 134 is to implement this recommendation.

Simply stated, VE is an organized application of common sense and technical knowledge directed at finding and eliminating unnecessary costs in a project. In its policy guidelines, the Federal Highway Administration (FWHA) defines it as "the systematic application of recognized techniques by a multi-disciplined team which identifies the function of a product or service; establishes a worth for that function; generates alternatives through the use of creative thinking; and provides the needed functions, reliably, at the lowest overall cost." Applying VE improves our standards, methods and philosophy of highway design to create a nation-wide highway system that is efficient, effective and the best in the world.

The concept of VE is not new. First developed in 1947, it proved to be successful enough that the Department of Defense began to employ it as early as 1954. With growing interest in Congress, the Federal –Aid Highway Act of 1970 structured the FHWA around the principles of VE, leading the FHWA to strongly encourage its use by all state transportation departments.

In 1995, Congress enacted a law instructing the Secretary of Transportation to "establish a program to require States to carry out a value engineering analysis for all projects on the NHS with an estimated cost of $25,000,000 or more". Another act later amended this to include all bridge projects with a cost of $20 million or more.

Federal law requires that all state DOTs establish a VE program for Federal-aided highway projects with total projected costs of more than $25 million, focused on 1) improving project

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quality, 2) reducing project costs, 3) fostering innovation, 4) eliminating unnecessary and costly design elements, 5) ensuring efficient investment in Federal-aided projects and 5) developing implementation procedures. While a recent USDOT audit verified there are a number of states that are not complying with the law, Wisconsin has abided by this requirement.

Assembly Bill 134 will enhance Wisconsin's use of VE by expanding it to projects below the $25 million federal threshold and applying it to projects that do not receive federal funding. Following are some examples of how VE has been applied in other states with positive results.

Virginia

Virginia has had an active VE program since the mid-1970's and currently has a statutory requirement for value analysis on all highway projects over $5 million in cost. Prior to July of 2001, this threshold was $2 million. Since 1990, Virginia has conducted 892 studies at a cost of $12.3 million. The program has produced accepted savings or cost avoidances of over $530 million. Fifty-five percent of all VE recommendations have been accepted, putting Virginia well above the national average of 44 percent. In all, Virginia's Return of Investment (ROI) in the VE program is 43:1, producing an average savings per accepted recommendation of $220,708.

More significantly, and this point gets at the heart of why this bill has a $5 million threshold, according to a research paper in 1999, Virginia conducted 273 studies on projects costing between $2 and $5 million. Study costs totaled $1,187,089. The paper states, "These studies generated $40,768,190 in approved VE proposals, which represents a savings-to-cost ratio of 34. Although the savings-to-cost ratio does seem to drop as the project cost drops [ratio for all projects is 66], a 34 still represents a rate of return of 3,300%. For VDOT, the average value of accepted recommendations per small-project study [under $10 million] was $149,323, or 3.7% of a $4 million project". The author concluded that "any projects between $1 and $10 million should be considered, with priority going to those of higher cost and showing several characteristics of VE potential."

Because the 1999 paper is a little dated, I made a phone call to Virginia's VE manager and he told me that as a percentage, the ROI for projects in the $5 million range is certainly comparable to the ROI for high-cost projects. His office is sending me data to support his conclusion.

California

California DOT (Caltrans) conducted the nation's first VE study on a state highway project in 1969 and has had an active VE program since. Even though Caltrans' procedures manual says "The District Annual VA program should consider any State transportation projects…estimated to cost over one million dollars", I contacted Caltrans' VE Manager Ray Tritt to get a better assessment of what projects they give consideration to for potential VE studies. In an e-mail to me he stated, "Although the procedures do mention $1 million, we have not to my knowledge performed a study on a project that small. We did do several last year on projects in the $6-8 million range."

Alaska

The State of Alaska has a policy and procedure manual for their VE program that states, "Value engineering studies will be proposed for those projects…that will likely show substantial benefits from the application of VE principles. In general, these will be high cost or complex projects or projects with budgetary problems. As a minimum, all projects estimated to exceed $4 million (for construction and/or right-of-way) will be considered….A lower threshold, for instance, may be established by each region/system for its selection criteria."

Washington

The State of Washington, which has one of the highest VE ROI's in the nation, not only requires a VE study on every project over $25 million, but their policy states, "Other types of projects that usually provide the highest potential for value improvement have a preliminary estimate exceeding $5 million …." and it goes on to list other criteria required for a potential VE study. Ken Smith, former VE Manager for the WSDOT, told me that there is potential for considerable savings to be found in projects between $5 and $10 million. In 2005 alone, Washington conducted 13 studies at a cost of $260,000. The value of approved recommendations was $1.1 billion for a ROI of 4,277:1.

Utah

In a 1999 paper entitled "Value Engineering for Small Transportation Projects", Utah DOT VE Manager Steven Anderson stated that "all projects over $2 million are looked at for a possible VE Study and are documented why or why not they had a formal study." In a recent conversation with Mr. Anderson, he stated that they still look at projects as low as $2 million but the $5 to$10 million range is more practicable as a threshold to experience reasonable savings. He went on the say that over the past five years, Utah has experienced a ROI of 128:1.

AB 134 provides an opportunity for Wisconsin to adopt a more aggressive VE program by requiring that VE be considered on all projects over $5 million, regardless of funding source. This will ideally produce not just cost savings for taxpayers, but in all likelihood a better transportation infrastructure. I have had correspondence with WisDOT on my bill and they have suggested a number of refinements to it. First and foremost, they would like to raise the threshold from $5 million to $10 million, indexed for inflation. I'm not necessarily opposed to compromise on this issue, but we also need some assurance that the DOT will take full advantage of qualified VE recommendations when they are offered to them.

I bring this up because a November 2003 Legislative Audit Bureau report on the Major Highway Program challenged the Department on its lack of approval and implementation of VE recommendations made by an outside consulting firm it hired. The firm was paid $247,000 to identify potential savings on 17 enumerated and four proposed major highway projects and eventually "identified $382.0 million in savings that could be achieved while maintaining DOT's design guidelines and other programmatic requirements." The Bureau's report went on to state, "for a variety of reasons, DOT decided not to implement most of the cost-saving measures recommended by the firm". DOT accepted approximately 15% of the $382 million in recommendations the firm proposed. This mirrors the USDOT audit report showcasing

Wisconsin as a state that has a below national average approval rate for VE recommendations and goes on to state those savings "could have been saved and reprogrammed to other qualifying projects". A 2005 National Cooperative Highway Research Program Synthesis 352 survey by the Transportation Research Board lists this Wisconsin response, "There is no process for assuring that an accepted recommendation is actually implemented."

It is for this reason that AB 134 has a reporting requirement in which the DOT shall submit an annual report to the governor and to the standing transportation committees in the Legislature to include all VE project information, such as, the number of VE studies conducted, the cost of the studies, the estimated construction cost of the projects studied, the total number of study recommendations, total savings resulting from all recommendations approved and implemented, the number of recommendations approved and the total savings resulting from approved recommendations.

Considering the national average for approving VE recommendations stands at about 44%, and the State of Washington's stands at 55%, not all VE recommendations, or even VE studies for that matter, are necessary to carry out cost-effective highway projects. This is why AB 134 gives the Secretary of Transportation the ability to waive the VE requirement on any single project, but only after review and for compelling reasons, thus avoiding tying the hands of DOT if they deem a VE study to be unwarranted.

Transportation finance is a serious issue that requires creative solutions. AB 134 gives us an opportunity to do three things to improve not only the DOT's VE program, but to also improve the revenues that come into the department. First, we create and foster an atmosphere within the DOT in which they know the Legislature supports and encourages the use of VE on projects that are potentially worthy of VE studies. Secondly, we require the DOT to annually report to the Legislature on the status and functionality of the program and any cost-savings realized. Lastly, the cost-savings realized from implementing VE recommendations, including the federal share, is money that can be reprogrammed to other qualifying state highway projects. As the USDOT audit states, "Savings realized by implementing value engineering recommendations on Federal-aid projects are not returned to FWHA, thereby allowing states to reapply the Federal share of these savings (which is generally 80 percent) to other needed projects…In an age when Highway Trust Fund revenues are not keeping pace with state infrastructure needs, more effective value engineering programs will enable states to do more with available Federal funds"

With that, I respectfully ask that this committee support and take executive action on Assembly Bill 134. Thank you for the opportunity to testify before you today.

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AB 134
Comments, Donald J. Miller
Wisconsin Department of Transportation

AB-134: Requires DOT to employ value engineering for any highway improvement project with total project costs in excess of $5 million or otherwise meets criteria established by DOT.

The department agrees with the intent of the proposed legislation since it recognizes the usefulness of value engineering and endorses its application on appropriate projects.

The Department of Transportation recommends a few changes to the bill.

- The Department recommends increasing the threshold from the proposed $5 million level to $10 million. Based on a recent four year average, there were approximately 20 projects per year between $5 and $10 million. There are about 12 projects annually over $10 million. The projects over $10 million are the projects where value engineering recommendations are more likely to offer significant savings opportunities. (Note: the average cost to complete a value engineering study is approx. $50,000.)
- The Department would recommend excluding pavement resurfacing and bridge deck overlays from the value engineering process since these projects require very little engineering and therefore offer very few opportunities for cost savings. The Department would also identify types of VE recommendations it may not accept, i.e., pavement design modifications or revisions to certain components with significant safety implications.
- The Department would recommend indexing the $10 million threshold to account for future inflation.

- Also, the Department would also prefer more specificity on some of the definitions included in the bill:

  a) "Project costs". The Department would prefer an estimated construction let costs, non-let utilities, and real estate costs as defined in the environmental document should be used.
     i. Modify page 2, line 19 and
     ii. Modify page 3, line 9.
  b) Chosen VE recommendations can only produce estimated savings and may in some cases actually cost more, if the overall project quality is improved . Insert "estimated".
     i. Modify page 4, line 1 and line 4.
  c) "Engineering work". The Department would prefer a more specific term, such as final design or preliminary design.
     i. Modify page 4, line 7.

Overall, the department feels these recommendations would provide a better chance of achieving an acceptable cost/ benefit ratio when additional value engineering work is performed.

No Position (with changes)

Thank you for the opportunity to comment.