



## **Why use Value Analysis?**

### **MAINTAIN FEDERAL FUNDING**

Value analysis studies are required on all federally aided projects greater than \$50 million or more (construction, right of way, and capital outlay costs) on the National Highway Systems (NHS) and on bridge projects \$40 million or more. The project is defined by the environmental document and may include multiple contracts over many phases.

The NHS Act of 1995, the subsequent Federal Rule (February 1997- Subpart 627) and the Federal Aid Policy Guide, which added a new Chapter 6- "Value Engineering", define the application of this regulation.

### **BUILDING CONSENSUS WITH OUR TRANSPORTATION PARTNERS**

Caltrans success is built on the fact that we partner with all stakeholders. Federal and state legislation over the years has given the local authorities a greater role in deciding local transportation issues. Value Analysis is an effective tool to break down the conflicts and build consensus with project stakeholders and partners.

### **SOLVING DIFFICULT TRANSPORTATION PROBLEMS**

The Value Analysis process provides an excellent tool to assist us to focus on and solve our most difficult transportation problems. The more complex a project in terms of geometry, staging, environmental impacts, etc., the more opportunity it provides a skilled, well-led VA team to provide an in-depth analysis and subsequent innovative solutions for the project.

### **COST REDUCTION WHILE MAINTAINING OR IMPROVING PROJECT QUALITY**

This is an important part of the Project Development process, as resources become scarce and the public continues to demand more for less cost. Project costs should include the total cost of ownership, which includes both the original (construction) cost and subsequent operation and maintenance costs. VA recommendations should not include cost reduction at the expense of project functions.

### **ELIMINATION OF DETRIMENTAL DESIGN INFLUENCES**

The following influences can negatively affect a project's design: Lack Of Information, Time Pressures, Wrong Beliefs, Negative Attitudes, Habitual Thinking, Rapidly Changing Technology, Risk Of Personal Loss, Strict Adherence To "Requirements", Reluctance To Ask For Advice and Poor Human Relations.

The VA review process can overcome these and other influences by use of an objective, multi-disciplined team of professionals applying the VA methodology in a controlled environment.



## **At what stage should VA studies be performed?**

The VA program attempts to assess projects at the earlier stages of the project development phases to maximize the implementation rates of the highway project studies.

The three main project development milestones are:

### **Project Initiation Document (PID)**

Project scope, schedule and budgets are identified resulting in a programmed project.

### **Project Approval and Environmental Document (PAED)**

Project alternatives are identified and analyzed according to federal and state requirements. The environmental clearance allows the project to be carried forward into the design phase.

### **Design Phase or Plans, Specifications & Estimate (PS&E)**

Final design is prepared as established by the Environmental Document's selected alternative. Completion of plans, specifications, and estimates leads to the award and construction of the highway project.