

# Deputy Directive

Number: DD-92-R1

Refer to  
Director's Policy: DP-07  
Project Delivery

Effective Date: December 1, 2012

Supersedes: DD-92 (July 2007)

*TITLE* Value Analysis

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*POLICY*

The California Department of Transportation (Caltrans) has an established Value Analysis (VA) program which has adopted the principles and practices of value engineering to maintain compliance with federal law. Caltrans utilizes VA to continually improve the quality and return on the State's investment in infrastructure, foster innovation, and minimize life-cycle costs of transportation projects.

A VA study is required for all projects on the National Highway System (NHS) utilizing federal funds with a total project cost (right-of-way, construction and support) of \$50 million or more (bridge projects of \$40 million or more). Caltrans is required by federal mandate to apply value analysis to qualifying projects regardless of whether Caltrans employees, local agencies, consultants, or others are accomplishing the work. VA studies should also be considered for those projects not required by the federal mandate if it is determined that they could benefit from use of VA.

VA studies can be performed at any phase of project development. However, for projects meeting the federal requirement, a VA study must be performed prior to Ready-To-List in order to receive the Federal Highway Administration (FHWA) construction authorization.

*DEFINITION/BACKGROUND*

VA studies are a function-oriented, systematic team approach to analyze and improve the value in a project, product, or process. They provide a powerful tool for solving problems, reaching consensus, and reducing costs while improving performance and maintaining the objectives of the proposed project, product, or process.

The National Highway System Designation Act of 1995 included a mandate for the United States Secretary of Transportation to develop a program requiring the state departments of transportation to conduct VA studies for all

federal-aid projects on the NHS costing \$25 million or more. FHWA published value engineering implementation regulations on February 14, 1997.

Title 23 United States Code 106 and related federal regulations require Caltrans to establish a program to improve project quality, reduce project costs, eliminate unnecessary and costly design elements, foster innovation, and ensure efficient investments on all projects requiring value engineering. The term “project,” as it relates to this law, is the project defined in the environmental document, and may include multiple contracts over many years. The federal term “value engineering” is synonymous with Caltrans’ “value analysis” term.

In 2005, Congress enacted the “Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users” (SAFETEA-LU) with new provisions and regulations. SAFETEA-LU expanded the scope of the 1995 value engineering mandate to include all projects on the federal-aid system with an estimated total project cost of \$25 million or more and on bridge projects costing \$20 million or more. As defined by federal regulations, a bridge is a structure over a depression or an obstruction, such as water, highway, or railway, and having an opening measured along the center of the roadway of more than 20 feet.

In 2012, Congress enacted “Moving Ahead for Progress in the 21<sup>st</sup> Century” (MAP-21). MAP-21 changed the SAFETEA-LU mandate by doubling the current thresholds to projects costing \$50 million or more and on bridge projects costing \$40 million or more using federal funding on the NHS. Other provisions exclude a VA study for design-build projects and bridge projects off the NHS.

Caltrans guidelines for VA along with the federal requirements may be accessed at: <https://dot.ca.gov/programs/design/value-analysis> and are also referenced in Chapter 19 of the Project Development Procedures Manual.

## *RESPONSIBILITIES*

### Deputy Director, Project Delivery:

- Establishes and ensures implementation of statewide policies, standards, and practices for Project Delivery.

### Deputy Director, Planning and Modal Programs:

- Establishes and ensures implementation of statewide policies, standards, and practices for Planning and Modal Programs.

- Ensures compliance with the VA mandate for those projects within the Local Assistance Program.

Chief, Division of Design:

- Establishes and maintains a VA program in order to improve project quality, reduce project costs, foster innovation, eliminate unnecessary costly design elements, and ensure efficient investments for all projects.

Division Chiefs:

- Ensure the consistent and effective application of standards, procedures, best practices, and quality management activities for the timely delivery of quality projects.
- Ensure staff fully participates in VA studies.

District Directors:

- Establish, maintain and manage the activities of their district VA program.
- Ensure proper resource levels are available to effectively carry out and support VA activities within their District.
- Support VA studies by ensuring that recommendations are fully considered and acceptable recommendations are implemented.
- Determine and apply recommendations from VA studies which will maximize project performance, while adhering to standards, procedures, best practices, and quality management activities.
- Ensure locally funded projects on the State Highway System (SHS) are considered for VA studies.
- Ensure federally mandated VA studies are conducted. Consider studies on non-mandated projects that could benefit from VA.
- Ensure that elimination of accepted alternatives are approved and documented.

Managers, Project Managers, Functional Managers, and Supervisors:

- Empower employees with the appropriate tools, resources, time, and training to deliver the VA studies for which Caltrans is responsible.
- Ensure project compliance with policies, standards, procedures, and best practices.
- Ensure that accepted recommendations (alternatives) are implemented at Ready-To-List.
- Monitor and ensure all project VA documentation is maintained and complies with all federal regulations throughout all phases of a project's life.

*APPLICABILITY*

All Caltrans employees involved with the delivery of projects on the SHS.

*Original signed by:*

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RICHARD D. LAND  
Chief Deputy Director

*November 30, 2012*

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Date Signed