



TRANSPORTATION CABINET


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DESIGN MEMORANDUM 02-15

TO: Chief District Engineers
Design Engineers
Active Consultants

FROM: William S. Gulick, P.E., Director 
Division of Highway Design

DATE: November 13, 2015

SUBJECT: Value Engineering Analysis Requirements Update

The federal transportation act, MAP-21, defines when a value engineering (VE) analysis or study is required. The law specifies that all roadway projects on the National Highway System that have a total phase cost exceeding \$50 million and bridge projects exceeding \$40 million will require a VE study when there are any federal funds used for the project. The "total phase cost" of a project is that which is estimated for planning, environmental, design, right-of-way, utility relocation, and construction.

The definition of what constitutes the limits of a project remains the same. The termini, as defined in the environmental document, should be used to calculate the project's total phase cost when determining eligibility. Regardless of whether the funding of a project is segmented into smaller pieces (multiple item numbers), the entire project must be reviewed using the requisite VE process. This may entail multiple VE studies if sections are being developed at differing schedules. Additionally, if a project section has been let for construction and did not receive a VE study in the past, subsequent design sections are not exempt from the VE requirement.

After a VE study is completed, the Quality Assurance Branch (QAB) VE Coordinator, Project Development Manager (PDM), and Location Engineer shall discuss the list of recommendations and determine if any will be approved. There may be recommendations that need further examination before making a decision. Initial decisions will be documented in the VE Punch List by the VE Coordinator, shared with the PDM, and placed in Projectwise under the project's VE folder. Completed value engineering study reports can be viewed on the QAB website.



It is required that the implementation of approved design recommendations and unresolved issues be monitored and reported. The VE punch list is a living document that should be updated by the PDM when a VE recommendation is implemented or an approval status changes. Annually, the VE coordinator will send a reminder to each district PDM to update the Punch List with the most recent decisions and actions. This process will continue until all decisions are final and all approved recommendations have been addressed.

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