CHAPTER 12
VALUE ENGINEERING REQUIREMENTS

12.1 OVERVIEW

Value Engineering (VE) is a systematic process used by an independent multi-disciplinary team to improve the value of a project, product or service through the identification and analysis of functions. Project functions are the intent or purpose of the components that make up the project. FDOT VE teams strive to optimize the use of allocated funds without reducing safety, quality, or performance by strictly following the ***Value Engineering Program*** (***FDOT Procedure 625-030-002***).

Congress authorized the use of VE on FAHP projects beginning in 1970. The National Highways Designation Act of 1995 (amended in 2005 and 2012) requires VE be performed on FAHP as identified in 23 U.S.C. 106 and further defined in 23 CFR 627.

12.2 REQUIRED FEDERAL-AID PROJECTS

The following FAHP projects are required to utilize the VE process per 23 C.F.R. 627:

- Projects on the National Highway System (NHS) with an estimated total cost of $50 million or more and are not delivered using the Design/Build method of construction.
- Bridge projects on the NHS with an estimated total cost of $40 million or more and are not delivered using the Design/Build method of construction.
- Any major project (as defined in 23 U.S.C. 106(h)) located on or off the NHS that utilizes Federal-aid highway funding in any contract or phase comprising the major project, and are not delivered using the Design/Build method of construction.
- Any other project the FHWA deems applicable.

The total estimated cost shall include all costs associated with all phases of the project, including environment PD&E, design, right of way, utilities, and construction.

The VE study shall be performed during one of the following phases of project development: Planning, PD&E, or Engineering Design. The optimal time to perform VE is during PD&E and continuing up to thirty (30) percent design plan review. Projects delivered with the Design/Build method of construction do not require VE Analysis.

12.3 ADDITIONAL PROJECTS

Additional projects outside of the Federal requirements identified in ***Section 12.2*** may also utilize the VE process. Projects to consider should include:

- Projects on the SHS with an estimated total cost of $25 million or more that are not delivered using the Design/Build method of construction.
- Projects that significantly exceed initial cost estimates.
- Complex projects.
- Projects requested for VE by the Department.
- Projects with high right of way costs.
- Projects and processes with unusual problems.

12.4 VALUE ENGINEERING COORDINATION

The District LP Administrator will coordinate with the District VE Coordinator and the LA on those projects that require VE per the thresholds defined in ***Section 12.2***. VE Analysis requires a multi-disciplinary team of experts and may also require consultant support. VE Analysis is eligible for reimbursement under the FAHP. District staff will coordinate with the Central Office on a project by project basis for additional support for VE.

12.5 VALUE ENGINEERING CHANGE PROPOSALS

Value Engineering Change Proposal (VECP) is a construction contract change proposal submitted by the construction contractor based on a VECP provision in the contract. These proposals may improve the project's performance, value and/or quality, lower construction costs, or shorten the delivery time, while considering their impacts on the project's overall life-cycle cost and other applicable factors.

LAs are encouraged to include a VECP clause or such a clause under a different name, such as Cost Savings Initiative (CSI) Proposal. Whenever such clauses are used, the LA considers changes that may improve the project's performance, value and quality, shorten the delivery time, or lower construction costs, while considering impacts on the project's overall life-cycle cost and other applicable factors. FDOT implements its CSI program through the use of the CSI specification in contracts and ***FDOT procedure 625-030-005, Cost Savings Initiative Proposal***. LP projects on the SHS regardless of fund source and LAP Classification A, B, and C projects are required to use the ***FDOT Standard Specifications for Road and Bridge Construction***, which includes the CSI specification.

12.6 RESOURCES

Code of Federal Regulations, Title 23, Chapter I, Part 627

Value Engineering Program Procedure (625-030-002)

https://pdl.fdot.gov/api/procedures/downloadProcedure/625-030-002

Cost Savings Initiative Proposal (625-030-005)
https://pdl.fdot.gov/api/procedures/downloadProcedure/625-030-005

Value Engineering - Project Management Web Page
https://www.fdot.gov/designsupport/projectreview/valueeng/default.shtm