**CDOT Design Phase Value Engineering (VE) Program**

The purpose of this design bulletin is to provide guidance on CDOT’s statewide Value Engineering (VE) program. This design bulletin supersedes the Project Development Manual (PDM), Section 2.15, “VALUE ENGINEERING (DURING DESIGN PHASE)”.

Value Engineering is the systematic process of review and analysis of a project during the concept and design phases by a multi-disciplined team not involved in the project, to make recommendations for:

* Providing the needed functions safely, reliably, and at the lowest overall cost;
* Improving the value and quality of the project; and
* Reducing the time to complete the project.

This VE program establishes requirements for selecting projects for VE analysis, and standardizes procedures for conducting studies and reporting results in compliance with federal requirements. The VE Program will be managed by the Project Development Branch in partnership with the Regions to promote and maintain VE program consistency, as well as provide annual VE reporting. Please see the attachment for the VE program details.

**REQUIREMENTS**

CDOT requires that a VE analysis be conducted for projects on the Federal-aid system with an estimated total project cost of $40,000,000 or more. Total project cost is defined as the costs of all phases of a project, including environmental, design, right of way, utilities, construction, and construction engineering costs. If the total project cost is revised prior to award to exceed the above threshold, then a VE analysis is required. If construction is advertised in multiple projects for a corridor improvement, all construction projects need to be considered in the total. VE analyses are not required on projects delivered using a design-build method of construction.

CDOT’s VE Program will be managed by the Project Development Branch in partnership with the Regions to promote, maintain consistency, as well as report on VE on an annual basis. See the attachment below for the details of the VE program.

In addition to the above threshold, a VE analysis may benefit and should be considered for projects based on a number of other criteria listed below:

* Major Structures,
* Complex design or construction,
* Challenging constraints and/or difficult technical issues,
* External influences and unique or complicated functional requirements,
* Potential to improve the projects’ performance or quality,
* Competing community and stakeholder objectives,
* Potential alternative solutions that impact scope and cost,
* New alignment or bypass sections,
* Capacity improvements that widen existing highways,
* Interchanges,
* Extensive or expensive environmental or geotechnical requirements,
* Materials that are difficult to acquire or have special requirements,
* Inferior material sources,
* New/reconstruction projects, and
* Major traffic control requirements or multiple construction phases.

For further information on the Value Engineering Program, please contact the Project Development Branch Design Program Manager.

**ATTACHMENTS:**

CDOT Design Phase Value Engineering Program Guidance



**References:**

Design Bulletins can be found on the CDOT intranet at:

<http://www.coloradodot.info/business/designsupport/bulletins_manuals/design-bulletins>