	Connecticut DOT	Number:	ECD-2021-2
	Bureau of Engineering and Construction	Date:	March 8, 2021

ENGINEERING & CONSTRUCTION DIRECTIVE

_____
Bureau Chief/Chief Engineer

Value Engineering Program Revision

This Directive addresses changes to the Value Engineering Program administered by the Office of Construction.

Monetary Thresholds:

The current monetary thresholds are in line with the MAP 21 Authorization Law and Code of Federal Regulations (CFR), 23 CFR Part 627. Under MAP-21, Value Engineering studies are required for highway projects on the National Highway System (NHS) with an estimated cost of $50 million or more, and all bridge projects on the NHS with an estimated cost of $40 million or more.

The Department has recently reviewed expanding the current Value Engineering program. Based on successes of past Value Engineering Workshops, it was determined that lowering the monetary thresholds would capture additional value for the Department's Capital Program.

The _revised_ thresholds will be as follows:
- Highway projects: the threshold is lowered from $50 to $25 million, regardless of funding.
- Bridge projects: the threshold is lowered from $40 to $20 million, regardless of funding.
- All other projects including Federal Transit, Federal Rail Authority and Construction Manager/General Contractor projects: the threshold will be $20 million, regardless of funding.
- Design–Build projects will continue to be exempt from the Value Engineering program.

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Project Criteria:
Certain types of projects may not lend themselves to a Value Engineering study.

A Committee will be created by the Chief Engineer to meet bi-annually to review projects that are recommended to have a VE study under this revision. The Department's Value Engineering Coordinator will prepare a list of projects to be discussed at the review meeting. The list will be based on the most recent Obligation Report and will include the project number and a brief description of the project. The list will be submitted at least one week prior to the meeting.

The committee will consist of a member from each of the following disciplines:

> Office of Highway Design
> Office of Bridge Design
> Office of Rails
> Office of Facilities Design
> Office of Traffic
> Office of Construction

A representative from Property and Facilities Services and Maintenance will sit on the panel for buildings projects, and a representative from Bus will sit on the Committee for bus facility projects.

Additionally, any Value Engineering Proposal developed during the VE Workshop with an estimated cost savings of $500,000.00 or more that is not accepted for incorporation into the Project design will require sign-off by the Chief Engineer or Engineering Administrator. A sample sign-off form is attached.

Value Engineering Proposal Rejection Form

Value Engineering is a systematic and organized approach for providing necessary project functions at the lowest life cycle cost. Per Department of Transportation guidelines, the Chief Engineer or Engineering Administrator must sign off on any Value Engineering proposal with an estimated cost savings of $500,000.00 or more that was not accepted for incorporation into the project design. The VE recommendations in Table 1 list the proposals that satisfy these criteria.

Project Number: _____

Project Name: _____

VE Study Date: _____

Table 1: Rejected VE proposals with potential cost savings of $500,000.00 or more

VE Proposal		Reason for rejection (Or attach a page to the end of this form)	FHWA Functional Benefit*					VE Team Estimated Change of Cost	OOC Design Decision Review
ID	Description		Safety	Operations	Environment	Construction	Other		Agree or Further Discussion

* Each year, State Transportation Agencies (STA) are required to report VE recommendations to FHWA. In addition to cost implications, FHWA requires the STA to evaluate each approved recommendation in terms of:

- **Safety:** *Recommendations that mitigate or reduce hazards on the facility*
- **Operations:** *Recommendations that improve real-time service and/or local, corridor, or regional levels of service of the facility.*
- **Environment:** *Recommendations that successfully avoid or mitigate impacts to natural and or cultural resources.*
- **Construction:** *Recommendations that improve work zone conditions or expedite the project delivery.*
- **Other:** *Recommendations not readily categorized by the above performance indicators.*

[Name] [Signature]_____   _____
CT DOT Principal Project Engineer   Date

[Name] [Signature]_____   _____
Chief Engineer   Date

[Name] [Signature]_____   _____
CT DOT Value Engineering Coordinator   Date