

## APPENDIX D

### SCHEDULING FOR VE STUDIES

D-1. Value Management Planning. A VM plan will be developed as part of the PMP (See Appendix C). VM should be implemented early and used as an integral part of project planning and design development. VE studies and activities shall be part of the VM plan.

D-2. Civil Works Program.

a. Reconnaissance Phase: A VE study is not required in the Reconnaissance Phase. A VE study may be used, however, to help formulate projects by using VE methodology to ensure that the customer and all other stakeholder issues are properly addressed early in the project development process.

b. Construction Projects Exceeding \$10 Million. Value Management Workshops (VE Studies) shall be performed in both planning and design phases of project development as follows:

(1) Pre-authorized (Planning Phase). At least one VE study will be performed during the feasibility phase of the project, as part of the plan formulation process prior to the selection of final alternatives. This is generally during the latter part of "Identification of Measures" and the early part of "Formulation of Alternative Plans".

(2) Authorized (Design/Construction Phase). A VE study shall be performed on all authorized projects with current working estimate (CWE) or programmed amount (PA) exceeding \$10 million and individual project design features thereof exceeding \$10 million no later than at the 35% completion of the design and shall be in addition to the feasibility phase VE study noted above. Under no circumstances shall a contract for water resources project over \$10 million be awarded prior to completion (including complete disposition of proposals) of a formal VE study.

c. Construction Projects Exceeding \$2 Million up to but less than \$10 Million. A VE study shall be performed on all projects and individual contracts in this cost range no later than at 35% completion of the design; additional earlier VE studies should also be considered when appropriate.

d. Post-Authorization Changes (PACs). For all Post-Authorization Change Reports (e.g., LRRs, GRRs), a VE study must be performed, unless waived by MSC/Center (waiver only allowed for project less than \$10 million).

e. Operation and Maintenance Projects/Programs and All Other Procurements.

(1) Projects or Procurements Exceeding \$10 Million. A VE study shall be performed on all projects or procurements exceeding \$10 million as described above.

(2) Projects or Procurements Exceeding \$1 Million up to \$10 Million (\$2 Million up to \$10 million for Construction. A VE study shall be performed on all projects and procurements in this cost range as described in Para c above. While it is fully realized that it may be impractical to study the vast number of District O&M projects/programs in this range, managers should consider utilizing VE studies on a combination of projects and/or program applications.

f. Design-Build (DB). All DB or other alternative procurements must be studied in accordance with the above pre and post authorization project requirements. Additionally, projects that have been identified for DB acquisition shall have a VM plan prepared by the PDT and a VE study conducted prior to completion of the draft Request for Proposal (RFP) document. The accepted proposals shall be incorporated prior to publishing the draft RFP for review.

D-3. Military Construction. For all projects greater than \$2 million CWE, a VE study shall be performed, unless waived by the MSC or Engineering Center Commander. VE methodology will be done early on applicable projects and can be utilized at several different phases of project development, including Planning Charrette and Design Charrette phases, and at any phase of subsequent design completion to ensure elimination or reduction of reprogramming requests. In addition to the Planning Charrette and Design Charrette phases, DB projects may be studied during development of the RFP and the VE methodology may be used to facilitate the initial design conference after selection of contractors for increased partnering.

a. For all MILCON projects, a value based design charrette may be performed at the design initiation (approximately 10% design effort). Function of this study will be primarily to influence the planning direction. A value based design charrette shall not fulfill the requirement for a VE study.

b. Design-Bid-Build. A minimum of one VE study will be performed as early in the process as possible, but no later than 35% design. The purpose of this study will be to help identify and resolve problems in the design, changed conditions, ensure that the project is in accordance with the program documents (such as 1391) and control cost and schedule growth.

c. Design-Build. A Value Management Workshop or VE study will preferably be performed at the preliminary (draft) stage of RFP development, but at least one study will be performed no later than the final stage of the RFP preparation. The function of this study will be to identify and resolve problems in the design, focus on performance as much as possible, identify any changed conditions and control cost and schedule growth.

D-4. Other Projects/Programs/Procurements. A VM Plan will be developed in accordance with guidance stated above. A VE Workshop or VE study shall be performed (or waived) for any procurement greater than \$1 Million. VE should be performed early in the planning/design/acquisition process.

D-5. USACE Construction of HTRW/MMRP Projects. VE will be applied to the selected alternative after the Decision Documents or RODs (Record of Decision), as a minimum, for all projects other than those that will use Performance Based Contracts (PBC). VE efforts in partnership with the PBC contractor are strongly encouraged. Details of such effort should be stated in each PBC, when applicable. VE shall be accomplished in each delivery order of Total Environmental Restoration Contracts (TERC), with costs above applicable thresholds. Such recommendations are to be used in TERC negotiations.