VBD Approach to Value Engineering

Value Based Design, llc (VBD)

VBD is a North Carolina based value engineering practice with a staff of five professionals established in 2002 providing team leadership and facilitation for VE workshops, design charrettes, training, and project reviews.
With four registered professional CVS facilitators, we have the depth of experience required and the professional capacity for the critical VE reviews of this project. The broad and varied nature of our experience insures that the independent professional perspective you need to critically review your project is available.

We can deliver the results you need.

VBD approach to this project

VBD will practice the VM Job Plan that is consistent with the SAVE International Value Methodology Standard. We have a tightly scripted format that has been developed that will successfully guide the participants through the VE process as the facility is reviewed. Creative new ideas that positively impact the project value are the reason for conducting these sessions. Our focus is always to maximize the creative aspect of the workshop to insure original ideas and real savings to the organization. The team will recommend refinements to the project design to achieve the best balance of life cycle costs, performance and durability, while meeting all functional requirements. Life cycle costs will be developed as applicable for each recommendation.

- The process is facilitated by a Professional Engineer/Certified Value Specialist (PE)/ (CVS) using the Value Methodology (VM) during the detailed design phase to achieve the following objectives:
- Best project value identified early in the design process
- Best balance of life cycle costs, performance, and durability
- Meet all functional requirements
- High VE proposal acceptance
- High quality output for all stakeholders
- Option for additional workshops to be evaluated after the organizing workshop

VBD approach to VE

In the 70s Arthur Koestler studied the identifiable process that resulted in real innovation in large organizations. He identified what he termed the optimal creative problem solving process. It consisted of the following components:

- Gather great minds

- Load the mind
- Create a receptive environment

This approach has been validated time and again through highly creative small groups of experienced professionals that come together to focus on specific problems and generate innovation solutions. It is the model for the VE process. Value Engineering is a social design methodology in that it utilizes a multi-disciplined team to achieve results. When done properly the process can result in real innovative breakthroughs. A major component driving its success is the strength of the collaborative approach inherent in the multidisciplinary team model.

Key Requirement: Creative problem solving through collaboration

Task team collaboration has been demonstrated to be the most successful approach available to generate innovative new ideas, and we know that teams are most productive when there is personal interaction between the team members in an environment designed to support questioning and discussion of the relevant issues and alternatives. Our VE workshops are designed and facilitated with the goal of maximizing team collaboration.

Repeatable results require a structured approach to innovation which, when done successfully, can deliver high quality innovative projects that provide real value to the stakeholders. The VE workshop is like a symphony that comes together under the direction of the conductor (VBD facilitator) where the whole is greater than the sum of the parts.

Key Requirement: Functional based innovation

The Functional Innovation model we utilize consists of a multi-disciplinary group of 6-12 professionals with the appropriate experience (great minds) that are selected to be on a team assigned to review the identified project. They immerse themselves in the detail of the project to become fully versed in all aspects (load the mind). Note that project scope is critical, as the project must be selected and sized to allow the team to fully familiarize themselves with the details of the project while moving through the six phases of the Value Management process. The team analyzes the project from a functional perspective, developing a function logic model to visually represent the functional relationships of the project. Each component of a project is defined by a precise function description and often the worth of that function to the user or other stakeholders is identified. The team records all information as they work through the detail of the project. This functional perspective requires experienced technical leadership, as it is often difficult to accomplish, and redefines the project in an abstract manner that connects with and challenges the creative faculties (create a receptive environment).

This functional language, developed by the team to fully describe the project under review transcends the professional definitions that exist within each specialty (the result of disciplined/professional training) that can often be a barrier to achieving real communication and understanding, e.g. the biologist, the environmental scientist, and the computer engineer all have a precisely different definition for the term eco-system. Functional identification and naming in the team environment ensure a common understanding that leads to a real discussion of alternative solutions to perform the particular function.

It is this process, the immersion in all project detail, the questioning of definitions and approaches, the abstract functional thinking, and the perspective of involved professionals under the direction of a technically proficient and skilled facilitator in a receptive environment that often results in breakthrough thinking. Simply putting a group of experts in a room and expecting new solutions achieves little. Value Engineering brings a method that has proven effectiveness in overcoming the barriers that are inherent in different professional perspectives and inhibit a disparate group from creating new knowledge efficiently.

Key Requirement: SAVE methodology

We utilize the SAVE 6 step job plan for our VE workshops:

1. Information
2. Function Analysis
3. Creative analysis
4. Evaluation
5. Development
6. Presentation

These key requirements form the basis for the Value Based Design approach we utilize when innovative solutions are an important component of the client's solution.

Value Engineering Team Composition

We believe that a professionally facilitated Value Engineering study can significantly increase the value of a project. Not just a cost review, but also a focus on creative ways to improve the functionality of the project through intense collaboration using the proven VE methodology. The key to this success lies in achieving Koestler's optimal creative problem solving process: gather great minds, load the mind, and create a receptive environment. Our experienced facilitator will build a high performing team focused on innovative solutions to your project value.

Contact us to discuss how we can help you make your project deliver better value.