What is the meaning of value engineer the project? Asked by: Vicki

In order to answer this question, I need to approach it from two perspectives.

The first is that of the generalist, who would use the term to describe an effort to reduce the cost of a project that has gone awry. A project that was either improperly estimated at the onset, a project that has experienced an unexpected event leading to increased costs, a reduction in the available budget, or some other occurrence that has driven the expected cost of the project beyond the level of funds available. This generally occurs at a mid to late stage of the project's design/build life when plans have been solidified and any attempt to redefine the scope of the project is difficult to accomplish. At this point there are not a lot of good options, with the primary focus of the principals directed towards an effort to reduce the cost of the project by any means possible. As the major design decisions are already made, the only available avenues are to reduce the cost of specified components and equipment and possibly eliminate a major feature of the project and/or anything seen as not absolutely necessary. This includes all manner of upscale finishes, architectural details, computer controlled HVAC, ceiling height, hardwood floors, ect. This is a painful response to a bad situation that no one is going to be happy with, and in an attempt to put a positive spin on this activity, instead of calling it what it is; desperate cost reduction, it is incorrectly called value engineering. But sometimes, it is the only way out of a badly managed situation. In the interest of accuracy and full disclosure, may I suggest a new name? How does Architectural (or Project) Hari-Kari sound?

So, what then is value engineering?

The Certified Value Specialist (CVS) would tell you that it is a specific process that has been developed to analyze a project or product from a functional perspective to identify what functions are required, which functions are providing value to the user, and can any different methods be identified to provide those functions. The organization that promotes, advocates, certifies, and educates that process is SAVE International. The actual process consists of the following steps:

- Pre-Study
- Value Workshop
    - Information Phase
    - Function Analysis Phase
    - Creative Phase

- o Evaluation Phase
- o Development Phase
- o Presentation Phase
- Post-Study

Those individuals that have expert level skills are awarded the designation CVS.

It is really a form of structured innovation, where a multidisciplined group of 5-8 professionals with the appropriate experience are selected to be on a team assigned to review a particular product, project or component (scope is critical). They immerse themselves in the detail of the project, much as in a peer review, to become fully versed in all aspects. Then they analyze the project from a functional perspective, often developing a function logic diagram called a FAST diagram to visually represent the functional relationships of the project. Each component of the project is defined by a specific function name (active verb, measurable noun) and often the worth of that function is identified. All information is recorded by the team as they work through the detail of the project. This functional perspective is difficult to accomplish, and redefines the project in an abstract manner that connects with and challenges the creative side of the brain. It is this process: the immersion in all project detail, the abstract functional thinking, and the perspective of involved professionals under the direction of a skilled CVS in a receptive environment that often results in breakthrough thinking. Once the Function Analysis Phase is complete the team then uses various creative tools to develop new ideas, and moves through the remaining steps of the process; Evaluation, Development, and Presentation. A report is usually generated as a component of the Post-study that summarizes all the team's recommendations. The process typically takes 5 days to analyze a typical project, not including the Pre and Post study work required. Truncating the process most often removes the time required to achieve creative results. Hundreds of successful studies are done each year, a large number for government projects, to insure that the owner receives the most value from their project. And it needs to be done early in the design process, before the design is complete and changes (sometimes big changes) can still be made. I am always impressed by the results delivered by a team of the right professionals under the direction of a skilled CVS.

Answer by

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