

# Marketplace Research

## Value Analysis Is a Holistic Process



by Richard W. Hobbs, FAIA

Too many people equate value analysis to making things cheap, laments Stephen J. Kirk, FAIA, Kirk Associates, Grosse Pointe Park, Mich. Done correctly, it is about value over the lifetime of the system, facility, community, or whatever is being analyzed. That is why he prefers the term *value analysis*.

“Value analysis is not simply about money,” Kirk continues. “It is, as the name suggests, about value, which includes important intangibles such as patient care, in the case of a hospital; profitability; salability; and creation of “destination,” in the case of retail and entertainment centers. If value analysis aims only to save money in the short term—in construction—then it is a misnomer.”

Through a structured process, Kirk Associates provides a service many might see as an alternative to architecture. Kirk sees it as a natural progression of formalizing the design process and applying it to any field of consultation. His firm will assemble a team of consultants to work with the client. In turn, the client assigns in-house people to work with, and become part of, the Kirk Associates team. The approach begins with a group orientation meeting where everyone gets comfortable with the process two weeks before the assessment exercise.

The power of Kirk’s value-analysis process, he says, is in the six steps of problem solving—originally developed by Lawrence D. Miles at General Electric, now promoted by SAVE International, the Value Society—focus on increasing value in the all-encompassing triad of cost, quality, and performance. The six steps are:

- Information gathering and benchmarking, for example creating cost and quality models
- Function analysis—stating the purpose in a verb/noun form
- Creativity phase—fleshing out as many workable ideas as possible
- Evaluation of alternatives

- Development of those ideas into workable solutions, with options
- Making recommendations to the decision makers identified through orientation meetings.

This approach will benefit any field of consultation, Kirk says, including architects, every kind of engineer, and businesspersons. Moreover, it is a service that can be provided even when another architect is doing the design and documentation phases. By bringing everyone together to think about the

big picture, the value specialist ends up working closely with the design architect to develop a variety of options from which the owner may choose.

A five-day value-analysis workshop (team study) involving 12 people to evaluate a hospital project might cost \$75,000, which is on the high end of value-analysis study fees. Two weeks before the workshop, a one-day orientation meeting is held with the client, user group, the design team and the value review team. It begins with a sit-down discussion and a site facility tour. The value management team continues to work as a group to keep ideas flowing and coordinated.

### Making the process work

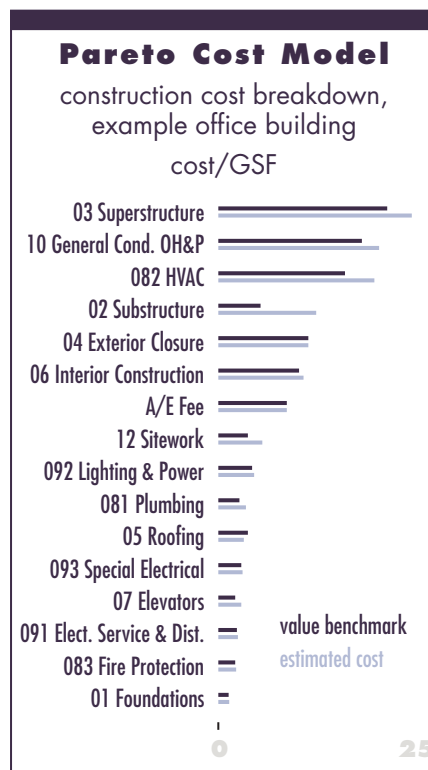
Kirk offers a few pointers to architects who are interested in adding value analysis to their repertoire of services. First, understand the process. At least as important, know the client’s business. And third, fit the process within the context of the project—where it is in devel-

opment and where the client sees it going.

This role works best with repeat clients, where the trust and rapport are already established. An option for providing these services to a first-time client is to come into a project as part of the design or construction management team.

There also is the important consideration of specialization. It is vital to know the client’s business at least as well as his or her primary competitors. Obviously, the tools and techniques differ among client types.

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In its history, value analysis was once applied late in the pre-design process, which is not where it is most effective. Now it has moved closer to the crucial formative stage of business development decisions. At its best, value analysis is a process of coordinating and integrating interdisciplinary teams.

Making recommendations to save money has less of a savings impact the further along a project is. It is the integration of the whole project over its life cycle that forms the overarching mindset for value management, however, regardless of where the value management team comes in.

One service that repeat customers find valuable is for the value management team to review the design solution another firm is developing for the client. This helps assure that a full range of solution options have been considered for the client's

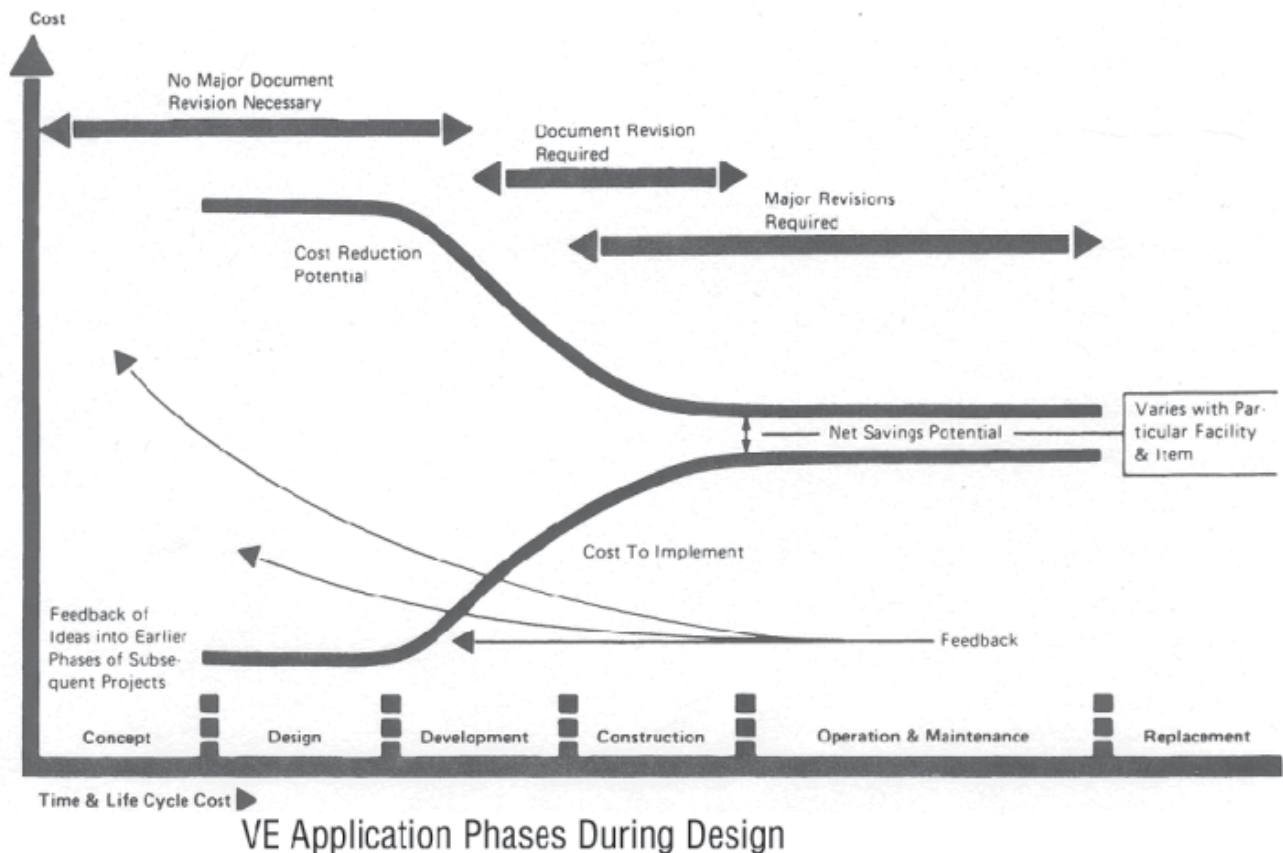
review and decision. This is not a watchdog approach so much as a team-building exercise.

A second way for a value-management team to get involved in a project is as a part of the design team. Being part of the construction management team is another approach. But any of these could become a cost-chopping fiasco if value management degrades into first-cost reduction exercise.

In the process of recommending ideas, the importance of starting early is a matter of how changes become more expensive as project development progresses. A great idea for adding value to a project is not so great when it requires the whole team to back up and start over again on some of the basic assumptions. So some great ideas never get used. Because the overarching mindset of the value analysis process is the integration of the whole for the benefit of the project life cycle, re-

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Value Engineering Best Timing in Design Schedule



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ardless of where the value management team came into the project. Naturally, a large part of the value specialist's skill set is team-building acumen.

You have to look for the big-picture issues to retain focus in such a short session. The goal is to figure out where most of the money in an operation comes from and goes. And you have to determine where the thoughtless waste of money in day-to-day procedures occurs. With a hospital facility, 5 percent of the overall cost may be capital costs for construction and 95 percent will be the ongoing operating cost. In corporate facilities, the breakdown is about 30 percent capital cost and 60 percent operating cost.

When evaluating operations, the team must constantly challenge the existing operating procedures with insight into what the next generation of operating procedures are likely to be. Because of the short time and immense complexity, this is a particularly difficult mindset to achieve and task to tackle.

With value management, you may set a strategy to spend the same amount of money and still increase productivity, or you can set a higher range of first-cost expenses to gain major increases in productivity. Either way, the first-cost is more than

offset by the gains in productivity over the life of the facility.

### **The field is open**

This field carries enormous potential for architects looking to expand into new areas of profitable consultation. There are 20 certified value managers in the U.S. today. Of those, 40 are in construction fields. Maybe 10 of them are architects.

Federal Regulations 104-106 ask for value analysis. The laws are very literal. There are requirements set by government agencies for bringing in a value engineers. For federal work, every project over \$2 million needs value management. For highway work, it is any project over \$25 million. For New York City, it's \$50 million. And in Virginia, value analysis is required for all capital projects over \$5 million.

Value management is particularly a good idea in design/build projects because it helps the client establish the parameters before the design/builder comes on board.

Teams for value management require a large network of experts to move from one project to the next. So, to establish a network of value management experts, it is very important to find people who work well on teams. [Kirk has a matrix of these personality characteristics in his dissertation, which would make a good table for this article.] ■