

LOWER COST & BETTER QUALITY

Two years of major cost increases in materials, fuel and labor have made it even more important to design and build projects at the minimum cost. Not only is it important to lower the initial cost of construction, but also reduce operating, maintenance and repair costs. Selecting the right materials and equipment, and having them constructed in the best manner, will pay major dividends in the years following completion.

Lowering costs and improving quality is one of the key challenges now facing the construction industry. Designing, bidding and hoping that the bids come in at or below the budget is a process that fewer owners can afford to risk. There is, however, an alternative that encompasses the entire building process. It involves all the participants who direct, plan, design and build the project. It requires an owner who understands and is committed and willing to take a leadership role in a process. It is a process that involves a systematic approach and participants who are all genuinely willing and able to plan, design and build the project in a manner. It requires individuals who are willing to set aside their egos and agendas.

The opportunities for lowering costs through the selection of the right players and utilizing a good process are tremendous and can routinely lower costs by 5% and often by more than 10%. And, it is possible to

enhance quality at the same time. As an example, it may be possible to plan and design a \$20 million project such that the construction schedule is reduced by 25%. Just the reduction in jobsite overhead and supervision costs could result in reducing the project cost by 1%. Optimizing the building siting and elevation in consideration of topography, soil conditions and utilities could save an additional 1-2%. Competitive and early bidding and procurement of HVAC equipment directly from major manufacturers could reduce the equipment costs, ensure the owner gets the equipment they want, and speed up construction. The list of possibilities to lower costs is endless, but it won't happen without a plan.

- The owner must clearly articulate the requirements and insist that all alternatives be considered.
- Everyone must be encouraged to present their views and ideas, and most importantly – truly LISTEN.

As illustrated on the graph below, cost can be designed into or out of the project...and by far the largest opportunity to reduce and control costs is at the beginning of the design.



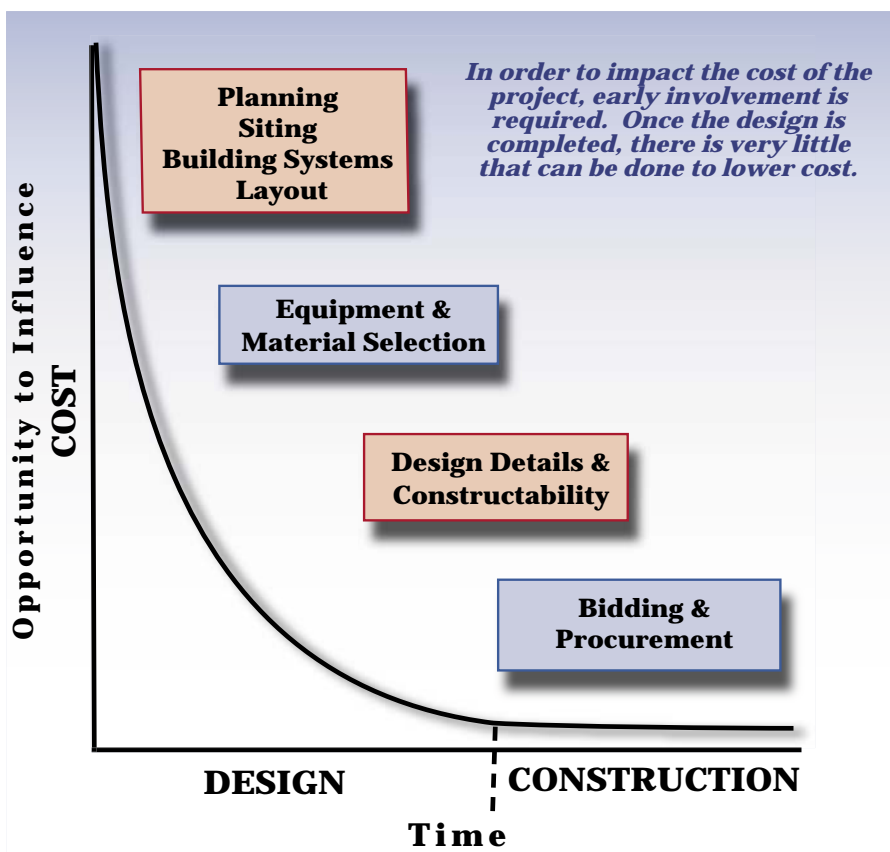
In this school, air conditioning units were relocated from individual classrooms to a mezzanine above, resulting in quieter classrooms and equipment in a location where it was easier to service.

This is why it is essential that all of the participants including the contractor be part of the team at the beginning and before decisions are made. Once all members are selected they should meet and agree to the process and manner which they will approach the project. Frequent meetings with defined agendas and task lists will facilitate keeping the project on track. The owner must encourage everyone to offer their suggestions and concerns. Meetings where discussion is stifled and people do not communicate must not be allowed. Only when all ideas and concerns are brought out and fully discussed will the owner realize the full potential of minimizing costs and increasing quality.

Second only to the owner's leadership role in directing the process described above is the selection of the participants. Each participant – the architect, the engineer and the contractor – must have the willingness and the expertise and experience if the owner is to achieve its goal. An engineer whose skills as a designer are good but who has a reputation for not considering the input of the contractor or coordinating his work with the other designers would not be a good fit. A contractor who is selected because he has the lowest fee but does not have the ability to provide good, constructive suggestions during design that will save money would not be a good selection.

In summary, major cost savings and enhanced quality, are possible on all projects, but they are dependent on:

- an owner who is willing to take a leadership role in making it happen,
- having the right participants,
- regular and open interaction between everyone.



Tech Tips

ROOFTOP MAINTENANCE

Often when maintaining your facility, the old adage “out of site, out of mind” is something everyone tries to avoid. One part of every project that is often “out of mind” is the roof. In order to make sure that you do not void the roofing manufacturers’ warranty, every roof requires some form of regular maintenance that also provides the maximum service life and helps you to identify and correct minor issues before they become problems.

According to ECS (Engineering Consulting Services), the following are some common examples of items that usually require regular inspection.

✦ **Sealants (Caulking):** Inspect sealants at counter flashings, precast and masonry joints above the roof surface, window and door frames above the roof surface, wall penetrations above the roof surface, and penetrations of the roof coverings.

✦ **Field of Roof:** Inspect the field of the roof for ridges, splits, blisters, debris or other unusual conditions.

✦ **Flashings:** Inspect the flashings at penetrations and the perimeter of the membrane for looseness, cracking, physical damage, openings, or other unusual conditions.

✦ **Areas Around Mechanical Equipment:** Inspect at and around mechanical equipment for physical damage, debris, or fluid spills on the roof covering.

Remember that a little maintenance can go a long way in avoiding costly issues in the future. For more information, please visit www.ecslimited.com.

Charity Golf Tournament



June 16th marked the date for the American Constructors 2006 Charity Golf Tournament benefiting the Boys and Girls Clubs of the Capital Area. Many Subcontractors and Owners came out to support the tournament and we had over 100 players at the Avery Ranch Golf Course. All in all it was a great day and we were able to make a substantial contribution to the Boys & Girls Clubs of the Central Texas area!! Thank you again to all of the sponsors and everyone that participated.

THE *Struggle* WITH RISING COSTS

THE CURRENT CONSTRUCTION CLIMATE

We are all experiencing rising costs in our daily lives. For example, gasoline exceeds \$3.00 per gallon and the price of groceries and retail goods creep up as raw material and transportation costs increase. Naturally, building costs are increasing also, but it is difficult to understand why they are increasing faster than consumer goods. Worldwide and within the United States, construction demand is at an extremely high level. Natural disasters such as Hurricane Katrina have added to this demand. They have also damaged factories and refineries helping to create raw material shortages and increase prices.

Central Texas is a unique marketplace for construction. We are located close enough for subcontractors to travel from the San Antonio area when work is slow there, but too far away to entice subcontractors to travel from Dallas-Fort Worth or Houston for anything other than very large projects. This limits our pool of subcontractors and labor, therefore causing prices to increase as subcontractors get busy. Currently increasing material costs, high construction demand, and busy subcontractors are all combining to put pressure on the project budgets of Central Texas owners.

HOW CAN AN OWNER MINIMIZE THIS IMPACT?

Staying abreast of the situation, understanding the needs of the project, projecting reasonable escalation and developing a plan that can react to the market forces are all things American Constructors, LP focuses on when working with Owners on budgeting and estimating. To do this, we have a very methodical approach. We have found that this approach has allowed us to provide as accurate information as possible to our clients for estimating and projecting construction costs. Some of the key aspects of our approach are summarized below;

† *Staying abreast of the situation* - American Constructors, LP has an extensive data bank of historical costs. We adjust that data based on current information from professional sources publications such as *Engineering news Record*, organizations such as AGC and ABC, vendor and subcontractor input and national events and economic trends.

† *Understanding the needs of the project* - One of the best ways to achieve the best opportunity for accurate estimating and cost projections is to have the Construction Manager selection at the same time as the architect. This early involvement will allow the CM to better understand the project goals and requirements.

† *Projecting reasonable escalation* - In today’s market we have found that this issue must be addressed on a continuous basis. Every estimate update will discuss the current escalation, compare to what we have included to date and adjust accordingly.

† *React to the market forces* - With the instability of the construction market, it is very important to include alternatives in the budgeting and estimating process. We will identify alternate equipment and materials, phase the project differently, adjust bid dates to attract more qualified bidders, and award the work to multiple contractors in the same trade to offset manpower shortages.

† *Providing accurate information* - With all the work available for bidding to the subcontractors, it is essential the work advertise is attractive for them to select our project for bidding over another project. To achieve this, American Constructors, LP thoroughly reviews the bid documents with the architects to make them as complete and clear as possible.

As a result of the above approach, we have been able to provide better estimates, react to market conditions, refrain from over reacting, identify bid alternates and put out clear and complete bid documents. All of these contribute to minimizing the potential adverse budget impacts from a very unstable construction market and leading to a successful project.

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