

MBI CONSULTING

P.O. Box 9553, Fort Collins, CO 80525

MASTER BUILDER INTERNATIONAL

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Our goal at MBI is to Streamline The Process of Design, Approvals and Construction. We represent you, the Owner, and make the process smoother for all parties involved, thereby saving you time, money and allow you to rest easy. We help troubleshoot and minimize steps in the approach used during the process. We help Owners to make proactive and timely decisions at the initial stages of the Work. We help the Owner close the crucial gaps that usually arise at the different stages of getting the project Designed and Built.

MBI was established in November of 1987 by Mr. Raju Jairam, Professional Engineer, registered in the states of Colorado, Wyoming and S. Dakota. MBI Consulting is a Division of MBI that provides ***Scientific and Technical Assistance*** to the Building Profession. Mr. Jairam earned his **B. Tech** degree in Civil Engineering in 1970 from the **IIT, Madras, India. IIT is among the Top Ten Engineering Institutions in the World.** He earned a **M.S.** degree in **Civil (Structural) Engineering** from Colorado State University in 1971. Mr. Jairam has worked for Reid Burton Construction Company, Charles Pankow Builders and MBI. His wide experience in design and construction ranges from small offices to \$40 million high-rise condominiums and a \$100 million airport terminal. Mr. Jairam is an accomplished speaker on Design-Build and promoted the concept for the National Society of Professional Engineers (NSPE) in 1988, the framework of which has been used by the Design-Build Institute of America (DBIA). He ***adds Science to the Art of Design and Construction.*** Utilizing the talents acquired through years of experience he offers his expertise and services as a ***Scientific Adviser.***

We offer assistance with the following:

- **Planning and Owner Representation**
- **Review Design Team/Program Goals**
- **Site Selection**
- **Preliminary Conceptual Preparations**
- **Preliminary Design Development**
- **Advice and Consultation on Engineering**
- **Consultant and Designer Selections**
- **Advice and Consultation on Surveys**
- **Advice on Testing/Inspections**
- **Scheduling**
- **Budgeting**
- **Value Engineering**
- **Construction Document Preparation**
- **Building Department Reviews, Permitting**
- **Bidding the Various Trades**
- **Construction Administration**
- **Project Observations**
- **Completion, Post Completion Inspection**
- **Training**

We assist the Owner through the Design, City Approval Process, Construction and Final Closeout of the project.

We provide a common thread and continuity in the process, thus making it more efficient. We Represent the Owner's interest in getting the job done and helping the Owner reach his/her vision. ***We Apply Scientific Principles to the Art of Design and Construction.***

What is The “Gap”?

While a designer might provide construction monitoring as needed by the Owner, designers typically limit this service and responsibility to interpretation of their design. Builders, on the other hand, administer construction alone and limit their responsibility also. Being human, we all are prone to make mistakes. Errors inevitably occur during design, production of documents, bidding and eventually in construction. Most Owners may not realize that when a set of construction documents are put out for bid or construction, the Owner implies the warranty of the documents (i.e.) the Owner assumes the risk of inevitable errors and inaccuracies in the documents. Minimizing this risk results in substantial time and cost savings to the Owner. Builders typically have to assimilate and price out within a few days what might have taken an Owner several months or years to conceive and put down on paper. The short bid period is not enough time for a bidder to accurately price the true cost of the work and to fully understand the Owner’s original vision or to come up with alternatives to make the vision a reality. Therefore an inherent set of errors is built into the bidding process. This process can be humorously termed, “design-bid-build and sue”, since the errors are usually a source of irritation and contention between the various parties to the contract. Even in the scenario of “Design-Build” where one entity takes the responsibility for both design and construction, either an implicit trust among the parties is necessary, or the Owner needs to have the expertise and staff to monitor this alternative method of construction in order to have a successful project. Otherwise one may be leaving the fox in charge of the chicken coop!

The “gap” therefore is the gray area that most Owners face at different stages of the design and construction process.

- This is the potential gap in the Designer’s knowledge of costs to stay within the Owner’s budget.
- It is the gap of monitoring the design development as it is taken through various governmental agencies and regulatory bodies for approval.
- It is the inevitable errors built into the documents during co-ordination between various design disciplines and, most importantly, checking the design for constructability.
- It is the errors of interpretation of the documents during the bidding phase.
- It is the errors in the interpretation of the documents during construction and handling inevitable changes to the contract.
- It is the gap in administration of closing out the project, handing over the keys, making sure all systems work, so that the Owner finally realizes his original vision.

Unless an Owner has the staff and the expertise in house to monitor these different phases of the process, the Owner will usually face additional costs due to these “gaps”.

How can we help?

The service we offer is to help fill these gaps for the project Owner. What we do is to provide **Scientific and Technical Advice** to **Manage the Process** for the Owner at any stage or level that is needed on a fee basis. ***Our goal is to save you money.*** Some Owners have some gaps covered, while they may be unable to in other areas due to their own workload or lack of personnel. What we specifically offer is the ability of the Owner to monitor the Work without adding to their overhead. They can rest assured that someone is helping to manage these gaps and that there is an extra set of eyes and ears watching out for them. Even in the case of Design or Building professionals who have the expertise in house, we offer to serve as an outside set of watchful eyes and experts who work in the Project's best interest to manage the process and provide all parties with necessary feedback at appropriate stages. In essence we are offering enough services to almost provide an Owner ***"Concept to Completion"*** **Process Management**. We can provide some of these services directly or we can act as ***your Technical Advisor*** and **Representative**. We provide a superior quality of service with integrity. We assist you with making informed and timely decisions early in the process to reduce costs, maintain your desired quality, avoid re-design and minimize change orders during construction.

Business Philosophy - Our goal at MBI is to provide each of our clients with superior service by building best value for their investment. We believe that forming a team consisting of the Owner, Architects, Engineers, Contractors, Subcontractors, and employees creates an environment that allows us to provide the best service to our clients. Time spent in the initial planning of projects is time well spent and allows for smoother operations once construction has begun. The team approach to design and construct a project allows for substantial savings in cost and time, without sacrificing the quality of the project. ***Our goal is to prevent problems from becoming major cost burdens.*** At MBI, we build relationships, not just buildings. We work hard to establish and maintain a close, working relationship with each individual client, designer and builder that includes open, honest communication, active listening, and on-going dialogue. Our goal is to exceed our client's expectations, resulting in completely satisfied clients who view MBI as part of their permanent team. ***The idea begins in your mind. Shouldn't the project stay in your hands as well? From CONCEPT TO COMPLETION we can help you make informed and timely decisions in realizing your vision.*** We can act as ***your Representative***, and be your eyes and ears for the project. We welcome your questions and look forward to working with you. Our fee schedule is available upon request.

- *I already have a Designer on Board who provides some of these services. Why do I need you?*

Great! We would advise you to make sure that he/she can also provide you with **Scientific Advice and Value Engineering** so that you have explored more than one alternative before you commit to fixing the initial concept. Could you really afford what is being drawn up? Is there a better mousetrap?

- *We are past the stage of concept and preliminary design development. How can you help?*

We can still provide you with our **Technical Advice and Expertise** on whether or not the design is constructible. For example, some questions you may want to ask yourself are as follows. The design looks pretty on paper, but is it practical? Is there room for a construction worker to physically put it together? Can it be built within your budget? Is there a cheaper way to build it and still maintain the quality you expect? Can it be designed in a way that saves time, and therefore money? Is this practical to do at this time of year? How does this impact the overall schedule for completion? Are there any unanticipated delays that now require a different approach to the project? Does your design professional have this expertise in house?

- *My Designer has Errors and Omissions (E&O) Insurance. Doesn't that cover Design Errors during bidding and during construction?*

E&O Insurance covers design errors and omissions only if they fall below the level of "Standard of Care". The burden of proof is on the Owner. This also puts the Owner and Designer in an adversarial position with each other. Regardless of whether an Owner is able to recover his costs for faulty design, he is still responsible for the documents produced since they are under his control and he is the ultimate responsible party. Our goal is to help reduce the risk and make the project run smoother.

- *We are Designers (or Builders). How can you represent us?*

We can assist you and the Owner with Value Engineering, Constructability Reviews, **Scientific Advice on Engineering, Inspections, Surveys, Schedules, Budgets, Assist with Governmental Agency Approvals, Project Observations, Completion and Post Completion Inspections, Representation.**

- *My Design-Build contract protects me from the pitfalls you list. Why do I need your service?*

Great! Not all Owners have the luxury of having good agreements in place. The questions the Owner needs to ask himself are: Do I have the time to monitor what's going on? Do I have the staff? How knowledgeable is my staff? Am I getting fair pricing during Value Engineering? Is the Design-Builder maintaining the quality I desire, or are there unauthorized substitutions being made? Are they taking short cuts? Is my vision being realized? What about minimizing errors during construction and negotiating change orders? Who is representing me and protecting my interests? We can be **your Technical Representative** and act as the eyes and ears for you.