

EMA'S ENGINEERING TODAY

OCTOBER 2013

Information and Helpful Hints for School Districts and the Architects who serve them.



Gary Bristow, P.E.
"Third party review and functional testing helps ensure owners expectations are met."



Josh Gentry, P.E.
"Our commissioning team adds value by reducing operating costs, optimizing energy efficiency and avoiding costly construction mistakes."



Estes, McClure & Associates, Inc.
Engineering and Consulting

Commissioning Changes the Traditional Definition of a "Successful" Construction Project

Buildings and building systems are much more complex today. This is due to more complex codes and standards, integrated technologies, owner requirements, green building-sustainability trends, and increasing demand for indoor environmental quality (IEQ) and energy efficiency.

In many cases, the "traditional" construction process results in pressure to complete the project with minimum coordinated observation, minimum start-up and test and balance, no functional performance testing, short "punch-lists" and anxious building owners imposing move-in deadlines.

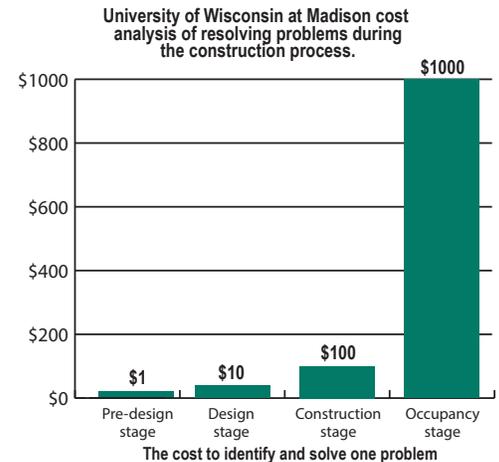
When properly executed, commissioning changes this traditional method by adding the big-picture.

That includes third party review, more than occasional observations, and functional performance testing. It requires ownership by all team members of the interactive parts as a system. Team members look beyond the traditional contract boundaries for the cause and a solution to the problem. Problem prevention being a key mindset will reduce costs and delays.

Involving commissioning early on during the pre-design stage reduces the number of change orders during construction, thereby providing cost savings for building owners. Commissioning ensures that a new building begins its life cycle at optimal productivity and increases the likelihood that the building will maintain this level of performance. Other typical benefits include improving a building's value and retaining that value longer, less down time, fewer "call-backs," and avoiding inappropriate equipment and material substitutions during construction.

Industry reports and EMA experience indicates that for a new building under construction, commissioning may pay for itself in about one-year, whereas for existing building commissioning the observations have been typically 4 to 6 years payout.

Discovering and resolving problems early on in the construction process will result in less costly fixes. The University of Wisconsin at Madison says that if a problem can be identified and solved for \$1 in pre-design, then it would cost \$10 to solve in design, \$100 in construction phase, and \$1000 if solved after occupancy. Commissioning is the key to identifying and solving problems early on.



EMA: Providing Solutions That Make a Difference

EMA's staff of certified QCxP (Qualified Commissioning Providers) supplies the building's owner and operators with an unbiased, objective view of the systems' installation, operation, and performance. The commissioning process verifies that all building systems are designed and built to operate as efficiently as possible.

EMA brings a customer-focused approach to our clients. We listen to our clients to develop a clear understanding of their goals and needs. We translate that information into a measurable quality control process that is documented throughout all phases of a project. EMA's commissioning experience will provide added value to the client's project. **For additional information on how EMA's commissioning team can add value to your project, please contact Gary Bristow, P.E., Mike Cork, Josh Gentry, P.E., or Mike Clendenin, P.E.**



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*Providing Solutions
That Deliver Results*

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39 years
585 Texas ISDs
47 colleges and universities
Other schools throughout
the country

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Top Ten Reasons for Commissioning

10. Provides Documentation of System’s Equipment Performance
9. Transfers Knowledge to Maintenance & Operations
8. Provides Third Party Review
7. Reduces Maintenance Costs
6. Prevents Premature Failures
5. Improves Systems & Equipment Reliability
4. Functional performance testing of complex systems
3. Improves Energy Performance, Comfort, and IEQ
2. Provides Project Cost Control & Reduction
1. Ensures Owner’s Expectations & Requirements Are Met

COMPANY SPOTLIGHT



Stacy Sanders

EMA would like to welcome **Stacy Sanders** as our new Marketing Coordinator. She graduated from UT Tyler in 2010 with a Bachelors of Marketing degree. Before joining EMA, Stacy worked at

Ingersoll Rand (TRANE)

in Tyler, TX as their Social Media and Digital Brand Marketing Associate. She has experience maintaining excellent customer relations, creating and managing digital marketing programs, and developing marketing and creative strategies to promote products. We are excited to have her as part of our team.

Will Hill announced that Goose Creek ISD selected EMA as the top firm for future MEP design work. Six firms were evaluated.

Gary Bristow, P.E. was a key speaker at an Energy Innovation Conference held recently at the Tyler Rose Garden Building. Bristow’s topic, *Harvest the Energy Savings of Low Hanging Fruit*, was eagerly received by the 200 attendees as it showed them how to reduce energy costs dramatically with little to no cost.

Jason Cox and **Gary Bristow** met members of TASA/TASB during exhibit time at the 2013 Annual Conference. EMA has made presentations and/or exhibited at this conference for more than 30 years.



Jason Cox and Gary Bristow