



Great documents really make a difference for Pine City Elementary School

How is it possible to have two, million dollar construction bids come within nine percent of one another? And more importantly, have the winning bid 10% lower than the General Contractor's estimate? By having great engineering drawings, that's how! Well okay, that was only part of it, but it was an important part.

Situation

After years of delays a school district finally received funding for badly needed expansion of a school. The project had a tight schedule and, of course, a tight budget.

Great engineering can:

- Lower construction costs
- Shorten time to bid
- Reduce project confusion

What we did

Using the architect's inspiration, as communicated verbally and through sketches, MMY developed a structural package of drawings allowing numerous subcontractors to submit bids 4 weeks prior to the issue of the final construction documents. This process allowed the construction of the shell of the building to begin early, which was absolutely necessary in order to maintain the tight construction deadline.

The details

All of the time saved in producing the early drawings could easily have been wasted if the plans were confusing or, worse yet, contained errors. Knowing there was no time (or budget) to allow for any backtracking, MMY made the decision to assign a small, experienced project team to take the project from start to finish. Although the design portion of the project actually began one month behind the original scheduled "start date", this dedicated project team worked collaboratively with the architect & owner to streamline communications and meet the early deadline.

At MMY teams are assigned based on the complexity and uniqueness of the job, type of construction, project schedule, and level of risk.

The result

The result was that the top subcontractors bid the job in record time with the final bid coming in below the estimated budget provided by the General Contractor! That's right, lower than the estimate. The bid process was completed without any questions or clarifications from the subcontractors. All involved were able to understand the scope of the job from the prints alone. We received no phone calls, emails, or faxes with questions during the bidding process. Clearly the agreement of the top two bids confirm the clarity of the prints and the design.

To date the project is ahead of schedule, anticipating a substantially complete building shell before the beginning of the school year.

The total bid came in at less than the contractor's estimate with no questions or clarifications regarding the drawing package.

What's the point?

Engineers are a critical part of the construction team. Prints that are incomplete, confusing, or contain errors increase costs, risk, and time on the job. A good structural engineering company can quickly assess the requirements of the job and assign the team appropriate to the needs of the job.

Of course high quality documents result from more than just technical competency. Structural engineering drawings must bridge the gap between architects and contractors. In this case study our experience and willingness to work collaboratively with the architect along with our understanding of the construction process allowed us to provide a design that the architect could continue to work with while allowing the contractor to begin their portion of the project.