



# FrankenSpec - How Projects Can Go Awry

By: *T.R. Gregg, Director of Business Development & Marketing, Huber Technology Inc.*

Collectively in the Municipal wastewater treatment industry there exists a tremendous knowledgebase. Amongst those who are actively engaging in the trade, a resource of innovative skillsets are potentially accessible through many of the individuals' experiences and discoveries. The challenge is: How can these people work together effectively to benefit from this state-of-the-art resource? It is becoming increasingly important to produce working processes that keep pace with ever expanding treatment goals and infrastructure needs.

A few years back our company had the opportunity to work closely with an engineering firm to assist with the design of the headworks portion of a large plant upgrade. Our extensive experience with all the major components that made up the working parts of the screening and grit design made it possible for us to provide succinct support that would result in a holistic, well-functioning design. Additionally, we could develop specifications for the project that would accurately describe the performance expectations as well as the important machine descriptions that would assure that the correct technologies were employed.

As the design neared completion and was advertised for tender, the specifications came under tremendous fire from late arriving competing technologies that wanted to participate on various components of the design. Under pressure, the design engineering firm was instructed to “open up” the specifications.

The logic used for this decision was based on the competing vendor’s assertion that they did not have all of the components and felt that this was the reason that they were not allowed to participate. Assurances were made that their offering met the intent of the design. The tragic culmination of this project was the selection of mismatched technologies that did not function well together. This resulted in extreme embarrassment to the engineering firm, loss of time and money to the construction group, as well as the plant operations having to make due with a substandard installation.



How did this happen? It is tempting to take the posture of shrugging our shoulders and point to the inherent pitfalls of the municipal Design-Bid-Build project fulfillment approach. It was not that long ago that cooperation between a competent technology provider and a design engineering firm were able to work effectively in this environment.

What changed? Several occurrences can be cited here. Probably the top-of-mind occurrence is the brutal pummeling we all have endured as result of the economic meltdown known as the “[Great Recession](#)”.

These conditions forced many organizations to jettison all but the most essential functions just to survive. Districts and Municipalities were forced into circumstances that prevented true-cost-of-ownership considerations and were supplanted with low capital dollar concessions. Engineering firms cut staff, severely curtailed non-billable hours for learning new solutions, and looked to boiler plate designs as a way to create a lean organization. Construction companies took greater risks to get the work. Technology providers cut back on technical support and service.

Another key influence comes from the Internet itself. With the sheer proliferation of information supposedly available at our fingertips, the need to develop working collaborative relationships in-person has become less obvious. Studies conducted by [SiriusDecisions](#) show that “67 percent of the buyer’s journey is now done digitally. Their research showed that online searches are executives’ first course of action”. Based on your own experience this probably doesn’t come as a big surprise. However, the danger is the possible loss of collaboration potential. It becomes easier to misinterpret and/or misapply solutions.

While it is understandable to see how these forces have shaped decision-making in recent times, a paradigm shift needs to unfold to raise the level of excellence that can possibly be attained. Benjamin Franklin said it well “The bitterness of poor quality remains long after the sweetness of low price is forgotten”. By attributing the proper value to application knowledge, demonstrated experience, established technology

lifecycle support, and consideration of whole-life-value the groundwork can then be laid for competent collaboration.

The challenge is how one monetizes competence or experience. The temptation is to dismiss this as unknowable. However, considering the scenario at the beginning of this article, the cost effect of ignoring the value of these attributes is very real.

While a majority of the work continues to go forward as a classic Design-Bid-Build these emerging conditions have created fertile ground for other project delivery methods to take root. Delivery methods such as [Design-Build-Operate \(DBO\)](#), Construction Management at Risk (CM@Risk), Public Private Partnerships (P3) are more readily able to collaborate and take advantage of true-cost-of-ownership strategies. These entities see the value of forming partnerships with entities formerly held at arms lengths such as Manufacturers, Consultants, and Contractors. These arrangements allow for applying empirical knowledge from the different disciplines to achieve both cost effective designs as well as optimized performance. By involving these various entities, risks can more readily be mitigated allowing for a comparatively efficient project fulfillment.

There is also increased gravity entering the arena with a keen interest from the private equity sector looking to invest in water and energy infrastructure. These groups are looking for stable investments such as Municipal Water & Wastewater operations. These groups capitalize on these collaborations and form partnerships based on return on investment over decades.

None of these approaches are “bullet proof”. There are both successes and failures for all the project delivery methods we have discussed. However, when examined closely, one theme is common to all of these methods: True collaboration with partners that have seasoned and proven experience along with a consistent track record of success that are able to put together winning combinations that will advance the industry.



***T.R. Gregg*** has a 27-year history in the wastewater treatment technology industry and is enjoying his eleventh year working for Huber Technology, and is now serving as Director of Business Development & Marketing. Huber Technology serves the municipal and industrial wastewater treatment market with high quality liquid-solid separation technology. [[www.huber-technology.com](http://www.huber-technology.com)]