

NOTES FOLLOWING THE PANEL DISCUSSION

- The contract between the Engineer and the utility/agency has to have a clear scope. Very detailed with lots of line items for specific tasks. This makes it easier to generate real cost estimates and for everyone to really understand exactly what work is being done.
- When negotiating the contract, consider the work that happens after planning or design. Will the engineer be involved during the bid process? What will their involvement be during construction? What work will be done by the Utility? What about record drawings (as-builds) that the engineer will be required to complete? These additional tasks may not need to be completely scoped and their costs estimated, but the expectations should be discussed.
- Engineers are very conscious of risk and have specific coverage in their insurance policies. A utility may ask for language in the engineering contract for things that the engineer can't do under their existing insurance. Everyone needs to negotiate if the utility truly needs that language in the contract and what the real additional cost will be.
- The Engineer and the Utility should check in at least every other week by phone to review progress on the project. Longer than that is too long. This is important for both the Engineer and the Utility in order to stay informed of developments, the schedule, and maintain the relationship.
- Bring your funders into the loop when negotiating a contract for engineering services. Verify that the funding agency is OK with the procurement methods, and with the scope of work. Make sure that the scope of work will achieve what the funding agency and the regulator wants.
- Link to Mike Purdy's contracting Blog: <http://publiccontracting.blogspot.com/>
- Link to MRSC professional service contract resources: <http://mrsc.org/Home.aspx>
- Small communities sometimes need an engineer in a hurry. (i.e. No existing engineer under contract when a water/sewer/road issue is discovered and has to be addressed ASAP.) Take extra care with your contract when you feel rushed into it by circumstances.
- Small communities often lack staffing and expertise to fully engage with an engineering firm. Because these small utilities still have to make the ultimate decisions and own the results of the work, Engineers working with small utilities have to be prepared to offer extra support to these utilities to ensure they understand the engineering analysis and recommendations and that the utilities have real input in the decisions. Small utilities need to be prepared to pay the additional costs for the extra support. Funding agencies also have to understand this and be prepared to finance the extra costs involved.
- Engineers should provide clear billing statements with details of what work was accomplished for the time billed to the project. If the bills the Utility receives are unclear or are not meeting your needs, the Utility should alert the Engineer so they can change what they provide you.
- “How can a small Utility check to see if the fees an Engineer is charging are reasonable?”
 - The industry standard of 10% of the construction cost for design and 15% for construction oversight is a good starting point, but project-specific issues can double these numbers. If an engineering contract will cost more than these guidelines, the Engineer should be prepared to justify why the costs are increased.
 - Costs for planning are much more variable. You can look for comparable projects done for other Utilities. Just make sure that the project is truly comparable (i.e. similar size, similar options considered, similar environmental and cultural resource issues, similar need for HG or subsurface survey...)
- “Bad news does not age well.”
 - Immediately share concerns, bad news, and unpleasant discoveries. You may not want to inform your partner (either Utility or Engineer), but keeping them in the dark and the appearance of secrecy will only hurt your relationship.

- If there are problems with the work product (engineering work) the engineer has more experience and expertise with these issues and therefore has a contractual responsibility to address these issues. Engineers should step up to fix the problems or propose solutions.
- Conflict resolution:
 - Always try informal conflict resolution first. Formal Conflict Resolution (mediation, arbitration, or litigation) is harder, more work, and can deeply affect the working relationship.
 - A “Heart to Heart talk” can sometimes save the working relationship, address the conflict/deficiency, and work out an agreeable remedy/compensation.
 - These kind of meetings can trigger everyone’s emotions. The meetings have to be calm professional, and courteous.
 - If compensation/remedy is appropriate, a Utility can propose an agreement for future in-kind services from the Engineer as opposed to a cash settlement from the engineer. Many Engineers are much more willing to agree to provide additional services.
 - To prevent uncertainties, a Utility can specify the remedies for specific problems in the contract with the Engineer.
 - Using a “not to exceed” value in the contract is a way to clearly assign risk, requiring the Engineer to complete the work at their own expense if project costs exceed this amount. Truly unknown/unexpected conditions will affect this “not to exceed” value.
- Engineers need to be aware of past problems or conflicts that a utility has experienced. A Utility has a responsibility to share these past problems and conflicts. The Engineer should build in steps to address these known difficulties.
- “Is the customer always right?”
 - The Utility has final decision making authority over the project and their infrastructure, HOWEVER:
 - Engineers have primary legal duty to protect human health and safety that outweighs a Utilities desires. If a Utility wants something that the Engineer feels will endanger human health and safety, they have an obligation to inform the Utility. If the Engineer cannot convince the Utility to change what they are asking for, the Engineer may be forced to withdraw from the project.
- Small Utilities often rely heavily on their Engineer for advice, guidance, and support. This is perfectly OK, but a Utility cannot step out of the loop and ask the Engineer to take over ultimate decision making authority.
 - The Utility has a financial agreement with the funder. The Engineer does not. The Utility is ultimately responsible for complying with the agreement.
 - The Utility has a permit issued by a regulatory agency. The Engineer does not.
 - The Utility has a contractual agreement with the contractor. The Engineer does not.
- Planning work: The word “planning” has too many definitions. Engineers and Utilities need to understand what each other means by a “planning”. It is extremely important to have a very clear scope of work that defines exactly what work will be done and how much it will cost.
 - A plan that evaluates alternatives and considers the feasibility of pursuing alternatives?
 - A plan that evaluates alternatives, evaluates the cost effectiveness of each and proposes a preferred alternative?
 - A plan that develops an implementation strategy for a preferred alternative?
 - A plan that evaluates the environmental impacts of alternatives, or investigates the impacts of a preferred alternative (ESA, cultural resources, etc.)?
- Engineers should ask Utilities “Why do you want this plan?” in order to develop the right scope of work.