

## COMMENTS AND FUTURE TOPICS

### **1. - Post Design services**

**RE:** Post Design services (not enough money, how is the increase handled, who should do what etc.)

**PM:** PD is currently 1% of estimate. Should we just use that or should we still have consultant designer submit cost proposal. If cost proposal is less than the 1% should we just ask for 1%? As a secondary thought, form for request for PD services states that an email or letter from the RE is needed explaining why PD is necessary. Getting RE to provide is sometimes difficult and in most cases seems unnecessary. Can we get that requirement deleted? Why was it added to begin with?

**Dev. Engineer:** This is a difficult number to estimate. Depending on the size of the project, the budget assumes between 0.5% and 1% for post-design services. Based on the comment, this amount is too low. Construction in Phoenix has data on post-design service expenditures and should be able to calculate actual post-design services costs over the past year or two. They could analyze this information to determine a new, reasonable post-design percentage. Whatever number is used for future projects, it would be likely that some projects will still exceed the amount due to unforeseen circumstances.

### **2. - Weekly meetings**

**RE:** PMs should attend some of the weekly meetings to learn about construction issues

**PM:** While this is a great idea, with our budget issues, it would seem impractical for all but those projects in close proximity to PM home station (even though they could charge to the project). Do all RE's provide weekly meeting minutes to the PM? Are all PM's invited to construction partnering? I was excluded at least once.

**Dev. Engineer:** Participation by project managers at weekly meetings is unlikely due to budget and time constraints. Development engineers are always willing to accept feedback from resident engineers and are geographically much closer to the resident engineers. We encourage resident engineers to give feedback to project managers and to development engineers as often as possible. We are always seeking to deliver the perfect plan set to construction.

### **3. - Survey and Utility relocation**

**RE:** Problems with survey and utility relocation (not shown in plans, incorrect information etc)

**PM:** I agree some things get missed no matter how much review is provided. The utility information is generally provided by the utilities and we know how accurate some of their information is.

**Dev. Engineer:** Plans bids for construction rely on the best available information from as-built drawings. We rely on utilities during the clearance process and they almost always have to relocate at their own expense. Potentially, this leads to utilities not being too zealous in identifying conflicts in an effort to save money. As a result, they hope for the best and sometimes get caught. Because they end up relocating either way, there is no disincentive for giving a clearance that eventually proves in error.

### **4. - Specifications**

**RE:** Specifications for small projects (for a 45 day construction project).

**PM:** Not sure what the issue is. Are they saying they are too cumbersome for small projects? Maybe a \$\$\$ amount instead of time would be a better indicator. You can put down several million in paving in 45days.

**Dev. Engineer:** We are not sure of this particular concern and need specific examples from the resident engineers.

### **5. - Changes / Omissions of Specifications**

**RE:** Some specifications are omitted from 95% to bid which impacts the project.

**PM:** Gets back to some QC by consultant designers and reviewers.

**Dev. Engineer:** We are not sure of this particular concern and need specific examples from the resident engineers. Sometimes the designer or C&S does not use language requested by district development staff. Please see the development engineer on specific projects to get the background on that project.

### **6. - Errors and omissions in the plans**

**RE:** Errors and omissions should be caught during design

**PM:** Agree this should be the case. RE review during design would certainly help.

**Dev. Engineer:** Agree. Development engineers welcome review by resident engineers during design. Everyone completes a review based on their personal experience and we welcome input during the design phase of a project.

### New Comments

**1. RE involvement in the design portion of the project**

If we could get the construction folks involved more up front it might help. Granted the DE sometimes changes assigned personnel during project development due to workload issues, etc. but it still would help if construction oriented folks as well as the district development staff participated more.

**2. Handling of Change Orders**

**3. One thing that needs to be emphasized to the construction folks is not to assume everything that they want to add on to a project that wasn't scoped can be accommodated. Things not added in design but show up in construction appear as a change order and it appears the designer didn't do their job properly.**

**4. Federal forms (which one is the correct one, how to fill them, meaning of fields, etc).**

**5. Use of Post design services and consultant charges during construction (billing needs to be verified as it is done in VPM).**

### NOTES

We discussed the possibility of a "Final review" of plans prior to bid (similar to a partnering meeting) so the RE can get better acquainted and hopefully spot problems specially related to utilities and omitted specifications prior to bid which would reduce the possibility of a change order; recall that almost anything after bid is considered error and/or omission and opens the door for a possible change order (both consultant and contractor) and that some REs get involved towards the end if not by the partnering meeting when these issues already exist.