AIA Best Practices:
Budgeting for the construction phase

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Summary

In a 2014 AIA Convention workshop on Construction Contract Administration (CCA), the audience was asked this question: "For how many of you is CCA a profit center?" Of the 50+ attendees, only one, a consultant whose business consists exclusively of performing CCA services, raised his hand. So why do architects lose money during the construction phase? Better yet, how can architects make money during that phase? Several factors determine the answer to this question and most are decided months, even years before construction begins. In fact, most are decided when the Owner-Architect Agreement is signed.

Even in these days of "big data" and multiple ways of analyzing it, many contractual decisions are made by traditional rules of thumb, and one of those rules is this: When you budget a project, you allow 10% of the fee for Schematic Design (SD), 25% for Design Development (DD), 40% for Construction Documents (CD), 5% for Bidding, and 20% for CCA. It's a simple rule that, like most rules of thumb, doesn't require much thought, but will almost always lead you to lose money during CCA. Let's take a look at a hypothetical example to illustrate how using 20% of the fee for the CCA phase just doesn't work. Let's say your fee allows for 5,000 hours of labor at your average labor rate. Using the 10/25/40/5/20 rule of thumb, your hours per phase look like this:

Project phase	Budget allocation (%)	Number of hours
SD	10%	500 hours
DD	25%	1,250 hours
CD	40%	2,000 hours
Bidding	5%	250 hours
CCA	20%	1,000 hours

But this table leaves out a critical factor: time. Let's now say that your contract stipulates two months for SD, four months for DD, six months for CD, two months for Bidding, and 24 months for CCA. Now our table looks like this:

Project phase	Budget allocation (%)	Number of hours	Duration	Hours per month
SD	10%	500 hours	2 months	250 hours/month
DD	25%	1,250 hours	4 months	312 hours/month
CD	40%	2,000 hours	6 months	333 hours/month
Bidding	5%	250 hours	2 months	125 hours/month
CCA	20%	1,000 hours	24 months	42 hours/month

With project duration included in the analysis, the problem becomes evident. While the design and documentation phases allow for 1.5 to 2 full-time staff members, the CCA budget allows for only 9.7 hours/week, or a quarter of a person. If weekly site visits and project meetings are contractually required, there will be little to no time for much else—reviewing submittals, responding to RFIs, reviewing and approving pay requests, reviewing change order requests, or making document modifications.

Perhaps a better way to budget the appropriate fee allocation for CCA is to determine what effort is likely to be needed during construction, rather than assign an arbitrary percent of the labor budget to the phase. In the example above, employing a half-time person is needed throughout construction, doubling the amount of hours budgeted for CCA. With a fixed fee, those hours have to come from the earlier design and documentation phases. The new budget may look like this:

Project phase	Budget allocation (%)	Number of hours	Duration	Hours per month
SD	10%	500 hours	2 months	250 hours/month
DD	20%	1,000 hours	4 months	250 hours/month
CD	27%	1,330 hours	6 months	222 hours/month
Bidding	5%	250 hours	2 months	125 hours/month
CCA	38%	1,920 hours	24 months	80 hours/month

Covering anticipated CCA labor costs, required dipping into the DD and CD budgets. When designing and documenting projects the way architects did 40 years ago (the 10/25/40/5/20 rule dates back at least that far), designs and documents will suffer. Sounds dismal, right? Well, help is on the way. Since this paper is about CCA budgeting and ultimately profitability, we won't get into the detail of how embracing BIM, Integrated Project Delivery, and other advanced project delivery tools have altered how we might re-allocate the design and documentation fees, but if you apply these tools, the new breakdown of hours can be successful. That, however, is a topic for another white paper.

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