



**PROJECT DELIVERY  
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**1. Managing project contingency together and transparently is critical.**

In our primary design-build contract for large projects, both the University and the Design-Builder have distinct contingencies they carry to address risks of various kinds. We've found it's important to manage those risks and contingencies collaboratively to ensure that contingencies can be released so that scope can be added or savings realized, as opposed to having an overly cautious approach until the end of the project. We ask teams to provide us with contingency management plans which outline when risks may either be realized or mitigated and the amount of contingency which would be used or made available at that time. We track that against potential value-add items and their "go/no go" dates so we can make timely decisions and understand the likelihood of those items being incorporated into the project. This open book and collaborative approach has led to a number of successes for both our DB teams and the project stakeholders.

**2. Senior Management Team must stay engaged for the duration.**

Our governance model features a Project Management Team (PMT) which has PM members from the UW, Builder, and Architect and which directly manages the Project. They are supported by a principal/director level counterpart on a Senior Management Team (SMT), which is responsible for ensuring the team is performing well, resolving contractual issues, and ensuring communication and decision-making is clear. We have had projects with SMT's which disengaged from the project prior to completion because it was all going well, only to be surprised when an issue arose later in the project. It is important for the SMT members to keep a pulse on the project and ensure the PMT has the resources and guidance it needs to be successful all the way to the finish line and beyond.

**3. Project Definition is difficult, worth the time, and critical for success.**

We start our major projects with a 'Project Definition' phase, and do similar work on the smaller projects under our GMP contract. This work involves detailed benchmarking of comparable buildings and systems, building a Target Value for each system for our project, developing a building program, doing detailed analysis of the project site, and in general ensuring that the parameters for the project that we are about to start designing can be met within our budget and schedule. This phase has often daylighted that budgets and scopes that may have been set a year or more ago are now out of date or flawed for various reasons, but we discover that before spending a lot of time on designing a project we cannot afford. It's difficult to delay starting design, but this 'go slow to go fast' approach has consistently led to more reliable design and construction outcomes.

#### **4. The PM must have emotional intelligence.**

A Design-Build team is a large and complex organization working in a highly collaborative way, often in close quarters (under normal circumstances) and under considerable stress. We believe strongly that the Owner must set the tone for what culture evolves as the team comes together, and that tone can be set for better or worse. We believe in setting a tone that values the work and efforts of the team together and individually, celebrating success, identifying problems and leading difficult conversations to resolve them, and being sensitive to the many peaks and valleys a team goes through over the several years of the project. We think having the emotional intelligence to help manage all those and other issues is far more important than being able to build a schedule or spreadsheet. Example: one of our PM's buys a stuffed Husky dog and makes it available for the team to award each week to a team member who has done great work. Each winner takes Dubs home for the week and documents Dubs accompanying them on their commute, kid birthday parties, hiking, at a bar, etc. etc., and shares those photos with the full team in the Big Room each week before selecting the next winner. We think it's important that the Owner send a message that it's OK to take 10 minutes once a week to acknowledge great work, have a little fun on company time, and to get to know each other a bit as people.

#### **5. Renovations are different and require the 'right tool.'**

Our "Integrated Design-Build" contract attempts to balance risk and reward, and emphasizes cost certainty for the owner while requiring us to be flexible on the scope we receive. For major renovations, we've found that the scope flexibility can be difficult given that a number of elements may be code-driven, may require being addressed vs. deferred, as well as that the building size is not something that can be adjusted. Having a team we've chosen based on qualifications and which works collaboratively to develop a scope for our budget is important, but the risk/reward proposition might be better suited for our other design-build contract, which is a somewhat more conventional two-part agreement of defining scope and cost, and then delivering that project. For projects under \$10M we have also learned the importance of vetting the design build delivery method with the criteria under RCW 39.10.300. We need to be assured the delivery method is right for the project.

#### **6. "Get comfortable with being uncomfortable."**

We've found that for many of our projects, the project will tend to be some amount above budget for a fair amount of time as design proceeds and even into construction. As risks are mitigated, savings are found, and good ideas are incorporated, but costs come down and our intended base scope can be delivered for the budget- and often with value-added items as well. It's uncomfortable being in an over-budget situation when there are fees and incentive dollars at risk, and teams have to learn to embrace and meet that challenge.

**7. Incentive program requires institutional thinking.**

We have not done a good job with developing a consistent set of metrics to incentivize, along with consistent valuation for achieving those incentives. The project teams tend to develop the incentive program for their project individually and, while there may be metrics that are unique to a given project, we would be better served if we had a more standard package of behaviors and outcomes we want to incentivize. We do believe that emphasizing behaviors over outcomes generally is a better approach, i.e. that the right behaviors will lead to better outcomes for metrics like safety or schedule.

**8. The contract does not guarantee collaboration.**

While our Integrated Design-Build contract links the financial success of all of the 'risk-reward pool' members, it does not automatically drive collaborative behavior. There is substantial muscle memory of not collaborating in the AEC industry, and those habits are hard to overcome—including on our part at times. Too often, we still see teams working in silos, or treating scopes hard bid packages rather than on a chargeable cost basis where savings can be shared. It's important for the owner to pick firms and, more importantly, individual people, who want to work in a collaborative model both because it allows them to be successful but also because it's more enjoyable to work that way. It can be difficult to discern those qualities when putting the team together, but those qualities are as or more important than traditional competencies in designing and building.

**9. We need to use tools like assignment of trade partners to allow more flexibility in accomplishing diverse business inclusion goals.**

We find that many of our risk-reward partners are larger firms, with experience with large complex projects of similar building type. To ensure we meet our business equity enterprise (BEE) goals, we ask firms to submit a BEE plan with their proposals and then follow up with a more detailed procurement plan after selection. Ensuring a firm has a plan with specific BEE partners in mind is a lesson learned, as simply asking them to commit to a percentage is not enough. We track and manage the business equity procurement plan just as we do metrics like schedule and budget, and require recovery plans if we are falling behind our goals. Similar to the evolution of sustainable design, we find we need everyone on the project to have this as a focus, rather than establishing a separate committee to be responsible for BEE. We also ask selected firms, some of which may not qualify as a UW BEE firm, to find underrepresented firms in their discipline to partner with on the project. This allows us to create opportunities for growth and mentoring for firms which may be new to public work or working on a larger scale.

Lastly, as an institution, we need to be careful that we do not over-extend BEE qualified firms. For example, selecting an established and sizable BEE electrical contractor too often on our major projects makes it 'easier' for those projects to meet their BEE participation goal, but may end up working against the spirit of the BEE effort overall. As an institution, we need to ensure the goals are realistic based on the availability of firms in the market to work on our projects and that we do the outreach and mentoring required to grow the pool of qualified BEE firms.