

Construction Management Delivery Process Cost Benefit

To achieve the cost savings of 7%- 15% over the most popular delivery methods in use today the construction program must be a CM led Design-Bid-Build delivery method. The degreed professional CM is uniquely equipped through their commitment to the construction industry and typically has the balance of formal training and practical application to execute the Owners program to a degree no other professional service provider is equipped through education and experience to do. As a professional Construction Manager the choice that I made to obtain my formal degree as a CM was in a way the beginning of my professional career. Before I was legally eligible to work on a construction site I've had a passion for the industry, the people and the bravado of character that a construction professional possess. Without a doubt like most of my colleagues, the construction business is in our blood.

The construction management delivery method that I will detail in the following paragraphs stems out of the fundamentals of our education as construction managers and then our practical experience with design professionals, owners, contractors, auditors, accounting departments, administrative staff, office engineers, architects, schedulers, public and private utility work, state and local government, supply chain service providers, materials engineers, construction law, environmental, etc. This construction management delivery system requires a balance of interrelationship skills that few other professional will ever know over the course of their professional career.

Many Owners in our industry have been persuaded by professional service providers and possibly some educators and special interest groups away from traditional delivery modalities by promises of cost and time savings. Improved efficiencies and better risk management, fewer change orders and stronger contract language. The same promises are now being made about BIM and its promise of less potential for contractor claims related to design conflicts or coordination issues. If not for technology I wouldn't be nearly as efficient or be able to provide my owners the level of service required for today's complex construction programs.

However, to further complicate or create specialty environments within the industry from the design side is unnecessary. What BIM promises are far from what it will deliver. Just like LEED when it first gained in popularity, today we are beyond LEED and have determined the cost to value of LEED is unsustainable. Only our Government can afford to use BIM and pursue LEED credits on their projects. They have no problem spending our tax dollars no matter how wasteful it is.

The CM led modality begins during team selection. During Design Phase the CM will integrate a selection of GC's interested in bidding the project into the design effort for budgeting and constructability. The bid process includes a VE element which contributes to cost savings for the Owner. Additionally the CM/OR will strategically contract elements of the construction and integration direct with the Owner.

Typical percentage of construction cost savings by phase;

Feasibility Stage; 2%-Priceless

1. Master Budget – Get buy-in from all team members through design phase, insure budget confidentiality until after bid.
2. Master Schedule – Get buy-in from GC's supporting design effort and design team for design related activities.
3. Site Due Diligence- ALTA Survey, Geology, local resources, logistics.

Selection of Project Team; .5%

1. RFP and project team interviews. Establish team chemistry well during this time, be wary of any Owner preferences and get the respect of anyone the Owner has already retained. Pricing is not the most important aspect of the selection process the Owner should be educated on this. Never compete your professionals and be careful with the low person.

Planning & Zoning; 1%-2%

1. The CM is the maestro through the process the attorney is part of your team and the design team should be used just enough to make your presentation to the board of appeals or board of commissioners reviewing the project as bullet proof as possible. This is a critical phase of project development many neglect to their own detriment. The cost implications if poorly handled can make or break a project through delayed approvals or special requirements, etc..

Design Phase; 3%-5%

1. Integration of Construction Methods and Means into Design Phase through voluntary involvement from local GC's.
2. Develop phased design/construction activities that provide measurable benefit to program cost and schedule.
3. Revise budget numbers for accuracy and get buy-in from Design team. GC only sees what you need him to see for budgeting purposes.
4. Coordinate and facilitate civil site drawings through reviewing authorities, mitigating proffers and special requirements along the way.
5. In practice I've found it far more beneficial to the owner to separately contract design professionals direct with the Owner. But I like to see the Architects proposal with everyone lumped in. Negotiating direct with the MEP/Structural allows them more creative control over their design and benefits the Owner.
6. Be sure to get design phase WBS that meets your schedule format and meets project cashflow projections.
7. Lump Sum CA from design team members except for Architect who should provide estimated hourly CA. Then use him as an accountability measure as necessary and at your direction.
8. Bid specifications should be free of proprietary building components as possible. Either way the contractors get an opportunity to VE during post bid interviews.
9. Construction Contract should be included in draft form for all bidders to review. (Use a well tested custom document written to protect your Owner, avoid AIA contracting documents)
10. Use custom bid form to insure bid accountability and for ease of preparing bid tabulations.

11. Include alternative pricing when beneficial to Owners project goals or for finish upgrade/downgrades.
12. Incorporate Living Building Concepts where possible to reduce construction cost and energy consumption.
13. Maintain budget and schedule accountability through design phase. Many projects delay unnecessarily due to an un-managed the Design team.

Bid Phase; 2%-3%

1. Facilitate bid RFI's to ensure clarity of owner requirements and plan intent prior to bid.
2. Pre-Bid conference as deemed necessary.
3. Advise all contractors low bid is not a basis for award and that final award will be contingent on VE ideas offered during post bid interview process with A/MEP/Structural/Civil design team approval. The GC's bidding should be advised to keep VE items to themselves until after bidding is complete.
4. Try to keep your GC who are bidding to eight or less anything beyond this has shown to little added benefit.

Contract Negotiations; 1%-2%

1. Never use AIA always opt for your own custom documentation that protects the Owner.
2. Strategically contract separately with specialty subs to avoid general conditions and fee. Especially on IT or AV activities or where it is preferable for warranty and service contract purposes.
3. Always contract direct for QA/QC and site survey (not necessarily through or with your Civil Engineer). Contractor will pay for survey after one stake-out.

Construction Phase; 3%-5%

1. Review and negotiate all Proposed Change Orders.
2. Make timely decisions, giving no opportunity for contractor schedule delays.
3. Take financial credits when trade delays or mistakes create opportunities.
4. Compress activities as is realistic and where possible reducing float to just off critical.
5. Insure master schedule is given full distribution to all subs.
6. Eliminate excuses and provide the contractor as much as it is up to you ever resource they need to perform optimally.
7. Facilitate payment through the funding source to promote above average payment of contractor pay requisitions.
8. Start punchlist and project closeout activities well in advance of planned occupancy date.

Closeout;

1. Prepare/assemble closeout documentation and route through design team for review.
2. Aggressively pursue release of bonds for bonded activities from state and local jurisdictions.
3. Pursue as necessary alternate post construction financing as appropriate.
4. Confirm with Owner all punchlist items are completed to their satisfaction.
5. Prepare/assemble final pay applications and appropriate lien releases.

6. Prepare final project accounting for owner.
7. Issue final payment to GC and others.

One Year Warranty Walk;

1. Insure contractor warranty items are corrected to the Owners satisfaction.

One thing to remember in a CM led program is that the OR/CM is the only one at the table who doesn't have a profit motive. The other team members will, (as long as they are performing in the best interest of the owner) benefit from an experienced OR/CM managing the program. For the Architect/MEP/Structural/Civil design team we mitigate their risk without adding risk to the Owner through clear communication protocols and concise transfer of information from the Owner. During construction we are able to translate more effectively what is happening in field operations to the owner and also back to the field. No other professional discipline is as qualified for this function as the professionals CM.

As the primary contact for all project related concerns the chance for mis-communications is greatly reduced, one voice-one message, unified through full team integration. When we make a decision it is corporate, minimizing opportunity for error.

Construction Management Professionals, LLC.



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