

Core Principles

- Not hard tendered upfront; done in phases.
- Provisions in place to change over to a stipulated sum contract.
- In public owner experiences, CM is good for relating to city councils.
- Helps owners find a value in the planning (discovery) phases of the project.
- Allows for pooling of similar projects into a portfolio.
- Brings constructability and real time costing into the process.
- Collaborative model by definition.
- Allows for testing of the market and understanding pressures.
- Cost certainty and faster completion.
- Forces decision making early in the process.
- Allows for sequential tendering of trade contractors before overall project design is finalized.
- Opportunity for extensive Owner participation.

Considerations & Challenges

- Must have clarity of the end results/goals early in the process.
- Schedule is the main driving force.
- Needs to be made clear by the owner that there is to be a collaborative approach between Design team and CM and/or constructability advisor during design phase.
- Perception that price competition is limited.
- CM passing on change orders from subs directly to owner without proper vetting.
- Sometimes negotiations take a long time at the start of the project.
- Fees paid to CM's are perhaps currently too low; owners are setting themselves up for later problems.
- Need more clarity and transparency around what scopes will be self-performed.
- Fees can be misaligned.
- Some uncertainty on final cost at the start of construction, but with flexibility in controlling cost during the construction process.
- Enhanced design constructability owing to the opportunity for early collaboration between design and construction teams.
- Effective time and cost planning and control processes and methods.
- Single source for warranty obligations.
- Less onerous administration required of Owner.

When To Use

- Good in an environment where full project outcomes are not fully understood
- Good for conservation work, renovations and complex projects with many variables.
- U of A uses CM in projects under 2.5M; prequalifies 3 contractors= quick deployment.

Benefits

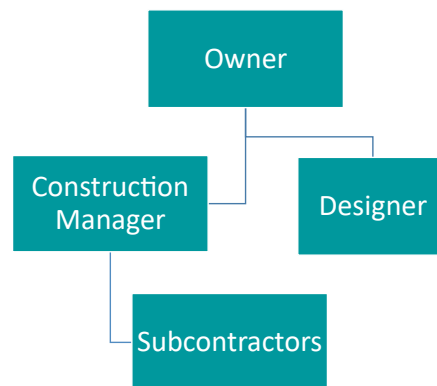
- Can select CM on qualifications basis, trust/relationship.
- Deals well with complex and unknowns.
- Early CM involvement for design and costing input (real time), aware of potential challenges and costs.
- Collaboration.
- Schedule certainty.

Prime Consultant's Perspective

- Variables; demolition; renovation; uncertainty;
- Select GC based on quality.

Architect's Perspective

- Having GC on early assists in constructability and costs as GC brings current market experience.
- To ensure a competitive bidding process, require multiple bids from subcontractors for all the major disciplines/trades.
- Tendency to default to design-bid-build mentality and not bring true benefits of constructability.
- To ensure transparent accounting of project cost, require an open-book policy so that you can see line items for overhead costs, markups, and various contingencies.



- Few contractors fully understand the role of CM. Tendency to default to design-bid-build mentality vs. truly collaborative.
- Cost certainty comes with the cost of paying for the risk of fixing a price based on very preliminary drawings.
- Owners need to understand the range of accuracy only improves as more detail is provided. Cannot achieve 100% cost certainty on 5% definition of scope.

Engineer's Perspective

- Constructability and design assist is key.
- 'Real-time' costing.
- Scheduling/phasing.
- Assisting on CM and sub trades selection; providing feedback.
- Large number of overlapping tender packages can lead to misalignment resulting in changes and additional costs for both design and construction team.
- Late or last minute changes can result in additional design costs.
- Constructability input is usually beneficial in meeting budgets and schedule while minimizing rework.
- Depending on the scope split of Tender Packages - they can result in several M&E trades on site and subsequent miscoordination of complex systems. (can be avoided by using Sub-CM).
- ideal for more complex projects where scope isn't clearly defined or a tight project timeline or a project where long lead delivery items are required to be procured earlier in the design and construction sequence.
- CM is a way to get into the building sooner as they can potentially break ground and start construction prior to the rest of project getting designed. This at times can cause consultants to carry larger safety factors to ensure that there is enough "slush" to accommodate any changes or nuances in the design.
- The negative impact of this is that there are likely associated cost impacts and are conducive to more change orders on projects.
- From a design production perspective, having multiple tender packages can really impact the design process as there is now a chance of specifications and drawings overlapping as well as resulting in larger design time and associated costs. Document control can really be very complex especially when handling documentation from several tender packages at once.

General Contractor's Perspective

- Guaranteed money with little risk.
- Potentially pay more but high quality.
- Quality/qualification based selection to be clear on outcomes.
- Self perform generally at a higher quality.
- Value of CM.
- Risk allocation tool.
- QBS for team.
- Smaller vs. larger firms.
- Self performed cost recovery mechanism.
- Incentive to self perform.
- Successful CM's are not heavily weighted towards costing, but strength of team members.
- Allows for collaboration and early involvement of trade partners.
- Allows for creativity and innovation, but often without a cost incentive for the CM, which may limit motivation. A clear expectation at time of tender balanced against a reasonable fee/procurement scoring may alleviate any complacency.
- Important to pick strong and experienced CM partners. Many smaller GC's see it as no risk, guaranteed money and don't provide the anticipated level of service.
- There are considerations or incorporations that can be included into contracts to better explain expectation and the role of the CM.

- If the right CM isn't selected it will not bring value to the project.
- Contractors can treat these projects like cash cows -over inflate resources to charge back.
- Owners typically still award based on LOW percentage fee rather than competencies and experience - therefore it is still a race to the bottom.

Owner Perspective

- Very good for unknowns, renovations or where outcome is not clear.
- Not necessarily used correctly by public owners.
- Having consultant input during selection is helpful.

Key Procurement + Contracting Considerations

- Qualifications based method.
- Potentially unknown of what end goal is.

Advantages

- CM and Architect selection based upon qualifications.
- Projects can be delivered at accelerated/"fast-tracked" schedule.

Disadvantages

- CM has no contractual responsibility/control with sub-contractors.
- Final price not established until bids are received.

- Owners often do not get the "A" team as these projects can be deemed less risky.
- Typical CM contracts are now being written like Stipulated Price. Fixed GC's and Fixed OH costs therefore pushing more risk to the GC.

- Having consistency with CM throughout all phases is effective.
- Needs to be clarity by both the owner and the contractor over the role of the CM.
- Can pose the most risk for warranty and cost management if CM's do not offer new ideas/innovation to make the project more cost effective.

- Phasing depends on complexity of project.
- Collaboration and trust needs to occur.
- Consultants can assist in selection of QBS.

- CM involved in budget development.
- Owner can select sub-contractor.
- CM responsible to deliver the project on budget and on schedule.

- Owner must manage multiple contracts.
- High level of Owner involvement.
- Higher Owner risk since the Owner holds contracts.