DESIGN BID BUILD (DBB)

Core Principles

- Most familiar/traditional delivery model. Most owners have experience utilizing it.
- Competitive cost to build; low initial cost.
- Success relies on owner/design clarity.
- Tends to have most certainty and definition in project scope, risk and quality prior to construction.
- Design and construction documents are complete prior to bidding phase.
- Needs strong communication throughout the project to be most successful
- Involves three sequential project phases: Design, procurement, construction.
- Owner has significant amount of control and involvement.
- Allows for design sophistication (quality/functionality) when you have a experienced owner and direct line for the architect.
- Lowest cost for what is in the design at that point in time.
- Perception that DBB will get the lowest cost.

Considerations & Challenges

- Owner holds the biggest risk for cost.
- No 'fast-track' process; can be a schedule killer.
- Consider hiring a construction advisor.
- By nature, it can be confrontational.
- Bias is given because it is the most familiar model.
- Can become a 'siloed' approach.
- Demonstration 'value' vs. competitive cost.
- Perception is that you have more time.
- Owner may have no control or input on subcontractors.
- Sub-optimal collaboration; too linear and too hierarchical. if used in its 'pure form'.
- Timelines may be insufficient to optimize outcomes in design and for contractors to respond with a fully informed/costed bid.
- Consultant needs time to design and budget to design to effect good outcomes.
- Needs strong client involvement (bi-weekly check-ins are probably not enough).
- Owner indecision will have a downstream cost.
- DBB tends to be a linear process where each next player follows what has been set in place.
- Value engineering doesn't always happen.
- Designers cannot optimize costs as they aren't linked to materials construction (ex. heat pumps vs fan coils).
- High degree of control but prevents innovation.
- Transparency around scoring on fee needs to be indicated.
- Usual approach assumes that the design is set and good; then the contractor builds to the lowest price.
- DBB drives contractors to seek problems, not solutions.
- Scope changes defined and priced in a transparent manner.

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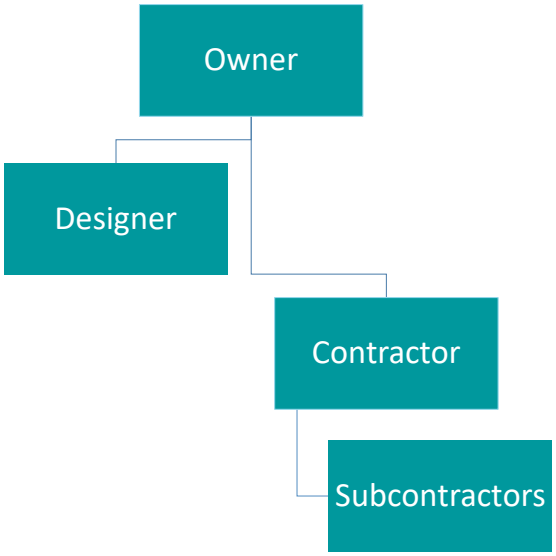
When To Use

- When project is narrow in focus.
- Suited for predictable/repetitive builds; projects that do not require a high level of customization.
- Great when innovation is not a driver.
- Projects that are low in complexity; low risk builds.
- "Class 1 projects".
- When project can be clearly defined.
- When used correctly this model is LEAN.
- Schools, roads, interchanges, bridges, underground utility projects.
- When an owner wants to advance a project to 'shovel ready' without construction funding in place/available.

Benefits

- Best utilized on repetitive projects.
- In lower risk scenarios.
- Allows owner to advance a project even if full funding is not in place.



Prime Consultant's Perspective

- Usually led by an architectural firm.
- Bridging consultant selection is key with clear role and articulation of owners outcome.

Architect's Perspective

- General contractor chosen primarily on price, secondarily on qualifications - lowest price does not always mean the most qualified.
- General Contractor is not on board early in the process to give feedback during the design process, to get acquainted with the design team and their intentions, and begin establishing trust as a team member.
- This model is particularly susceptible to Change Orders (i.e. cost increases) during the construction process due to the GC not being available to collaborate with the design team earlier in the process. If change orders become contentious during construction, finger-pointing often results, and the design team's documents will be heavily scrutinized.
- Not having a contractor on board early in the process may be partially compensated for by hiring a professional cost estimator to conduct milestone price checks to confirm whether the project is on target.
- The delay in selecting a general contractor until construction documents are 100% complete almost always poses an elongated transition of the project from design to start of construction.
- Delays impact the architect as often a fixed fee is established for what is reasonably expected to be the construction timeline. By the time a project is clearly going to be over schedule architect has expended most of their fees.

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Engineer's Perspective

- Relationship between engineer and Architect/Owner is primary and key in establishing scope budget and schedule.
- Success is through a clearly defined scope and a succinct design and the ability for the Owner to make decisions.
- Reducing re-work is key to making project successful.
- Engineers need to assume certain constructibility methods that pose a risk once the project goes for Tender.
- Direct relationship/dialog between designer and owner will be better able to tailor the design to end user's needs.
- Less need for changes that can be a result of fast tracking.

i.e. at times there is pressure to get deliverables out in advance of scope decisions and budget checks from the ownership group.

General Contractor's Perspective

- Does not allow for early input from GC's or sub-trade experts for constructibility, or scheduling consultation.
- Creates a potentially litigious relationship as contractor and trade partners bid 'plans and specs'.
- Less collaboration. Can create a " triangle" where the Owner, Contractor and Consultant each back into a corner, protecting the financial interests as fees are fixed and lower.
- Owner gets what is 'drawn', but limits the ability to incorporate additional scope wants, or allow for easy changes to documents after the job has tendered. Insufficient "contingency" budget is usually carried and it becomes an issue as Consultants rely on "Design Intent".
- Longer procurement times and access to market.
- You may not get a GC's best team or most qualified team.
- As a commodity based procurement, you get commodity based service and do not necessarily get the complete service offering of a GC's, which includes the supporting cast within the office.
- If the drawings are complete, well laid out, clear and concise and there was a prequalification process to limit the number of GCs with relevant experience, it can work reasonably well.
- The model doesn't work well in very weak economies where frugality is a priority.
- It can work well if the GC's are prequalified and are all of comparable levels of experience in the product, etc. In addition if the major sub-trade scopes are prequalified to a limited number of competent trades it alleviates some concerns.

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Owner Perspective

- Ability for owner to advance the project and determine scope based on available funds prior to moving forward.
- With appointment of a constructibility advisor prior to award of design, ability to collaborate early and drive the optimal outcome.
- Where funding is uncertain, it allows projects to be sufficiently mature to access 'one-off' pools of public funding and complete projects within tight.
- Very good when detailed programming needs to be worked through and developed.
- Good when used for facilities with high technical difficulty as it allows for reviews of options on design solutions.
- Can have communication difficulties if prime consultant shields subs from Owner.
- Has good ability to deal with project close out and follow up on warranty.

Key Procurement + Contracting Considerations

- Allows for better understanding of costs earlier.
- More suited to well understood and less risky projects.
- Tender documents need to be clear on desired outcome in order to inform design team composition and costs.

Advantages

- Familiar delivery method.
- Defined roles/responsibilities for team.
- Allows more firms to bid.
- Initially presents the lowest potential cost for the project.

Disadvantages

- No “fast-tracking” process available.
- Budgets may or may not be met...Architects are not always current on pricing market(s).
- Low bidder may not understand project goals, objectives and criteria.
- Owner has no control or input on subcontractors.
- Process puts Owner as issue resolution agent if architectural documents and construction conflict.
- High potential for change orders and conflict.
- Owner control over GC’s staff is limited.
- No cost savings sharing.
- Relationships can be adversarial.