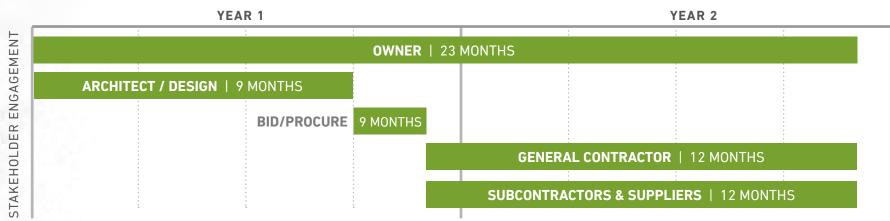
# PROJECT DELIVERY METHODS



#### **DESIGN-BID-BUILD**







# **PROS**

- + Bidding Competitive bidding of work to General Contractor
- + Clarity of Scope Project scope finalized prior to start of construction
- + Single Bid Package A/E prepares one set of bid documents vs. phased "bid packages"

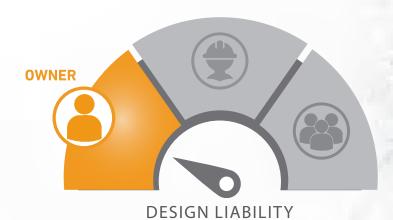


## CONS

- Reduced Quality No input during design phase from contractor on alternative materials, equipment, or methods that may save money, improve quality, or save time
- Delays & Cost Over-runs Schedule delays due to redesign when bids come in over budget
- Change Orders If project scope is incomplete or unclear, it may result in adversarial relationships and potential claims
- Limited Collaboration No opportunity to design to a target budget
- Limited Space for Innovation General Contractor has no opportunity to bring solutions that save time and money
- Lack of Input No Owner input for subcontractor selection
- Increased Time of Delivery Total duration of project delivery is typically longer
- Reduced Opportunity for Savings All cost savings accrue to General Contractor; no open book accounting

#### **CONSTRUCTION MANAGER AT RISK**







#### **PROS**

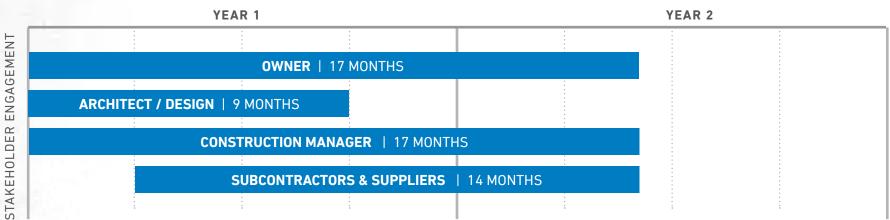
- + Open Book Accouting Savings accrue to Owner or are shared
- + Faster Delivery Early CM involvement allows for earlier start of construction and schedule compression
- + Bidding Competitive bidding of work to subcontractors
- + Procurement Input Owner input on all subcontractor selections
- + Financial Certainty CM manages project budget throughout design and construction
- + Highly Collaborative Owner, CM and A/E team work collaboratively
- + Improved Quality CM input on alternative materials, equipment or methods that may save money, improve quality or save time
- + Contract Price Contract Price based on the defined scope is established prior to construction

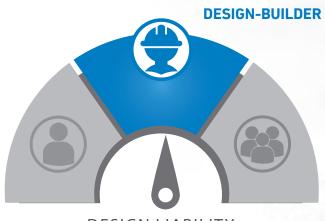


# CONS

- Bid Packages Includes the use of multiple "bid packages" produced by the design team increasing risk to Owner
- Fewer Qualified Firms GCs with experience delivering projects in a D-B-B role may lack preconstruction and construction management capabilities
- ⊗ Owner Effort Requires more owner resources up front

#### **DESIGN-BUILD**









# **PROS**

- + Single Source of Responsibility One entity isheld accountable for design, cost, schedule, and performance
- + Relationship with Designer The Owner/Designer interface is maintained, while being enhanced by Design-Builder participation
- + Faster Delivery Collaborative project management means work is completed faster with fewer problems
- + Better Quality Design-Builders meet performance needs, not minimum design requirements, often developing innovations to deliver a better project than initially imagined
  - + Cost Savings An integrated team is efficient and innovative

- + Procurement Input Owner input on all subcontractor selection
- + Open Book Accounting Savings accrue + Contract Price Contract Price to Owner or are shared
- + Decreased Administrative Burden -Owners can focus on the project rather than managing disparate contracts
- + Reduced Risk Design-Build team assumes additional risk, shifting the risk away from the Owner

- + Bidding Competitive bidding of work to subcontractors
- established prior to construction; earliest certainty of price
- + Bid Packages Risk of multiple bid packages carried by Design-Builder



# CONS

- experience delivering in a D-B-B or CMAR role may lack expertise in D-B delivery
- ⊗ Procurement Laws When used in the public sector, only permitted by certain Federal Agencies, States or Municipalities

#### INTEGRATED PROJECT DELIVERY



# **INTEGRATED** EAM

**DESIGN LIABILITY** 



### **PROS**

- + Highly Collaborative & Integrated -Owner, CM and A/E team work collaboratively as one team
- + Faster Decision-Making Collective team buy-in promotes a faster decisionmaking process.
- + Scope & Budget Alignment IPD uses a target cost approach maintained through consistent, real-time trending reports
- + Minimal Scope Gaps Early on-boarding of trade partners mitigates cost escalation and scope gaps
- + Cost Savings An integrated team manages change in a more nimble, effective manner and eliminating
- + Improved Productivity An achievable workflow minimizes waste and rework
- + Shared Risk & Rewards Risks and rewards are managed collaboratively
- + Open Book Accounting Savings accrue to Owner or are shared
- + Target Cost Established prior to design; earliest certaintyof price
- + Procurement Input Owner input on all subcontractor selections



#### CONS

- ⊗ **Less Familiarity** Owners and architects less familiar with this process are less inclined to pursue it
- ⊗ Fewer Qualified Firms Fewer firms have delivered projects via IPD
- ▼ Trust Isn't Automatic This approach requires all team members to "buy in" to a change in culture and approach

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