

Delivery System Comparative Analysis

Three Primary Delivery Methods

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| <u>Defining Characteristics</u> | <u>Design-Bid-Build</u> | <u>CM@Risk</u> | <u>Design-Build</u> |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Players | 3 Prime Players (Owner, Designer, Builder) | 3 Prime Players (Owner, Designer, CM@R) | 2 Prime Players (Owner & Design-Build Entity) |
| 2 Contracts | 2 Separate Contracts <i>Owner: Architect</i> <i>Owner: Contractor</i> | 2 Separate Contracts <i>Owner: Architect</i> <i>Owner: Contractor</i> | 1 Contract <i>Owner: Design-Build Entity</i> |
| 3 Final Contractor Selection | Lowest Responsible Bid or total contract price | Aspects other than cost | Cost or Solution based |
| 4 Phases of Project Development | 3 linear phases (design, bid, build) | Overlapping phases (design & build) | Overlapping phases (design & build) |
| 5 Fast Track | NO | YES | YES |
| 6 Price Guaranty | Stipulated Sum (owner) Lump Sum (contractor) | GMP (Guaranteed Maximum Price) (flexible as to when price becomes fixed) | GMP (Guaranteed Maximum Price) (flexible as to when price becomes fixed) |
| 7 Considerations of Budgetary Risk | 1. Amount of Contingency 2. Owner's willingness to share risk in cost overruns | 1. Amount of Design info available 2. Amount of Contingency 3. Owner's willingness to share risk in cost overruns | Project costs may be lowered because of the close working relationship between the architect and GC who are on the same design-build team working toward a common goal |
| 8 Claims / Change Orders E&O Issues | Owner must be concerned about loss of communication & misunderstanding between designers & constructors, which may create legal & liability issues & added costs | Although there is less conflict as compared to Design-bid-build, the architect and GC are still under separate contracts requiring the owner to arbitrate issues | Claims / CO's / E&O Issues significantly reduced. Architect & contractor are thrust into a collaborative environment aimed at a common goal. The owner's role in claims mitigation is eliminated |
| 9 Definition of players roles | Well established & broadly documented roles | Specific contractual arrangement determines the roles of the players | The AIA & AGC agree that either the architect or general contractor can lead the design-build entity |

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(There must be an explicit deter-

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| <u>Defining Characteristics</u> | <u>Design-Bid-Build</u> | <u>CM@Risk</u> | <u>Design-Build</u> |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9 (continued) | | | <i>mination of the roles & responsibilities)</i> |
| 10 Preconstruction Services | Precon Services are not included | Hiring of CM during Design phase (service included) | Architect & GC contribute to pre-construction process (service included) |
| 11 Construction Planning | Opportunity for construction planning based on completed documents (<i>at commencement of construction</i>) | Preconstruction services offered by the constructor, construct-ability review, bid climate development & bid management, etc. (<i>during design phase</i>) | Preconstruction services offered by the design-build team now include input from the architect in addition to the general contractor (<i>during design phase</i>) |
| 12 Quality Control / Quality Assurance | Complete specifications that produce clear quality standards provide the backbone for a QA/QC effort | Clear quality standards produced by the contract's prescriptive specifications are required | Prescriptive specifications & a well focused QA/QC effort must be in place to ensure compliance with the construction documentation |
| 13 Completeness of Construction Documentation Package | CD's are typically completed in a single package before construction begins, requiring construction related decisions in advance of actual execution (<i>Configuration & details of finished product agreed to by all parties prior to construction</i>) | CD's are completed in progressive stages permitting work to commence prior to the completion of the entire design package (<i>Some final details related to the aesthetics may be completed just prior to execution</i>) | CD's are completed in progressive stages permitting work to commence prior to the completion of the entire design package (<i>Some final details related to the aesthetics may be completed just prior to execution</i>) |