Project Delivery Methods

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Which project delivery method should I choose for the design and construction of my project?

- → Select method that enables you to best manage and allocate risks, uncertainty, and control
- → Select method that best brings you **VALUE**

1. Why Design-Bid-Build?

- a. 3 Conventional phases:
 - i. <u>Design phase</u> A/E of record prepares construction documents;
 - 1. Rely on A/E to prepare plans & specs (contract documents)
 - ii. <u>Bid Phase</u>- GC bids on construction documents and GC selected; &
 - 1. Rely on GC to bid plans & specs (contract documents)
 - iii. Build phase-GC builds project
- b. Typically, hard-bid where GC selected based on lowest price
 - i. Thought is Owner gets lowest, most competitive price based on prepared design documents
- c. Typically lump sum contract between GC and owner
- d. Considerations:
 - Slowest delivery method since all design work must be completed before bidding phase and construction does not start until bidding phase completed and contractor selected
 - ii. Separate contracts between Owner-A/E and Owner-GC
 - iii. No contractor input / collaboration regarding costs of design or constructability of design
 - iv. Lowball bidding
 - v. Change order...after change order...after change order

2. Why Multi-Prime?

- a. Oftentimes, component of Design-Bid-Build
- b. Owner hires separate primes or separate specialty trades for certain phases / elements of construction
- c. Considerations:
 - i. Coordination of phases / elements will fall on Owner
 - ii. Overlapping contractors
 - iii. Where does one phase / element finish and another begin potential finger-pointing
 - iv. Separate contracts: Owner-A/E and Owner-separate primes and/or specialty contractors
 - v. Control over coordination, means, and methods as owner is acting as GC in certain respects

3. Why Design-Build?

- a. Single source of responsibility for both design & construction (avoidance of finger-pointing)
- b. Owner has 1 contract-with design-builder
 - i. Elimination of adversarial posturing between GC and A/E
- c. Owner oftentimes engages (consulting) bridging architect/engineer to prepare schematic design documents to form framework of scope of project
- d. Partnering between contractor and design professional for purposes of value engineering and implementation of design within budgetary parameters
- e. Greater ability to fast-track construction / commence with certain aspects of construction while design being completed (overlapping of design and construction)
- f. Potential for fewer change orders since design-builder responsible for design
- g. Typically, GC serves as design-builder
 - i. GC best position to control schedule, safety, and means/methods of construction sequencing

- h. CCNA (Consultants' Competitive Negotiation Act) Fla. Stat. s. 287.055
 - i. Educational Facilities (see Fla. Stat. s. 1013.45)
 - ii. FDOT (see Fla. Stat. s. 337.11)

Considerations:

- Elimination of checks & balances with design professional and contractor under same umbrella
- Relying solely on design-builder for liability (potential inadequate capitalization of design-builder)
- o Relinquishment of control (limited involvement of owner)
- Insurance considerations for design-builder (e.g., professional liability and contractor's professional protective indemnity)

4. Why Construction Manager-Agency?

- a. GC involved early in the design process to work with owner and design professional (preconstruction phase)
 - i. Reviewing constructability of drawings
 - ii. Estimating to achieve best value within budget
 - iii. Value engineering
- b. Establishing budget and schedule (key is to deliver to owner project w/in best, defined schedule and best defined, price)
- c. Procuring long-lead items by Owner
- d. Subcontracts awarded by Owner
- e. Pay CM fixed fee for limited risk since Owner takes on risk of hiring subcontractors
- f. CM acts as Owner's agent / representative / advisor
 - Benefit to Owner since CM supervises work but does not profit (or is incentivized) in exceeding estimated construction costs

g. *Considerations*:

- i. More risk to Owner for defective construction
- ii. Limited risk to CM for defective construction
- iii. Vested interest of CM?
- iv. Overzealous CM that can foster adversarial relationship between subs & CM and sub & Owner
- v. No contractual relationship between CM coordinating and supervising construction with subcontractors

vi. Owner should be actively involved since it holds subcontracts and will (or will be actively involved to) procure long lead items

5. Why Construction Manager At Risk?

- a. CM involved early in the design process to work with owner and design professional (preconstruction phase)
 - i. Reviewing constructability of drawings
 - ii. Estimating to achieve best value within budget
 - iii. Value engineering
 - iv. Establishing GMP & schedule (key is to deliver to owner project w/in best, defined schedule and best defined, price/GMP)
 - v. Procuring long-lead items
 - vi. Awarding subcontracts
- b. Allows for fast-track construction
- c. Should be faster delivery than design-bid-build
- d. CM serves as GC during construction phase and hires subcontractors
- e. Typically cost-plus GMP
 - i. Fixed fee %
 - ii. Contractor liable for cost overruns above GMP
 - iii. Contractor gets bonus if there are savings
- f. GC performs construction and contracts with the subcontractors
- g. CCNA (Consultants Competitive Negotiation Act)= Fla. Stat s. 287.055
- h. Considerations:
 - i. Owner oversight and control in establishment of GMP and during construction (application of contingency, change orders and claims, cost overruns...)
 - ii. Separate contracts between Owner-A/E and owner-CM
 - iii. Insurance considerations

6. Why Integrated Project Delivery (IPD)?

- a. Paradigm Shift? (a) complex project, (b) increased risk factors (e.g., scheduling, cost, technology, etc.), (c) active and sophisticated leadership teams, (d) sophisticated and emerging technology such as BIM, (e) open books and discussions regarding design, cost, and financial commitments as entities now on "same team", (f) target cost scope and schedule to creation of design to that target cost / budget, scope, and schedule and (g) shared risk / reward system based on incentive compensation (at-risk profit)
- b. Collaboration among owner, design professional and contractor from <u>inception</u> with creation of a project team (key specialty subcontractors oftentimes involved early to obtain accurate pricing as design being developed)
- c. Attempt to move away from GMP mode of thinking since plan is for owner to pay for all direct costs with shared financial risk tied to profit / savings
- d. Creation of single-purpose entity
 - Objective is to foster productive communication, less adversarial relationship, and the sharing of risk and reward through more collaboration and alignment of business interests
 - ii. Early involvement of key participants
 - iii. Joint project management
 - iv. Shared risk / award tied to jointly established targets / success of project
 - v. Incentivized construction There is typically "at risk" profit that gets depleted as costs exceed target cost and participation in savings if project completed less than targeted costs
 - 1. Plan is to deliver project within budget reducing cost overruns
 - 2. Plan is to develop more efficient design on frontend
 - vi. Reduced liability and claims avoidance
- e. Building Information Modeling (BIM) used as collaborative software
- f. Promotes fast-track construction
- g. Considerations:

- i. Owner needs to be actively involved in collaborative efforts
- ii. More complicated contractual issues
- iii. Need sophisticated leadership team
- iv. Need integrated and collaborative approach
- v. Funding requirements
- vi. Procurement requirements
- vii. Technology (BIM) requirements
- viii. New school thinking regarding risk allocation
 - ix. Minimal to no contingency (unlike GMP contracts)
 - x. Insurance considerations (e.g., rectification coverage)

7. Why Public Private Partnership (P3)?

- a. Public funding / budgetary / cash flow issues but need for public capital improvements / infrastructure
- b. Need financing from private entity / consortium to deliver public project
- c. Partnership between public and private entities to deliver project for public purposes (e.g., infrastructure) where private entity finances (and perhaps operates and maintains) project in consideration for revenue completed project will generate for "x" number of years
- d. Public agency benefits from private entity's expertise, money, efficiency, and innovative thinking to assist in resolving public problems
- e. Different types of arrangements:
 - i. Build-Finance
 - ii. Design-Build-Finance
 - iii. Design-Build-Finance-Maintain
 - iv. Design-Build-Finance-Maintain-Operate
- f. Fla. Stat. s. 287.05712 procurement law for public bodies regarding receiving solicited and unsolicited proposals for qualifying projects (project that serves a public purpose)
- Fla. Stat. s. 334.30-procurement law for FDOT regarding public-private partnerships
- Considerations:
 - Complicated framework

- Sophisticated leadership teams with understanding of process
- Cost of private financing (potentially greater cost as cost associated with debt)
- Knowing your private partner (resources, vision, performance...)
- Increased private party participation in delivering public project
- Risk transfer to private consortium (e.g., design, construction, financing, operations and maintenance, etc.)
- Insurance considerations