Project Delivery Methods

Board of Trustees
April 12, 2005
Agenda

◆ Phases of a Project
◆ Overview of Project Delivery Models
  – Design/Bid/Build
  – Design-Build
  – Multiple-prime
◆ Keys to Success
◆ Next Steps
Three Phases of Design & Construction

Project / Scope Definition – project requirements & constraints, estimate of cost & time for delivering it

Design – schematic design; design development, construction drawings & specifications

Construction – procurement, shop drawings, fabrication, site construction & project close-out
Common Misconceptions

Architects and Engineers are PERFECT
Engineer’s Estimate

The cost of construction in heaven
A gambler who never gets to shuffle, cut, or deal
A wild guess carried out to two decimal places
Low Bidder

A contractor who is wondering what he left out.
Project Delivery Methods

- Design-Bid-Build
- CM Multi-prime
- Design-Build
Selection Criteria

- Owner’s culture
- Project / Scope complexity
- Budget / cash flow
- Time available
- Special user needs
- Risk distribution
Design-Bid-Build

- Owner
- CM
- A/E
- General Contractor
- Sub
- Sub
- Sub
- Sub
- Sub
Design-Bid-Build *Pros*:

- Competitive bidding process.
- Easy to manage, universally understood.
- The Owner has a defined, fully designed project prior to bid.
- The CM’s responsibility is to protect the interest of the owner.
Design-Bid-Build *Cons:*

- Contractors take advantage of “competitive process”.
- The process is linear
- Design does not benefit from direct contractor and subcontractors involvement.
- Changes orders are common.
- Owner has full exposure to change orders.
- Delay claims and disputes are common.
Design-Bid-Build: Project Delivery Timelines

1st Quarter 2nd Quarter 3rd Quarter 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter 1st Quarter 2nd Quarter
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

- SELECT DESIGNER
- DEFINE PROJECT BUDGET & SCHEDULE
- DESIGN & CONTRACT DOCUMENTS
- SOLICIT BIDS & AWARD CONTRACTS
- BUILD PROJECT
- COMMISSION & CLOSE

Facilities Excellence
Design-Bid-Build

Keys to Success

- Prequalified General Contractor
- Experienced GC Staff
- Experienced Owner Staff
- Experienced Design Team
- Complete Bid Documents
- Fair and equitable contract
CM Multi-Prime

Owner

CM

A / E

Prime Contractor

Prime Contractor

Prime Contractor
CM Multiple Prime Pros:

- Economy of scale
- Cut out the “middle man” (General Contractor)
- Closer relationship between Owner and each trade/contractor
- No GC mark-ups on trade contracts
- Hands-on all aspects of project
- The CM’s fiduciary responsibility is to the Owner
CM Multiple Prime Cons:

- Not suitable for complex or custom projects.
- Multiple contracts will impact administrative staff workload.
- Owner acts as GC responsible for coordination of trades during construction.
- Owner liability in the event one prime trade contractor damages another.
- Lack of a single, guaranteed, bonded price for the total project.
CM Multiple Prime Cons:

- Select Designer
- Define Project Budget & Schedule
- Design & Contract Documents
- Preconstruction Planning (Procure)
- Build Project
- Build Project
- Build Project
- Commission & Closeout
- 12/1
Multiple-Prime
Keys to Success

- Experienced Owner acts as General Contractor
- Experienced CM
- Properly structured Construction Contract
AB 1000

Enacted in September 2002
Allows Design-Build to be used by the following:

- Los Angeles Community College District
- San Jose-Evergreen Community College District
- San Mateo County Community College District
- State Chancellor’s Office to select as many as five individual projects from other community college districts
Design-Build *Pros*

- Simplified contracting
- Reduction of adversarial relationships
- Cost containment
- Speed of delivery
- Shifting of risk
- Early involvement of the builder
- Validate another project delivery method for community college districts
Design-Build **Cons**

- Significant up-front investment of time
- Potential lack of experience in local community
- Potentially less control over design
- May be more difficult to compare proposals
- Institutional capabilities
- Approval agency capabilities
  - Local Fire Marshal
  - Division of the State Architect
  - State Chancellor’s Office
  - Department of Finance
  - Legislative Analyst Office
- Intensity of effort required for implementation
Design-Build: Project Delivery Timelines

<table>
<thead>
<tr>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>Feb</td>
<td>Mar</td>
<td>Apr</td>
<td>May</td>
<td>Jun</td>
<td>Jul</td>
<td>Aug</td>
</tr>
</tbody>
</table>

- DEFINE PROJECT PERFORMANCE CRITERIA & CONTRACT FORMS
- SELECT DESIGN BUILDER
- DESIGN
- PRECONSTRUCTION PLANNING
- CONSTRUCTION
- COMMISSION & CLOSEOUT

*6/1*
Design-Build
Key To Success:

- **Clear and articulate Request for Proposal**
  - Project Program
  - Design Parameters
  - Campus Standards
  - Proposal Requirements
  - Limited, but sufficient

- **Ability of the Owner to “let go”**
In Physics, $e = mc^2$
In Construction, $t = m$
Which Method is Right for COM?

- **Design-Bid-Build Examples**
  - KTD Harlan Center
  - KTD Fine Arts
  - KTD Fusselman
  - IVC Capital Preservation

- **Design-Build Examples**
  - New Construction x2
  - Energy Efficiency

- **CM Multiple-Prime Examples (Districtwide and/or Campuswide)**
  - Restroom Upgrades
  - Exterior Painting
  - Roofing
  - Carpet
  - Vinyl Floor Tile
  - Asphalt
Project Delivery
Keys to Success

- Early identification of project goals
- Realistically assess capabilities
- Choose a project delivery model to meet project goals and leverage Team capabilities
Next Steps

- Ed Plan – Road map to future
- Space Inventory
- District Architect (Design / Bldg standards)
- District Surveys (CEQA/Civil/Geo/Energy)
- Program Definition
  - Scope / Schedule / Budget
## Project Delivery Methods

### QUESTIONS & ANSWERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>José D. Nuñez</td>
<td>Measure C Executive Director, College of Marin</td>
<td><a href="mailto:nunezj@smccd.net">nunezj@smccd.net</a></td>
<td>(650) 574-6512</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeff Gee</td>
<td>Program Executive, Swinerton Management &amp; Consulting</td>
<td><a href="mailto:jgee@swinerton.com">jgee@swinerton.com</a></td>
<td>(415) 421-2980</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dave Kirn</td>
<td>Program Manager, Swinerton Management &amp; Consulting</td>
<td><a href="mailto:dkirn@swinerton.com">dkirn@swinerton.com</a></td>
<td>(415) 710-2248</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>