Alternate Project Delivery in Horizontal Construction

Design & Construction is Intended to be an Integrated Process

“Celebrating Quality & Value”

Michael J. Ladino, Esq.– Valley Metro Rail, Inc.
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John E. Carlson, DBIA – Sundt Construction, Inc.
What Created the Need for Alternate Procurement Delivery Methods?

- Dissatisfaction with Design-Bid-Build
- Need for faster delivery of projects
- Compliance with project budget
- Selecting the most qualified team, not low bidder
- Increased quality and value
- Desire to work in a team atmosphere
- Frustration with errors & omissions, change orders, claims, warranty issues, etc.
What is CMAR?
(Also known as CM/GC)

<table>
<thead>
<tr>
<th>“Defining” Characteristics:</th>
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<tbody>
<tr>
<td>✓ Simultaneous Selection with Design Consultants</td>
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<tr>
<td>✓ Selection Based upon Qualifications</td>
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<tr>
<td>✓ Separate Contracts for Design &amp; Construction</td>
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<tr>
<td>✓ CMAR Holds Trade Contracts/ Performance Risk</td>
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<table>
<thead>
<tr>
<th>“Typical” Characteristics:</th>
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<tbody>
<tr>
<td>✓ Collaborative Team Effort</td>
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<td>✓ Preconstruction Services</td>
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<tr>
<td>✓ Fast-Track &amp; Overlap Design &amp; Construction</td>
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</table>
Construction Manager at Risk
(Lump Sum or GMP)

- **Architect/Engineer** *(Qualifications Based Selection)*
  - Design services with active CMAR participation
  - Some construction administration/participation

- **CMAR** *(Qualifications Based Selection)*
  - Preconstruction and construction phase services
  - Management of bid process and trade subcontractors
  - “Open book” culture & requirement
Design-Builder

(Lump Sum or GMP)

- Design and construction
- Management of design services
- Management of bid process and trade subcontracts
- “Open book” or lump sum
Typical CMAR

CMAR

Design

Construction

Occupancy

Design Team

CMAR

Design – Bid – Build

Design

Bid

Construction

Occupancy
Selection Committee Composition - AZ Statute

● Selection team:
  – Minimum of 3 not more than 7
  – One licensed contractor, Sr Management
  – One registered architect or engineer

Diversity required for transparency
Qualifications Based Selection (QBS)

- Demonstrated competence
- Qualifications
  - Experience
  - Personnel
  - Performance
  - Project Issues and Solutions
  - Management, budget, schedule, safety

Qualifications criteria and associated weighting are defined by the Owner
Owner Responsibilities

- Pre-work with selection committee
- Pre-work with project stakeholders
- Develop scoring and weighting criteria based upon project needs
- **Cannot request or consider fees, price, man-hours** or any other cost information in the selection or order of preference
- Indicate relative weight of criteria in RFQ
Owner Responsibilities

- Evaluate Statements of Qualifications in accordance with criteria and weighting approved by Owner
- Enter negotiations with highest qualified firm
- Construction shall not commence without a fixed price or GMP agreement on construction
- Scoring must be made available to the competing teams upon request after execution of the contract (transparency)
“When multiple prices are on the table, the owner is not in control; the price is.”

ACEC
"QBS means that the owner gets a qualified, competent team known to have the qualifications for a specific project and the taxpayer receives a quality Project."

City of Phoenix
CMAR Glendale perspective

By

Kenneth A Reedy, P.E.
Why Use CMAR?

- Develops partnerships
- Creates a working relationship
- Allows Contractor and Design firm to understand the options better
- Keeps the focus on cost, quality and problem solving

- Avoids conflicting agendas
- Prevents change orders
- Reduces potential for errors and omissions
- Reduces the timeline for the project while improving the information for decision making
Glendale Projects $200mil

- Coyote Hockey Arena
- Fleet Maintenance Facility
- Transportation street improvements
- Waterlines
- Water Treatment Plant
- Recreation Facility
- Major League Baseball Spring Training Facility
- Parking lots for Superbowl
- Parking Garage
- Downtown streetscape
- Citywide bus bays
VALLEY METRO RAIL, INC.
PERSPECTIVE

Michael J. Ladino, Esq.
Metro’s Lessons Learned

- Pure QBS for preconstruction phase not always understood by Federal funding agencies

- No fundamental differences when applied to either horizontal and vertical construction
# Sample Selection Criteria

<table>
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<tr>
<th>Evaluation Criteria</th>
<th>Points</th>
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<tbody>
<tr>
<td>1) General Information</td>
<td>50</td>
</tr>
<tr>
<td>2) Experience and Qualifications of the CMAR and Systems</td>
<td>500</td>
</tr>
<tr>
<td>3) Contractor Understanding of the project and approach to performing the required services</td>
<td>350</td>
</tr>
<tr>
<td>4) Overall evaluation of the firm/team and its ability to provide the required services</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td><strong>1,000</strong></td>
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Owner Advantages of APDM

- Simultaneous team selection – Engineer and Contractor
- Open book – eliminates hidden agendas
- Greater savings opportunities
- Better planning
- Designing to contractor’s strengths
- Improves quality and value
- Shorter project schedules
Owner Advantages of APDM

- Continuity through preconstruction and construction phases
- Ability to “design to cost model”
- Attracts higher quality constructors
- Prequalification of subcontractors
- Bid process managed by constructor
- Industry is geared to relationships
Construction Manager At Risk

Opportunity or Threat?

- Creates “win-win-win” environment
- Not suitable for every owner, designer, builder or legal department
  - Requires different culture and people
  - Requires different procurement methods
  - Requires different processes
  - Requires different contracts
- Focus on quality and value – not low bid
  - Construction is not a commodity
Construction Manager At Risk

Opportunity or Threat?

*Enlightenment through Preconstruction Services*

- Team structure – strategy for success
- Develop “Cost Model - Then Design”
- Ability to introduce technology; ie., BIM
- VE solutions/Life cycle cost studies
- Phasing/sequencing plans
- Timing of the price (Lump Sum or GMP)
- Establishment of contingencies/allowances
Construction Manager At Risk
Opportunity or Threat?

Team Cost Management (Design)

- Validate Owner’s Budget through Cost Model
- Proactive Budget Management during Design
- Create Allowances for Unidentified Items
  - “Fill in the Holes”
- Create Escalation Account
- Development Contingency Accounts
  - Design
  - CMAR
  - Owner
Contingency Management

- Design Contingency
- Escalation
- Construction Contingency

Appropriate Contingency Level % (+/- Budget)

Project Stage:
- Need Identified
- Concept Design
- Schematic Design
- Design Development
- Start Construction
- Design Complete (Purchasing Complete)
- Milestones
- Construction Complete

Budget / Baseline

0%
5%
10%
15%
20%
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