ALTERNATIVE CONSTRUCTION CONTRACTING METHODS

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CAPITAL PROJECTS
AGENDA

Current Approach
Contracting and Delivery Methods
Proposed Project Delivery Method Selection Process
Next Steps/Recommendations
CURRENT APPROACH

Contracting Governing Rules
PROJECT
Contract Value ≥ $50,000

LOW BID
Government Code 2269.101

COMPETITIVE SEALED PROPOSAL
Government Code 2269.151

LOWEST RESPONSIBLE BIDDER

BEST VALUE

# TYPES OF CAPITAL PROJECTS

<table>
<thead>
<tr>
<th>Project Type</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Bid</td>
<td>95</td>
<td>75</td>
<td>93</td>
<td>33</td>
</tr>
<tr>
<td>Competitive Sealed Proposal</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95</strong></td>
<td><strong>79</strong></td>
<td><strong>101</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>
PROFILE OF CAPITAL PROJECTS

<table>
<thead>
<tr>
<th>Project Profiles</th>
<th>Minimum</th>
<th>Average</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Bid</td>
<td>$1.3 million</td>
<td>$10.9 million</td>
<td>$34.3 million</td>
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<tr>
<td>Competitive Sealed Proposal</td>
<td>$5.6 million</td>
<td>$26.5 million</td>
<td>$39.0 million</td>
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SAMPLE PROJECTS

66-Inch Water Line Rehabilitation at US-59 and Beltway 8
Low Bid $1,276,146

108-Inch Water Line from Aldine Westfield Road to Willis Street
Competitive Sealed Proposal $31,017,665
CONTINGENCY
CONTINGENCY

What is it?

– amount of money set aside to cover unexpected costs
– reserved, not allocated to any specific area of work
– acts as insurance against unforeseen costs
– used at direction of the City
CONTINGENCY

How is it Set?

- level of design detail determines the rate
- industry standard is 5% - 10% of bid price
- Houston Public Works uses 5% of bid price for capital projects
- contingency is not disclosed at the time of bid
CONTINGENCY

Who Owns It?

– controlled exclusively by the City
– not included in the construction contract
– expenditures documented in the form of change orders
– costs that exceed the contingency must be approved by Council
CONTINGENCY

What Happens to the Unused Contingency?

per City ordinance

“In the event there are unspent funds remaining in the Construction Appropriation (including Contingency) after construction and closeout of the project, such unspent funds are appropriated for CIP Cost Recovery relating to construction of facilities financed by the fund described in the title”
CONTRACTING DELIVERY METHODS
1 DESIGN-BID-BUILD

- agency designs, or retains a designer to furnish complete design services
- awards a separate construction contract based on the designer’s completed construction documents
- majority of City of Houston projects
2 DESIGN-BUILD

- agency procures both design and construction services in the same contract from a single, legal entity referred to as the design-builder

- project examples:
  Northeast Purification Plant Improvement
  Houston Intelligent Transportation System (HITS)
3 CONSTRUCTION MANAGER AT RISK

- agency contracts separately with a designer and a construction manager.
- construction manager is selected to perform construction management services and construction works.
PROPOSED PROJECT DELIVERY METHOD SELECTION PROCESS
3 STAGE PROCESS

STAGE 1
PROJECT GOALS, ATTRIBUTES, CONSTRAINTS, AND RISKS

STAGE 2
PRIMARY FACTOR EVALUATION (5)

STAGE 3
SECONDARY FACTOR EVALUATION (3)

METHOD SELECTION

DESIGN-BID-BUILD
OR
DESIGN-BUILD
OR
CONSTRUCTION MANAGER/GENERAL CONTRACTOR
STAGE 1
PROJECT GOALS, ATTRIBUTES, CONSTRAINTS, AND RISKS

**Project Goals**
- maximize project benefits
- complete project on time
- maximize project budget

**Project Attributes**
- size
- type of funding
- stakeholders
- obstacles
- safety
- sustainable design
- construction requirements

**Project Constraints**
- local and federal codes
- schedule
- utilize funding by a certain date
- project cost limit

**Project Risks**
- environmental
- right-of-way
- construction
- drainage/water quality
STAGE 2

PRIMARY FACTOR EVALUATION (5)

1. Project Complexity & Innovation
   - applicability of new designs or processes

2. Project Delivery Schedule
   - consideration of deadlines and timing of funding awards

3. Project Cost Considerations
   - budgetary restrictions
   - early and precise cost estimation
   - control of project costs

4. Level of Design
   - percentage of design completion at the time of project delivery procurement

5. Risk Assessment
   - uncertain events or conditions that may have an effect on project objectives

NOTE:
Completion of Stage 2 may eliminate one or more delivery methods
Stage 3: Secondary Factor Evaluation (3)

1. Staff Experience & Availability
   - Agency staff and experience and availability as it relates to project delivery methods in question

2. Level of Oversight & Control
   - Amount of agency staff required to monitor the design or construction and amount of agency control over the delivery process

3. Project Cost Considerations
   - Level of competition, experience and availability in the market place and its capacity for the project
SUMMARY

Include Project Delivery Method Selection in the following Reports:

- Traffic Engineering
- Geotechnical
- Drainage
- Initial Design
- Environmental Assessment
- Design Concept Report
NEXT STEPS/RECOMMENDATIONS
NEXT STEPS/RECOMMENDATIONS

- **Prequalification to Contractors**
  - similar to professional services (HPW 100)
  - streamline redundant forms on a yearly basis
  - financial, legal, safety, environmental statements

- **Project Delivery Method Selection in Planning Stage**
thank you!