Maryland State Highway Administration
Alternative Project Delivery Program

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Overview

- Alternative Project Delivery Methods & Best Practices
  - Design-Build
  - Construction Management at Risk
- Future Project Opportunities & Enhancements
Maryland Department of Transportation
SHA’s Design–Build program began in 1997

- Over 40 projects have been delivered
- Delivered $2.5 B Intercounty Connector (ICC) project

Maryland 7D – Elkton
MSHA’s Design–Build History

- Projects have varied in size from $1 M to $100 M
- Typical size is between $15 M – $40 M
- Total value of Program since 1997 is +$600 M
- Types of Projects – Major Roadway, Minor Roadway, Stormwater Management, and Facilities
Design–Build Best Practices

- Primarily Competitive Sealed Proposals (Best Value)
- Solicit Industry Feedback
- Industry Informational Forums
- Two Step Process (SOQ/Tech&Price)
- Draft RFP to RCL
- Adjectival Rating Process
- Stipend Payment
- Alternative Technical Concepts (ATCs)
- Relative Importance (Critical, Significant, Important)
- Separation of Technical and Price Submittal Dates/Review Teams
- Confidential One–on–One meetings

ICC/US 29 Interchange
Industry Feedback → Improved Process

- Alternative Technical Concepts (ATCs)
  - ATCs on ALL projects regardless of procurement method (low price, best value)
- Relative Importance (Critical, Significant, Important)
  - Emphasizes areas in technical proposal for proposers to focus efforts
- Separation of Technical and Price Submittal Dates/Review Teams
  - Coordinated approach to tech and price
- Confidential One-on-One meetings
  - Validate ATC proposals, clarify and/or correct contract requirements
MSHA’s CMAR History

First Project – 2013
  ◦ MD 24 Slope Remediation in Harford County
  ◦ Preconstruction Services Award – Dec. 2013
  ◦ Construction Award – July 2014
  ◦ Substantial Completion – April 28, 2015

Second Project – 2015
  ◦ MD 97 – Brookeville Bypass
  ◦ Released RFP – April 28, 2015
  ◦ NTP by Aug/Sept 2015
CMAR Best Practices

- Competitive Sealed Proposals (Best Value)
- Industry Informational Forums
- One Step Process
- Adjectival Rating Process
- *Relative Importance (Critical, Significant, Important)*
- Method of Selection – Best Value
  - Technical Proposal
  - Price Proposal
    - Pre-Construction Fee
    - Management Fee Percentage
- Technical Proposal is significantly more important than Price
- Independent Cost Estimator
- Risk Management Pool
MD 24 CMAR Pilot
Preconstruction Phase

- Project Design Team
  - Incorporated Independent Cost Estimator (ICE) into Owner, Consultant, Contractor Team

- Held By-weekly Project and Environmental Team Meetings to facilitate decisions and design modifications

- Collaborative Design Refinement
  - Pile Foundations w/sheeting – reduced stream impacts & improved safety
MD 24 CMAR Cost Model

- **Cost Model Elements**
  - Profit & Indirect Overhead, Equipment Types & Rates, Labor, Materials, Subcontractor Items of Work, Risk Sharing Pool, Schedule

- **Opinion of Probable Construction Costs**
  - Used blind estimate comparison (ICE and Contractor) to discuss items out of tolerance and reconcile differences
  - Resulting in final Guaranteed Maximum Price

- **Risk Sharing Pool**
  - Stream events, Equipment relocation in event of storm, Undercutting below wall, Landscape replacement, etc.
Price Proposal
- MD 24 proposal included 4 major work items (MOT, Mobilization, Excavation, and Imbricated Stone) + Pre-construction Fee
- MD 97 proposal includes Pre-construction fee + Management Fee percentage
Future Project Opportunities

- Design–Build
  - US 113 Phase 4 (FY 2017/Unfunded)
  - MD 32 at Rosemary Lane (FY 2017/Unfunded)

- Construction Management at Risk
  - ???
Future Project Opportunities

- Contracts, Bids & Proposals

- Contractor AD Schedule – All Projects

- Design–Build

- Construction Management at Risk
Moving Forward

- Project Selection Matrix
- Flexible Specs
- Practical Design
- CMAR on Unfunded Projects
QUESTIONS?

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