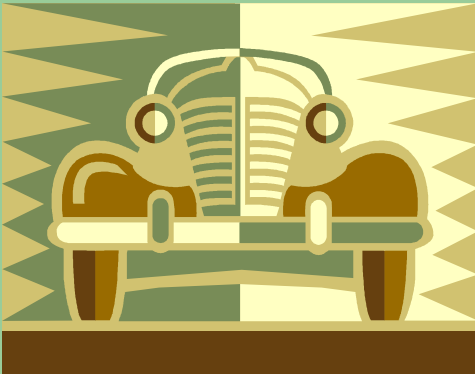


MD 5 (Point Lookout Road) Construction Management at Risk (CMAR) Project

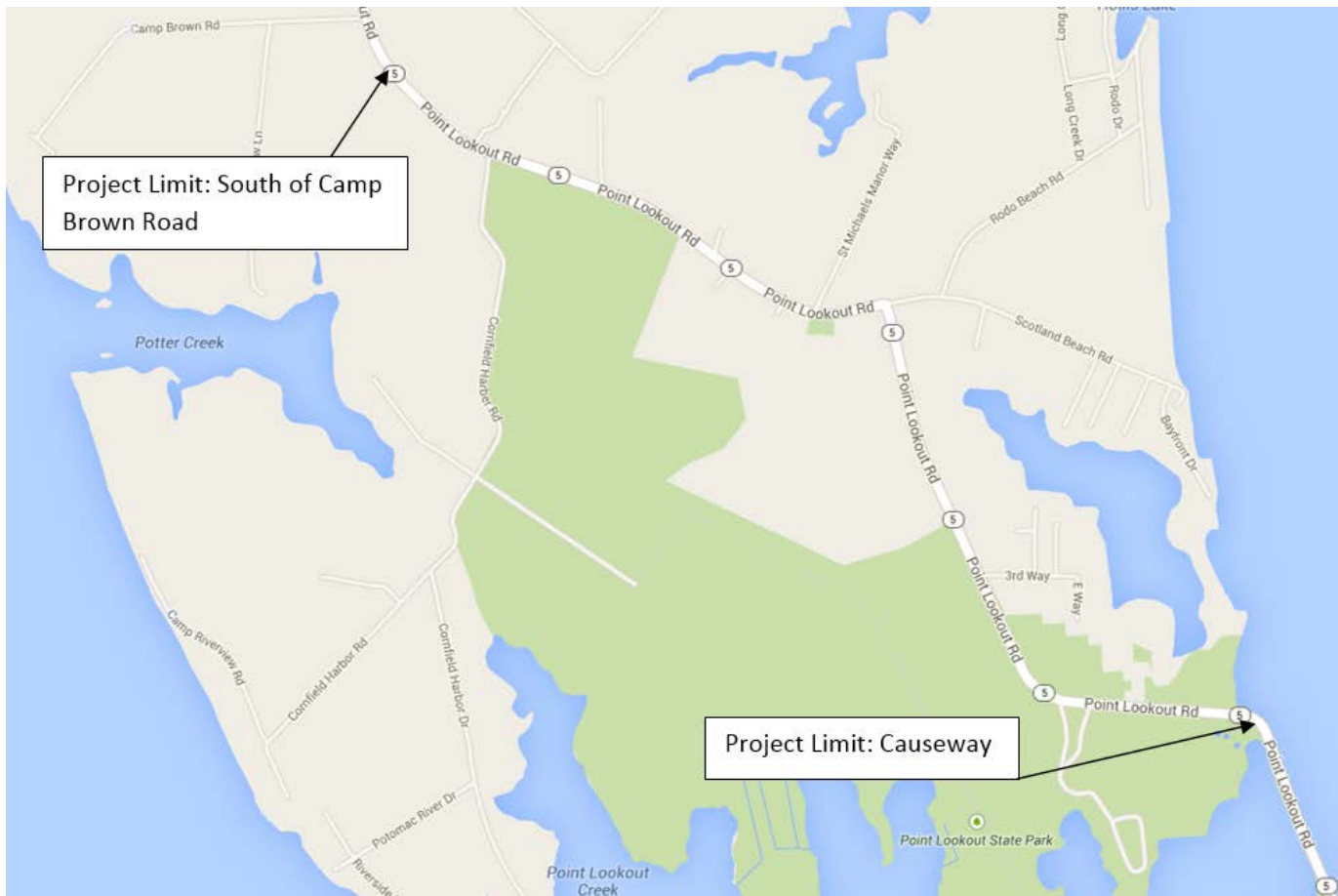


INFORMATIONAL MEETING
February 22, 2017

Overview

- MD 5 (Point Lookout Road) Project Overview
- Construction Management at Risk Project Delivery Overview
- Overview of the Procurement Process

Project Study Area



Background

- Need for improvements first identified in 1978 and 1982 Comprehensive Land Use Plan by St. Mary's County
- Identified as a high priority project by St. Mary's County in letters to SHA from 1988 through 1993
- Planning study complete and location approval received April 3, 1997
- Design Phase started in 1997; placed on hold in 2000
- NEPA Re-evaluation approved May 2003, Value Engineering study conducted in December 2003
- Design Phase re-started from the beginning to accommodate new environmental regulations in 2014

Purpose and Need

PURPOSE

- Improve safety and traffic operations along the MD 5 corridor and the only entrance to Point Lookout State Park for residents, recreational vehicles, pedestrians, bicyclists, and park users

NEED

- To provide sufficient roadway width to reduce accident potential
- To accommodate pedestrians and bicyclists along MD 5

What We Did...

- Project Planning began in 1992
- 6 Alternatives were initially studied
- In 1996, No-Build and Alternative 5 were studied in detail
- In 1997, Alternate 5 was identified as the selected alternative

Impacts of each Alternative

SUMMARY OF ALTERNATES

	ALTERNATE 1 (No Build)	ALTERNATE 5 (Recommended)	ALTERNATE 2 East/Reloc.	ALTERNATE 3 West/Reloc.	ALTERNATE 4	ALTERNATE 1A (w/Alt. 5)
LENGTH (Miles)	0	2.25	2.4	2.1	2.25	2.30
PROPERTIES AFFECTED						
Residential	0	13	9	0	24	24
Commercial	0	1	0	0	1	1
Recreational	0	1	1	1	1	1
TOTAL	0	15	10	1	26	26
FARMS SEGMENTED	NO	NO	YES	NO	NO	NO
RIGHT-OF-WAY (Acres)						
Residential	0	4.80	7.05	0	5.6	5.75
Commercial	0	0.25	0	0	0.1	0.25
Recreational (Park)	0	3.25	3.25	13.7	3.4	3.25
TOTAL	0	8.30	10.3	13.7	9.1	9.25
ENVIRONMENTAL IMPACTS (Acres)						
Wetlands	0	0.70	0.6	0.2	1.55	0.70
Reforestation	0	0.75	10	12.2	0.85	0.85
Chesapeake Bay Critical Area	0	5.50	10.1	4.2	5.5	5.5
Historic	0	0	0	0	0	0
Cost (Millions)	0.0	6.0	8.0	11.0	6.3	6.4

Changes since 2003

- Value Engineering Study – December 2003 removed the additional 18 inches of overlay previously proposed
- Hiker-biker trail will extend from the DNR Ranger Station to the Causeway (end of SHA Road ownership) rather than to the end of the park
- New wetland delineation conducted found 25 wetlands, tidal and non-tidal, adjacent to the project
- Geometric realignment and widening in both the NB and SB directions to minimize wetland impacts

Current MD 5 (Point Lookout) Project

Display 1 of 2



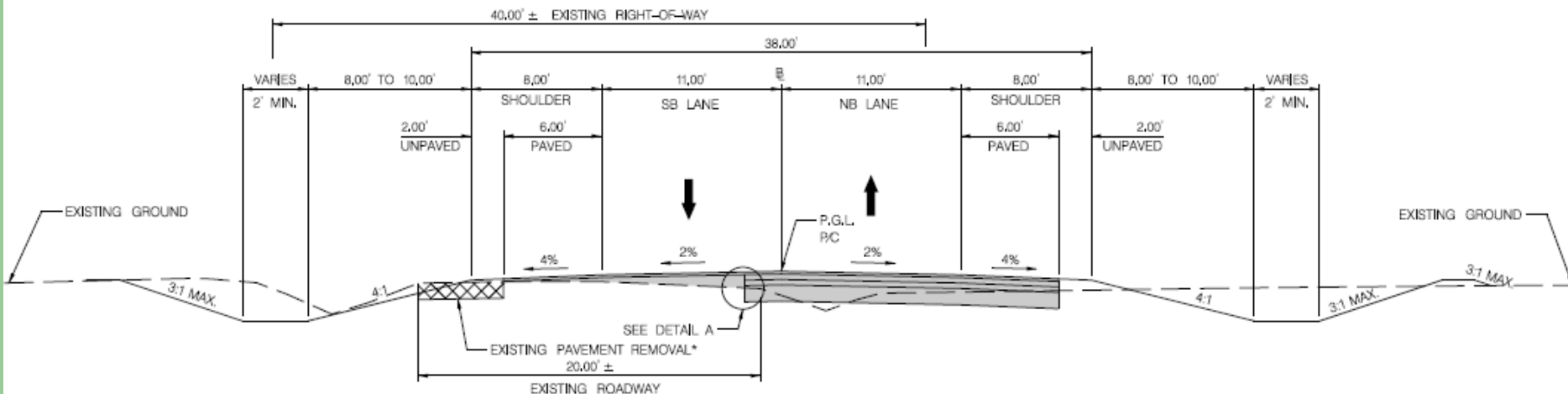
Current MD 5 (Point Lookout) Project

Display 2 of 2



Current MD 5 (Point Lookout) Project

Typical Section



* PAVEMENT REMOVAL AND PAVEMENT WIDENING OCCURS ON THE LEFT AND RIGHT SIDES OF THE ROADWAY THROUGHOUT THIS SECTION, REFER TO PLAN SHEETS FOR LOCATIONS, WHERE PAVEMENT WIDENING IS REQUIRED, IT SHALL BE A MINIMUM OF 4' WIDE.

MD 5 NORMAL SECTION

Project Elements:

Construction is anticipated to consist of the following major elements:

- Widening and geometric realignment of MD 5 (Point Lookout Road)
- Maintenance of Traffic
- Pavement construction
- Bike path construction
- Roadway culvert replacement
- Stormwater management and Erosion and Sediment Control
- Signing and pavement marking
- Landscaping
- Wetland mitigation
- Reforestation

Project Challenges:

- The Maintenance of Traffic (MOT) plan needs to provide sufficient capacity and safety during construction while minimizing impacts to the traveling public.
- Impacts are anticipated, but should be minimized, to wetlands, 100 year floodplain, and Chesapeake Bay Critical Area buffer. Off-site wetland mitigation will be required.
- Pavement failure due to wet soils and flat topography can make achieving proper drainage difficult.
- Coordination with the DNR and residents will be necessary. Mitigation to DNR through the construction of a bicycle path is anticipated.
- Avoidance and minimization of temporary impacts to natural resources during construction is desired.

Project Status and Issues:

- Project is funded for construction – construction cost must be less than or equal to budget - \$17.8 M (including contractor cost, SHA construction management, and utility relocations).
- Project has reached the 50% design level
- Coordination is ongoing with Environmental Agencies regarding impacts and required mitigation
- Project will require a National Environmental Policy Act Reevaluation
- Construction is scheduled to start by Fall 2018

Major Stakeholders

- St. Mary's County
- Residents and visitors to Point Lookout State Park
- Maryland Department of the Environment (MDE)
- Maryland Department of Natural Resources (MDNR)
- US Army Corps of Engineers (USACE)
- US Fish and Wildlife Service (USFWS)
- Maryland Historical Trust (MHT)
- Chesapeake Bay Critical Area Commission (CBCAC)

Construction Management at Risk (CMAR) Project Delivery



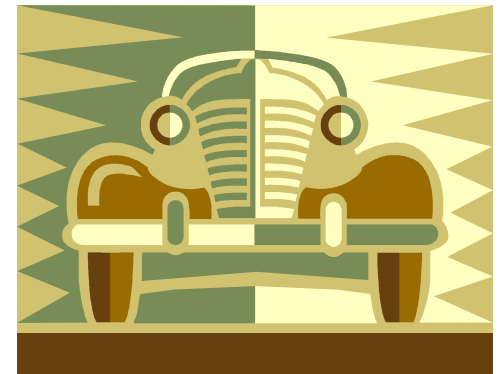
What is CMAR?

A project delivery method where SHA utilizes a two-phase construction contract with a General Contractor to:

- 1) Provide Preconstruction Services which may include, but are not limited to, constructability analysis, value analysis, scheduling, site assessments, and cost estimating;
- 2) Construct the project based on final design plans (or design packages) at an agreed Guaranteed Maximum Price (GMP)

Authority

- State – Code of Maryland Regulations (COMAR) 21.05.10
- Federal – Moving Ahead for Progress in the 21st Century (MAP-21) – *Construction Manager/General Contractor (CM/GC)*

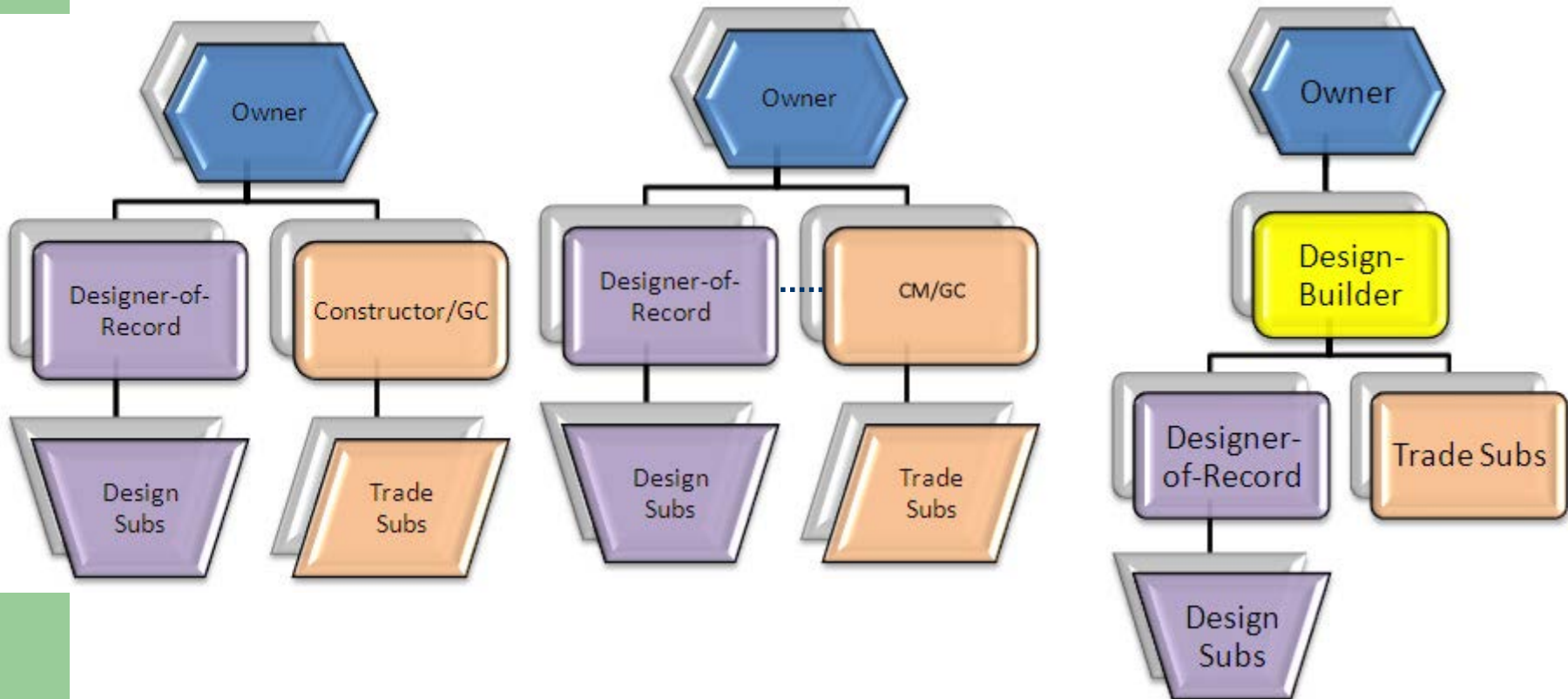


Project Delivery Methods

Design-Bid-Build

CMAR

Design-Build

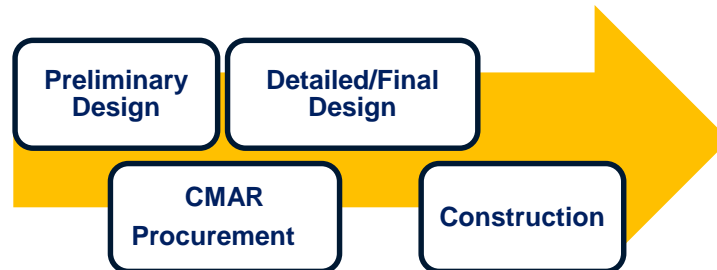


Project Development

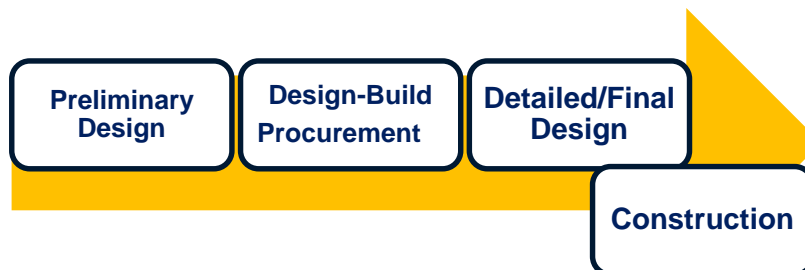
Design-Bid-Build
(DBB)



CMAR



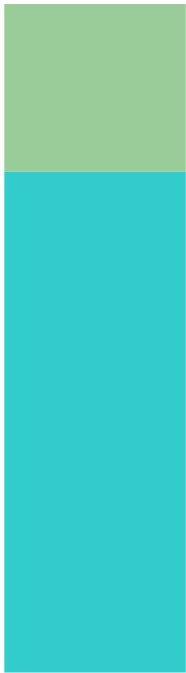
Design-Build
(DB)



Reasons for choosing CMAR

- Project Complexity
- Contractor Input During Design
- High Number of Potential Risks/Risk Allocation
- Scope Flexibility/Maximizing Dollars
- Cost Analysis of Multiple Design Options
- Informed Owner Decision Making

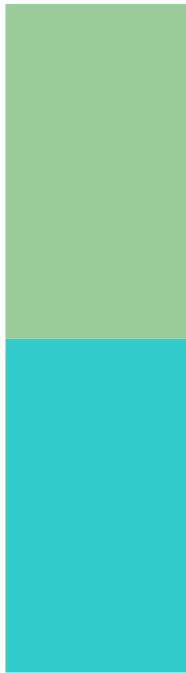
CMAR – Risk Allocation



DBB



DB



CMAR

- Contractor
- Owner

CMAR Expectations

- Meet Project Goals
- Fair Market Price
 - At or Below Proposed Price
- Improved Schedule
- Fewer Change Orders

CMAR Benefits

- Opportunity to bring on contractor during the design phase to work as an integrated team with the owner and its consultant/engineer to deliver the most efficient, and cost effective design
- Promotes innovation & collaboration
- Owner maintains decision making authority
- Greater cost certainty through GMP and reduction in change orders
- Still allows phased construction similar to design-build resulting in accelerated completion times. Phases must be stand alone and **severable**.
- Risk identification & management during design phase and controlled by the team
- Owner gets up front benefit of value engineering
- CMAR design documents are biddable packages, not necessarily full set of biddable contract documents

CMAR Potential Risks

- Transparency – Technical Qualifications and Approach are Main Elements for Selection
- Cost Validation – “Negotiated” vs. Bid
- Culture – New Process for All (SHA, Consultants, Contractor, Regulatory Agencies, Etc.)
- Risk – Limited Historical Usage for Heavy Highway Construction

CMAR Project Team

- Owner (SHA)
- Engineer under separate Contract with owner to provide all design services for the project.
- Two Phase Contract with General Contractor (GC)
 - GC selected through Best Value process
 - Phase 1 – Preconstruction Services - GC considered part of the design team providing constructability, cost, schedule and risk management input.
 - Phase 2 – GC and Owner agree on GMP to construct the project based upon final design plans (or design packages). If GMP cannot be agreed upon, then advertise as design-bid-build.

Independent Cost Estimator

- Independent party hired by SHA to prepare a series of detailed estimates.
- Estimates are performed independently from Contractor and SHA's Designer.
- Estimates are utilized as a basis of comparison for review of Contractor's GMPs and award of Construction Contract.

Cost Model Development

- Develop Cost Model for Project
 - Opinion of Probable Construction Cost (OPCC)
 - Guaranteed Maximum Price (GMP)
- Elements of Cost Model
 - CMAR Management Fee Percentage (from Price Proposal)
 - Items
 - Equipment Types and Rates
 - Material Sources
 - Labor
 - Subcontractor Items of Work
 - Risk Sharing Pool (Assignment and Agreement of Risks)
 - Schedule Agreement

Cost Model Development

- OPCC
 - To be submitted at various Design Completion milestones
 - Quantity Comparison/Agreement
 - Independent Pricing
 - Reconciliation Meeting to discuss differences in bidding assumptions

Once Design is Complete

- Contract documents have been developed collaboratively by team
- Follow typical procedures
 - DBE goals established for construction
 - Standard Specifications and current SP/SPIs
- GMP - Contractor and ICE will independently price project

Once GMP is Submitted

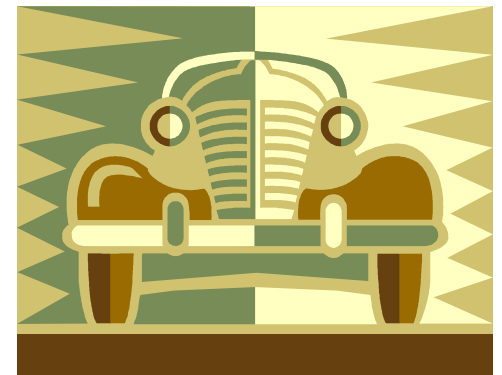
- Contractor and ICE prices
- Price Reconciliation Meetings as needed
- Up to 3 GMP Submittals allowed
 - Accept GMP and Award Contract
 - Terminate Contract and Bid Project as DBB

Procurement Process



Competitive Sealed Proposals

CM at Risk contracts will be procured using the “Competitive Sealed Proposals” procurement method as defined in the COMAR 21.05.03.



Competitive Sealed Proposals

One Step Procurement Process

Request For Proposals (RFP)

- *Technical Proposal*
- *Price Proposal*

Note: Proposers are responsible for all costs associated with responding to the RFP. All information included in responses to RFP shall be become property of SHA.

Technical Proposals

Evaluation Factors

- *Capability of the Proposer*
- *Project Approach*
- *Approach to Cost Estimating*
- *Legal and Financial Information*

Technical Proposals

- Capability of the Proposer
 - Key Staff
 - Project Manager – must be employee of the Prime or JV Contractor
 - Construction Manager
 - Cost Estimator
 - Team Past Performance
 - Organizational Chart

Technical Proposals

- Project Approach
 - Preconstruction Approach
 - Construction Approach
- Approach to Cost Estimating
 - Providing an open and transparent estimating environment
 - Sample Estimate
 - Contracting Plan

Technical Proposals

- Legal and Financial Information (pass/fail)
 - Team Organization
 - Liability
 - Bonding Capability (Cost Group G)
 - Past Contract Terminations

Price Proposals

Evaluation Factors

- *Preconstruction Fee (Lump Sum price)*
- *CMAR Management Fee Percentage*

Included in Percentage	Not Included in Percentage
Project Principal	Project Manager, Construction Manager
Home Office Support Staff	All On Site CM Staff
Safety Staff	On Site Administrative Staff
Quality Control (QC) Support Staff	Direct costs related to Safety, QC
Cost Estimator during construction	Other project direct costs such as materials, equipment, and labor
Profit	

Evaluations of Technical and Price Proposals

- Technical and Price Proposals are evaluated separately
- Best Value Process – most advantageous to the State considering technical evaluation factors and price.
- Adjectival Rating process
- Evaluation Factors and Subfactors weighting – Critical, Significant, Important
- Importance of Technical Proposal is significantly more important than Price Proposal

Request For Proposals (RFP)

PROPOSED PROCURMENT SCHEDULE

Issue RFP	March 28, 2017
Final Date for Proposer's Questions	April 19, 2017
Letter of Interest Due	April 26, 2017
Technical and Price Proposal Submittal to SHA	May 3, 2017
Selection of Successful Proposer	June 2017
Preconstruction Notice to Proceed	July 2017
Target for GMP Submittal	July 2018
Target Construction Notice to Proceed	Fall 2018

Questions/Feedback?

Information related to this presentation will be available at the following: www.roads.maryland.gov under Business; Contracts, Bids & Proposals; Construction Management at Risk Projects

Email: SM7745171_MD_5@sha.state.md.us

Technical Proposals from previous projects are available at the following: www.roads.Maryland.gov under Business; Contracts, Bids & Proposals; Construction Management at Risk Projects