ARTBA Northeastern Regional Meeting
Design-Build Roundtable

Grand Hyatt Washington
October 24, 2018

Program Overview

- Presenters
- Virginia's Design Build Program
- Key Elements of Successful Design-Build Programs
  - Designer Perspectives
  - Contractor Perspectives
- Open Discussion & Questions

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Presenters

- Tom Witt - Va. Transportation Construction Alliance (VTCA)
- Jon Harman – Shirley Contracting Co., LLC
- Dave Mahoney, PE – Dewberry Engineers LLC

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Virginia's Design-Build Program

- Since 2004
  - 64 Projects
  - Over $1.5B
- Diversity
  - Project Sizes: $1M to over $500M
  - Complexity: Culvert Rehabs to High Rise Bridge

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Key Components of DB Success

- Owner-Industry Communication Starts Before Procurement
- VTCA-VDOT Continuously Engaged Since DB Legislation Adopted (2001)
- Methodical, Limited Introduction of DB Procurement

Key Components of DB Success

- Joint Design-Build Committee Established by VTCA and VDOT
  - Developed Procurement Process/Policies from Inception
  - Directly and Jointly Address Issues by the Industry or the Owner
- DBE Participation
  - Utility Impact on DBE Percentages
  - DBE Subcontractor Commitments

Key Components of DB Success

- Select the Right Projects for Design Build
  - Design Build Can Reduce Construction Time
  - Design Build Can Obligate Funding (Design/Construction)
  - Selecting Wrong Project Sets up for Failure

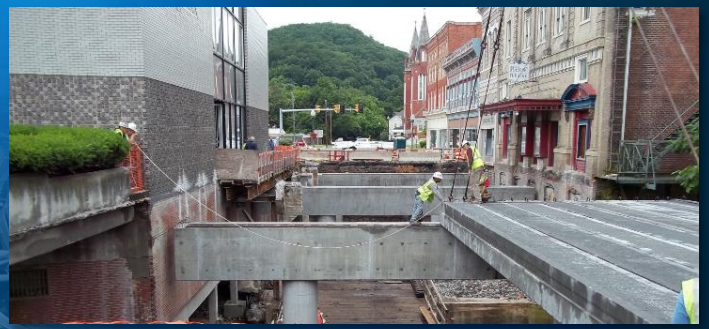
Key Components of DB Success

- Procurement Variations within Design Build
  - Not a one size fits all approach

- Virginia's Procurement Tools
  - Single-phase (One Step)
    - Narrowly Defined Scope, Low Risk, Low Complexity
  - Two-phase (Two Step)
    - High Risk, High Complexity

Key Components of DB Success

- Virginia's Procurement Tools
  - Progressive Design Build – Earliest Project Stage
  - P3 – Alternative Financial Components



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Key Components of DB Success

Contractor Perspective

IT'S ALL ABOUT RISK…

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Key Components of DB Success

Bid-Build Risk/Responsibilities

Owner

Oversight/Management

Finance

Design

Right-of-Way

Utilities

Environmental Permitting

Quality Assurance/Control

Operate & Maintain

Contractor

Construction

Schedule

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Key Components of DB Success

Design-Build Risk/Responsibilities

Owner

Oversight/Management

Finance

Quality Verification

Operate & Maintain

Contractor

Construction

Schedule

Design

Right-of-Way

Utilities

Environmental Permitting

Quality Assurance/Control

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Key Components of DB Success

Why Design-Build??

- Overall project timeline typically shorter
- True concurrent activities result in streamlined, cost effective projects
- More collaboration between design and construction
- Effective for Complex Projects
- Less demand on Owner resources
- Risk sharing
- Fewer work orders

Key Components of DB Success

SCHEDULE COMPARISON:

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Key Components of DB Success

THE GOOD AND THE BAD:

- The Good:
  - ✓ Overall Project Time Decreased
  - ✓ Design/Builder Provides Turn-Key Delivery
  - ✓ Allows Creativity and Innovation
  - ✓ Increases Productive Problem Solving
  - ✓ Greater Schedule Flexibility During Project
  - ✓ Contractor Has Input Into Design
  - ✓ Designer Experiences All Project Elements
  - ✓ Fosters Real “Partnerships” and “Team Approach”

Key Components of DB Success

THE GOOD AND THE BAD:

- The Bad:
  - Up-Front Proposal Costs are a Factor
  - Design at Bid is at Conceptual Level
  - Price is Lump Sum
  - Project Risk is Mostly on Design/Builder
  - Utilities, Permitting and ROW are Design/Builders Risk and Responsibility

Key Components of DB Success

- D/B Considerations:
  - ✓ Project Scope clearly defined in RFP
  - ✓ Ensure compliance to minimum requirements
  - ✓ “Shall” vs. “Should”
  - ✓ NEPA document completed prior to RFP
  - ✓ Public Involvement completed prior to RFP
  - ✓ Limit the “unknowns” (ie: Geotech)
  - ✓ Balance schedule with risk
  - ✓ Reasonable Stipend
  - ✓ Factor in DBE’s
  - ✓ Proprietary Meetings
  - ✓ Number of Shortlisted Teams
  - ✓ Incentives for Milestones/Completion

Key Components of DB Success

TYPES OF DESIGN/BUILD PROCUREMENT:

- ONE STEP:
  - Minimal Prequalification Requirements – PASS/FAIL
  - Open to all Pre-Qualified Teams
  - Winner is LOW-BID
  - No Stipend
  - Design Advanced
  - Less Room for Creativity and Innovation

Key Components of DB Success

TYPES OF DESIGN/BUILD PROCUREMENT:

- TWO STEP/LOW BID:
  - RFQ Submittal – Owner Evaluates Qualifications Submittal and Shortlists 3 Teams
  - RFP Submittal – Shortlist Teams Submit Minimal Technical Proposal to Allow Owner to Verify Compliance
  - Price Proposal Submittal – Winner is LOW-BID
  - Typically No Stipend
  - Design Submittal Required
  - Allows More Creativity and Innovation than ONE-STEP

Key Components of DB Success

TYPES OF DESIGN/BUILD PROCUREMENT:

- TWO STEP/BEST VALUE:
  - RFQ Submittal – Owner Evaluates Qualifications Submittal and Shortlists 3 Teams
  - RFP Submittal – Shortlist Teams Submit Detailed Technical Proposal; Owner Evaluates and Scores
  - Price Proposal Submittal – Owner Ranks and Scores
  - Winner is Team with Highest Combined Score (Not Necessarily Low Price)
  - Stipend is typical
  - Detailed Design Submittal Required
  - Detailed Project Schedule Required
  - Allows Highest Creativity and Innovation

Key Components of DB Success

Designer Perspective

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Key Components of DB Success

- A Strong RFP Process:
  - Should Allow and Encourage Innovation
  - Should Outline the Process
    - “equal to or better” vs. LOS Requirements

Key Components of DB Success

- Committed Owner and DB Teams
  - Team Consistency from Beginning to End
- Scoring: Technical Score/Price Split
  - Virginia uses 30/70 split

Key Components of DB Success

- Design-Build Timelines
  - RFQ – 60 Days
  - RFP to Technical Proposal – 4 to 6 months
  - Technical Proposal to Price Submission – 30 Days
- Scope Validation
  - 90 Days

Key Components of DB Success

- Alternative Technical Concepts Process
- Proprietary Meetings

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QUESTIONS/DISCUSSION?

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