FHWA EDC–II TRAINING
ALTERNATIVE CONTRACTING METHODS
Jerry Blanding,
FHWA Resource Center-Baltimore

- EDC 2 – D-B Technical Lead
- Innovative Contracting Specialist
Agenda

• EDC II – ACM Overview
  – MAP 21 Provisions
• D-B Overview
• The D-B Process
• The Benefits of B-B
• Keys to D-B Success
• Q & A
Historical Perspective

Construction Project Delivery

- Code of Hammurabi (Design-Build) 1800 B.C.
- Classical Greece (Design-Build) 450 B.C.
- Middle Ages Cathedrals (Design-Build) 1200 A.D.
- Renaissance Emergence of Design-Bid-Build 1450
- Private Sector Re-emergence of Design-Build & CMAR 1960s
- Public Sector Re-emergence of Design-Build 1980s
- Establishment of the Design-Build Institute of America 1993
- Passage of Federal Acquisition Reform Act 1996
Mid-1800’s, many states adopt “low bid” requirements

1938 Federal Highway Act required competitive bidding

1968 Federal Highway Act revised Title 23 USC to award construction contracts, “...only on the basis of the lowest responsive bid.”

February 2, 1990, FHWA establishes “Special Experimental Project No. 14 – Innovative Contacting”

1998 TEA-21 authorizes design-build

2012 MAP-21 S. 1303 authorizes CMGC
PROJECT DELIVERY METHODS

Design-Bid-Build

CM/GC

Design-Build
Shortening Project Delivery Initiative

ALTERNATIVE CONTRACTING METHODS

CM/GC

Owner

Designer-of-Record

Design Subs

CM/GC

Trade Subs

ATC

Owner

Design-Builder

Designer-of-Record

Design Subs

Trade Subs

Design-Build

Owner

Design-Builder

Designer-of-Record

Trade Subs

Design Subs
MAP-21 - Key Provisions

Section 1303 *(pertains to CM/GC)*
- Allows for the use of CM/GC contracting
- SEP-14 approval no longer required after October 1, 2012

Section 1304 *(pertains to CM/GC, D-B, and ATC)*
- Increased Federal share for innovative project delivery methods
SCHEDULE/TIMELINE COMPARISON

- **Traditional**
  - Design → Advertise/Bid → Select → Construction

- **Design Build**
  - Design → Select → Construction
  - RFQ, RFP

- **CMGC**
  - Design → Select → Construction
  - RFP

Legend:
- A: Consultant NTP
- B: Advertise/Bid Open
- C: Contractor Selection
- D: Construction NTP
- E: Substantially Complete
- A-B: Design Time
- A-C: Selection Time
- D-E: Construction Time
- A-E: Project Time
PROJECT DELIVERY OPTIONS
Choosing the Delivery Method

Diagram showing project delivery options:
- DBB
- ID/IQ
- CMGC
- DB
- PPP

Risk distribution:
- Agency Risk
- Private Risk
- Total Risk
Complexity, Risk, Potential for Innovation, Flexibility Required, Client Involvement, Supply vs Demand, Program Constraint

*P10-0274: Design-Build Contracting using a Competitively Negotiated Design by Eric Scheepbouer*
All contracting agencies should have a project delivery “toolbox” including:

- Design-Bid-Build +ATC
- **Design-Build** *
- **Construction Manager/General Contractor** *
  (Construction Manager at-Risk)
- Alliance Contracting
- Best-Value
- Performance Contracting
- ID/IQ contracting
- Other

+ ATC applies to all Delivery Methods

[www.dot.gov/everydaycounts](http://www.dot.gov/everydaycounts)
FHWA EDC-II

Alternative Contracting Methods

Core Team

**Rob Elliott**
Alternative Contracting Methods Team Lead
Construction and Project Management Team Manager, FHWA-RC

**Jeff Lewis**
Construction and Contract Administration Team Leader, FHWA-RC

**John Haynes**
CM/GC Team Lead
Transportation Specialist, FHWA-Utah

**Jerry Blanding**
D-B Team Lead
Innovative Contracting Engineer, FHWA-RC

**Craig Actis**
ATC Team Lead
Project Management Engineer, FHWA-RC

**Deborah Vocke**
Senior Marketing Specialist, FHWA-Office of Public Communications

**Greg Doyle**
Technical Programs Manager / Construction Quality Engineer, FHWA-MA

**David Unkefer**
Construction & Project Management Engineer, FHWA-RC
DESIGN/BUILD
CONTRACTING
Agenda

- D-B Overview
- The D-B Process
- The Benefits of B-B
- Keys to D-B Success
- Q & A
Design-Build

D-B Overview
What is D-B?

- “One Step” or “Two Step” competitive negotiation
- Proposals based on definitive performance criteria
- Uses Request for Proposals instead of Invitation for Bids procedures
- Awards on Best Value basis
Alternative Contracting Methods

Design-Bid-Build

Design-Build

CM/GC
Which Tool from the Toolbox?

- You have a complex or urban job with third-party inputs, staffing issues, D-B designer issues? **GO CM/GC**
- You have design and not complex paving or rehab jobs? **GO D-B-B**
- You want speed and have limited staff? **GO D-B instead**
D-B Project Delivery

The Process
D-B Contract Components

**Project Delivery Method**
- DBB; CMGC; DB

**Procurement Procedure**
- Low Bid; Best Value; Qualifications-based; Sole Source

**Contract Payment Provision**
- Lump Sum; Fixed Price; Cost Plus Fee; Cost Reimbursable

**Trend in Transit and Airports is**
- *DB-QBS-GMP*
Request for Qualifications

- Phase I of Two Phase Procurement Process
  - Phase I – Request for Qualifications (RFQ)
  - Phase II – Request for Proposal (RFP)
- Seeks Statement of Qualifications (SOQ) from Prospective “DB Teams”
- Establishes “Short-List” of DB Teams
RFQ Process

• STEP 1 - Agency Prepare & Issue RFQ
• STEP 2 - Agency Receive DB Team Questions
• STEP 3 - DB Teams Submit SOQs
• STEP 4 - Agency Select Short-List of DB Teams
Request for Proposal

• Phase II of Two Phase Procurement Process
  ▪ Phase I – Request for Qualifications (RFQ)
  ▪ Phase II – Request for Proposal (RFP)

• Seeks Proposals from Phase I Short-Listed “DB Teams”
  ▪ Technical Proposal
  ▪ Price Proposal
Request for Proposal Process

STEP 1 - Agency Prepare & Issue RFP
STEP 2 - Pre-Proposal Meeting (optional)
STEP 3 - Agency Receive DB Team Questions
STEP 4 - DB Teams Submit Proposals
STEP 5 - Agency Review and Score Technical Proposals
STEP 6 - Agency Hold Oral Presentations (optional)
STEP 7 - Agency Select Successful DB Team
Evaluation Process Progression

1. Submit Technical and Price Proposals
2. Owner Evaluates/Scores Technical Proposal
3. Owner Opens Price Proposal
4. Owner combines Technical and Price Proposals
5. Recommendation made to Selection Official
6. Selection Official confirms selection
7. Contract Awarded

Oral interviews could be part of process – Let everyone know how
Design-Build Contract Model

Contractor
- Price Proposal
- Technical Proposal
- Request for Proposal

Owner

EOR
- Plans
- Specs

ATCs

Contract
- Boilerplate Standards
- Standard Specifications
- DOT Reference Guides
- Preliminary Designs
- National Guides

Construction
- As-Built

Sleep Drawings
D-B Team Structures

- OWNER
  - Integrated Design-Build Firm

- OWNER
  - GC Prime
  - A/E

- OWNER
  - A/E Prime
  - Constructor

- OWNER
  - Joint Venture
  - A/E
  - Constructor
D-B Project Delivery

The Benefits
Benefits of D-B

- Time savings – usually a fixed date
- Fixed Price (Cost Controls)
- Constructible Designs
- Help with staffing issues
  - Expertise
  - Numbers of staff
- Money committed
- Less Risk (Allocated to Appropriate Party)
D-B Project Delivery

Wrapping Up
Keys Points to Remember

1. Design-Build has been around for a long time
2. Design-Build is a tool
3. Most owner use D-B for time savings/fixed schedule
4. D-B is flexible in Procurement and Payment
5. D-B is different for owners to administer
Why Use D-B Contracting?

This method offers significant advantages and benefits:

• Better designs = value engineering savings
• Increased opportunities for time and cost savings
• Increased innovation and creativity
• Owner control of the design
• Competitive process leads to “Best Value”
D-B Contracting

Bottom Line:
The D-B contracting method is a good option for many transportation projects, where the qualifications and cooperation of the contractor are critical to the success of the project.
D-B Project Delivery

RESOURCES
D-B Support & Available Tools

- Federal-Aid Essentials for Local Public Agencies

- General Information
  - Design-Build Effectiveness Study - Report to Congress as required by TEA-21, Section 1307(f)
D-B Tools

- **Design-Build Contracting for Highway Projects**
  A Performance Assessment, May 2005, Tom Warne and Associates, LLC

- **Utility Involvement in South Carolina Design-Build Projects**

- **Design-Build Contracts and Right-of-Way**
  a 2001 document prepared by the FHWA Office of Real Estate Services

- **Design-Build Contracts and Right-of-Way Activities**
  a 2000 document prepared by the FHWA Office of Real Estate Services

- **2002 Survey on the Current Use of Design-Build**
  by SAIC for Illinois DOT

- **Prerequisite for Design-Build**
  Considerations for Implementing Design-Build Contracts in the Federal-aid Highway Program by L. Gary Byrd

- **Utah State University Innovative Contracting Home Page**
  provides work plans, evaluations and other information collected from the FHWA's Innovative Contracting Program SEP-14.

- **"Innovative Project Delivery Methods for Infrastructure An International Perspective"**
  (pdf, 665 kb) Finnish Road Enterprise
Additional Training?

• Design-Build Institute of America
• National Transit Institute
• American Society of Civil Engineers
  - Design-Build Training

Federal Publication Seminars
• Design-Build Construction
  
  http://www.fedpubseminars.com/seminar/dbc.html
Questions?

Jerry Blanding  
Innovative Contracting Engineer  
FHWA Resource Center  
Phone: (410) 962-2253  
E-mail: jerry.blanding@dot.gov