



U.S. Department
of Transportation
Federal Highway
Administration



FHWA EDC-II TRAINING
**ALTERNATIVE CONTRACTING
METHODS**



EDC2

D-B Presenter

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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



Background:

FHWA Procurement Requirements and SEP-14

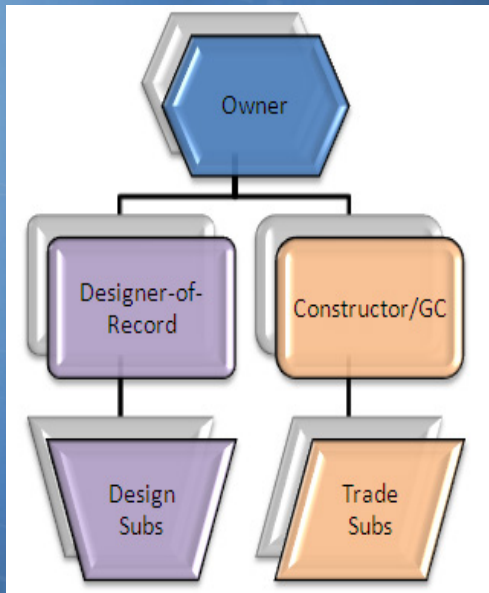
- Mid-1800's, many states adopt "low bid" requirements
- 1938 Federal Highway Act required competitive bidding
- 1968 Federal Highway Act revised Title 23 USC to award construction contracts, *"...only on the basis of the lowest responsive bid."*
- February 2, 1990, FHWA establishes "Special Experimental Project No. 14 – Innovative Contracting"
- 1998 TEA-21 authorizes design-build
- 2012 MAP-21 S. 1303 authorizes CMGC



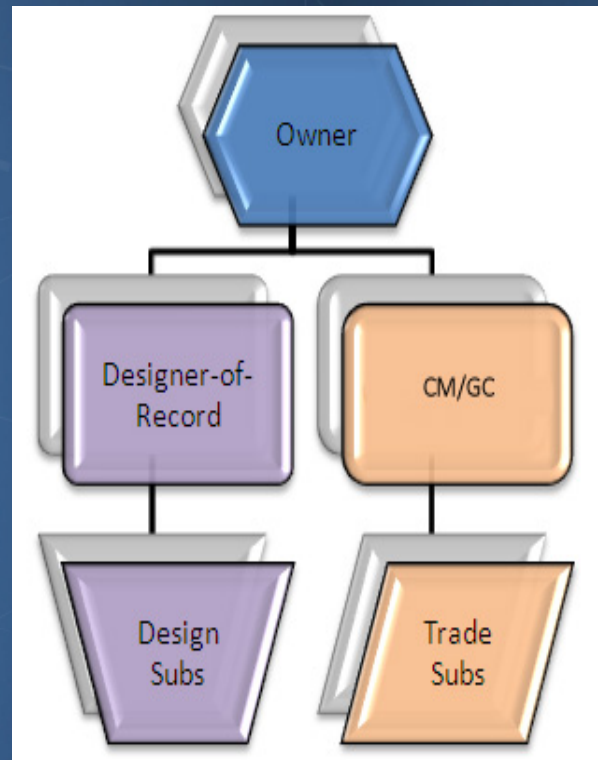


PROJECT DELIVERY METHODS

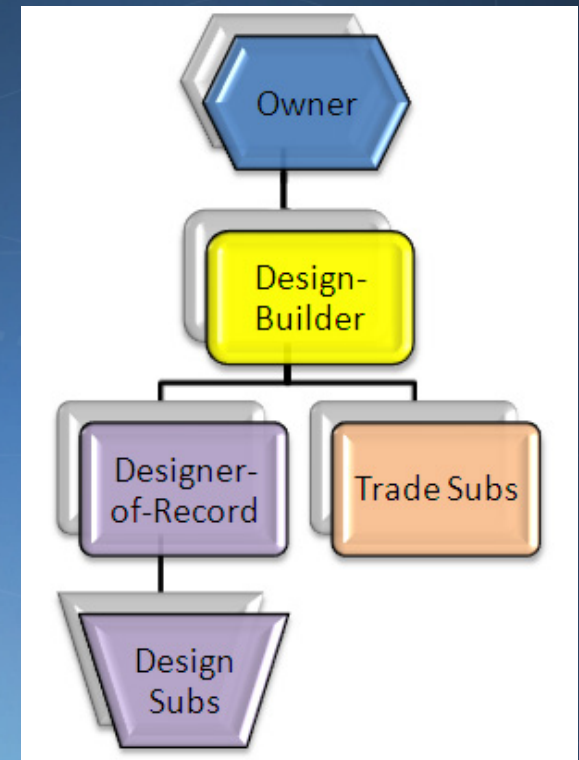
Design-Bid-Build



CM/GC



Design-Build

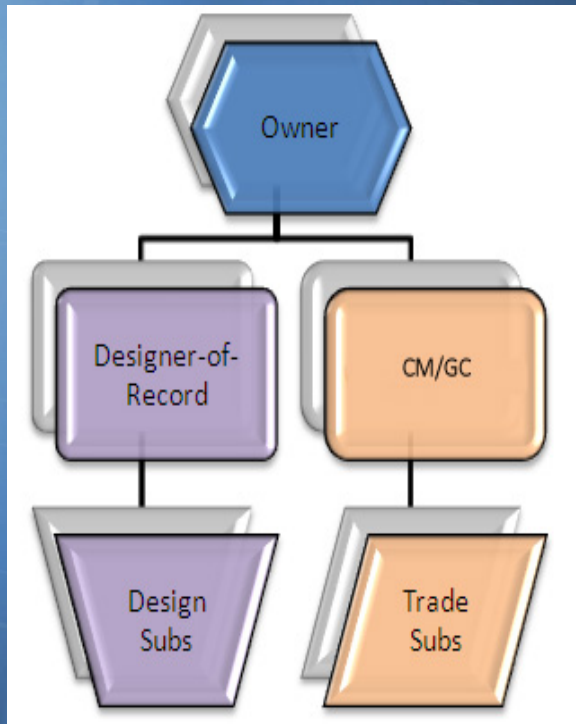




Shortening Project Delivery Initiative

ALTERNATIVE CONTRACTING METHODS

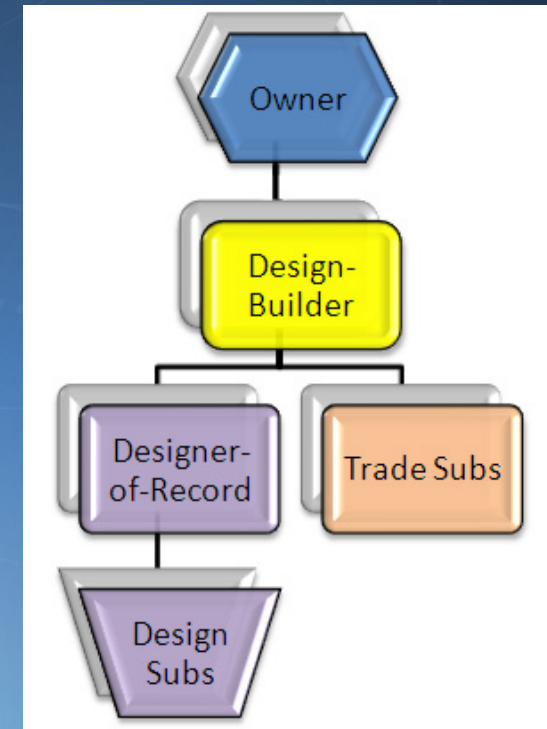
CM/GC



ATC



Design-Build





MAP-21 - Key Provisions

Section 1303 (pertains to CM/GC)

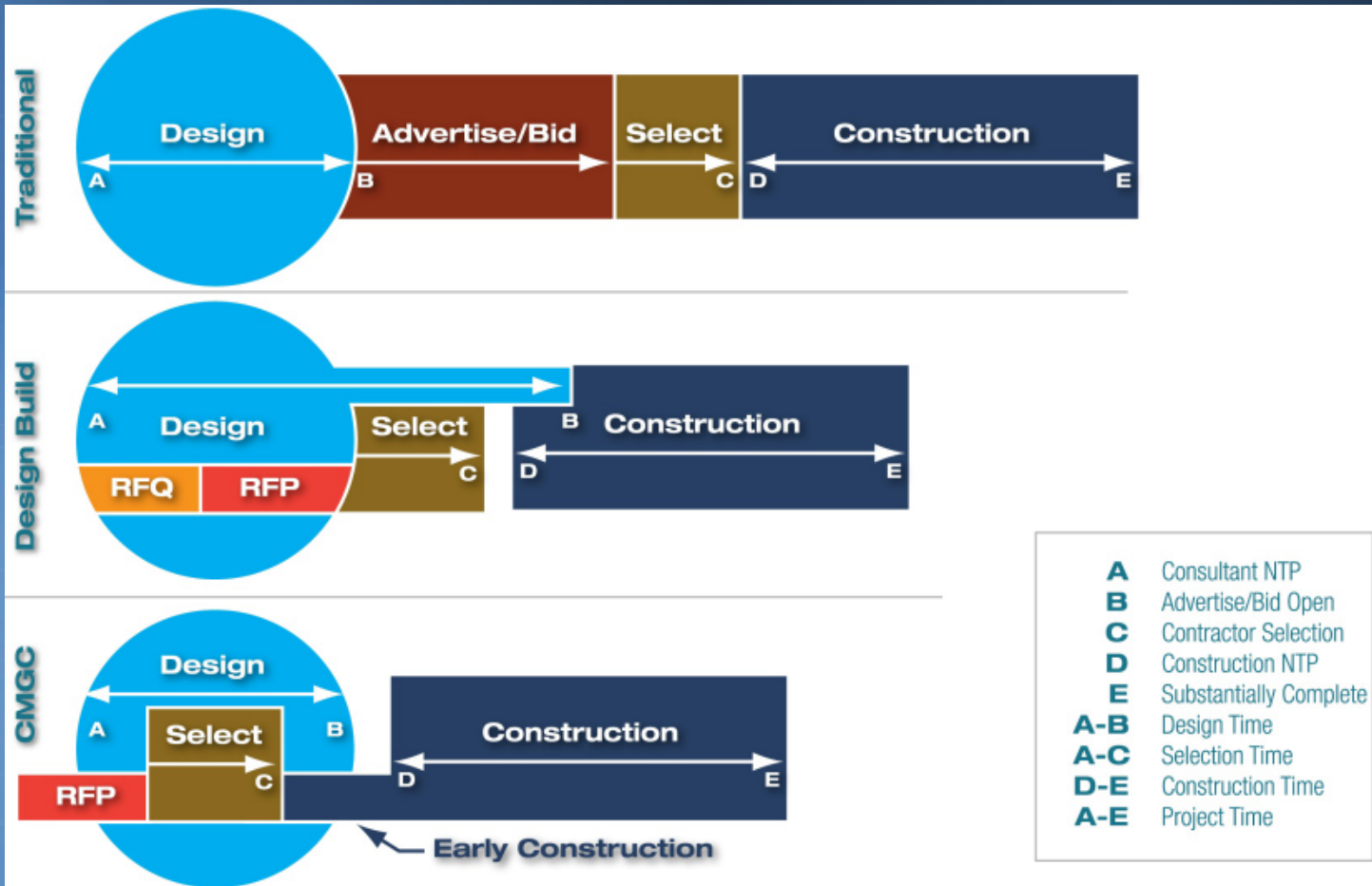
- Allows for the use of CM/GC contracting
- SEP-14 approval no longer required after October 1, 2012

Section 1304 (pertains to CM/GC, D-B, and ATC)

- Increased Federal share for innovative project delivery methods



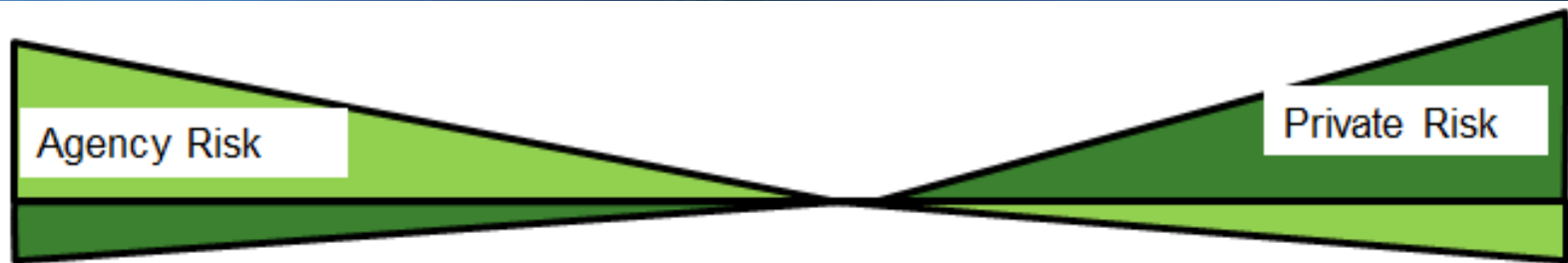
SCHEDULE/TIMELINE COMPARISON





PROJECT DELIVERY OPTIONS

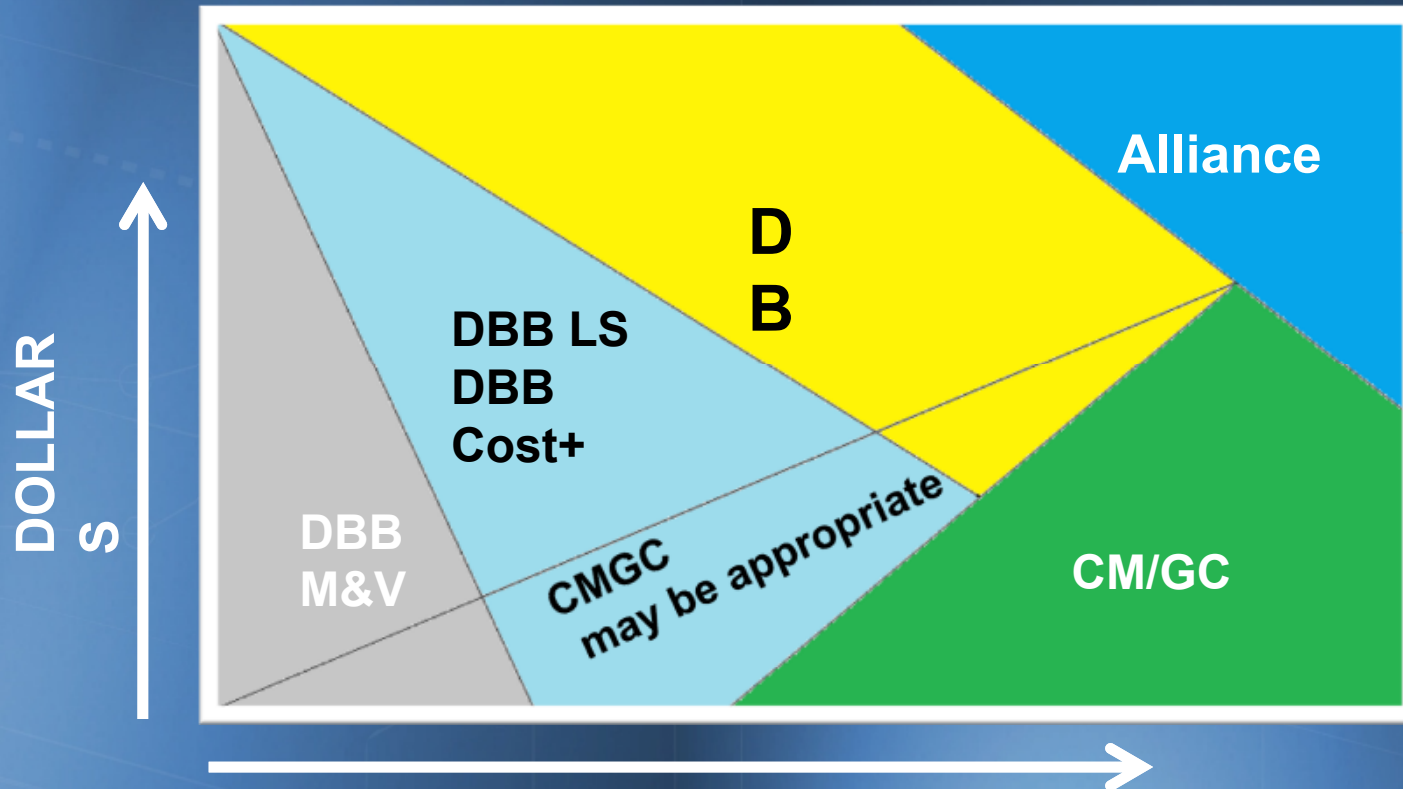
Choosing the Delivery Method





Shortening Project Delivery Initiative ALTERNATIVE CONTRACTING METHODS

New Zealand Selection Model



Complexity, Risk, Potential for Innovation, Flexibility Required,
Client Involvement, Supply vs Demand, Program Constraint



CONTRACTING METHODS

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



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*



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DESIGN/BUILD CONTRACTING



Agenda

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



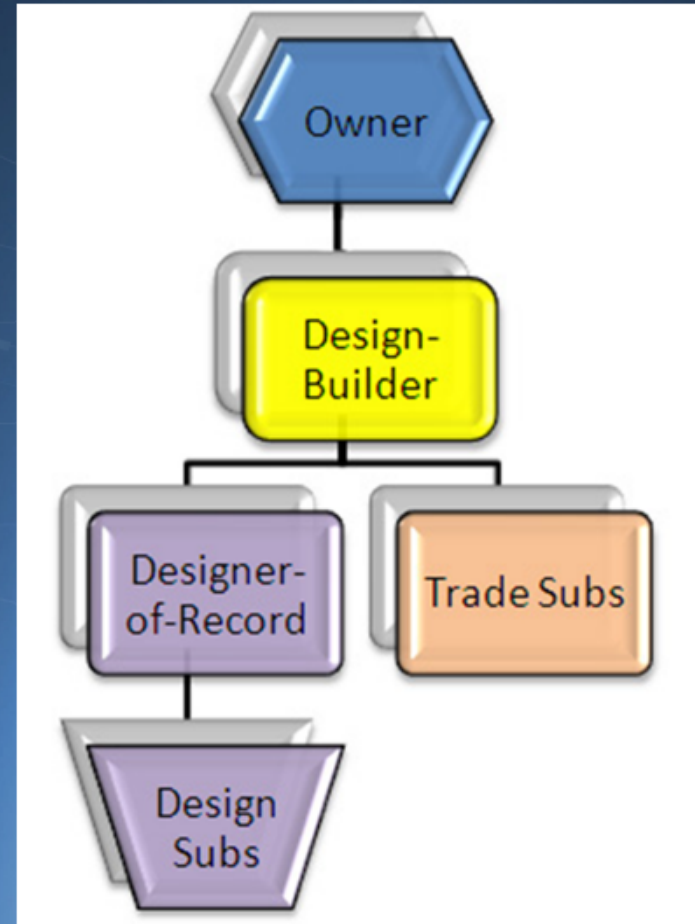
Design-Build

D-B Overview



What is D-B?

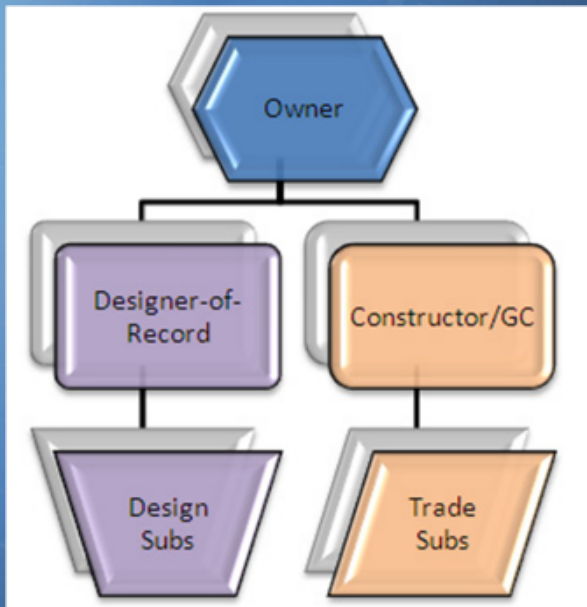
- “One Step” or “Two Step” competitive negotiation
- Proposals based on definitive performance criteria
- Uses Request for Proposals instead of Invitation for Bids procedures
- Awards on Best Value basis



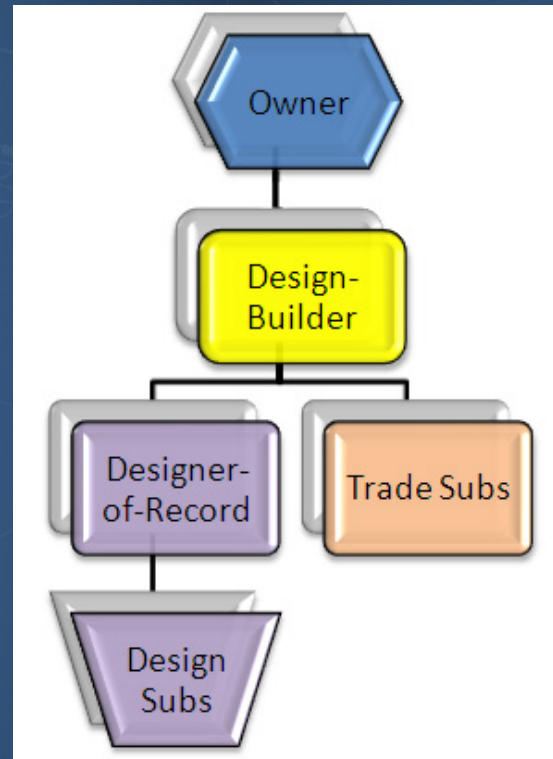


Alternative Contracting Methods

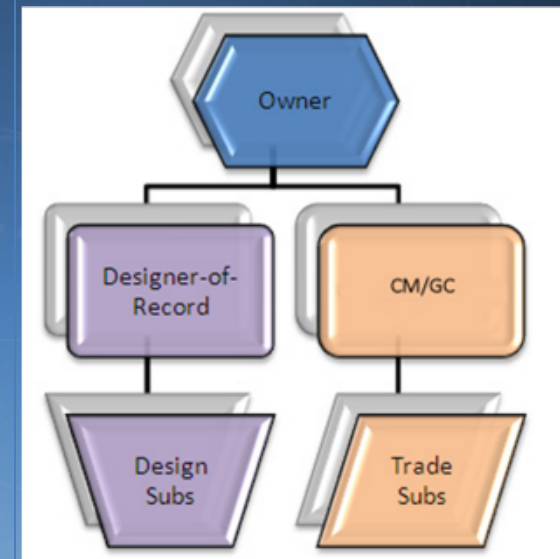
Design-Bid-Build



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

Submit Technical and Price Proposals

Owner Evaluates/Scores Technical Proposal

Owner Opens Price Proposal

Owner combines Technical and Price Proposals

Recommendation made to Selection Official

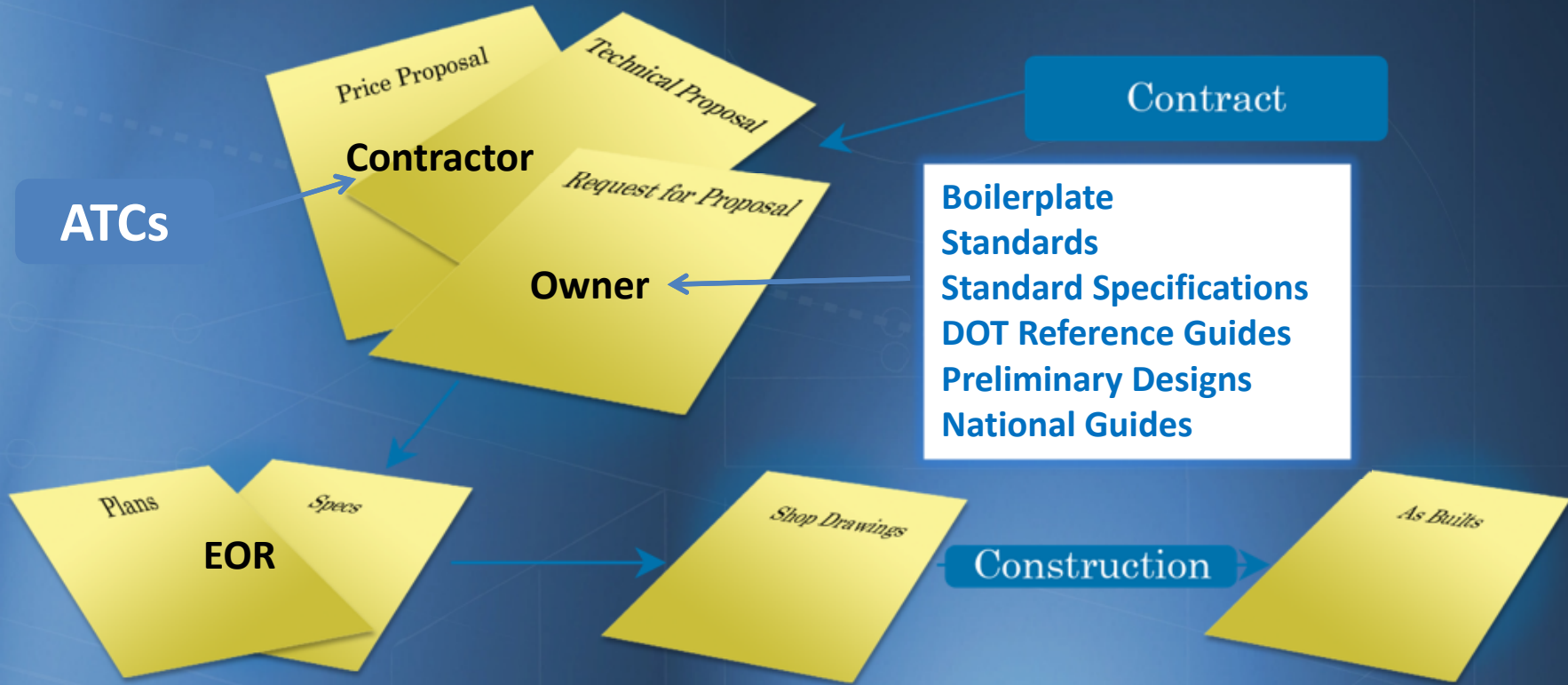
Selection Official confirms selection

Contract Awarded

Oral interviews could be part of process – Let everyone know how

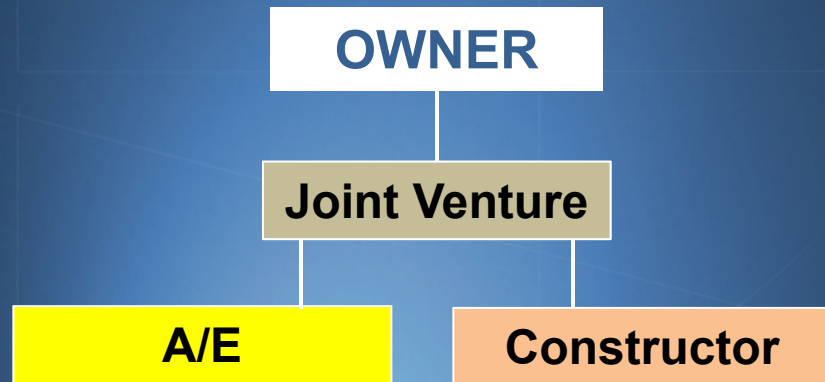


Design-Build Contract Model





D-B Team Structures





D-B Project Delivery

The Benefits

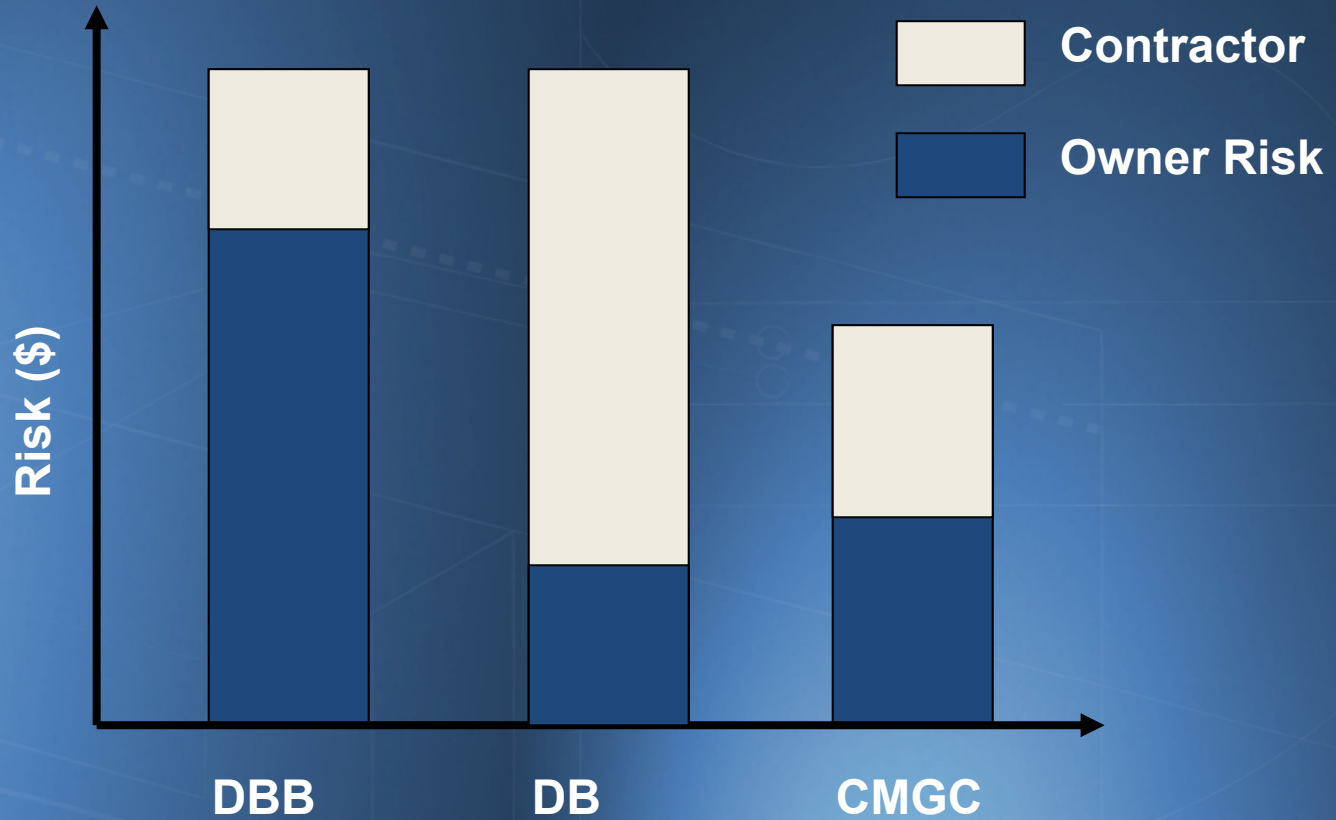


Benefits of D-B

- 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)



Risk Allocation





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
<http://www.fhwa.dot.gov/federal-aidessentials/catmod.cfm?id=81>
- General Information
 - "Current Design-Build Practices for Transportation Projects: A Compilation of Practices by the Transportation Design-Build Users Group" June 2009
 - Design-Build Effectiveness Study - Report to Congress as required by TEA-21, Section 1307(f)
 - Minnesota DOT's March 16, 2006 Report: Economic and Risk Assessment of Accelerating the ROC 52 Design and Construction Process (.pdf, 3.2 mb)



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***
March 2005 FHWA document.
- ***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



D-B Tools

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?

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