
Kiewit
Innovative Infrastructure
Programs for North Dakota
Fisher Industries


Kiewit
Presented to
The Transportation Committee
January 31, 2012
Fisher Industries

Joint Presentation By:

Kiewit & Fisher Industries

Joe Wingerter – Business Development Manager

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Tommy Fisher - President

Michael Moehn – Vice President

Tim Priebe – General Counsel/Secretary

Florian Friedt – General Manager/Fisher Industries

Kiewit Corporation

- More than 125 years of construction excellence
- Operations throughout North America
- Owned by active employees
- More than $9 billion in 2009 revenue
- One of the largest privately owned equipment fleets in North America
  - 21,500 units
  - More than $2 billion replacement value

1884-1940 Kiewit's beginnings

- Kiewit begins by building brick foundations for homes
- Kiewit wins large building contracts.
- In 1924, young Peter takes on more responsibility
- Kiewit wins contracts for reservoirs and hydroelectric plants
- Kiewit expands throughout the U.S.

1940-2000

- In the early 1940s, Kiewit builds more than $500 million of work for the government
- Kiewit ventures into a new line of business – coal mining
- In the 1950s, Kiewit works on the country's early superhighways
- In the mid-1960s, Kiewit establishes a presence in eastern Canada
- Throughout the 80s and 90s, Kiewit undergoes significant changes and corporate restructuring

2000 and today

- In 2001, Kiewit took on billion dollar-plus jobs such as the $1.28 billion T-REX project in Denver
- Kiewit engineers now create concept models including 3-D computer-aided design
- Kiewit completes the first Gold-certified Leadership in Energy and Environmental Design (LEED©) project in Nebraska

Fisher Industries

- North Dakota Company
- Founded in 1952
- 700+ Employees
- 4,000+ Equipment Pieces
- Operate in 11 States

Annual Production:

- Aggregates – 30 Million tons
- Asphalt – 2 Million tons
- Concrete – 200,000 yards
- Dirt/Excavation – 10 Million yards
- Steel – 7.5 Million pounds

Annual Sales - $300 Million

Our History

Gene Fisher founded our parent company, Fisher Sand & Gravel, on the vast prairies of southwest North Dakota in 1952.

What began as a small but enterprising aggregate processing company quickly emerged as a leader in portable crushing operations. Today Fisher Sand & Gravel Co. is ranked one of the top 25 U.S. sand and gravel producing companies.

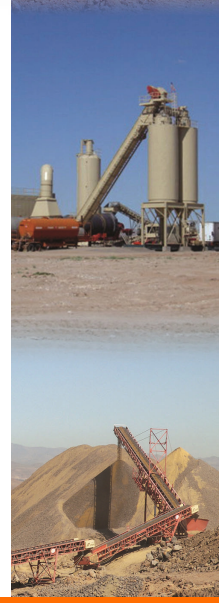
In 1996, Tommy Fisher expanded the operations to Arizona and the southwestern United States. Today, Fisher Sand & Gravel operates as a general contractor throughout the western United States.



The Fisher Family of Businesses is Comprised of:

- Fisher Sand & Gravel Co.
- General Steel & Supply Co.
- Arizona Drilling & Blasting
- Fisher Grading & Excavation
- Fisher Ready Mix
- Southwest Asphalt
- Southwest Asphalt Paving
- Fisher Sand & Gravel – New Mexico, Inc.
- Southwest Concrete Paving Co.





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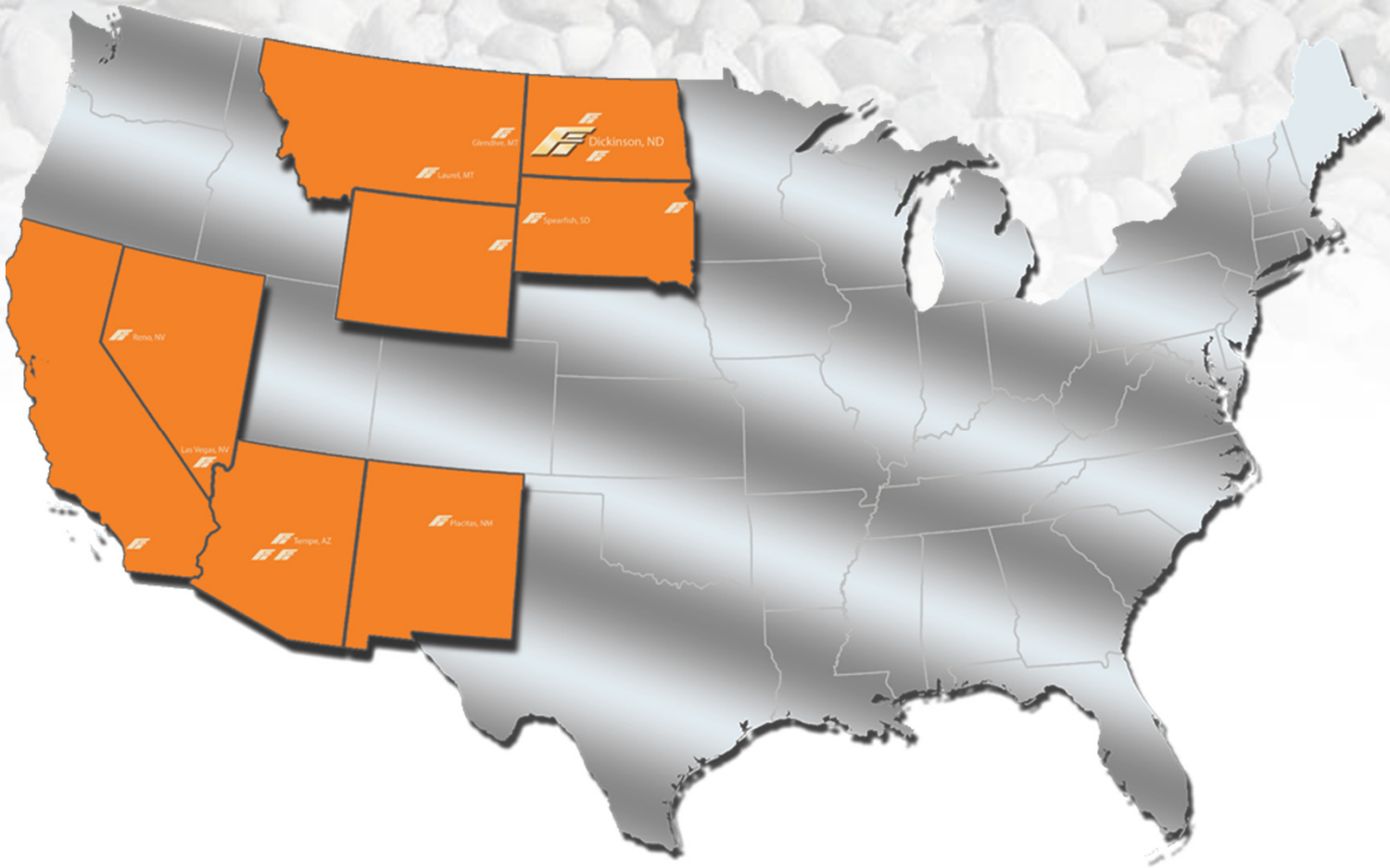
The Fisher Industries Corporate Headquarters is located in Dickinson, North Dakota. We also have offices in Tempe, Arizona; Las Vegas and Reno, Nevada; Laurel & Glendive, Montana; Spearfish, South Dakota; and Placitas, New Mexico



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&

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Rival companies working together for the good of North Dakota!

Traditional Program Delivery Method

Design-Bid-Build

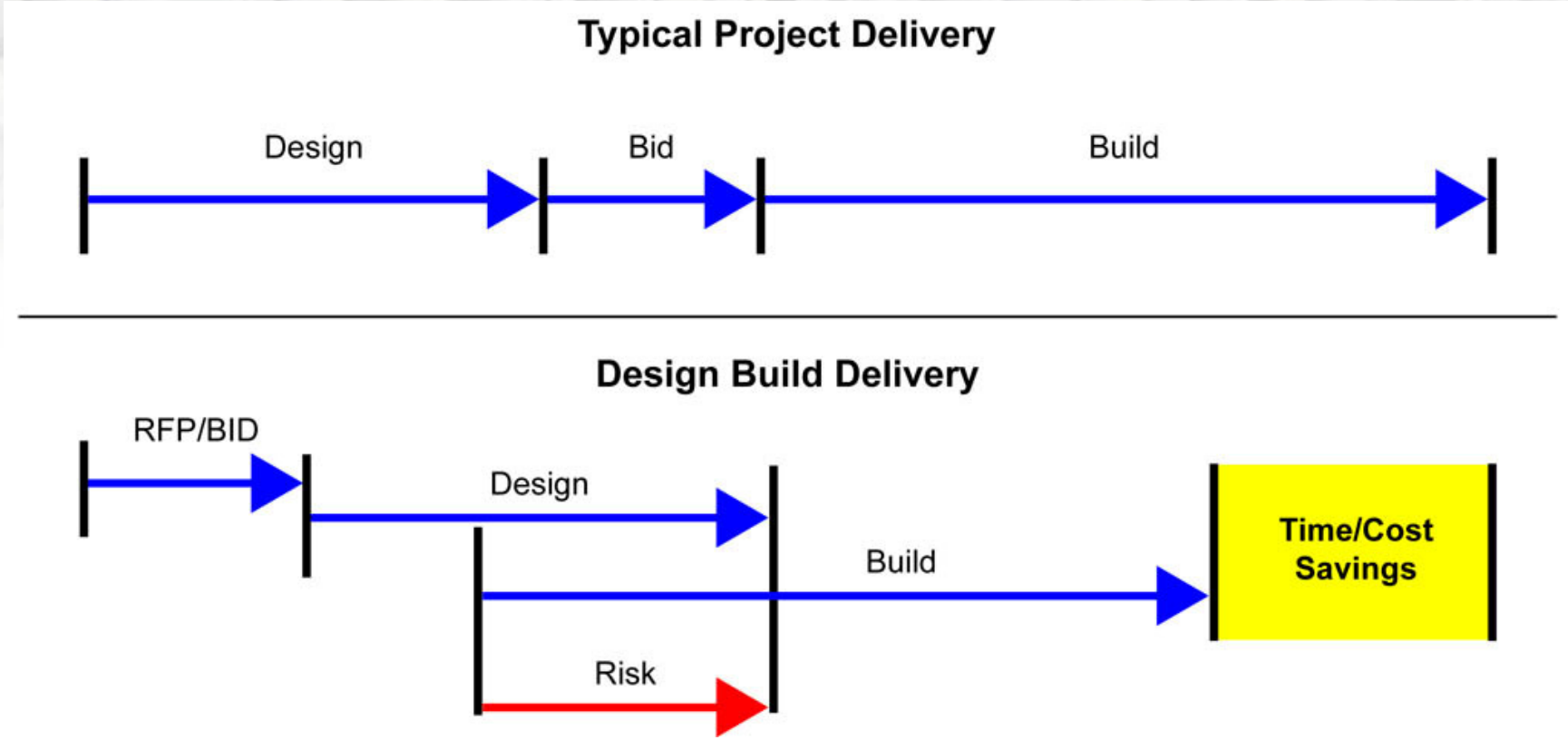
"Design-bid-build" means a project delivery method in which design and construction of the project are in sequential phases, and in which the first project phase involves design services, the second project phase involves securing a contractor through a bidding process, and the third project phase provides for construction of the project by a contractor awarded the project.

ND Century Code 48-01.2-01(12)

Why Owners are Using Alternate Delivery Methods

- Single point of responsibility
- Engineering and construction on the same team
- Errors are addressed; not used as claims
- Constructor involvement enhances constructability
- Provides an early cost commitment
- Fewer changes – less litigation
- Faster, more cost-effective project delivery

Schedule – Faster Delivery



Alternative Contract Delivery Methods

- Design-Build
- Design-Assist/CM @ Risk
- Cost Plus
- Public Private Partnerships or PPP (Development Agreements and Concession Agreements

Alternative Delivery Methods

- **Design Build**
  - Single-source project delivery
  - Lump-sum price
  - Provides substantial time and cost savings
- **Design-Assist (CM @ Risk)**
  - Qualification-based selection (QBS)
  - Partnership between contractor and designer under separate contracts
  - Tiered development of price

Alternative Delivery Methods (cont'd)

- **Cost Plus**
  - Best applied to high-risk scopes of work (tunnels, emergency repairs)
  - Established rates, fees
  - Minimal contractor contingencies
- **PPP (development/concession)**
  - Contractor assumes substantial development risk
  - Owner contracts for front-end project development support, traditional D-B services, and back-end O&M
  - Expanded team

Delivery Comparisons

Metric	D-B vs. D-B-B	CM@R vs. D.B.B	D-B vs. CM@R
Unit Cost	6.1% lower	1.6% lower	4.5% lower
Const. Speed	12% faster	5.8% faster	7% faster
Delivery Speed	33.5% faster	13.3% faster	23.5% faster
Cost Growth	5.2% less	7.8% more	12.6% less
Schedule Growth	11.4% less	9.2% less	2.2% less

Not for Every Project

State and local governments should have the tools available to decide what delivery method meets the needs of a particular project.

Design-Build applicable to projects…

- Urgently required (need, support, and commitment)
- At 30% or less design (less is better)
- Balance RFQ-RFP requirements with interest-job

U.S. Department of Transportation
Federal Highway Administration

FHWA Expectations and More

Lindsey L. Handel, P.E.
Federal Highway Administration

2011 NDDOT Construction Conference
March 2-3, 2011 - Grand Forks
March 7-8, 2011 - Mandan

Items of Discussion

- Full Involvement Projects
- Change Orders
- Review Findings
- Performance Based Specifications
- Latest Technologies
- Alternative Contracting

Alternative Contracting

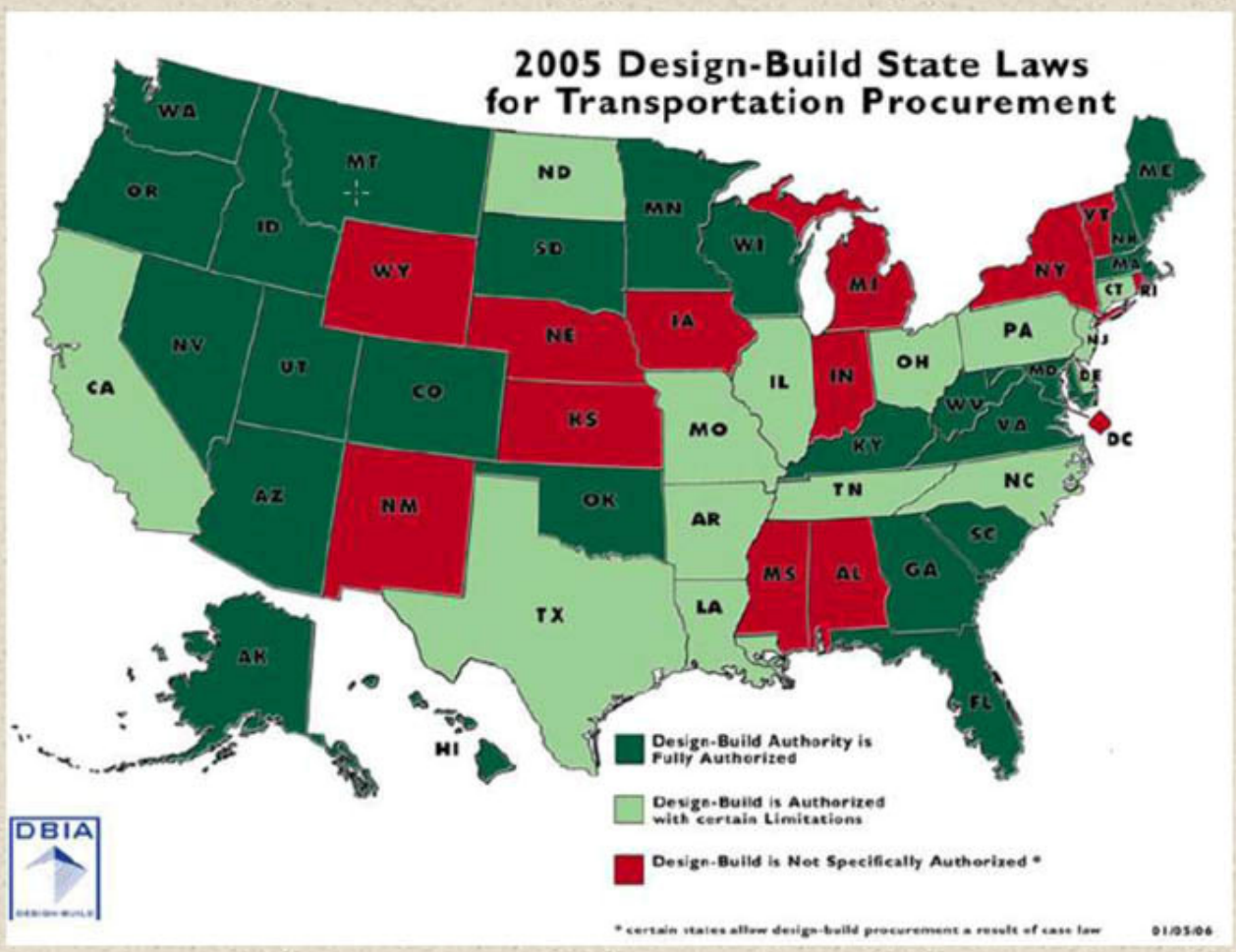
- Design-Build Project Delivery
- Public-Private Partnerships (P3s)
- Construction Manager General Contract (CMGC)

Design/Build Project Delivery

A system of contracting whereby one entity performs both architectural/engineering work and construction under a single contract.

Source: Design-Build Institute of America (DBIA)

States with Transportation Design/Build Authority



U.S. Department of Transportation
Federal Highway Administration

How is DB different from DBB?

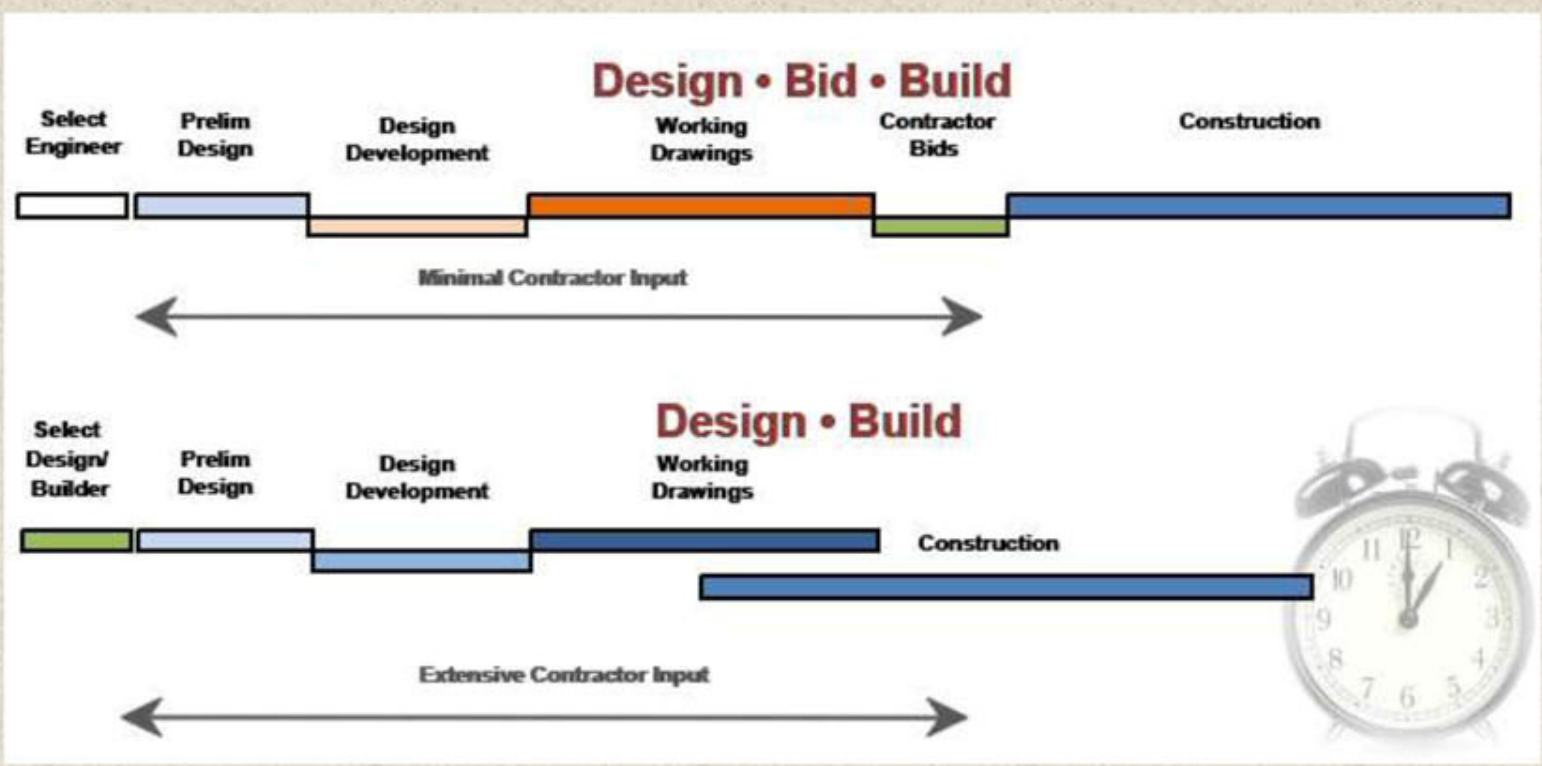
Owner

- Design compliance review.
- Need dedicated design assets available to the field.
- Performance-based.
- Higher level of trust required.

Design-Builder

- Owns details of design.
- Designer-of-Record (DoR) ***Must*** design to budget and schedule.
- Responsive to owner needs-preferences.
- Internal contracts different.
- DoR's client is the design-builder NOT the owner.

Design-Build Time Savings



P3 Project Delivery

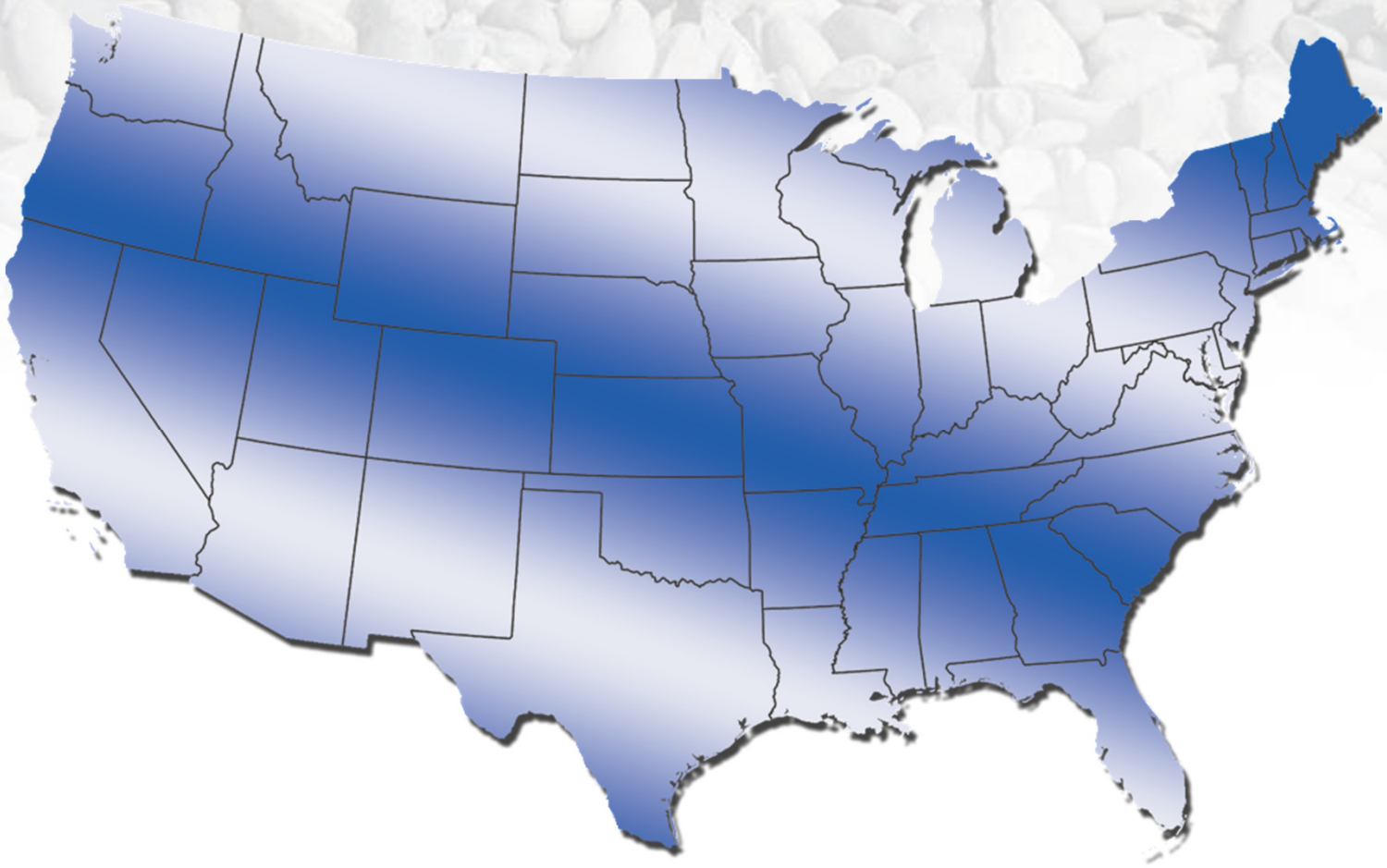
Public-private partnerships (P3s) are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects.

FHWA's Long Term Project Delivery Goals

All contracting agencies should have a project delivery "toolbox" including:

- Design-bid-build
- Design-build
- Construction Manager General Contractor (Construction Manager at-Risk)
- Alliance Contracting
- Performance Contracting
- ID/IQ contracting
- Other

Project Delivery Methods in Other States



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CM at Risk – North Dakota

48-01.2-18 Construction management – Governing body determinations

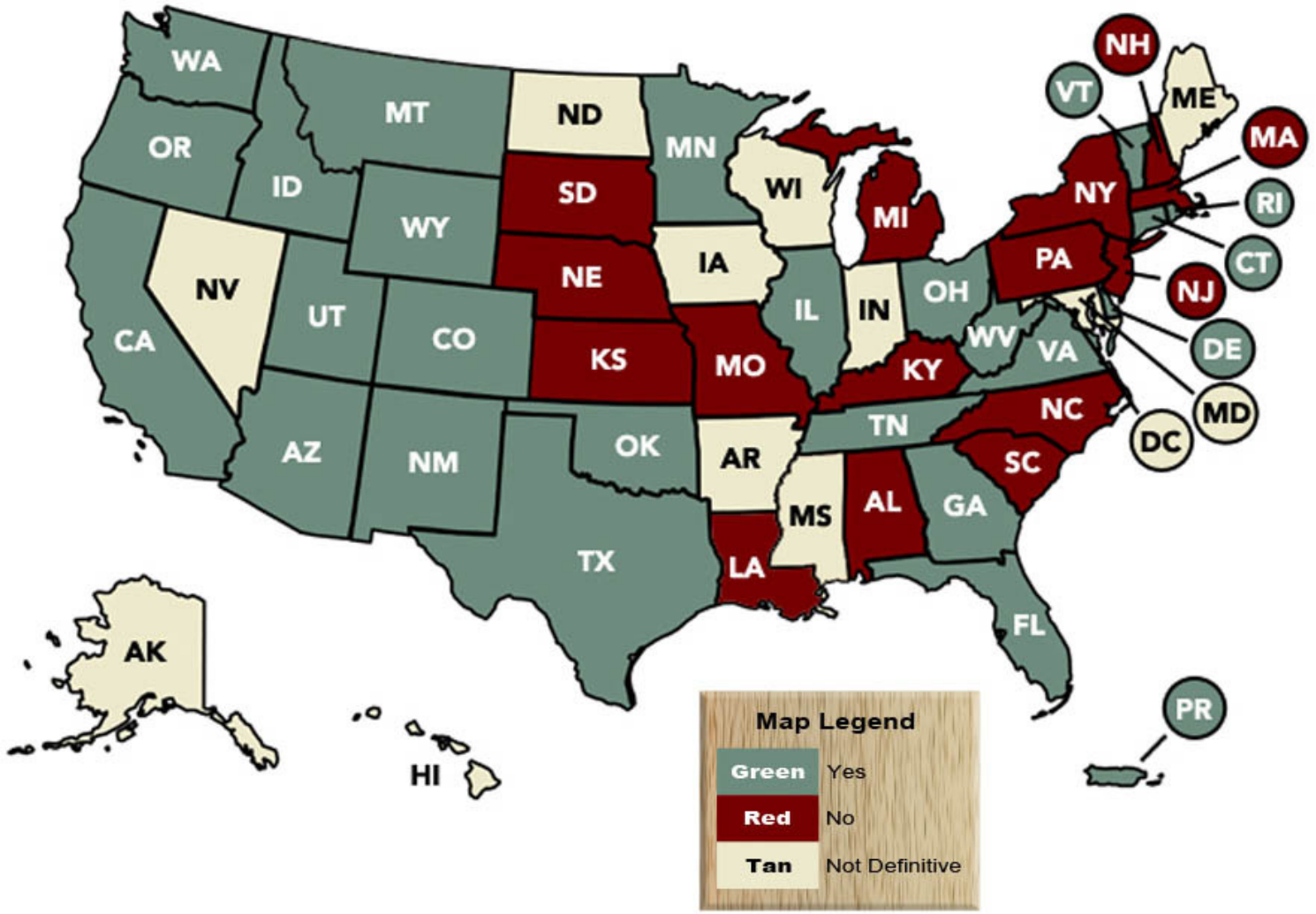
1. Notwithstanding any other provision of law, a governing body may use the agency construction management or construction management at-risk delivery methods for construction of a public improvement if:
   a. The agency construction manager has no common ownership or conflict of interest with the architect, landscape architect, or engineer involved in the planning and design of the public improvement or with any person engaged in the construction of the public improvement.
   b. The construction manager at-risk has no common ownership or conflict of interest with the architect, landscape architect, or engineer involved in the planning and design of the public improvement.

2. Before utilizing the agency construction management or construction management at-risk delivery method, a governing body shall make the following determinations:
   a. That it is in the best interest of the public to utilize the agency construction manager or construction manager at-risk public improvement delivery method.
   b. That the agency construction manager or construction manager at-risk planning and design phase services will not duplicate services normally provided by an architect or engineer.
   c. That the agency construction manager or construction manager at-risk construction services will be in addition to and not duplicate the services provided for in the architect and engineer contracts.

3. The governing body shall provide written documentation of the determinations provided for under subsection 2 upon written request from any individual.

**Not applicable to county road construction and maintenance governed by Title II or State Highways governed by Title 24*

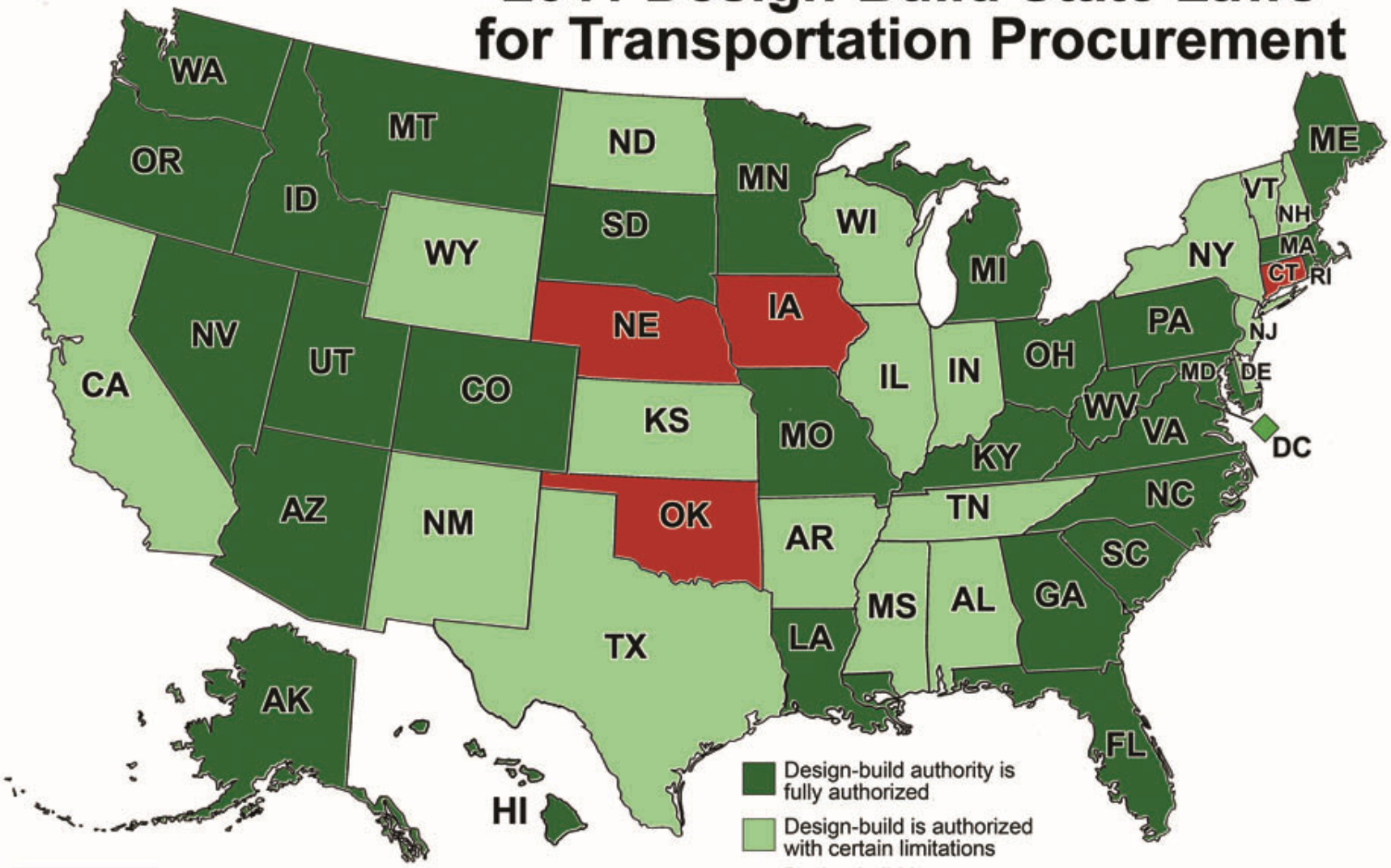
The below map shows which states permit Construction Management At-Risk under state law for horizontal construction projects.



North Dakota Design-Build Statutes

- ND DOT is authorized to use design-build on one signal light and one box culvert project (NDCC 24-02-47)
- The North Dakota State Water Commission is authorized to use design-build for construction of the Devils Lake Outlet (NDCC 61-02-23.2)
- Municipalities and political subdivisions are authorized to combine price and technical evaluation selection process. They must choose the lowest and best bid. (NDCC 44-08-01.1)

2011 Design-Build State Laws for Transportation Procurement

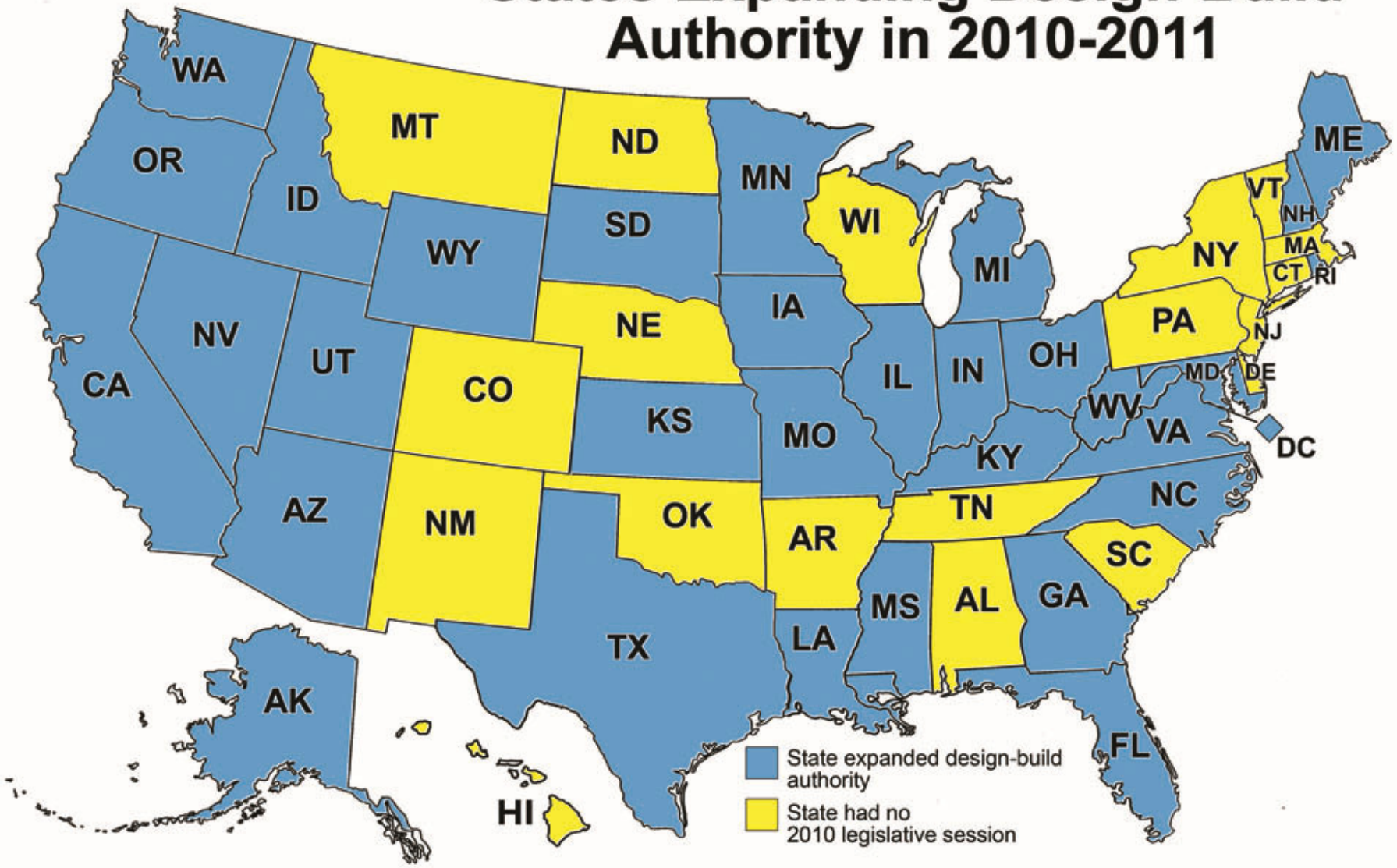


DBIA

* Certain states allow design-build procurement as a result of case law.

Updated December 2010

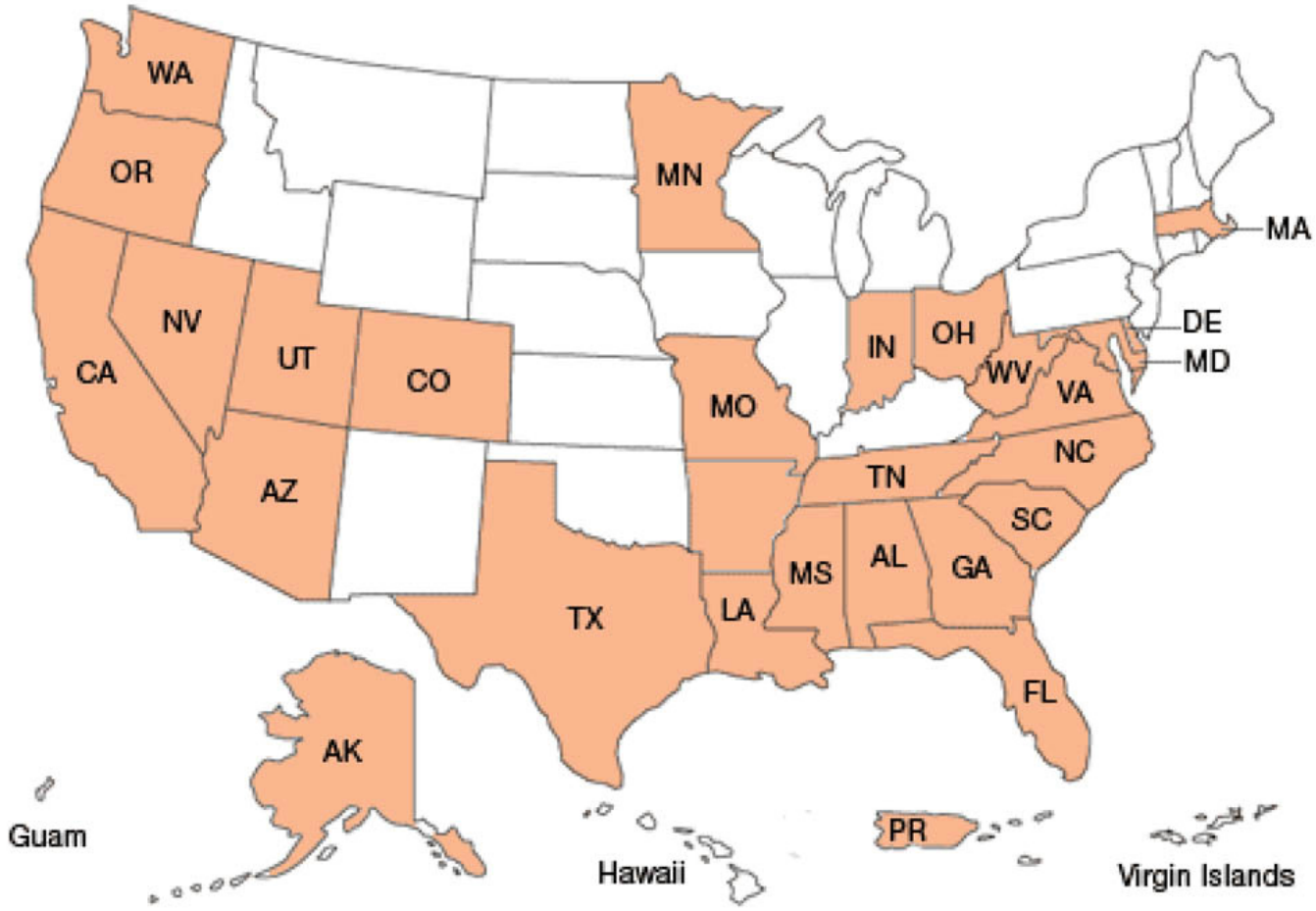
States Expanding Design-Build Authority in 2010-2011



DBIA

Updated August 2011

The map below identifies the 23 U.S. States and one U.S. territory that have enacted statutes that enable the use of various P3 approaches for the development of transportation infrastructure.



Typical Design Build Selection Process

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Owner's Preliminary Activities

- Complete preliminary design
- Execute intergovernmental and utility agreements
- Acquire permanent right-of-way
- Environmental permitting

Industry Reviews of Draft RFP

- Conduct individual meetings with shortlisted teams
- Consider issues that may have impacts on pricing
- Finalize industry review prior to issuing RFP
- Key benefit: proposals that meet both parties' expectations

Final RFP Should Clearly Communicate:

- Project-specific goals
  - Schedule
  - Budget
  - Quality
  - Others…
- Responsibility matrix
- Evaluation criteria
- Confidential ATC approval process

Risk Management Approach

- What's best for project?
- Who's best able to control risk?

Owner's Risks

	Owner	Design-Builder
Hazardous waste	●	
Changes in law	●	
Force majeure events	●	
Differing site conditions	●	

Design Builder's Risks

	Owner	Design-Builder
Cost of design		●
Constructability of design		●
Quantity growth		●
Changes in subcontractor prices		●
Changes in materials prices		●

Shared Risks

	Owner	Design-Builder
Design liability	●	●
Schedule	●	●
Permits	●	●
Right-of-way	●	●
Utility relocations	●	●
Unusual escalators	●	●
Maint. During construction	●	●
Commitments to third parties	●	●

Shared Risks by Delivery Method

Risk	Design-Build	CMR	DBB	Cost Reimb.
Design cost	C	O	O	O
Constructability of design	C	S	O	O
Quantity growth	C	O	O	O
Changes in sub pricing	C	O	C	O
Changes in material pricing	C	O	C	O
Design liability	C	O	O	O
Scheduling	C	C	C	O
Permits	S	O	O	O
ROW	S	O	O	O
Utility relocates	S	O	O	O
Third party agreements	O	O	O	O

C = Contractor, O = Owner, S = Shared

Potential Uses of Alternative Program Delivery in North Dakota

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Potential Uses

- **Oil related road, highway, and infrastructure needs in western North Dakota**

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Potential Uses

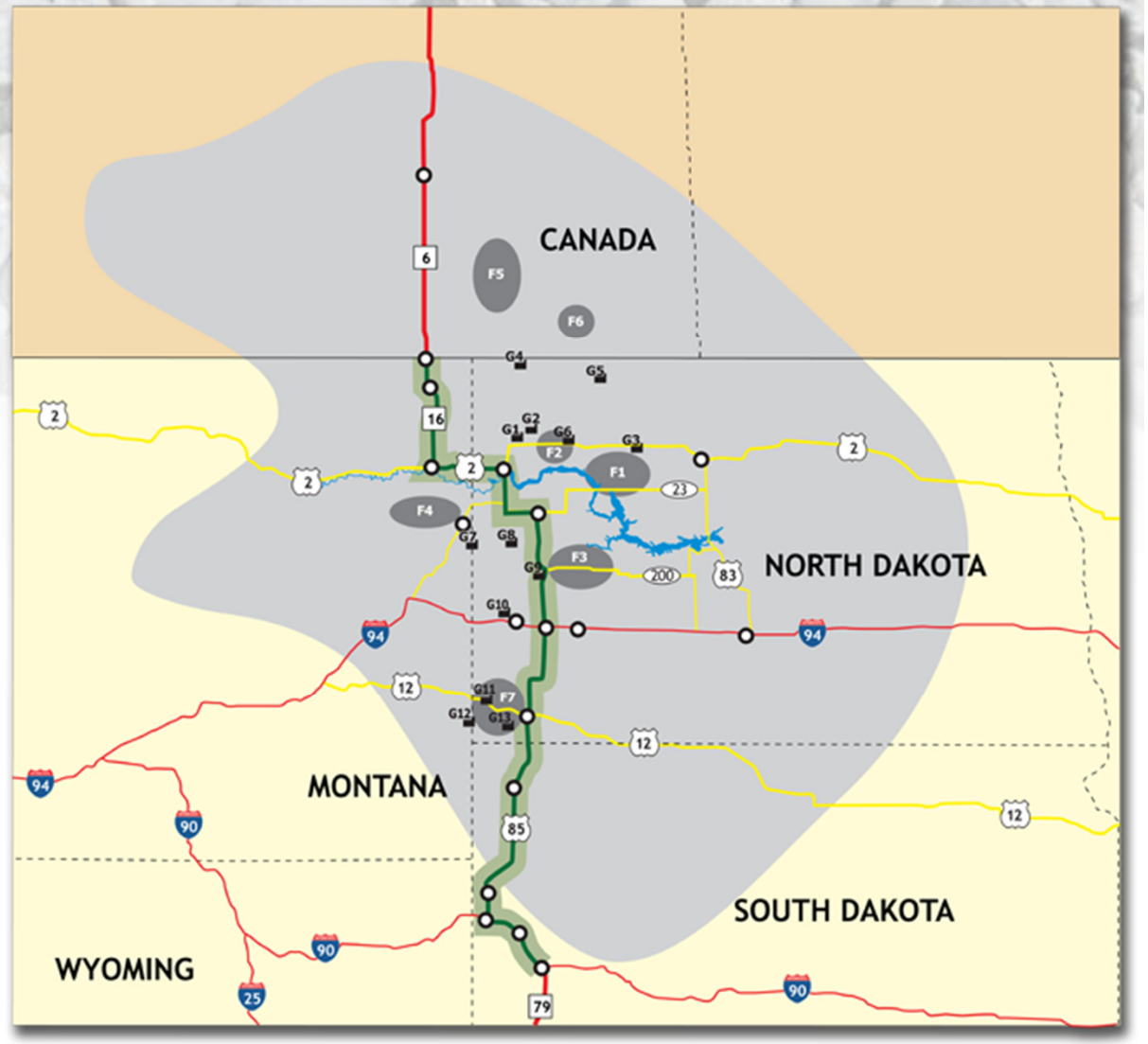
- **Flood related recovery infrastructure projects**

Potential Uses

- General road, highway, bridge, and other infrastructure needs in North Dakota

Potential Uses

- **Theodore Roosevelt Expressway Project**



THEODORE ROOSEVELT EXPRESSWAY

WILLISTON BASIN

MAJOR ENERGY SERVICE ROADS

MAJOR ENERGY SERVICE ROADS

FIELDS

F1 - Sanish/Parshall
F2 - Beaver Lodge
F3 - Little Knife/Bailey
F4 - Elm Coulee
F5 - Weyburn
F6 - Midale
F7 - Cedar Hills

GAS PLANTS

G1 - Whiting
G2 - Headington
G3 - EOG
G4 - Ambrose
G5 - Lignite
G6 - Tioga
G7 - McKenzie Grasslands
G8 - Red Wing Creek
G9 - Little Knife
G10 - Knutson
G11 - Marmarth
G12 - Little Beaver
G13 - Badlands

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A Diverse Economy Requires Adequate Surface Transportation

Agriculture

Energy

Manufacturing

Tourism

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Additional Tool

- Design Build and other alternative delivery methods do not require State/local officials to adopt a specific method.

- They are additional tools that State and local government entities may use on projects for which they are appropriate.

Request

A bill be introduced to authorize design build and P3 as delivery methods available to NDDOT and local government agencies.


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Industries
Thank You