



Municipal Project Bundling “Bundling Saves Bundles”

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Illinois Transportation and Highway
Engineering Conference

Illini Union C
3:50-4:30 PM

Daniel D’Angelo, P.E., PMP, PMI-RMP, PfMP

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Question -

Who has worked on a bundled project?



Question -

What work types have you bundled?



Question -

What were the bundled project goals (i.e. why did you bundle)?



Question -

What project delivery method did you use?



Question -

Who did you bundle with?



Question -

Does your agency have a bundling process in place?



Question -

It is simple, right?
Why do we not do more?



Agenda

1. Introduction
2. What is Project Bundling & Why Bundle?
3. Case Studies
4. FHWA EDC5 Innovation & Resources
5. Q&A

1. Introduction



Daniel D'Angelo

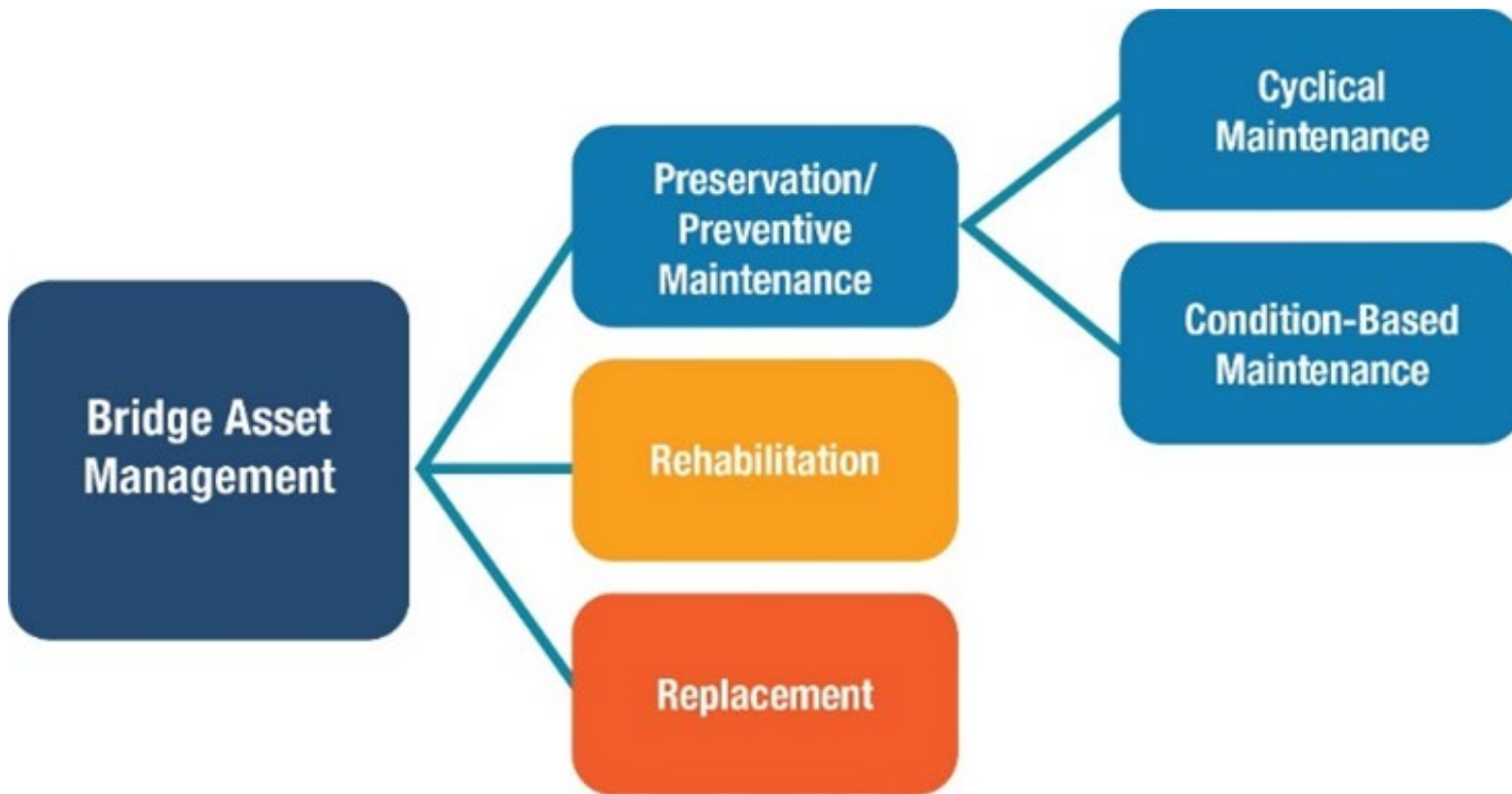
- **BS Civil Engineering, MBA Organizational Leadership**
- **P.E., PMP, PMI-RMP, PfMP,**
- **33-years with New York State DOT**
 - Design, project delivery, risk management, portfolio management
 - Innovation Deployment Manager - SHRP2, EDC
 - Deputy Chief Engineer, Director of Design, ARRA, Tappan Zee, LHTL/BRT
- **3+ years with Applied Research Associates**
 - NHI Instructor – Risk Management
 - Project Manager for
 - FHWA Bridge Bundling Guidebook
 - FHWA Project Bundling EDC5 initiative
 - FHWA Value Capture EDC5 initiative
 - FHWA ACM Evaluation Toolset
 - NCHRP Projects – constructability, cost-estimate, post-award management

2. What is Project Bundling & Why Bundle?



Project Bundling is -

Awarding a single contract for several preservation, rehabilitation, or replacement projects to reduce agency costs and achieve program goals.



Source: FHWA



Why do Project Bundling?

- streamlines design, contracting, and construction



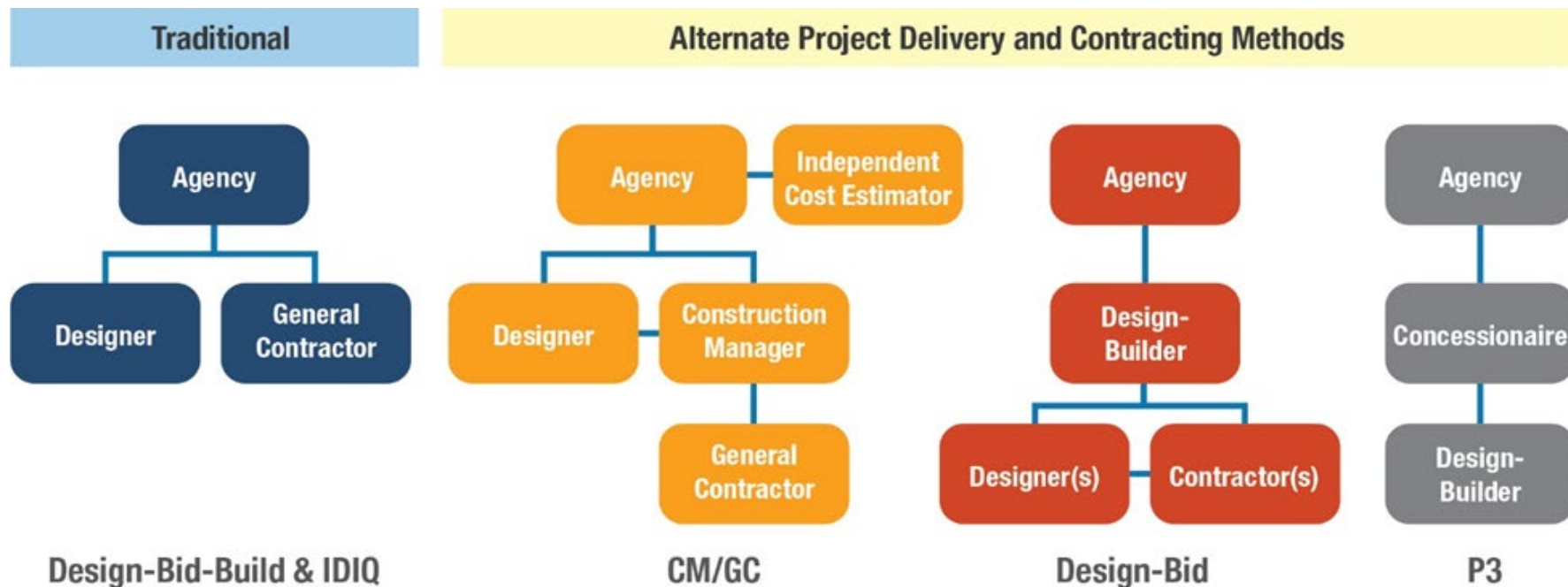
Why do Project Bundling?





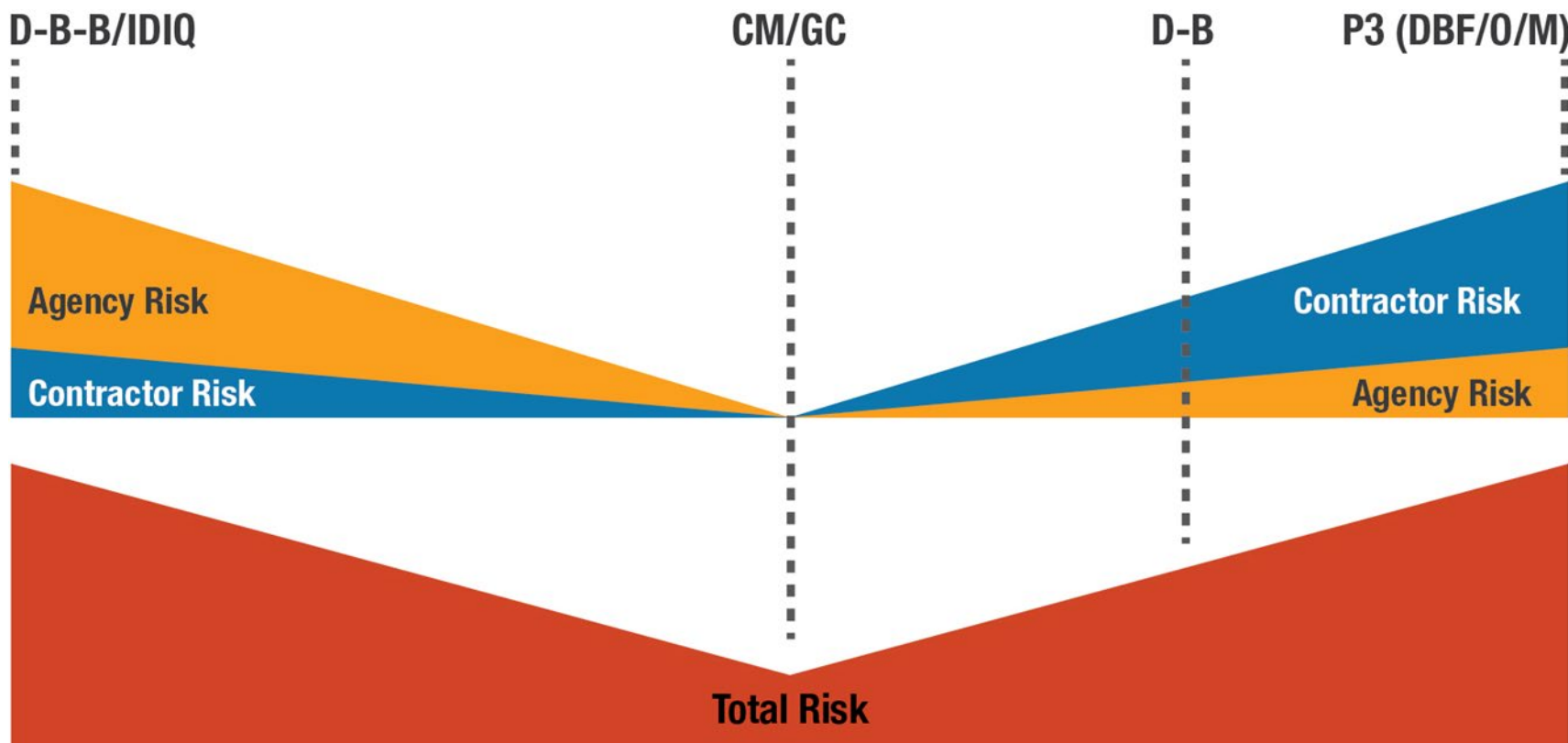
Why do Project Bundling?

- improved collaboration during project delivery and construction





Risk Allocation by Project Delivery Method





Why do Project Bundling?

- Expedited Project Delivery
- Reduced Cost
- Contracting Efficiency

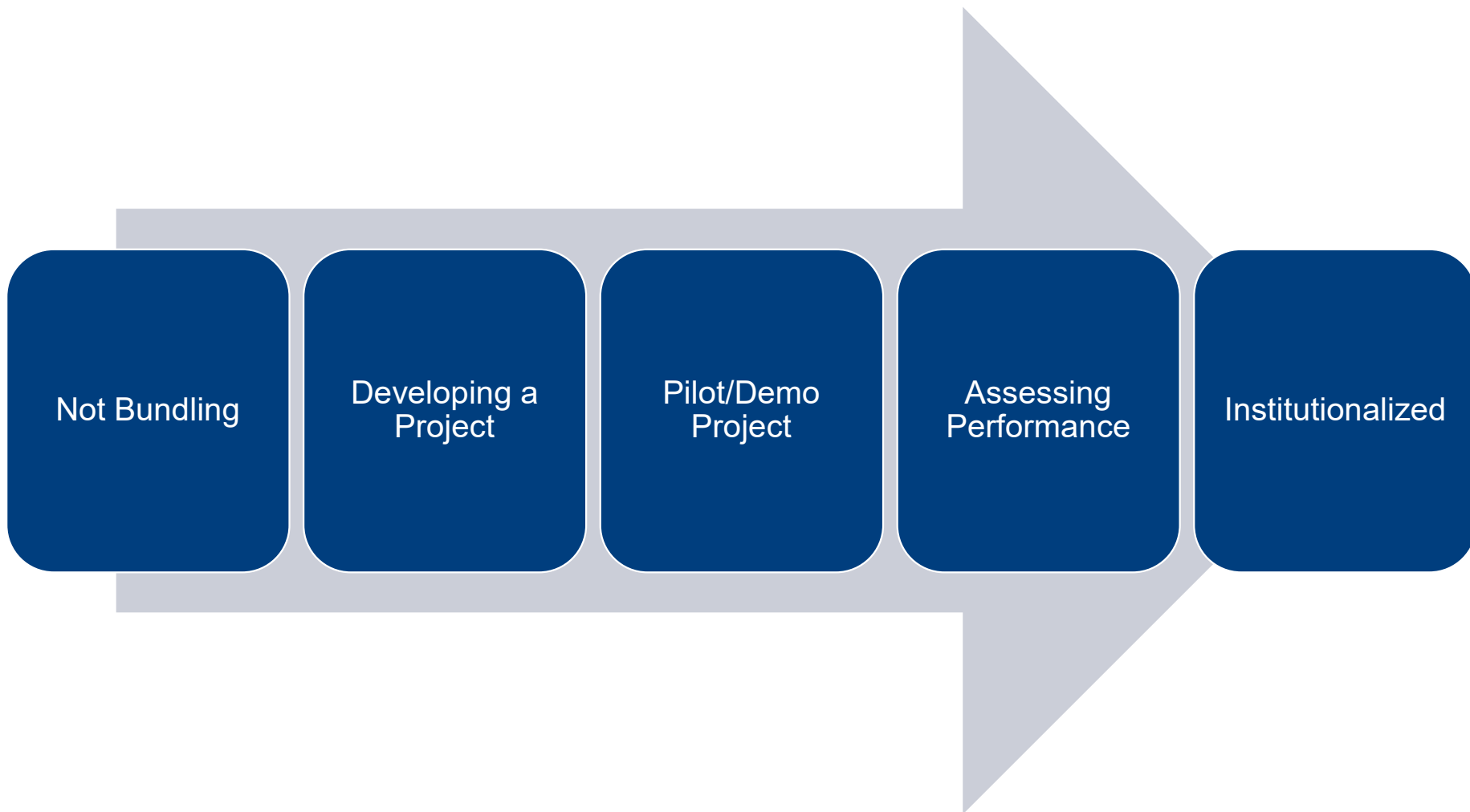


Program & Project Level benefits

- Macro-level (or Program Level) – Allows owners to accelerate improvements to their program by bundling projects, funding, permitting, etc.
- Micro-level (or Project Level) – Facilitates faster construction through scale, efficiency and sequence of construction



Maturity Level



3. Case Studies



Project Bundling “How-to”

- 1 Define successful project bundling (Chapter 1)
- 2 Determine goals & objectives (Chapter 2)
- 3 Identify funding or financing (Chapter 3)
- 4 Build a coalition & outreach (Chapter 4)
- 5 Perform risk assessment (Chapter 5)
- 6 Select work type (Chapter 6)
- 7 Select delivery method (Chapter 7)
- 8 Determine environmental review & preliminary design considerations (Chapter 8)
- 9 Bundle & let contract(s) (Chapter 9)
- 10 Conduct quality assurance, close-out & celebrate! (Chapter 10)

Objective

Tools

Outcome



Bridging Kentucky

Goals

Improve safety/soundness of current Kentucky bridges

State, county and municipal bridges

Estimated \$700 million over six years

Rehabilitate, repair, or replace bridges

Deliver all bridges for construction by 2024



BridgingKentucky.com

Source: Kentucky Transportation Cabinet



Erie County, NY

- Bundling Preventative Maintenance Activities by Work Type and Location
- Steel Repairs -\$1M every 2 years
- Deck Repairs -\$1M every 2 years
- Bridge Washing -\$250K every 2 years
- Deck Sealing -\$200K per year (6-year cycle)





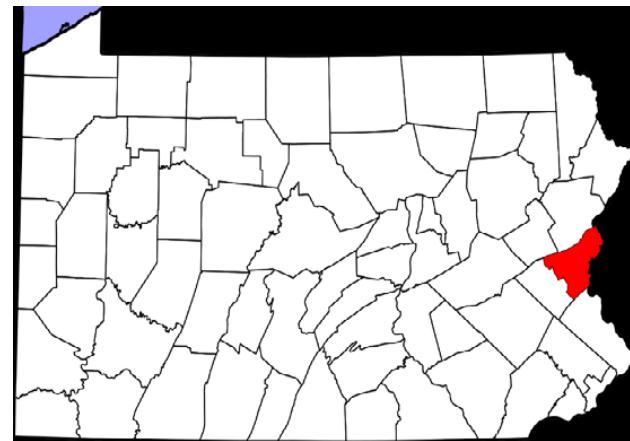
Indiana DOT

- ✓ Bundle various project types: bridge/culvert, road/pavement
- ✓ Efficiencies in environmental approval and permitting
- ✓ Standardization of design and construction methods
- ✓ Shared resources: workforce, equipment, facilities
- ✓ INDOT Admin. savings (e.g. contracting, letting)
- ✓ Cost effective MOT
- ✓ Efficiencies in contractor overhead
- ✓ Scheduled acceleration
- ✓ **CFO gives \$50M back to the budget due to expected PB savings**



Northampton County, PA

- ✓ Owns 119 bridges
- ✓ Significant % in poor condition
- ✓ Estimated 20 years to replace
- ✓ Public Private Partnership (P3)
- ✓ \$37.5 M in Construction paid over 12 years
- ✓ \$1 M Maintenance for 10 years starting in year 5
- ✓ 33 Bridge Replacements over 14 years





DeIDOT Culvert Replacement Bundling Program

- Years: 2006-Present
- Cost: \$1M-\$3M/Year
- Goal: Replace hundreds of culverts in poor condition
- Bundled using D-B-B, IDIQ, and DB
- Environmental permitting handled differently for each method





Minnesota DOT

ADA Bundle Project

\$2.5M

200 +/-ramps and sidewalk

DB Project Delivery

- Integrate Design & Construction
- Better quality

Issues encountered

- Contractor not used to being a prime
- Scoping RFP well without over specifying



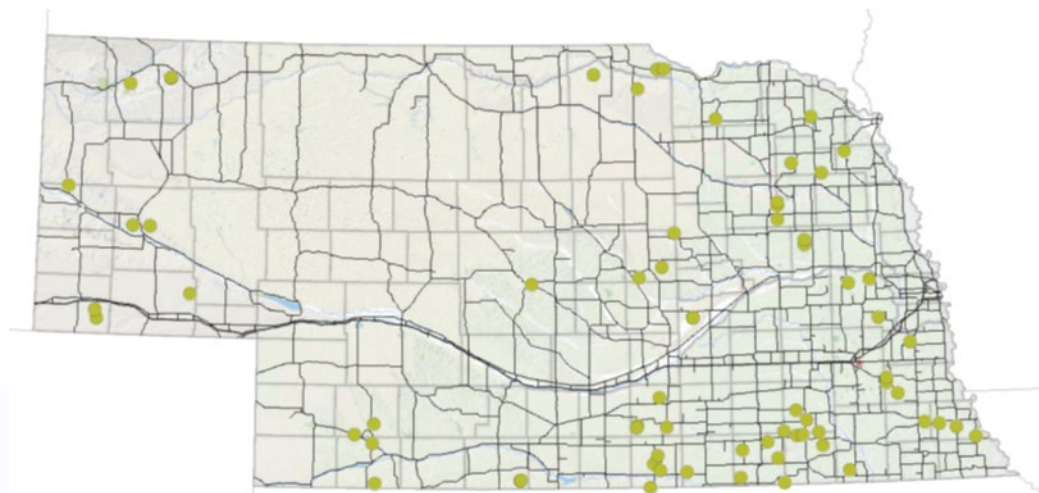
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Progressive DB would have worked better?

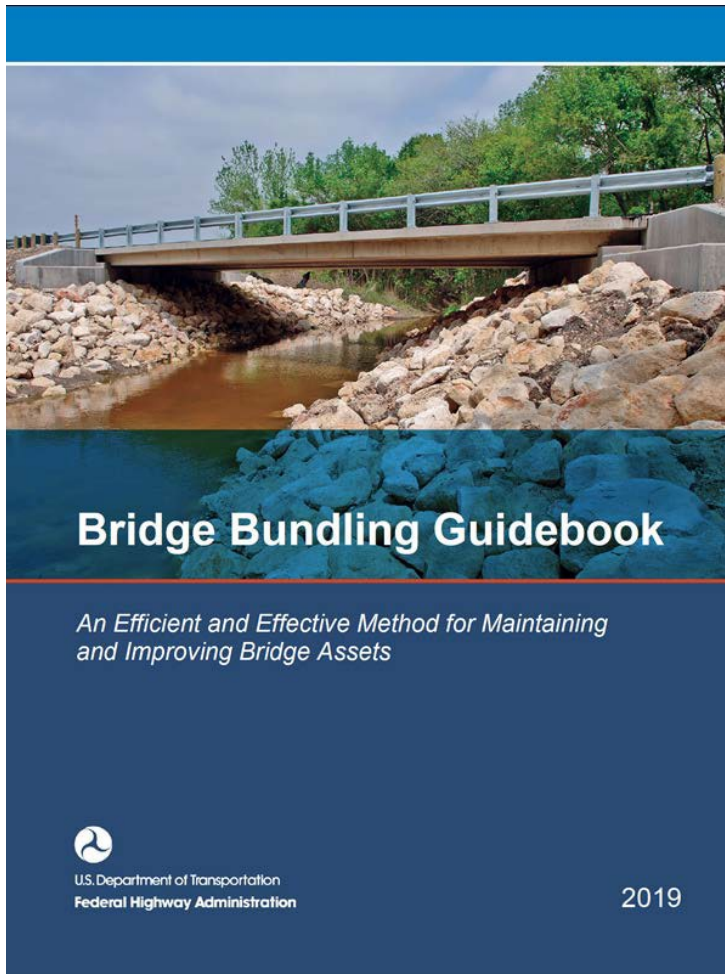


Nebraska County Bridge Match Program

- ✓ **Project Delivery Method: Design-bid-build (D-B-B), with legislative authority for design-build (D-B) and construction manager/general contractor (CM/GC)**
- ✓ **Procurement Method: Low bid**
- ✓ **Total Project Cost: Up to \$40 million over 10 years**
- ✓ **Funding Source: 100 percent State funded**
- ✓ **Construction Schedule: Determined by lead county**



4. FHWA EDC5 initiative & Resources



[Google "FHWA BBG"](#)

https://www.fhwa.dot.gov/ipd/alternative_project_delivery/defined/bundled_facilities/



FHWA EDC5



Project Bundling

Awarding a single contract for several preservation, rehabilitation, or replacement projects helps agencies reduce costs and achieve program goals.

Project bundling offers a comprehensive and accelerated delivery solution for addressing strategic program goals. It streamlines design, contracting, and construction; allows agencies to capitalize on economies of scale to increase efficiency; and supports greater collaboration during project delivery and construction.

Bundling Projects Saves Time and Cost

The U.S. transportation system is aging, with many States seeing an ever-increasing number

Contacts

Romeo Garcia
FHWA Office of Infrastructure
(202) 366-1342
Romeo.Garcia@dot.gov

David Unkefer
FHWA Resource Center
(404) 764-7498
David.Unkefer@dot.gov

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/project_bundling.cfm



Funding Opportunities

Funding Opportunities



STIC Incentive



AID Demonstration



SHRP2



*Increased
Federal-share
for Project-
level
Innovation*

5. Q&A



Daniel D'Angelo, P.E.
Principal Civil Engineer
Applied Research Associates, Inc.
(518) 526-5738
ddangelo@ara.com