LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Proposed Bridge Bundling Project

Progressive Design-Build

Presented By: Section 76, Innovative Procurement
May 12, 2025

Agenda

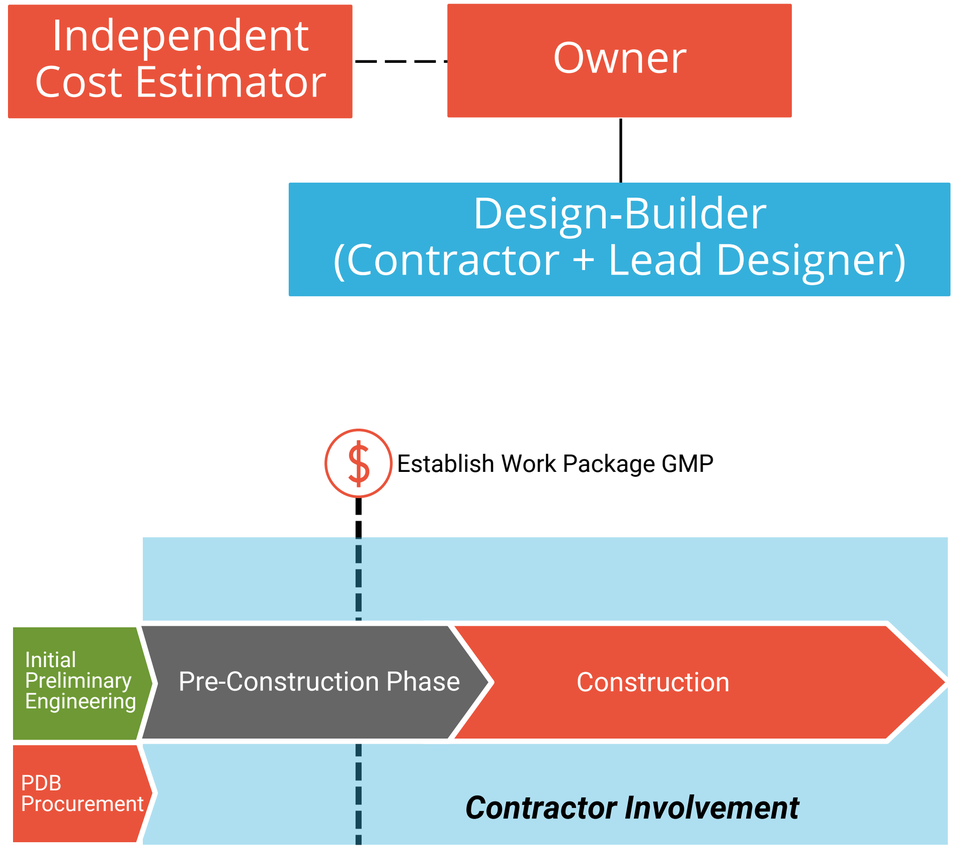
- Introduction to the Progressive Design-Build Delivery Method
- Overview of the Proposed Bridge Bundling Project
- Q&A and Open Discussion

Introduction to the Progressive Design-Build Delivery Method

Progressive Design-Build Contracts

- Progressive Design-Build (PDB) is authorized for use in Louisiana by LA Rev Stat §48:250.3.1
- Owner executes a multi-phase contract with a design-build firm[1]
  - Pre-Construction Phase – Support project development process and perform design and preconstruction services to develop work packages to a level necessary to establish a guaranteed maximum price (GMP)
  - Construction Phase – Construct the project based on work packages, if agreement on a GMP can be reached

[1] "Off Ramps" occur during the pre-construction phase which allow the owner to terminate the agreement, if appropriate.



Benefits of Progressive Design-Build

- Early Contractor Involvement
- Design Flexibility
- Two-Phase Contract Structure
- Collaborative Risk Management
- Stakeholder Engagement
- Transparent Cost Development

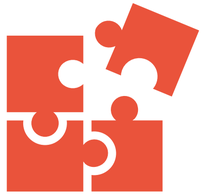
Typical PDB Project Characteristics

- Complex projects with a scope that is not fully defined and unique technical challenges
- Projects that require significant third-party interactions
- Projects where expediting contractor engagement and activities is a priority
- Projects with Complex Risks
- Projects with constructability challenges and material concerns

PDB Key Concepts

Qualifications Based Selection (QBS)

- Unlike Design-Build or Design-Bid-Build projects, the design-builder in a PDB project is selected through a selection process based primarily on qualifications and demonstrated competence, rather than cost



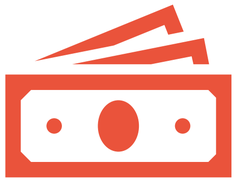
Work Packages

- The design-builder may develop the project through one or more work packages.
  - A work package is a specific portion of construction work, the exact scope of which will be determined by DOTD and the design-builder
- Materials acquisition and early work packages may begin prior to completion of the overall project design

PDB Key Concepts

Independent Cost Estimator (ICE)

- The ICE prepares production-based independent estimates, develops independent construction CPM schedules, identifies risks, and leads risk workshops



Opinion of Probable Construction Cost (OPCC)

- An OPCC is an estimate of the anticipated costs to complete a Work Package that includes labor, materials, equipment, bond premiums, and other costs associated with the project
- Typically, there are multiple OPCCs conducted during the pre-construction phase aligned with design milestones

PDB Key Concepts

Risk Register

- Risks and mitigation options are identified by the entire team during the pre-construction phase and incorporated into a risk register
  - The risk register is a contract document and includes description of relief, the type of relief, payment requirements, and mitigation requirements related to a Risk Event

Open Book Pricing

- Emphasizes collaboration, transparency, accountability and trust
- A meeting among DOTD, the design-builder, and the independent cost estimator will be held to discuss and document assumptions and estimating approach

PDB Key Concepts

Guaranteed Maximum Price (GMP)

- Each work package will have a GMP which is the maximum amount of compensation due for the scope of work
- The Total Construction GMP is the sum of the work package GMPs that were executed

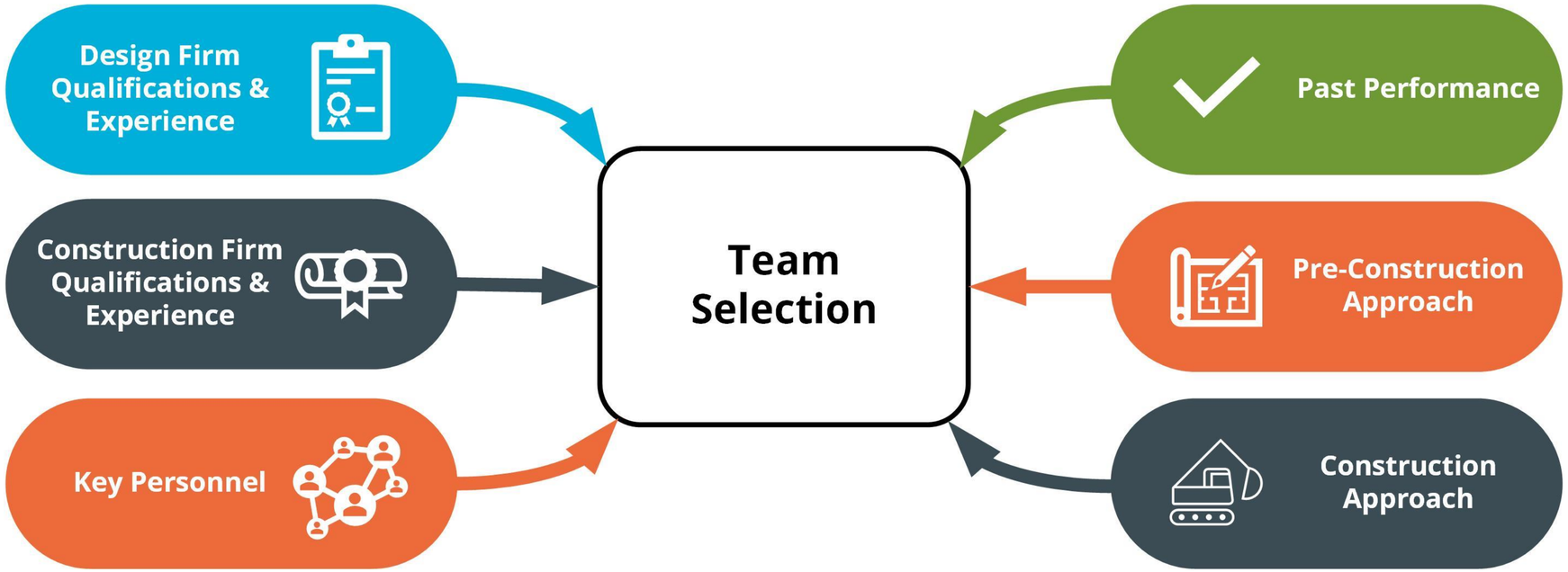
Off-Ramp

- If an agreement cannot be reached on the GMP or other contractual terms, DOTD may: a) elect to solicit proposals to complete the project from firms that submitted an SOQ or b) formally solicit bids or proposals from other entities using any public procurement method available to the department. The design-builder originally selected shall be prohibited from bidding.

Procurement | Process

Qualifications-Based Selection limits pursuit costs and time.

Procurement | Evaluation Criteria



Evaluation criteria are subject to change

Pre-Construction Phase

- Project design and innovation
- Constructability assessment
- Permitting
- Utility coordination
- Identification of long-lead materials
- Risk management
- Cost estimating and subcontracting
- Refinement of scope, sequencing, and schedule
- Preparation of construction phase amendment

Risk Management | Risk Register

- PDB allows design and risk mitigation activities to be advanced before a fixed price is established for a work package
- The risk register is an essential part of the PDB process that is collaboratively developed during the pre-construction phase for each work package
  - Risks are identified and tracked in the risk register
  - Risks in the risk register may be mitigated during the pre-construction phase
  - The approach to addressing a risk (including compensation), if triggered, is documented in the risk register
- Use of risk register as a component of the contract allows for more efficient administration and fewer change orders
- Risk workshops will provide an opportunity for the design-builder and DOTD to collaborate and optimize risk management

Risk Management | Process

Risk Management | Overview

Risks Difficult to Price with Certainty | Detailed Planning Creates Value

High Confidence DOTD Risk | DOTD Best Able to Manage

High Confidence Design-Builder Risk | Design-Builder Best Able to Manage

DOTD Risks

- **Documented in the Risk Register**
- Risks fully allocated to the DOTD
- Design-Builder must follow documented Change Order process for payment when an event triggers the risk
- The DOTD determines budget to cover potential Change Orders originating from the Risk Register

Provisional Risks

- **Documented in the Risk Register**
- Provisional Risks are jointly managed by the Design-Builder and DOTD.
- Risk Register includes requirements for: verification of occurrence and costs; payment responsibility and processes; and Provisional Sums
- Provisional Sums can be Capped or Uncapped.
- Payment for costs beyond the Provisional Sum for Risk Register Events with Uncapped Provisional Sum requires documentation through a Change Order
- The DOTD determines budget to cover payment in excess of the Provisional Sums
- Unused Provisional Sums may also be shared. The sharing ration is established in the Risk Register.

Design-Builder Risks

- **Risks may be documented in the Risk Register**
- Risks fully allocated to the Design-Builder
- Costs included in the Work Package
- No payment made by the DOTD for Design-Builder accepted risks

Key Concepts

- The Risk Register is an essential part of the PDB process that is collaboratively developed during the Preconstruction Phase.
- The Risk Register becomes part of the Contract Documents through incorporation into a Work Package Amendment (or upon early approval).
- By the end of the Preconstruction Phase, the Risk Register should describe all known Provisional Risks and DOTD Risks, define unit costs or other payment mechanisms for Provisional Sum items, and set forth requirements for payment of the Risk Register Events.

Risk Management | Risk Register

- By the end of the Preconstruction Phase, the Risk Register should:
  - Describe all known risks and identify who owns the risk
  - Define unit costs or other payment mechanisms for risk items where the price or quantity is unknown
  - Set forth requirements for payment of the risk register events
- The risk register becomes part of the PDB Contract through a Work Package Amendment

DAILY OVERHEAD RATE:

RISK RESERVE:

TIME IMPACTS: Days

PROJECT NAME: I-10 Rehab

PROJECT NUMBER: H.202533

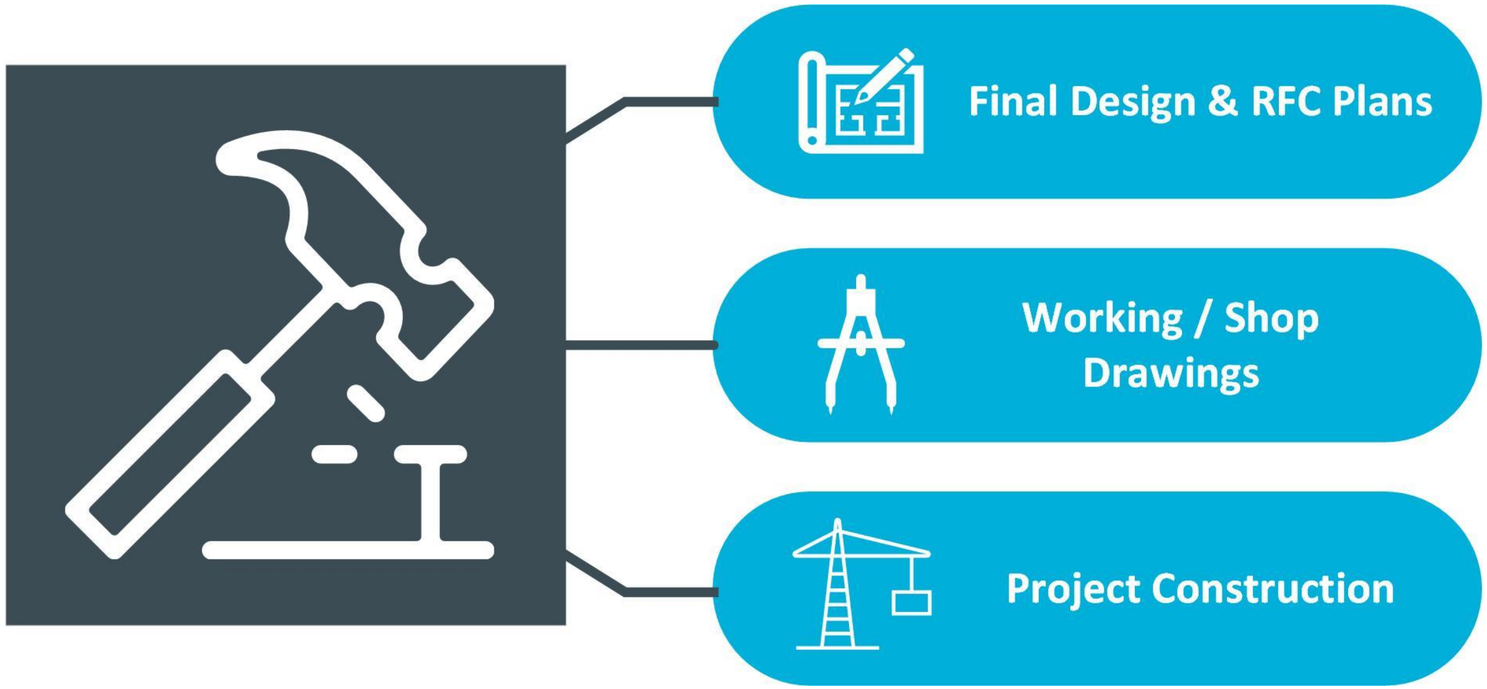
DATE: 5/1/2024

RISK #	RISK NAME	DESCRIPTION	STATUS (Active or Retired)	OWNER	CHAMPION(S)	PROBABILITY	COST IMPACT	WEIGHTED COST	TIME IMPACT	WEIGHTED TIME	MITIGATION STRATEGY	RESOLUTION	TRIGGER TO ENGAGE RISK RESERV
T1	Adjacent Project Coordination	Adjacent projects could impact MOT and increase cost/time.	Retired	Design - Builder	(name)	25%	$ -	$ -	0	0	Carry projected cost impact in risk register to give us flexibility. Will know more about timing as we approach final design.	Retired: No significant impacts from adjacent projects are anticipated.	N/A
T2	Unknown Utilities	Unexpected construction conflicts with exisiting utilities	Active	Design - Builder	(name)	25%	$ 100,000.00	$ 25,000.00	14	3.5	Carry contingency in the risk register. Potentially use force account payment. (3/1/2021 Update) Air bridging or matting over existing utilities could add cost and time.	Contractor will be paid on a force account basis for relocation of the utility in conflict. Time impacts will be awarded only if the utility conflict impacts the project critical path.	Contractor discoveres a conflict with an existing underground utility that was not identified during preconstruction phase.

Pricing | Process

The process is repeated until a GMP is agreed to or DOTD elects to take an off-ramp.

Construction Phase



Overview of the Proposed Bridge Bundling Project

Bridge Bundling Project | Background

- Pending available funding, DOTD intends to initiate a program of bridge bundling projects to facilitate efficient replacement and rehabilitation of bridges.
  - Potential Procurement Package #1 (Districts 4 & 5) is planned for procurement beginning this summer with an approximate design and construction value of $33 million.
  - Future bridge bundling procurement packages are possible pending funding availability.
  - Funding being pursued for each Package. No committed funding at this time.

Potential Package #1
- Districts 4 & 5
- 23 Bridges
- Delivery Method: PDB

Potential Package #2
- Districts 3, 7, 8, and 58
- 19 Bridges
- Delivery Method: TBD

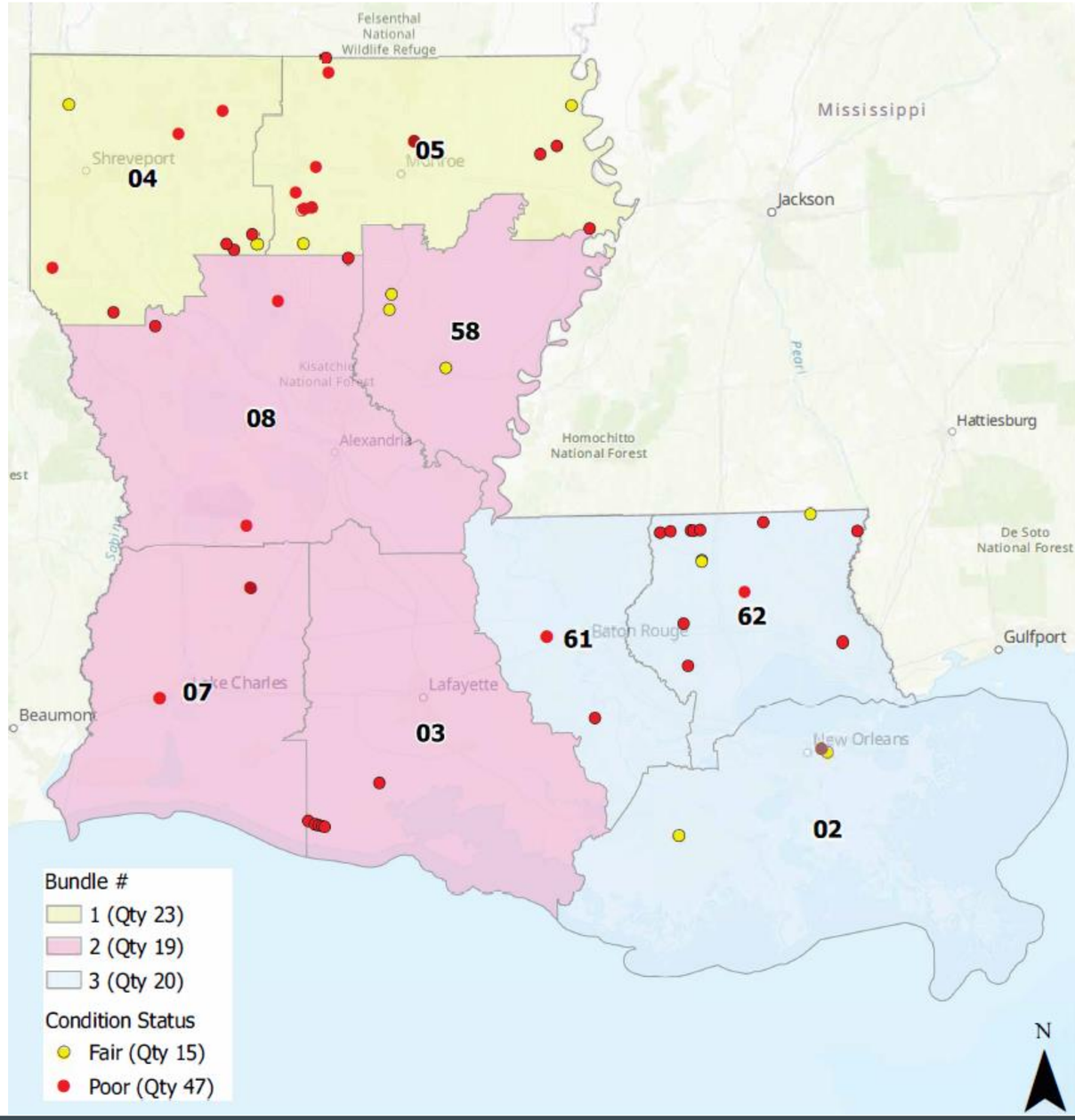
Potential Package #3
- Districts 02, 61, 62
- 20 Bridges
- Delivery Method: TBD

Typical Bridge Characteristics

- Most bridges are between 50’ to 100’ in length
- Most bridges are between 24’ to 30’ in width
- Relatively low traffic volumes – most have an AADT below 2,000
- All bridges have a condition rating of “Poor” or “Fair” with the majority being “Poor”.

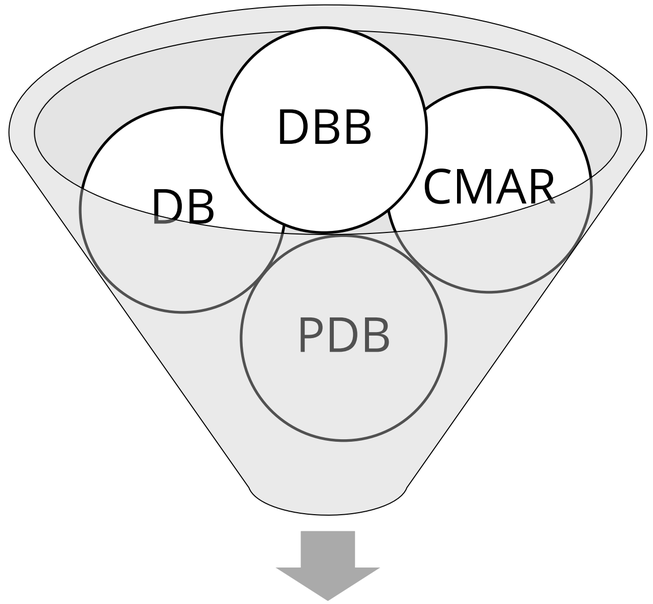
DOTD Expectations

- Duration of construction for individual bridges should not exceed two to three months
- Construction for all bridges in a bundle is expected to be completed within two years
- Multiple bridges will need to be constructed concurrently
- Precast components and repetitive design solutions will expedite delivery



Bridge Bundling Project | Delivery Method

- DOTD assembled a Delivery Method Selection (DMS) Committee to assess the delivery method for the project
- DOTD established goals, constraints, and risks to determine the optimal delivery method
- Design-Build, Construction Management at Risk, and Progressive Design-Build delivery methods were considered
- Progressive Design-Build was selected by the DMS Committee as the preferred delivery method



Anticipated Procurement Schedule

Procurement Milestone	Date
NOI Issued	June 2025
Issue date of the Draft RFQ	July 2025
Issue date for final RFQ	August 2025
SOQ due date	September 2025
Award (Pre-Construction Phase)	November 2025

DOTD's goal is to start construction on one or more bridge by July 1, 2026.

All dates are preliminary and subject to revision at DOTD's discretion.

Questions & Links

One-on-one meetings prior to NOI issuance with interested parties may be requested via email to Christina.Lewis2@la.gov

See additional details and contact information on the Innovative Procurement Section's website by scanning the QR code.

Or

Use this address:
https://dotd.louisiana.gov/about/office-of-the-secretary/innovative-procurement/staff-directory/

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