



TEXAS DEPARTMENT OF TRANSPORTATION



# PROJECT DELIVERY MODELS

How We Procure Services



April 2018

## TO DESIGN-BID-BUILD or DESIGN-BUILD?: That's the question

Answer depends on:

- How complex is the project?
- Who is in the best position to manage and control a given risk?



## D-B-B vs D-B: a comparison

	Design-Bid-Build	Design-Build
<b>Contracting</b>	<ul style="list-style-type: none"> <li>TxDOT staff designs or contracts with a consultant to design project.</li> <li>TxDOT advertises design to contractors for bids.</li> </ul>	<ul style="list-style-type: none"> <li>TxDOT contracts with a contractor to perform both design and construction.</li> <li>Contractor will contract design consultant to design project.</li> </ul>
<b>Delivery process</b>	<ul style="list-style-type: none"> <li>TxDOT hires design firm to deliver 100% complete design documents.</li> <li>TxDOT solicits fixed-price bids from contractors to construct the work.</li> </ul>	<ul style="list-style-type: none"> <li>Based on preliminary design, TxDOT issues Request for Qualifications and Request for Proposals from interested proposers (contractors) to team-up to perform both design and construction work.</li> <li>TxDOT contracts with best-valued proposer to design and construct work.</li> </ul>
<b>Risk</b>	<ul style="list-style-type: none"> <li>Public sector (TxDOT) carries the highest amount of project risks with this delivery type.</li> <li>Designers and contractors bear no contractual connection with each other.</li> <li>TxDOT has all risk associated with the completeness of the design documents.</li> </ul>	<ul style="list-style-type: none"> <li>Many risks are be transferred from TxDOT to the private sector (contractor).</li> <li>Contractor directly responsible for contracting with design engineers to ensure completeness of design documents.</li> <li>Contractor has most of the schedule risk to deliver project within contracted timeline.</li> </ul>

# Risk allocation<sup>1</sup>

<b>Risk Type</b>	<b>Traditional Project Delivery</b> Design ▶ Bid ▶ Build	<b>Alternative Project Delivery</b> Design ▶ Build
Environmental approval	<b>TxDOT</b>	<b>TxDOT</b>
Financing		
Operation and maintenance		
Environmental compliance		
ROW acquisition <sup>2</sup>		
Utility delays		
Design		
Construction		
Schedule delays		
		<b>Contractor</b>
		<b>Shared between TxDOT and Contractor</b>

<sup>1</sup> Actual risk assignments may vary by project.

<sup>2</sup> Eminent domain delays retained TxDOT.

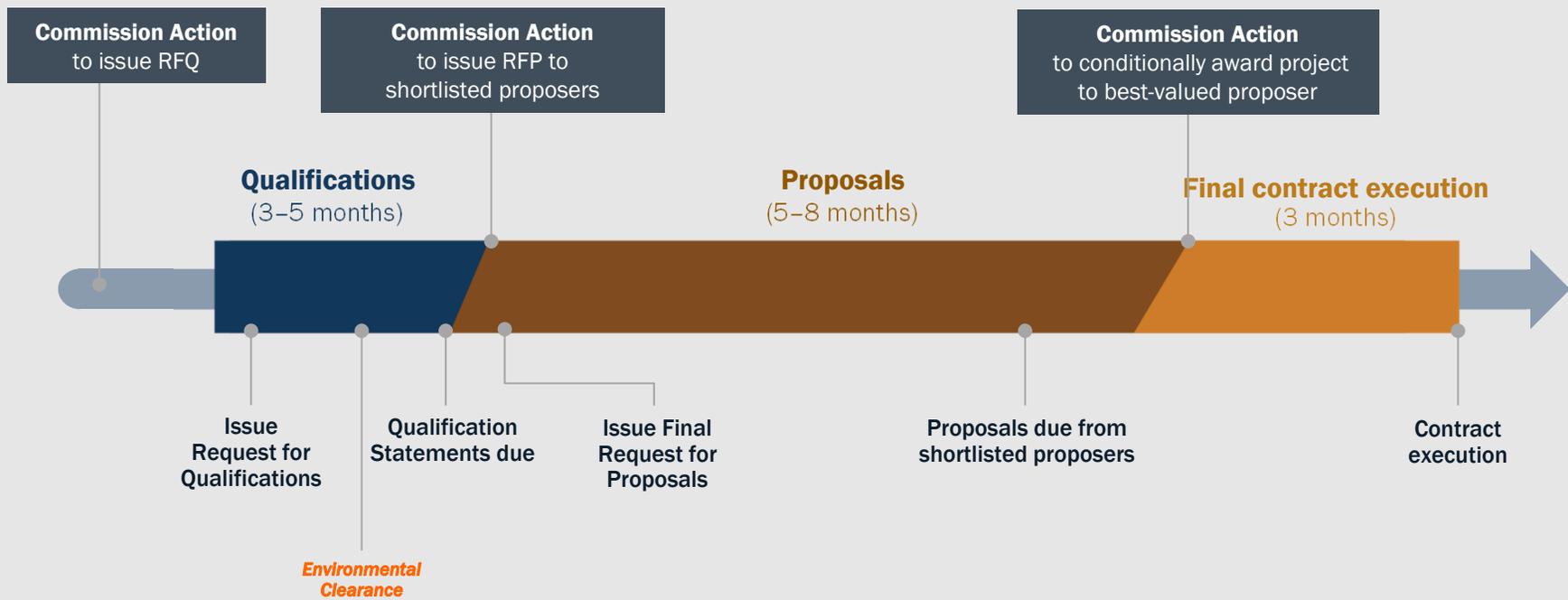
## Typical project development schedule

Phase	Scope Description
<b>Planning</b>	Existing condition and data collection, alternatives development and analysis, traffic modeling and analysis, conceptual schematic development of reasonable alternatives, geometric design of recommended alternative
<b>Environmental clearance/ Preliminary design</b>	Schematic development, environmental documentation, public involvement, noise analysis, utility investigations, preliminary geotechnical studies, preliminary drainage studies, hazardous materials assessment, preliminary cost estimate
<b>Right of way (ROW) and utilities</b>	ROW parcel survey and mapping, develop utility agreements
<b>Plans, specifications and final cost estimate development</b>	Roadway design, pavement design, drainage design, bridge design, signing, pavement markings & illumination designs, intelligent transportation systems design, traffic control design, final cost estimating, develop specifications
<b>Process and advertise for bidding</b>	Compile plans, specifications, final cost estimate to advertise
<b>Construction</b>	Materials testing, inspection, construction management

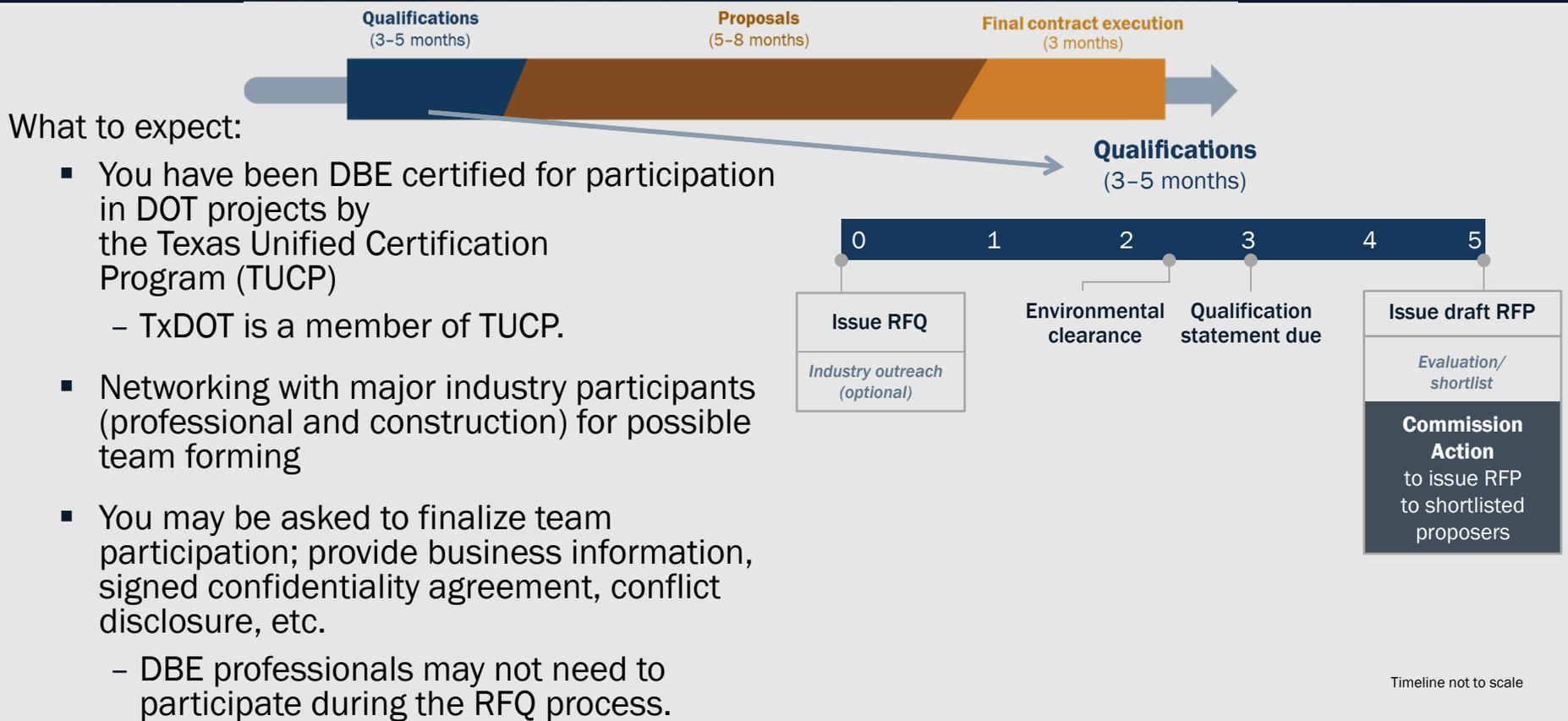
## D-B-B and D-B compared

D-B-B	D-B	
Planning	Planning	<span style="display: inline-block; width: 15px; height: 15px; background-color: #d9e1f2; border: 1px solid #ccc; margin-right: 5px;"></span> D-B-B and D-B <span style="display: inline-block; width: 15px; height: 15px; background-color: #a6a6a6; border: 1px solid #ccc; margin-right: 5px;"></span> D-B-B <span style="display: inline-block; width: 15px; height: 15px; background-color: #1a3d54; border: 1px solid #ccc; margin-right: 5px;"></span> D-B
Environmental clearance/preliminary design	Environmental clearance/preliminary design	
Right of way (ROW) and utilities	Two-step procurement: 1. Request for Qualifications 2. Request for Proposals	
Plans, specifications and final cost estimate development		
Process and advertise for bidding	Design, right of way, utilities and construction	
Construction		

# Design-Build: Two-step procurement overview



# Design-Build Procurement – Request for qualifications (RFQ)



What to expect:

- You have been DBE certified for participation in DOT projects by the Texas Unified Certification Program (TUCP)
  - TxDOT is a member of TUCP.
- Networking with major industry participants (professional and construction) for possible team forming
- You may be asked to finalize team participation; provide business information, signed confidentiality agreement, conflict disclosure, etc.
  - DBE professionals may not need to participate during the RFQ process.

# Design-build procurement – Request for proposals (RFP)



What to expect:

- DBE professionals may need to participate during the RFP process
  - Efforts performed by DBE during team response to RFP may not be compensated.
  - Maintain confidentiality during the procurement process.
  - Bring your subject matter expert(s) to the table.



Thank you!