

IH 30 at IH 35E interchange

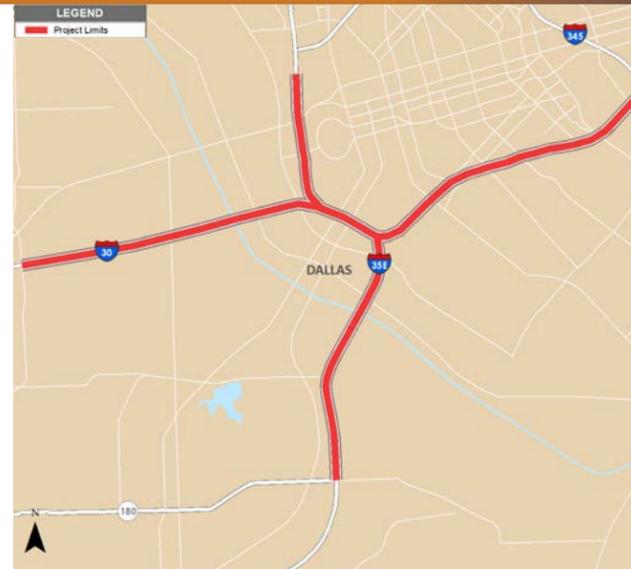
SUCCESS STORY

DESIGN-BUILD INNOVATION

- The project required constructing bridges across the Trinity River floodplain for a total bridge length of 1,000 feet; DB Contractor elected to use precast post tensioned concrete spliced girders to build the bridges instead of regular steel girders achieving the 250-foot spans saving both time and money.
- DB Contractor performed site-specific drilled shaft load testing resulting in a significant reduction in time of construction allowing faster installation for bridges critical to maintenance of traffic and less disruption to the public.

DESIGN-BUILD FLEXIBILITY

Using the design-build delivery method, the DB Contractor was able to adjust the sequence of work and remain on schedule overcoming delays due to flooding of the Trinity River and challenges constructing two closely spaced major interchanges under traffic.



PROJECT DESCRIPTION

FROM: I-30 from Hotel Street west to Sylvan Avenue

TO: I-35E from Eighth Street north to Commerce Street

- Replacement of the IH 30 and IH 35E bridge structures crossing the Trinity River.
- Reconstruction of the IH 30/IH 35E (Mixmaster) interchange.

LANE MILES:
50

TOTAL CONTRACT VALUE
\$745 million

PROJECT DETAIL HIGHLIGHTS

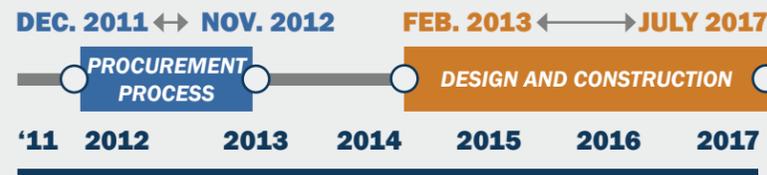
The project included the addition of 7 lanes from 16 to 23 lanes in the original IH 30/IH 35E interchange, and the construction of more than 73 lane miles of new roadway, extension of the existing reversible high occupancy vehicle (HOV) lanes along IH 35E, 37 conventional bridges, and more than 60 retaining walls.



Construction of bridges across the Trinity River floodplain

DESIGN-BUILD FLEXIBILITY

The use of the design-build delivery method provided the DB Contractor with the flexibility to adjust its design and construction operations to accommodate challenging site conditions and delays due to excessive rainfall and flooding of the Trinity River to remain on schedule.



RISK MANAGEMENT

- TxDOT acquired all the ROW and performed all demolition within the newly acquired parcels before the start of the construction phase.
- Completion of the relocation of the Oncor transmission lines before contract execution minimized the impacts to the project schedule.
- TxDOT mitigated potential delay risk by working directly with the US Army Corps of Engineers to obtain the 408 permit for construction of the bridges over the Trinity River floodplain.

AWARDS

-  **2017 Design-Build Institute of America National Award of Merit in Transportation:** The Design-Build Institute of America (DBIA) recognized the project for its transportation improvements.
-  **2018 American Council of Engineering Companies (ACEC) of Texas Engineer Excellence Award gold medal for transportation:** The ACEC of Texas awarded the project for its transportation improvements.
-  **2018 ACEC National Engineering Excellence Honor Award:** The ACEC awarded the project for its engineering excellence.

QUALITY MANAGEMENT

- The quality assurance (QA) firm was an integral part of the Quality Assurance Program for TxDOT and responsible for ensuring that TxDOT's interests were protected and a quality product was delivered.
- Meetings were held weekly with the QA firm to discuss and resolve issues as they occurred.