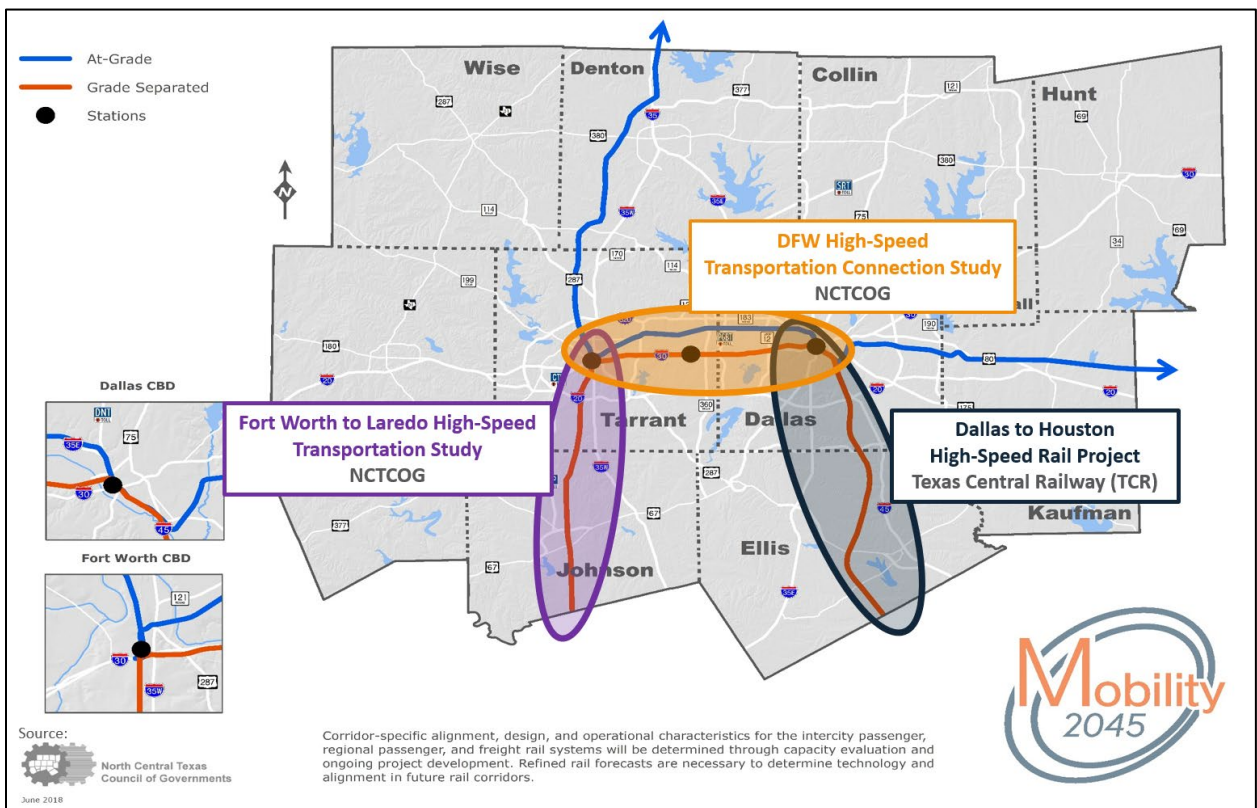


Dallas Fort Worth High-Speed Transportation Connections (DFWHSTC) Study

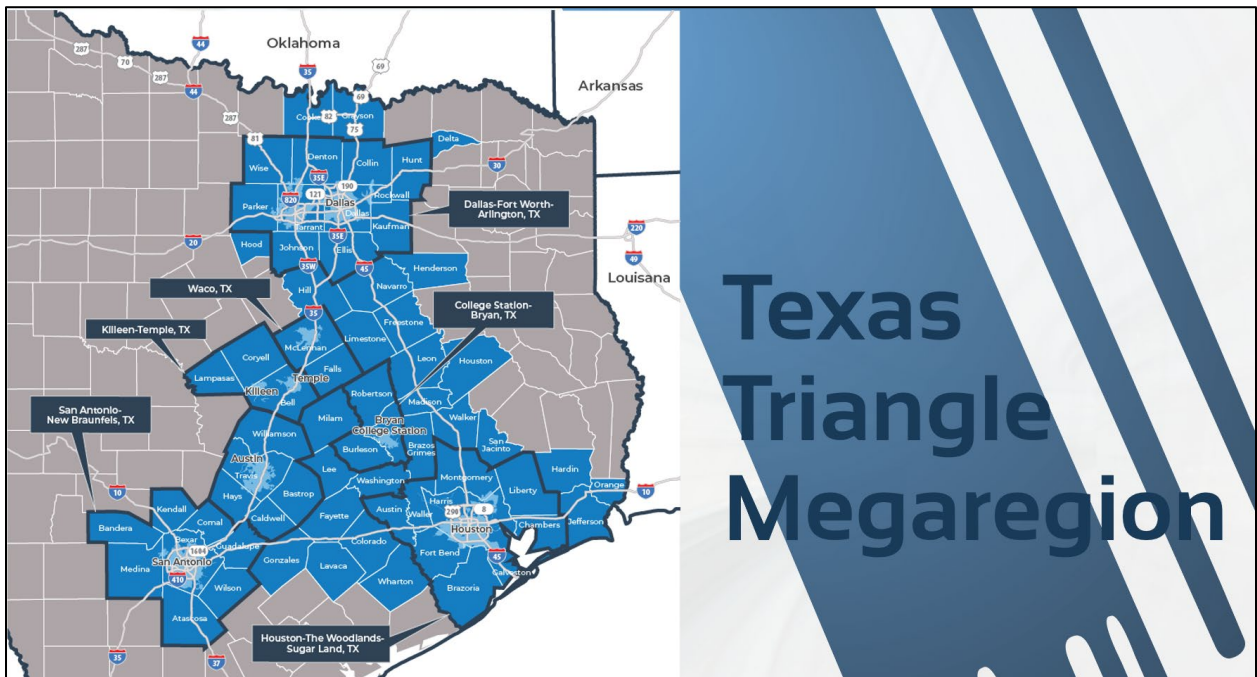
Trinity Railway Express (TRE) Corridor Evaluation Considerations

March 2021

The NCTCOG DFWHSTC Study evaluates North Texas alignment and technology alternatives in support of a state-wide high-speed transportation system.



The Dallas-Fort Worth corridor connects to proposed high-performance passenger systems extending throughout the Texas Triangle Megaregion.



A new high-speed transportation corridor between Dallas and Fort Worth would provide transportation services differing from service that could potentially be provided on an upgraded TRE corridor. The following areas of consideration summarize some of the most significant differences between the TRE corridor and a new high-speed transportation corridor.

Different Services

The TRE corridor alignment does not connect to other planned high-speed corridors or to major mid-corridor activity centers that will support development at a mid-corridor station. The service provided by TRE connects patrons to destinations supported by the corridor's eight intermediate stations and does not support a significant travel demand for end-to-end travel between Dallas and Fort Worth. The proposed new high-speed transportation corridor is intended to provide service to Dallas and Fort Worth with fewer stops through terminus stations and only 1 intermediate station located mid-corridor.

Travel Time, Infrastructure and Maximum Speed

Current TRE travel time along the 34-mile corridor between Dallas and Fort Worth is 61 minutes¹. The maximum operating speed for TRE vehicles is 83 mph². To achieve a 20-minute travel time between Dallas and Fort Worth along the existing TRE corridor, travel speeds greater than 125 mph would be required.

In accordance with AREMA standards, these travel speeds would require a grade separated track infrastructure with a closed corridor (no at-grade crossings with roadways or railroads) and new trains capable of achieving speeds of 125 mph and

higher⁴. Accommodating a grade-separated high-speed transportation infrastructure along with the at-grade commuter rail/freight infrastructure for at-grade customer connections may require additional right-of-way width along constraining segments of the corridor.

Considering these requirements, the infrastructure upgrades required to allow TRE to achieve the 20-minute travel time would essentially be equivalent to constructing a new rail corridor and providing a new fleet of vehicles capable of traveling greater than 125 mph⁵.

Corridor Upgrade Requirements

The use of the existing TRE right-of-way for new high-speed transportation service was considered during the DFWHSTC Alternatives Analysis Screening process. The infrastructure conflicts identified during screening were prohibitive to incorporating a TRE-adjacent high-speed corridor within TRE right-of-way. Refer to the "Travel Time, Infrastructure and Maximum Speed" section of this document for details regarding conflicts.

Replacing the TRE service would eliminate service to the current TRE riders using the eight intermediate stations located along the corridor. Approximately 95% of the daily riders use these intermediate stations at some point on their trip.

Repurposing the TRE right-of-way for high-speed transportation service would displace existing freight and Amtrak passenger rail service currently traveling along the corridor.

TRE Corridor Suitability for High-Speed Transportation Service

The DFWHSTC Study initially considered five corridor alternatives (alignments 1, 2, 3, 4 and 5) aligning along the existing Trinity Railway Express (TRE) corridor. All five of these corridor alternatives were eliminated during Level 1 Screening primarily due to lower scores on screening criteria associated with access to activity centers and infrastructure challenges.

Connectivity to Other Planned High-Speed Corridors

The DFW high-speed transportation corridor is proposed to terminate at the Fort Worth Central Station and the Dallas High-Speed Rail Station to provide connectivity to future state-wide high-speed transportation corridors. While the existing TRE corridor does include a stop at the Fort Worth Central Station, it does not connect to the proposed Dallas High-Speed Rail Station.

Access to Major Mid-Corridor Activity Centers

The new proposed high-speed transportation corridor is anticipated to provide access to major activity centers through a mid-corridor station. The existing TRE corridor provides connectivity to DFW Airport but lacks proximity to other major economic development activity centers throughout the Mid-Cities.

Travel Demand

Travel demand modeling of trips taken on the TRE indicates only 5% or less of all TRE riders travel the entire length of the corridor between Dallas and Fort Worth. The TRE predominately provides service to riders traveling to/from other stations throughout the corridor. Service provided by the proposed high-speed transportation corridor is anticipated to primarily meet the needs of rider traveling between the Dallas and Fort Worth urban centers. Replacing the existing TRE infrastructure to accommodate high-speed transportation would eliminate stations currently used by most TRE riders and would remove a vital transportation corridor from riders who need it.

¹ Trinity Railway Express website. Schedule tab. <https://trinityrailwayexpress.org/eastbound-weekday/>

² DART Newsroom, TRE Facts. <https://www.dart.org/newsroom/trefacts.asp>

³ 49 CFR 213.9

⁴ AREMA Chapter 17

⁵ 49 CFR 238.201 for equipment classification Tier 1 (not to exceed 125 mph), 49 CFR 238.401 for equipment classification Tier 2 (exceeding 125 mph but not to exceed 150 mph).

