

Field Survey Results of the Texas High-Speed Rail Project

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1. Introduction

The Texas High-Speed Rail Project, which will use Japanese Shinkansen technology to connect Dallas to Houston in Texas, is a 240-mile (390-km) project that has been studied by Texas Central, a private company, as the project owner.

On May 21, 2024, we visited the site of the proposed high-speed rail line from Dallas to Houston with members of the JR Central Washington D.C. Office.

The following is a report on the results of this field survey, based on the Texas Central website^{1, 2, 3, and 4}, and an overview of Texas High-Speed Rail.

2. An Overview of Texas High-Speed Rail

2.1 Key Features

Texas High-Speed Rail will begin service at a speed of 186 miles per hour, reducing the travel time between Houston and Dallas to less than 90 minutes. The maximum speed of the trains will be increased to 205 miles per hour. The high-speed railway is expected to reduce travel time between Houston and Dallas by 90 minutes less than by car and 60 minutes less than by plane.

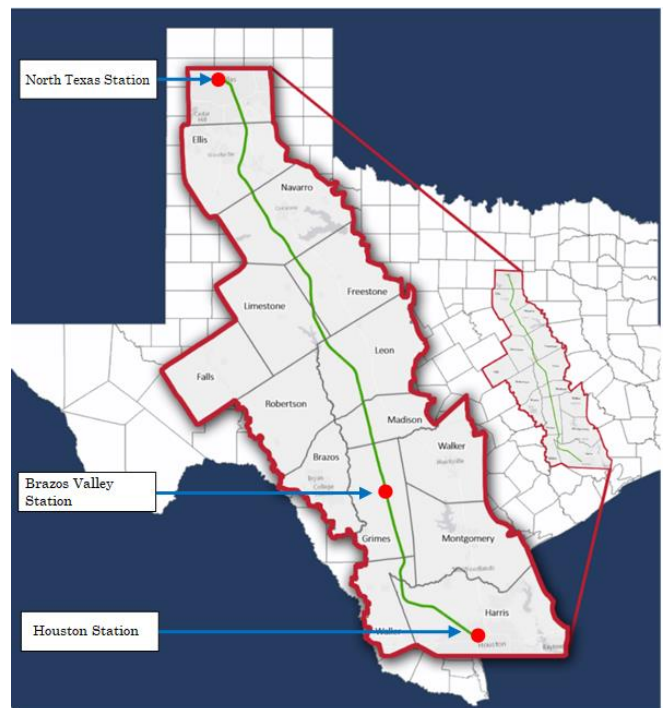
The line will be constructed on a dedicated track using the same technology as the Shinkansen bullet train, including signals. The train will be an eight-car N700S train modified to Texas specifications (with an estimated capacity of 400 passengers), and seats will be arranged in a “2 x 2” configuration with an aisle in between.

The frequency of service is expected to be once every 30 minutes during peak hours and once every hour during off-peak hours. As for the route, at least 50% of the line will be

elevated to ensure maximum traffic flow of people, animals, and vehicles. In addition, in October 2018, Texas Central signed an operational partnership with the Spanish national railway company, Renfe.

2.2 Planned Routes

A map of the planned routes is shown below.



Source: Author added passenger station information to the map of planned routes on the Texas Central website.

Figure-1 Map of planned routes

2.3 Passenger Terminal

The following three stations, including an intermediate station, are expected to be constructed.

- (1) North Texas Station

North Texas Station will be located in the Cedars area, just south of downtown Dallas, close to the interchange of Interstate 30 and Interstate 35.

(2) Brazos Valley Station

Brazos Valley Station is the only intermediate station on the Texas High-Speed Rail line and will be in Grimes County on a 60-acre plot of land on Highway 30, just west of Highway 90, in the Roans Prairie area, and roughly midway between College Station and Huntsville. A shuttle service is also planned to provide a direct connection between the Texas A&M University campus and the Brazos Valley Station. From this station, it will take approximately 50 minutes to Dallas and 30 minutes to Houston.

(3) Houston Station

Houston station will be located at the Northwest Mall site near the interchange of US 290 and Interstate 610 in northwest Houston.

2.4 Recent Major Developments

- On November 3, 2020, the U.S. Department of Transportation published a rule of particular applicability (RPA) and the Environmental Impact Statement (EIS) for the project. This is the first time that the safety of Japanese Shinkansen technology has been officially approved in the United States.
- On June 24, 2022, the Texas Supreme Court issued a decision granting Texas Central the right of eminent domain along the rail line.
- On August 9, 2023, Amtrak announced that it is seeking service opportunities for the project.
- On December 8, 2023, the U.S. Department of Transportation announced its decision to award Amtrak a Corridor Identification and Development Grant*, which Amtrak had applied for in order to further study the feasibility of this project.

*The Corridor Identification and Development Program selects railway lines that should be prioritized for development in the future and subsidizes the costs associated with formulating business plans. The initial grant amount is \$500,000. Additional grants will be made according to progress

after concluding an agreement with the U.S. Department of Transportation.

- On April 10, 2024, the White House released a fact sheet after the US-Japan Summit, which stated, "the U.S. Department of Transportation and Japan's Ministry of Land, Infrastructure, Transport and Tourism welcomed Amtrak's leadership of the Texas Central High Speed Rail Project, utilizing Shinkansen technologies, which was recently selected for the Federal Railroad Administration's (FRA) Corridor Identification and Development grant program. The successful completion of development efforts and other requirements would position the project for potential future funding and financing opportunities."

3. Status of Major Planned Project Sites

3.1 Overall

Regarding the Texas High-Speed Rail line, we drove from the Dallas to Houston area to survey the proposed sites.

The general impression was that the high-speed railway would pass through relatively flat terrain. As the route crosses only a single river (the Trinity River in southern Dallas), and there is only one bridge, no mountains, and no need for tunnels, construction will seemingly be relatively easy.

The following are the results of the field survey from the Dallas to Houston area.

3.2 Individual Circumstances

(1) North Texas Station

North Texas Station will be located in the area of the Trinity riverbed.

The station will be located within the red frame of the photo below, and a multi-story parking lot will be constructed around the station to accommodate a large number of vehicles. High-speed rail services are expected to be used in the same manner as at airports in the U.S., where passengers drive to the high-speed rail station and then board from there.



Figure-2: Proposed site of the North Texas Station (photographed by the author)

(2) Railway Yard (Around North Texas Station)

As for the railway yard, there are plans for it to be constructed in two locations, a smaller one near North Texas Station and a main one near Houston Station.



Figure-3 Planned location of the rail yard (around North Texas Station) (photographed by the author)

(3) Railroad Lines

On the way between Dallas and Houston there is a long section of power lines running through the area, as shown in the photo below. It covers a wide space, and the company envisions utilizing it as a rail line.



Figure-4: Proposed site of a railway line (near power lines) (photographed by the author)

(4) Brazos Valley Station

The intermediate station Brazos Valley will be located with an eye toward connecting Texas A&M University campus, as noted above. From the station, a shuttle providing a connection to Texas A&M University campus is expected, and a parking lot will be constructed to accommodate a large number of vehicles.

Note that there was one house in the vicinity of the proposed Brazos Valley Station site with a sign opposing the Texas High-Speed Rail Project.



Figure-5: Proposed site of Brazos Valley Station site (photographed by the author)

(5) Houston Station

Houston Station will be located at the Northwest Mall near the interchange of US 290 and Interstate 610 in northwest Houston. A parking garage that can

accommodate many vehicles will also be constructed.

In the northwestern suburbs of Houston, there is an area where highways are multi-leveled and congested, and freight railroads run, as shown in the photo below. High-speed rail will have to pass through this area, which may make the design and construction difficult in terms of determining how it will move through this congested space.



Figure-6: Proposed site of Houston Station (photographed by the author)



Figure-7: Congested freeway area in the northwest suburbs of Houston (photographed by the author)

4. Impressions

The Texas High-Speed Rail Project connecting Houston, the fourth most populous city in the U.S., and Dallas, the ninth most populous city in the U.S., is expected to have a high economic impact by connecting the two cities within a short timeframe, and will also help ease congestion between them on Interstate 45.

My impression from this on-site survey is that, as

mentioned above, the high-speed railway will run through a relatively flat terrain, and if all conditions are met, construction will proceed with relative ease. It will be important to secure the necessary funds and land while fully coordinating with stakeholders, and to steadily advance the project one step at a time.

North Texas Station is relatively close to downtown Dallas and is therefore highly convenient, but Houston Station is located in the northwest area of the city, an area that requires a 20-30 minute drive to downtown. Both Dallas and Houston have urban structures that are designed for automobile travel, with congested highways and wide roads. Therefore, from the perspective of the first and last mile, it is important to ensure that both stations have large, easily accessible parking lots, as well as connections to public transportation such as buses and trains, and easy access to rideshare use.

Furthermore, I believe that it is important to effectively develop the area around passenger stations in order to generate further economic benefits and increase demand for high-speed rail.

I hope that the Texas High-Speed Rail Project, the first in the U.S. to use Japanese Shinkansen technology, will be realized in the near future and will contribute greatly not only to people's lives and the economy, but also to building a strong bilateral relationship between Japan and the United States.

Citations, References and Source Materials

1) Texas Central Website

<https://www.texascentral.com/>, (Accessed 2024-05-22)

2) Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development. “米国テキサス高速鉄道事業について”. 2023-12-28. (written in Japanese, no official English translation) [https://www.join-](https://www.join-future.co.jp/news/index.php?c=topics_view&id=20231228-1)

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3) The Dallas Morning News. “Texas Supreme Court says company can use eminent domain for Dallas-Houston bullet train”. 2022-06-24. <https://www.dallasnews.com/business/local-companies/2022/06/24/texas-supreme-court-rules-30-billion-dallas-to-houston-bullet-train-can-go-forward/>, (Accessed 2024-06-

24)

4) Ministry of Foreign Affairs of Japan . “Fact Sheet: Prime Minister Kishida's Official Visit to the United States as Guest of Honor.” . 2024-04-10.

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