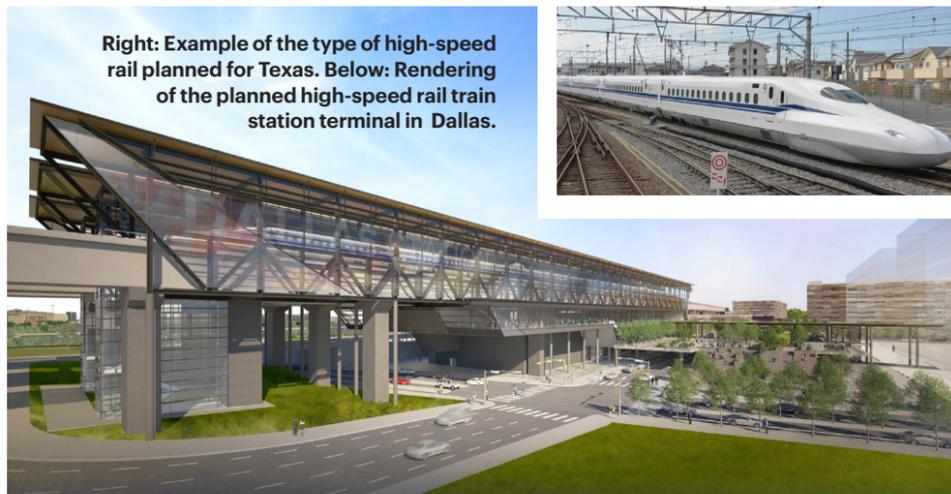


High-Tech Travel

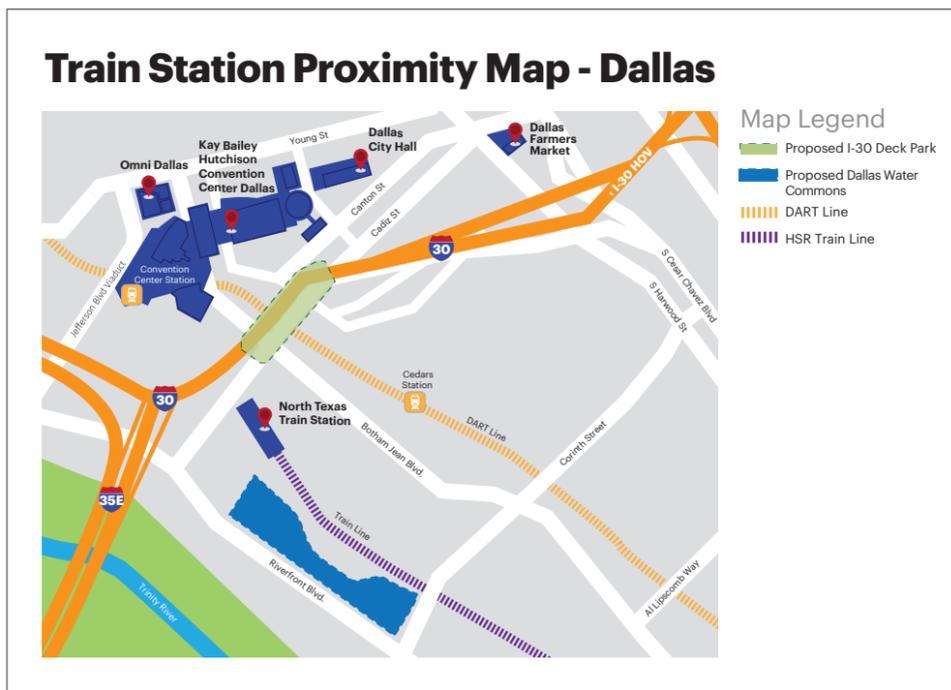
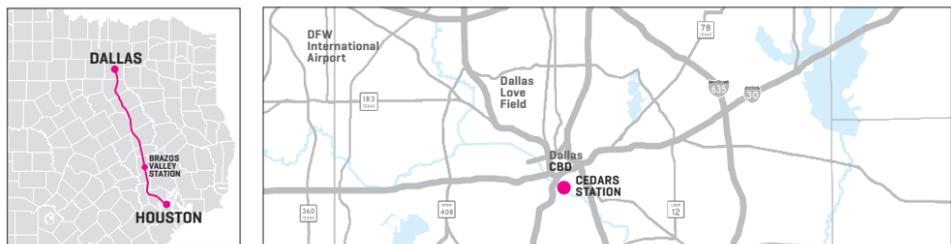
The Dallas Region is on the cutting edge of some of the world's most innovative transportation solutions. These technologies will allow DFW to remain one of the least-congested major cities in the world, according to the TomTom Traffic Index, now and far into the future. From deployment of tested and trusted high-speed rail technology, to design and testing of options straight out of science fiction like the drone deliveries and flying taxis, Dallas continues to seek out more efficient, effective, and sustainable transportation options for its residents and workers.



Right: Example of the type of high-speed rail planned for Texas. Below: Rendering of the planned high-speed rail train station terminal in Dallas.

High-Speed Rail

Dallas is leading all domestic metros in the development of the first truly high-speed railroad in the U.S. Texas Central is building a 205mph Dallas-Houston train line that will cut the current commute time from three to four hours by car to less than 90 minutes, about the same duration as air travel. This project—expected to begin operations in 2026—will spur multi-modal rail-station development and is predicted to boost transit ridership, car-sharing, and other transportation opportunities in both metros.



Source: Texas Central

AllianceTexas Mobility Innovation Zone



Photo: Hillwood

Hillwood's AllianceTexas in north Fort Worth is home to the Mobility Innovation Zone (MIZ). The MIZ offers mobility companies full access to an extensive testing ecosystem, resources, and partnerships essential to comprehensively test, scale, and commercialize their technologies. Work in the MIZ is focused on the autonomous movement of freight and goods via air and surface travel. The Texas A&M Transportation Institute (TTI) recently signed on as the think tank for surface and air mobility technologies at the MIZ.

Autonomous Vehicles, Drones, EVTOL's

Texas' less restrictive regulations and the Dallas Region's business-friendly environment have set the stage for the early adoption of autonomous vehicles.



- AT&T and Verizon have both begun wide-scale 5G technology deployment, a critical element for connecting vehicles of all types to one another and to the infrastructure that supports them.
- In 2021, Dallas Fort Worth International Airport joined a handful of airports to deploy autonomous passenger shuttles.

■ The Dallas Region is the epicenter for self-driving long-haul trucking companies. Kodiak, Waymo, Embark, Aurora, Gatik, and TuSimple all have significant operations in the area. Both Kodiak and Waymo have built new facilities in southern Dallas County. TuSimple has partnered with Hillwood at a facility in north Fort Worth intended to serve as an origin and destination facility for L4 autonomous trucks.



- Fort Worth-based Bell Helicopter and Dallas-based Hillwood are collaborating to accelerate the eventual large-scale deployment of electric vertical takeoff and landing vehicles (EVTOLs)—the air taxi. DFW is one of a handful test markets. The first test route is between Frisco's The Star and Dallas Fort Worth International Airport.

■ In 2020 and 2021, China-based Pudu Robotics began collaborations with Dallas area restaurants such as La Duni, Japan House, and Ari Korean BBQ to demonstrate the company's PuduBot kitchen-to-table in-restaurant delivery system. In January 2022, Bay Area-based Starship Technologies launched a fleet of 16 autonomous bots to deliver takeout across the campus of Southern Methodist University. Frisco and Little Elm are the first cities to get a new Walgreens drone delivery service from Wing, a sister company of Google. Tel Aviv-based Flytrex will begin making restaurant food deliveries in DFW suburbs in 2022.



- Aurora, based in Mountain View, CA and Pittsburgh, PA, will test its fleet of self-driving, ride-hailing Toyota robotaxis in Dallas. They collaborated with Toyota's engineering team to define the requirements of a self-driving passenger minivan and intend to launch the service commercially on ride-hailing networks in late 2024.



Illustration: Andrey Suslov via iStock

Investing in Tomorrow's Mobility Technologies Today

The North Texas Center for Mobility Technologies (NTCMT) brings coordinated expertise of DFW research universities to tackle global mobility technology challenges.

The center handles challenges in areas such as autonomous vehicles, 5G, electric vertical takeoff and landing (EVTOL), electric motors, micro mobility, drones, Lidar, radar, machine vision, freight, drones, first mile, last mile, networking, network splicing, object avoidance, multi-modal and on-demand mobility, personal mobility, fuel cells, battery development, motor controllers, route planning, and more.

The center's objectives include:

- Providing access to a cutting-edge research and development network of and for mobility companies, universities, not-for-profits, municipalities, and public agencies;
- Attracting industry and academic talent to North Texas;
- Developing transportation-related research capabilities within North Texas universities;
- Facilitating communication and collaboration among North Texas universities in pursuit/execution of mobility related grants;
- Facilitating university-public sector partnerships on transportation-related projects;
- Facilitating mobility and transportation internships for workforce enhancement;
- Serving as a catalyst for building similar regional university networks.

Organizations working with NTCMT use multi-university partnerships and leverage match funding to further the development of their mobility solutions.

Seed funding from the North Central Texas Council of Governments (NCTCOG) and universities can stretch research dollars. While there is no floor on project size, multiple awards are expected with a total ceiling of \$2M per year.