

DFW HIGH-SPEED UPDATE

THE LATEST MOVEMENTS IN THE DALLAS-FORT WORTH
HIGH-SPEED TRANSPORTATION CONNECTIONS STUDY



Give Input Through Online Mapping **NOW** as Decisions Are Being Made

The Dallas-Fort Worth High-Speed Transportation Connections Study team has launched an innovative online mapping and survey tool to allow the community to give feedback easily on the alignments and modes under consideration.

The study team will soon wrap up Phase 1, and this mapping and survey tool, along with two virtual public meetings in May, are among the last opportunities for the public to actively participate in, ask questions about, and comment on this phase of the study.

In early summer, recommendations on alternatives to carry into Phase 2, including a mode and an alignment for a high-speed transportation connection between Downtown Dallas and Downtown Fort Worth, will be finalized.

"We are excited to engage the broader community with our new online mapping and survey tool. Of course, we have collected a large amount of meaningful input throughout Phase 1 of the study with comment forms and virtual public

cont. on pg. 2



Electromagnets Suspending and Propelling a Train a Possibility!

TECH UPDATE

Magnetic levitation, referred to as Maglev, is one of three technologies being carefully explored in the DFW High-Speed Transportation Connections Study. Superconducting magnets, which have been cooled to negative 425 degrees Fahrenheit, can generate magnetic fields up to 10 times stronger than ordinary electromagnets—enough to suspend and propel a train.

These magnetic fields interact with simple metallic loops set into concrete walls of the Maglev guideway. The loops are made of conductive materials, like

aluminum. When a magnetic field moves past, it creates an electric current that generates another magnetic field.

"Three types of loops are set into the guideway at specific intervals to do three important tasks: one creates a field that makes the train hover about five inches above the guideway; a second keeps the train stable horizontally. Both loops use magnetic repulsion to keep the train car in the optimal spot; the further it gets from the center of the guideway or the closer to the bottom, the more magnetic resistance pushes it back on track," Jesse Powell, whose father is the



Shanghai, China: Transrapid Maglev train station

inventor of magnetic levitation, writes in a U.S. Department of Energy online posting.

The third set of loops is a propulsion system run by alternating current power. Both magnetic attraction and

cont. on pg. 2

SPRING 2021 Calendar

MAY 19

Virtual Public Meeting* - Noon, www.nctcog.org/dfw-hstcs

MAY

MAY 20

Virtual Public Meeting* - 6:00 PM, www.nctcog.org/dfw-hstcs

*Information will be the same at both meetings.

JULY

JULY 30

WTS Dallas/Fort Worth and COMTO North Texas High-Speed Rail Technology and Public Policy Forum

PROJECT Contacts

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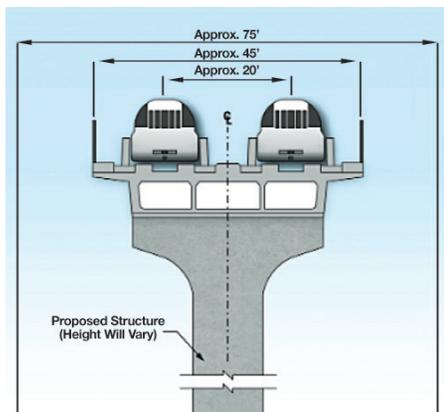
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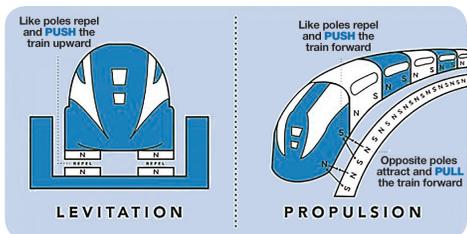
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Electromagnets... (cont.)



A section of typical elevated Maglev guideway



Source - Department of Energy

“This floating magnet design creates a smooth trip...the only source of friction is air.”

repulsion are used to move the train car along the guideway. Imagine the box with four magnets—one on each corner. The front corners have magnets with north poles facing out, and the back corners have magnets with south poles outward. Electrifying the propulsion loops generates magnetic fields that both pull the train forward from the front and push it forward from behind.

“Another big benefit is safety,” Powell continues. “Maglev trains are ‘driven’ by the powered guideway.” Any two trains traveling the same route cannot catch up and crash into one another because they’re all being powered to move at the same speed. Similarly, traditional train derailments occurring because of cornering too quickly can’t happen with Maglev. The further a Maglev train gets from its normal position between the guideway walls, the stronger the magnetic force pushing it back into place becomes.

This core feature is what’s most exciting to Powell. “With Maglev, there is no driver. The vehicles have to move where the network sends them. That’s basic physics. So now that we have computer algorithms for routing things very efficiently, we could change the scheduling of the entire network on the fly. It leads to a much more flexible transportation system in the future,” he said.

The first commercially operated high-speed superconducting Maglev train opened in Shanghai in 2004, while others are in operation in Japan and South Korea. In the United States, a number of routes are being explored to connect cities such as Baltimore and Washington, D.C.

Public Input... (cont.)

meetings, but this new platform will involve the public on a deeper level. The map allows for visual exploration of the alignments being considered, and the public will have the option to drop pins on areas of interest in the community we should examine further,” said Dan Lamers, project manager and a senior program manager at North Central Texas Council of Governments (NCTCOG).

“On-going public involvement is, of course, encouraged at any time through the project website at www.nctcog.org/dfw-hstcs. Hearing the public’s questions and ideas now is critical as we determine the alignment and technology mode we will take forward into the environmental assessment process,” said Lamers. “This is key as the project team decides whether the proposed, possible transportation line should operate in the I-30 corridor or along SH 180.”

KEY POINTS & EMPHASIS

The study’s purpose is to connect Downtown Dallas and Downtown Fort Worth with high-speed intercity passenger rail service or an advanced high-speed ground transportation technology.

Key points are the abilities to:

- Provide a safe, convenient, efficient, fast and reliable alternative to existing transportation travel options
- Advance the state’s high-performance rail transportation network
- Support economic development opportunities

The emphasis is on creating:

- Increased connectivity, both high-speed and local network connections
- More travel options
- Less demand on roadways
- More reliable travel times
- Better air quality

DFW High-Speed Transportation Virtual Public Meetings.
Participate online at www.nctcog.org/DFW-HSTCS or by telephone.

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| ■ Wed., May 19, Noon (855) 756-7520 Ext. 72698# | ■ Thurs., May 20, 6 pm, (855) 756-7520 Ext. 72699# |
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Dallas Professionals Among Groups Studying Future Connectivity Options

Having more travel choices to support economic development is one of the many reasons that the Greater Dallas Planning Council (GDPC) is looking to the North Central Texas Council of Governments (NCTCOG) for the valuable information being compiled and analyzed in the on-going Dallas-Fort Worth High-Speed Transportation Connections Study.

During frequent presentations to GDPC forums, Michael Morris, NCTCOG transportation director, always emphasizes the importance of high-speed intercity passenger rail service or an advanced high-speed ground transportation technology to connect the region.

“Such a significant undertaking will likely increase connectivity with more travel options, less demand on roadways, more reliable travel times, and improved air quality,” Morris said.

“Our study team and NCTCOG’s leadership appreciate the Council for the many ways it informs business and community leaders about the importance of transportation incentives such this,” he added.

The GDPC’s mission is to shape, promote, and advocate for a creative, sustainable future for the Dallas region. “High-speed transportation,

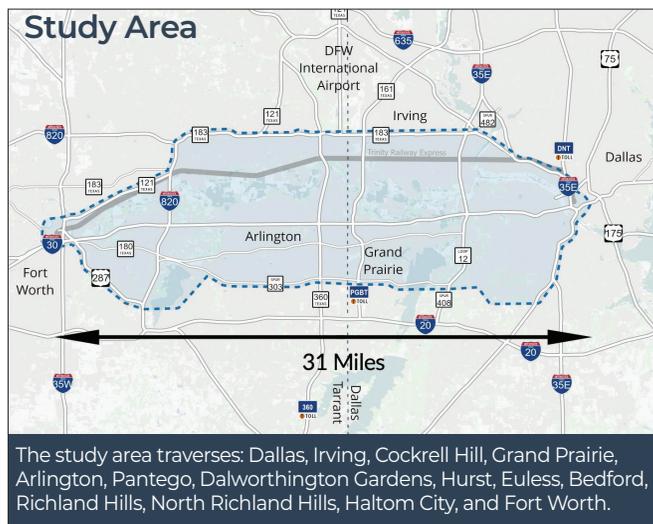
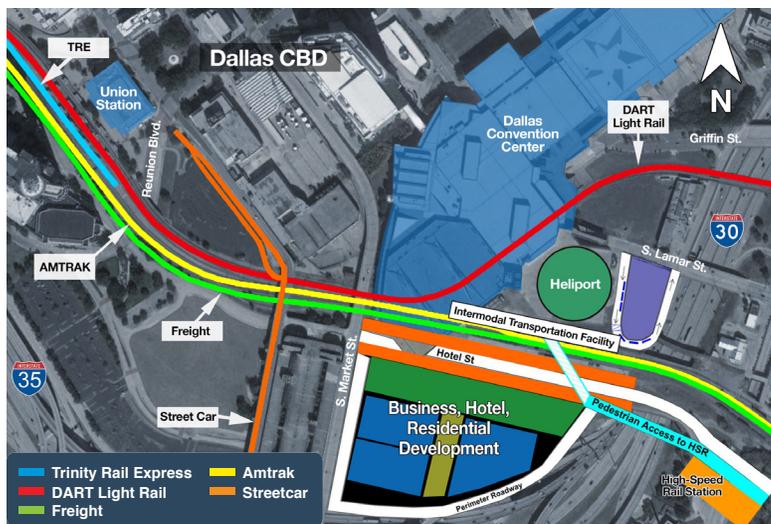
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Dallas Professionals... (cont.)

whether it's High-Speed Rail or Hyperloop, is a fast growing industry in the United States," says Ruben Landa, President-Elect of the GDPC. "It is incumbent upon the NCTCOG and the local transit authorities to consider these technologies as one of many solutions for creating a true multi-modal transportation network in one of the fastest growing markets in the U.S."

"Any transportation technology that will improve mobility, create economic development opportunities, enhance the overall quality of life, and create connectivity between the many communities in the region is of great interest to the GDPC. As a region, we must all think bold when it comes to transportation planning."

GDPC's membership is comprised of a group of successful professionals from architectural design firms, planning consultants, construction and engineering firms, developers, real estate industry leaders, community and civic organizations, corporations, and municipalities. Urban design issues, economic development, transportation, water issues, energy and education are its core focus.



Decisions: Purposeful and Collaborative



The North Central Texas Council of Governments (NCTCOG), in cooperation with the Federal Railroad Administration (FRA) and the Federal Transit Administration (FTA), is conducting the DFW High-Speed Transportation Connections Study. An \$11 million federal grant is funding the project.

NCTCOG's Regional Transportation Council oversees the planning process with members expected to vote in early summer to approve an alignment and mode to carry forward into the federal environmental documentation process. The 44-member body includes local elected officials from the metropolitan area and representatives from each of the area's transportation providers.

Now underway is Level 3 Screening of Phase 1, which is a detailed evaluation of the top alternatives. Criteria include: constructability/operability and construction costs per mile; additional non-public right-of-way needs; potential environmental, community and cultural resources impacts; and technology safety and maturity of operations systems.

DART, Trinity Metro, and the Trinity Railway Express (TRE) are study partners. One of the project's overarching goals is to create a seamless transportation system in which a high-speed technology travel mode connects to other transit systems to easily move people throughout the region. DCTA does not provide service within the project study area.

Opportunities for public involvement are emphasized throughout the process.



In the Community

We need input from everyone to explore all possibilities to make this project a reality! NCTCOG wants very much to reach out to all interested groups in the study area. We look forward to arranging presentations and/or participating in any upcoming events already scheduled where we can share information and collect input on the study. Please contact us today with your suggestions on groups which need to hear from us. Together, we can ensure all stakeholders' voices are heard.



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