

0-6809: The 2055 Freight Transportation System and the Impact of Near Term Rail Movements on TxDOT Planning

Background

The Texas Department of Transportation (TxDOT) contracted with the Texas A&M Transportation Institute and the Center for Transportation Research to consult with companies in Texas and Mexico to identify trends that could impact future business models and to gather information about their vision and expectations for a Texas freight transportation system four decades into the future. From the interviews and a roundtable discussion, four themes emerged regarding the future role of TxDOT that could frame the agency's role in supporting proactive freight planning for 2055. This research culminated in Research Report 0-6908-1.

The second goal of the project was to study the implications of increased freight rail traffic for short- and long-term transportation planning in Texas. Recent increased freight rail demand has had large impacts as both imports and exports between Canada, Mexico, and the United States moving by rail traverse the state heading to Texas-Mexico border crossings and Texas seaports. This research culminated in Research Report 0-6809-2.

What the Researchers Did

Research Report 0-6809-1:

- Documents the major trends (i.e., global trade, sociodemographic, environmental, and technology trends) that could impact the future business models of Texas companies.

- Identifies and discuss factors that influence companies' site selection decisions and explores how Texas ranks compared to other states.
- Discusses changing business models and the associated impacts on and expectations for a future freight transportation system.
- Provides insight into the foreseen role for TxDOT in planning for an efficient, reliable, and safe freight transportation system in 2055 that supports the growth of industry and ultimately the Texas economy.

Research Report 0-6809-2:

- Documents changes in Texas' rail imports/exports.
- Examines recent rail traffic volumes based on confidential rail waybill analysis.
- Assesses potential infrastructure impacts.

Research Performed by:

Texas A&M Transportation Institute
Center for Transportation Research

Research Supervisor:

Jolanda Prozzi, TTI

Researchers:

Arturo Bujanda, TTI
Megan Kenney, TTI
Rajat Rajbhandari, TTI
Jeffery Warner, TTI
Victoria Wilson, TTI
Juan Carlos Villa, TTI
Curtis Morgan, TTI
Annie Protopapas, TTI
Michael Walton, CTR
Meredith Cebelak, CTR

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- Defines potential areas of involvement that TxDOT's Rail Division and Freight and International Trade Office can take to work more closely with Mexican rail stakeholders and private U.S. rail companies to identify the planning efforts and practices TxDOT must adopt to respond to increased rail traffic throughout the state to preserve both rail and highway mobility.

What They Found

Based on the research and input from the private sector, four themes emerged that frame the role of TxDOT in preparing for an efficient, reliable, and safe freight transportation system in 2055:

- TxDOT is expected to be a facilitator/manager of Texas's freight transportation system. The stakeholders expect TxDOT to evolve into a multimodal transportation agency that advocates for all modes (not only highways), provides funding for all modes, and facilitates among different agencies and the public and private sectors to advance freight projects.
- TxDOT is expected to become more nimble, more responsive, and more innovative. Stakeholders expect TxDOT to pilot innovative transportation policies and technologies.
- TxDOT is expected to become the data clearinghouse for freight activity data.
- TxDOT is expected to communicate with the public, legislators, and freight stakeholders to ensure an informed understanding of the importance of freight and the need to invest in all freight modes.

For near-term freight rail planning, the research found that additional rail infrastructure capacity and increased cooperation between TxDOT and the state's freight rail companies are necessary to address increased rail freight movement. If a stable, long-term rail transportation funding source is not identified, it will be difficult for TxDOT to effectively work with the private sector to accomplish this goal. Efforts will remain limited to current, limited roles in grade crossings and to providing matching fund support for needed infrastructure improvements.

What This Means

The results of the Freight 2055 analysis provide insight into the requirements and anticipated role of TxDOT in developing a freight transportation system that meets the needs of businesses in the state. Communication and partnership with the private sector are important moving forward for developing a freight transportation system that addresses business needs and supports the growth of industry and the Texas economy.

The rail analysis showed that upward trends in current rail traffic volumes and values are likely to become even more pronounced as oil and gas and manufacturing development in northern Mexico increase. TxDOT will need to seek out opportunities to partner with the private sector effectively and develop better joint planning relationships with the state's railroad companies.

For More Information

Project Manager:

Kevin Pete, TxDOT, (512) 416-4738

Research Supervisor:

Jolanda Prozzi, TTI, (512) 467-0946

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Research and Technology Implementation Office

Texas Department of Transportation

125 E. 11th Street

Austin, TX 78701-2483

www.txdot.gov

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