



Project Summary

Texas Department of Transportation

0-6467: Identification of Priority Rail Projects

Background

As stated in Chapter 7 of the 2010 Texas Rail Plan, this project developed a system of evaluative tools to allow TxDOT to prioritize its investments in rail-related projects on a statewide basis. This project recommended a transparent methodology for evaluating proposed rail projects and established a process through which the methodology can be applied periodically to re-evaluate rail-related investments and compare them against one another in order to determine the most appropriate manner in which to utilize available public funds for freight and passenger rail projects. The prioritization process is also linked to the TxDOT Strategic Plan goals that were in place at the time the project was completed.

What the Researchers Did

The research team worked with the TxDOT Project Director, other members of the Rail Division staff, and a Project Advisory Committee (made up of TxDOT's Texas Rail Steering Committee plus additional representatives from metropolitan planning organizations (MPOs) throughout the state) to select a list of 11 evaluation criteria or factors to consider based upon a literature review of multimodal planning processes in other states, international rail project prioritization and funding activities, and recent US federal programs. Most of these programs take into account many additional factors beyond transportation benefits only. The selected factors were divided into three main categories: sustainability, transportation, and implementation. Each evaluation criteria was then assigned a relative weighting in relation to the others for use as part of a multi-criteria decision-making analysis. Initial weighting was based upon each criterion's relationship to the TxDOT Strategic Plan goals.

What They Found

Table 1 shows the prioritization evaluation criteria by category along with the weights initially assigned and adopted by the Texas Transportation Commission as part of the state rail plan. These weights can be adjusted by the Commission in the future, should a federal or state program emerge that emphasizes specific goals listed here or should the TxDOT Strategic Plan goals change.

In addition to weighting values for each criterion, the project team also developed guidelines for defining and scoring each criterion. While some of the criteria may have direct or approximate calculated values, others may be more qualitative or subjective in assessment.

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Additional work will be needed in the future to calibrate scoring methodologies to ensure that each project is being scored uniformly in relation to other projects. Also, certain types of projects may need to be evaluated only against other projects of the same type due to restrictions under certain funding programs as to what may be funded. The process developed under this project is meant to be flexible enough to be adjusted to respond to such requirements.

Comments from the Texas Rail Steering Committee and other MPO advisors were taken into account in formulating the process for evaluation. The final report includes a guidebook and a case study showing how the evaluation criteria would be applied to a specific project. This guidebook/case study is meant for use by local and regional planners in addition to TxDOT as a way to determine how a local/regional rail project might rank against others being proposed throughout the state.

Table 1. Initial Project Selection Criteria and Weighting

Categories	Criteria	Weights
Sustainability	Economic Impacts	10
	Environmental/Social Impacts	10
	<i>Asset Preservation</i>	15
Transportation	<i>Safety and Security</i>	10
	<i>Connectivity</i>	10
	<i>Congestion Relief</i>	10
Implementation	<i>System Capacity</i>	15
	Cost Effectiveness	5
	Project Development	5
	Partnerships	5
	Innovation	5
<i>Note: Italicized criteria are most closely related to TxDOT goals</i>		100

What This Means

The findings from this research project will lay the groundwork for future project prioritization methodologies as part of the rail project selection process at TxDOT. Further refinement of the process will take place as part of TxDOT’s Short Term Rail Program development process as outlined in the Texas Rail Plan.

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