

0-6758: Maintaining Project Consistency with Transportation Plans through the Project Life Cycle with an Emphasis on Maintaining Air Quality Conformity

Background

Streamlined project delivery is a federally mandated goal that the Texas Department of Transportation (TxDOT) leadership supports to achieve a more efficient and effective transportation system in Texas.

Federal and state transportation planning statutory and regulatory laws require transportation projects to be consistent with transportation plans and improvement programs before the Federal Highway Administration (FHWA) or the Federal Transit Authority (FTA) can take federal action on a project¹ requiring one. Consequently, significant delays in project delivery could occur because the federal funding would be withheld for such projects, and FHWA/FTA would not authorize their construction until the inconsistencies are fully addressed.

This issue is especially critical for projects in nonattainment and maintenance areas. This is because an individual project's project-level conformity is directly linked to the consistency of the project with appropriate transportation plans and improvement programs, and also a non-conforming project might trigger a conformity failure or delayed determination for the entire plan and/or program.

¹ Including signing a Record of Decision (ROD), Finding of No Significant Impact (FONSI), or approval of a Categorical Exclusion (CE) for a project.

What the Researchers Did

The research team investigated the various aspects of the project development process as conducted by TxDOT with a focus on how to maintain project consistency through the letting stage. Through an extensive literature review and interviews with TxDOT and metropolitan planning organization (MPO) staff, the researchers gained an understanding of the regulations of transportation planning, the project development life cycle, and how they relate to the general and project-level transportation conformity process. This project provides TxDOT with insight into the stakeholders' involvement in maintaining project consistency and the key challenges that hinder project consistency during the project development process. This project also outlines tools and resources that will assist in TxDOT's goal of maintaining project consistency.

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The research team developed a Project Consistency Guidebook (PCG), a Supplementary Information Document (SID), and a project consistency checklist. The PCG explains how project planning and development interact with the regional and project-level air quality conformity process, and details procedures and tools that could be used by TxDOT and Texas MPOs to understand and maintain project-level conformity and project consistency with applicable transportation plans and programs. The SID provides an overview of the subjects relevant to project consistency. The project consistency checklist serves as a guide to keep track of the changes to a project.

What They Found

The researchers found that the main challenges that lead to project inconsistencies are insufficient communication over the changes to the project's design concept and scope, cost, and estimated letting date. Factors such as evolution of the project throughout the project development process, inconsistencies in regulatory processes, and complexity of funding scenarios significantly contribute to project inconsistencies. As the number of times a project and its phases are listed in various documents increases, so does the risk of project inconsistency.

Early detection and improved internal and external communication are the key factors in minimizing the risk of delays due to project inconsistencies. This research provides a set of tools and recommended practices to assist TxDOT and MPO staff in maintaining project consistency throughout the project development process.

What This Means

The PCG and SID developed by the research team could be used by the TxDOT project delivery team and their district and MPO counterparts as an umbrella document to facilitate project consistency management at different levels. They combine the different aspects and practices of the key partners of the project development into a unified framework, specifically addressing project consistency. The PCG also provides recommendations on developing a project consistency maintenance plan and a set of best practices and tools to detect and correct an inconsistency before it can cause an extended delay.

For More Information

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