The transportation infrastructure systems across the U.S. are in financial crisis and significant investments are required to maintain and improve this system. Local, state, and federal government are facing various challenges to bridge the funding gap in additional capital investments due to changing economic conditions, delayed transportation re-authorization bills, and declining value of fuel taxes. There is growing interest among state departments of transportation (DOTs) to utilize innovative financing mechanisms and expedite project delivery despite the lack of funding. The objective of this study is to enhance understanding of transportation agencies regarding the complexity of combining financing into the project delivery process by mainly focusing on short-term financing of highway projects. A comprehensive review of literature and analysis of project solicitation documents is performed to document the current state-of-practice and analyze the emerging trends for financing the transportation infrastructure. A survey questionnaire is sent to 50 state DOTs to identify the main objectives, critical issues, barriers, and improvements areas regarding innovative financing for delivery of highway projects. The analysis of survey responses highlight critical issues and recommended best practices that can help decision-makers and industry professionals with effective utilization of innovative financing mechanisms in delivery of transportation projects.

**Key Words:** Innovative Financing, Public-Private Partnership, Design-Build Finance