

Request for Research Funding for FY 2022-2023

SPR Subpart B Project: SMO-23-04

Requesting Office	SMO	Priority	4 of 10
Proposed Title	Evaluation of Superpave, Superpave 5, and Stone Matrix Asphalt		
Justification	The Department has used the Superpave mix design protocol for the past 20 plus years. While the performance of asphalt mixtures improved with Superpave, there are two other mix design protocols that have the potential to further improve the performance of asphalt mixtures. One of those alternative mix design protocols is known as Superpave 5. It has been used by the Indiana DOT. They have seen better cracking performance in their mixtures when using Superpave 5 compared to traditional Superpave. The other system is stone matrix asphalt (SMA). It has been used by several other agencies and has shown good cracking and rutting performance. This project would compare the performance of mixtures produced with each mix design protocol using materials commonly used in Florida.		
Impact	This project will determine the most effective mix design protocol to use for asphalt mix designs in Florida.		
Affected Offices	Materials, Construction, Design		
Existing Work	Significant work has been performed on this topic. However, a comparison of the three mix design protocols has not been performed using Florida materials.		
Keywords Used In Existing Work Search (Cannot leave blank)	Superpave 5, Stone Matrix Asphalt, Florida Materials		
Related Contracts (Give contract numbers)	None.		
Funding Request	\$240,000	Anticipated Duration	24 months
Project Manager	Howie Moseley	Contracting Method	RFP
Equipment	NA	NA	
Urgency	7 of 10	This project will assure the Department is using the most effective mix design protocol for asphalt mixtures across the state, which should result in longer lasting pavements	
Implementability	Score 1-5 1=greatest likelihood of and proximity to implementing results	1, Given the ramifications of the outcome of this project, the findings of this project have a good probability at being implemented.	
Project Benefits			
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Project Benefits	Quantifiable Benefits	Methodology or Data Sources Used to Determine Quantifiable Benefits. If not applicable, please give justification of project benefits	
○ Material Enhancement	Rut Rating, Crack Rating, Service Life	The use of the most effective asphalt mixture design protocol should result in asphalt pavements that are more durable with respect to rutting and cracking. The pavement service life should increase over time if a new mix design protocol is chosen and implemented.	

