Request for Research Funding for FY 2019-2020			
Requesting Office	Traffic Engineering and Operations	**Priority** High	5 of 8
Proposed Title	Safety Performance of Managed Lane Separation Types		
Justification	The implementation of managed lane facilities requires the separation of the managed lane(s) from the general use lane(s). In Florida, the types of separation used in the development of the typical section include grade separation, rigid barrier, and buffer separation with express lane markers. It is perceived that barrier separated lanes may have fewer or less severe crashes, however they come with significant cost, and reduce future flexibility to change the typical section, and data is not available to determine which separation type performs best. Safety performance data would allow the department to determine the best option for each project based on a benefit cost analysis using project specific information. This research establishes the foundation from which Safety Performance Functions (SPFs) for managed lane facilities with varying separation types, including grade separation, rigid barrier, buffer separation, and a painted stripe separation. It is anticipated development of SPFs may take time, so this effort focuses on what data is currently available, what data needs to be collected, data collection methodology, and level of effort to develop SPFs for separation type.		
Impact	This research will result in information that will be used to support decision making during managed lane project development and typical section analysis.		
Affected Offices	Coordination with the Highway Safety Manual (HSM) core team is recommended, this team includes members from the Roadway Design Office, Safety Office, Office of Environmental Management, Systems Planning, and Traffic Engineering and Operations		
Existing Work	No existing work found.		
Keywords Used In Existing Work Search **(Cannot leave blank)**	Marker, delineator, express lane, separation, managed lane, safety, barrier		
Related Contracts (Give contract numbers)	N/A		
Funding Request	$250,000	**Anticipated Duration**	18 to 24 Months
Project Manager	Jennifer Fortunas	**Contracting Method**	RFP to universities only
Urgency	1	Projects are currently underway that would benefit from this information, so the sooner it is completed, the sooner it can be applied to projects.	
Implementability	1	An SPF could be implemented immediately on projects in the Planning, PD&E, and Design Phases, for use during typical section analysis.	

Project Benefits (Succinct, complete explanation) This project would collect data from managed lane facilities operating in Florida and other states as well as identify a data collection methodology to use on future managed lanes facilities when they open and operate. A future effort is needed to take the data collected and develop SPFs for managed lane facilities based on separation type. This allows the Department to quantitatively analyze and compare the costs and benefits of a given typical section. One of the challenges with evaluating safety performance of managed lane facilities is a lack of available data, because these facilities are not as common as non-managed facilities. A managed lane and a general use lane are similar in many ways, but it is unknown how separation type influences safety performance.

Project Benefits **(Select all that apply and explain)**	**Quantifiable Benefits (units, dollars, etc…if applicable)**	**Methodology or Data Sources Used to Determine Quantifiable Benefits. If not applicable, please give justification of project benefits**

o Materials Enhancement		
o Materials Savings		
o Time Savings		
o Lives Saved/Injuries Prevented		This research allow the department to make data driven decisions that consider the value of safety when developing design concepts.
o Other (Explain)		

*Comments should explain and support urgency, financial benefit, and implementability scores