Transportation Infrastructure Durability Center AT THE UNIVERSITY OF MAINE 15

UTC Project Information – Project #4-11	
Project Title	Safety Assessment of New England Roadways during the
	COVID-19 Pandemic.
University	University of Maine
Principal Investigator	Mohammadali Shirazi, Ph.D.
PI Contact Information	Shirazi@maine.edu
Co-PI(s)	
Co-PI Contact Information	
Funding Source(s) and	Federal: \$129,650.00;
Amounts Provided (by each	UMaine: \$129,650.00
agency or organization)	
Total Project Cost	\$259,300.00
Agency ID or Contract Number	69A3551847101
Start and End Dates	Start: November 1, 2020 End: August 31, 2022
Brief Description of Research Project	Safety assessment of roadway facilities is a critical task to maintain the system operational efficiency of transportation infrastructure. The comprehensive stay-at-home orders implemented in response to the COVID-19 pandemic have resulted in massive reductions in traffic volumes, especially on major highways. Motorists have responded to these greatly reduced volumes by increasing their travel speeds; the result of this behavioral response has been an increase in the rate and incidence of fatal crashes. There is a clear <i>DOT</i> , <i>industry</i> , <i>and</i> <i>agency need</i> for recommendations to better plan and ameliorate impacts from another pandemic or other natural or human- caused disaster. Traffic data during the pandemic period represent characteristics that are not comparable to normal conditions. This project will employ an innovative approach to assemble traditional traffic volume data archived from permanent count stations along with Probe data sources collected by smart and connected technologies to investigate the safety consequences of the demand reduction and speed increases due to the pandemic shutdown for the New England roadway infrastructure. The proposed research plans to investigate the traffic volume and speeding data before, during and after the pandemic shutdown, analyze the crash data collected in two New England states, Maine and Connecticut, and provide recommendations to more efficiently and safely manage the highway network of New England roadways during disruptions to traffic demand caused by other unforeseen emergencies and disasters to traffic demand caused by other unforeseen emergencies and disasters.
Describe Implementation of Research Outcomes (or why not implemented)	This project is in its initial research phase. Implementation of Research outcomes will be reported upon completion of initial research.
Place Any Photos Here	

Impacts/Benefits of Implementation (actual, not anticipated)	This project is in its initial research phase. Impacts and benefits of the research will be reported after the implementation phase.
Web Links Reports 	
Project website	