Quarterly Progress Report:
Project Number and Title: Safety Assessment of New England Roadways during the COVID-19 Pandemic
Research Area: Thrust Area 4
PI: Mohammadali Shirazi, Ph.D., Assistant Professor, University of Maine
Reporting Period: 11/1/2020 to 12/31/2020
Submission Date: 12/31/2020

Overview: (Please answer each question individually)

Provide BRIEF overview and summary of activities performed during the reporting period.

During the reporting period, the research team started reviewing the studies related to the impact of COVID-19 stay at home order (i.e.: reduction of traffic volume) on roadway safety in Maine and other New England states. In addition, studies in literature related to the traffic speed distribution are currently being reviewed. Critical data variables needed for the research were identified and the project team has been working with Maine DOT to obtain the data. In addition, the research team explored avenues to obtain speed data from Streetlight platform. Furthermore, data from Maine permanent count stations is being investigated to be used in research. The research team is using GIS and R codes to combine data from different sources to create a uniform dataset for the analysis.

Provide context as to how these activities are helping achieve the overarching goal(s) of the project…

Reviewing the existing studies is critical to understand the problem, identify the data needs, and plan an appropriate strategy to accomplish the research. Traffic speed data is critical for this research and the research team tried to obtain this information from data collected by the streetlight company [Streetlight uses smart technologies to collect traffic flow and speed data]. Other critical data variables needed for the research were also identified and the project team has been working with the Maine DOT to collect the data, and then clean, merge and combine the data with data from other sources.

Describe any accomplishments achieved under the project goals…

The research team reviewed multiple studies related to the topic of the research and identified several critical studies for further review; we also identified some of the critical data (or variables) needed for the research and worked with the Maine DOT to obtain the data. The research team also investigated avenues to extract traffic speed data from streetlight and found a promising approach to accomplish this task.

Complete the following tables to document the work toward each task and budget (add rows/remove rows as needed, make sure you complete the Overall Project progress row and include all tasks even if they have ended or have not been started)

Table 1: Task Progress

Task Number	Start Date	End Date	% Complete
Task 1	Nov 1, 2020	Jan 30, 2021	40%
Task 2	Nov 1, 2020	Feb 28, 2021	40%
Task 3	Mar 1, 2021	June 15, 2021	Not started
Task 4	June 16, 2021	July 31, 2021	Not Started
Task 5	Aug 1, 2021	Sep 15, 2021	Not Started
Task 6	Sep 16, 2021	Oct 31, 2021	Not Started
Overall Project:	Nov 1, 2020	Oct 31, 2021	10%

Table 2: Budget Progress		
Project Budget	**Spend – Project to Date**	**% Project to Date***
$70,000		

***Include the date the budget is current to: December 31, 2020**

Describe any opportunities for training/professional development that have been provided.

An undergrad student was hired in November 2020 to start the literature review and assist in data collection.

A graduate student will be hired in January 2021 to continue the literature review and data collection, and start on data analysis, interpreting the results and collaborating in writing reports.

Describe any activities involving the dissemination of research results (be sure to include outputs, outcomes, and the ways in which the outcomes/outputs have had an impact during the reporting period. Please use the tables below for any Publications and Presentations in addition to the description of any other technology transfer efforts that took place during the reporting period.)… Use the tables below to complete information about conferences, workshops, publications, etc. List all other outputs, outcomes, and impacts after the tables (i.e. patent applications, technologies, techniques, licenses issued, and/or website addresses used to disseminate research findings).

Table 3: Presentations at Conferences, Workshops, Seminars, and Other Events				
Title	**Event**	**Type**	**Location**	**Date(s)**
N/A				

Table 4: Publications and Submitted Papers and Reports				
Type	**Title**	**Citation**	**Date**	**Status**
N/A				

Participants and Collaborators:

Use the table below to list all individuals who have worked on the project.

Table 5: Active Principal Investigators, faculty, administrators, and Management Team Members			
Individual Name	**Email Address**	**Department**	**Role in Research**
Dr. Mohammadali Shirazi	shirazi@maine.edu	Civil and Environmental Engineering	PI

Use the table below to list all students who have participated in the project during the reporting. (This includes all paid, unpaid, intern, independent study, or any other student that participated in this project.)

Table 6: Student Participants during the reporting period				
Student Name	**Email Address**	**Class**	**Major**	**Role in research**
Ennis Marshall		Undergrad Student	Civil Engineering	Student worker

Use the table below to list any students who worked on this project and graduated during this reporting period.

Table 7: Student Graduates			
Student Name	**Role in Research**	**Degree**	**Graduation Date**
N/A			

Use the table below to list organizations have been involved as partners on this project and their contribution to the project.

Table 8: Research Project Collaborators during the reporting period						
Organization	**Location**	**Contribution to the Project**				
		Financial Support	**In-Kind Support**	**Facilities**	**Collaborative Research**	**Personnel Exchanges**
Maine Department of Transportation (Maine DOT)	Augusta, ME					
University of Connecticut*	Storrs, CT					

*University of Connecticut will assist the research team with collecting data in Connecticut.

List all other outputs, outcomes, and impacts here (i.e. patent applications, technologies, techniques, licenses issued, and/or website addresses used to disseminate research findings). Please be sure to provide detailed information about each item as with the tables above.

N/A

Have other collaborators or contacts been involved? If so, who and how? (This would include collaborations with others within the lead or partner universities; especially interdepartmental or interdisciplinary collaborations.)

No new collaborators have been added

Who is the Technical Champion for this project?

Name: Mr. Dennis Emidy
Title: State Safety Engineer
Organization: Maine Department of Transportation
Mailing Address: 16 State House Station, Augusta, Maine 04333
Phone number: (207) 624-3309
Email Address: dennis.emidy@maine.gov

Changes:

N/A

Planned Activities:

The research team plans to complete the literature review and data collection in upcoming months and then start on analysis of data and developing models.