Quarterly Progress Report:
Project Number and Title: C7.2018: Alternative Cementitious Materials (ACMs) For Durable and Sustainable Transportation Infrastructures
Research Area: New Materials for Longevity and Constructability
PI: *Professor Eric N. Landis, Ph.D., University of Maine*
Postdoctoral Research Associate: *Hosain Haddad Kolour, Ph.D., University of Maine*
Reporting Period: *Apr 2020 to Jun 2020*
Submission Date: *30 June 2020*

Overview: (Please answer each question individually)
Summary of activities during the reporting period:

- Completing compressive strength tests for old specimens
- Literature review
- Working on an abstract for submitting to the 2020 TIDC Annual Conference

During last three months, due to COVID-19 pandemic, campus was closed. We couldn't cast new specimens. So, we only could break our old compressive strength specimens with regular curing procedure at different ages (3, 7, 28, and 56 days). Some literature review has been done as well. Also, we are working on an abstract for submitting to the 2020 TIDC Annual Conference.

Table 1: Task Progress

Task Number	Start Date	End Date	% Complete
Task 1: Selection of ACM with desired workability and strength	06/01/2019	12/31/2019	100%
Task 2: Shrinkage	01/01/2020	Continue	10%
Task 3: Durability performance	10/01/2019	Continue	45%
Task 4: Life cycle analysis			5%

Table 2: Budget Progress

Project Budget	Spend Amount	Spend Percentage to Date
$83,238 (from UTC)	Information is coming soon	

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

One postdoctoral research associate is working in this project. It will be a great opportunity for him to learn about writing proposals, preparing reports, participating in meeting, attending conferences, and working with professionals in UTC, UMaine Advanced Structures and Composites Center, and MaineDOT.

Three undergraduate students have been involved in this project. It will be a great experience for them to be familiar with ASTM tests and standards. They will learn how to conduct the experiments, how to follow the standards, and how to work in a team in a real project.

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**
Professor Eric N. Landis	*landis@maine.edu*	*Civil and Environmental Engineering*	*PI*
Dr. Hosain Haddad Kolour	*hosain.haddad@maine.edu*	*Civil and Environmental Engineering*	*Perform the experiments and analysis the results*

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**
Parry Seddiqi		freshman	Civil and Environmental Engineering	Help in performing the experiments
Kelsey Weir		freshman	Civil and Environmental Engineering	Help in performing the experiments
Ryan Worster		freshman	Civil and Environmental Engineering	Help in performing the experiments

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**
University of Maine	Maine	X	X	X		

Who is the Technical Champion for this project?
Name: *Michael.Redmond*
Title: Concrete *Quality Specialist at MaineDOT Bridge Program*
Organization: *MaineDOT*
Location (City & State): *Augusta, Maine*
Email Address: *Michael.Redmond@maine.gov*

Changes:
Professor Eric N. Landis is the new PI of this project since January 1st 2020. Both old PI (Dr. Warda Ashraf) and her graduate student (Mohammad Rakibul Islam Khan) moved to a different university.

Planned Activities:
Conducting shrinkage and durability related tests