

**NEW ENGLAND TRANSPORTATION CONSORTIUM
QUARTERLY PROJECT PROGRESS REPORT**

A. PROJECT NUMBER AND TITLE:

NETC 18-2: Framework of Asphalt Balanced Mix Design (BMD) for New England Transportation Agencies

B. PRINCIPAL INVESTIGATOR(S) & UNIVERSITY(S):

Professor Walaa Mogawer, PhD., PE, F.ASCE -University of Massachusetts Dartmouth

C. WEB SITE ADDRESS (If one exists):

<https://www.newenglandtransportationconsortium.org/research/netc-research-projects/netc-18-2/>

D. START DATE (Per NETC Agreement): 02/05/2019

E. END DATE (Per NETC Agreement): 06/30/20

F. ANTICIPATED COMPLETION DATE: 06/30/20

G. PROJECT OBJECTIVES:

The objective of this research project is to synthesize existing information and to develop recommendations for a rational BMD approach for use by New England transportation agencies. Gaps in testing and performance data will be identified through this project and an experimental plan for required future work will be developed.

H. REPORT PERIOD: *Quarter 3: July to September 2019*

I. ACCOMPLISHMENTS THIS PERIOD:

- 1. The research team compiled and analyzed the internet based survey results for Task 1 - "Identify typical pavement distresses in each of the New England states." The main purpose of the survey was to determine the types of pavement distresses being observed by the NETC state agencies. The main distress noted were: thermal cracking (28.6%), fatigue cracking (28.6%), a combination of rutting, raveling and moisture damage (14.3%), all distresses (14.3%), and all distress except moisture damage (14.3%).*
- 2. The research team continued work on Task 2 "Identify candidate performance tests for each identified common distress." Specifically, the research team began identifying performance tests for various pavement distresses. Additionally, preliminary cost and time estimates were developed.*
- 3. A project update meeting for the project was conducted via web conference on Thursday September 19th, 2019. The PI and project consultant provided a presentation with the project progress to the NETC Technical Committee. At the suggestion of the NETC Technical Committee, it was requested that a current inventory of the performance testing equipment used and available at each NETC state agency be determined prior to suggesting any performance tests for the BMD framework. The research team agreed and promptly sent out a fillable matrix to each of the NETC state agency contacts to ascertain this information.*

4. The research team continued searching for existing field performance data for Task 3.

J. PROBLEMS ENCOUNTERED (If any): n/a

K. TECHNOLOGY TRANSFER ACTIVITIES: n/a

L. STATUS BY TASK:

Task Number	Description	Percent Complete
1	Identify typical pavement distresses in each of the New England states.	100%
2	Identify candidate performance tests for each identified common distress.	75%
3	Collect existing performance test data, available from recent state/regional projects, and related historical field performance data on the representative pavements.	0%
4	Analyze test and field performance data in order to develop preliminary recommendations for a BMD approach.	0%
5	Identify gaps in the test and performance data and develop an experimental plan for future research with the goal to further refine the development, validation, and implementation of a BMD approach for New England states.	0%

M. PERCENT COMPLETION OF TOTAL PROJECT: 35 %

N. ACTIVITIES PLANNED FOR NEXT QUARTER:

1. Continue work on Task 1 technical memorandum.
2. Continue work on Task 2 and 3.

O. FINANCIAL STATUS:

As of: September 30th, 2019

Total Project Budget: \$ _____

Total Expenditures : \$ _____

Note: This report should not require more than 2-3 pages & should be e-mailed to the NETC Coordinator so as to arrive no later than three (3) working days after the end of each calendar quarter.