

**Semi-Annual Progress Report for University Transportation Centers:** Center for Multi-Modal Mobility in Urban, Rural and Tribal Areas (CMMM)

Submitted to the USDOT BIL UTC Federal Grant Number: 69A3552348334 Submission Date: 10/30/2023 DUNS and EIN Numbers: Project/Grant Period: 06/01/2023 to 05/31/2028 Reporting Period End Date: 09/30/2023

Dr. Cinzia Cirillo Associate Chair for Graduate Programs Professor Interim Director, Maryland Transportation Institute Civil and Environmental Engineering ccirillo@umd.edu 301-405-6864

avallo

## 1. Accomplishments

What are the major goals of the program?

- Developing more refined models of travel behavior and the factors that influence travel demand;
- Assessing the potential for unmanned and autonomous vehicles (both ground and air) to streamline the delivery of goods and facilitate the movement of people;
- Investigating a wide array of congestion-reduction strategies, including incentivization of public transit, and the use of toll and HOV lanes;
- Identifying the key contributors to transportation-related inequity and presenting solutions that support mobility justice, as well as better understanding the equity implications of travel barriers, including constrained access to food, healthcare, and employment;
- Evaluating the potential of modalities such as rideshare, vanpool and microtransit to improve mobility while meeting the ever-evolving demand for efficient, reliable transportation;
- Exploring the feasibility and impact of infrastructure-based solutions such as "complete streets" in reducing congestion and addressing inequity;
- Exploring innovative approaches to project finance and delivery and providing technical assistance to stakeholders.

What was accomplished under these goals?

Under these goals, 12 different core projects have been selected for funding. These projects range across transportation goals including improving the mobility of people and goods, promoting safety, reducing congestion, and more. Each project reflects the values of the CMMM as well as the USDOT UTCs.

Additionally, staff members worked to create a website for CMMM: www.mti.umd.edu/cmmm

The director of CMMM worked to engage with and establish an advisory board with 10 members (including Cinzia Cirillo). This interdisciplinary list ensures a robust and active team that reflects the values of CMMM. The team will meet twice a year to foster collaboration and innovation. See the list below:

Marcia Argust Elisabetta Cherchi Christopher Conklin Christian Dorsey Dan Goldfarb Robbyn Lewis Arben Shasho Neil Pedersen Jason Wang

An educational seminar titled, "Incentive Design for Promoting Ridesharing," was given by University of Michigan associate professor Neda Masoud. The virtual seminar engaged students, faculty, and staff from the University of Maryland and initiated a well-rounded discussion on traffic congestion solutions.

How have the results been disseminated?

The results have been disseminated through the website. The 12 core projects, the educational seminar, and more have been reflected on this page: <a href="http://www.mti.umd.edu/cmmm">www.mti.umd.edu/cmmm</a>

### 2. Participants and Collaborating Organizations

What organizations have been involved as partners?

The University of Maryland, Morgan State University, San Jose University, North Dakota State University, and White Earth Tribal and Community College.

Have other collaborators or contacts been involved?

Neda Masoud, associate professor at the University of Michigan, collaborated with CMMM to give a seminar presentation to students and faculty members at the University of Maryland.

## 3. Outputs

The outputs for this reporting period include an educational presentation by Neda Masoud, associate professor at the University of Michigan, as well as a CMMM website: <a href="http://www.mti.umd.edu/cmmm">www.mti.umd.edu/cmmm</a>

#### 4. Outcomes

The outcomes for this reporting period include increased understanding and awareness of transportation issues. This outcome was achieved via an educational seminar, the review and funding of 12 projects, and the formulation of an advisory board for CMMM.

#### 5. Impacts

What is the impact on the effectiveness of the transportation system? Nothing to report.

What is the impact of technology transfer on industry and government entities, on the adoption of new practices, or on research outcomes which have led to initiating a start-up company? Nothing to report.

What is the impact on the body of scientific knowledge? Nothing to report.

What is the impact on transportation workforce development? Nothing to report.

#### 6. Changes/Problems

Changes in approach and reasons for change: Nothing to report.

Actual or anticipated problems or delays and actions or plans to resolve them: Nothing to report. Changes that have a significant impact on expenditures: Nothing to report. Significant changes in use or care of human subjects, vertebrate animals, and/or biohazards: Nothing to report.

Change of primary performance site location from that originally proposed: Nothing to report.

# 7. Special Reporting Requirements

Nothing to report.