TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): ____NDDOT_____

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF 5(457)	**Transportation Pooled Fund Program - Report Period:** ✓Quarter 1 (January 1 – March 31) ☐Quarter 2 (April 1 – June 30) ☐Quarter 3 (July 1 – September 30) ☐Quarter 4 (October 1 – December 31)

Project Title: Transportation Learning Network		
Name of Project Manager(s): Clayton Schumaker	**Phone Number:** 701-328-6906	**E-Mail** cschumaker@nd.gov
Lead Agency Project ID: TPF 5(333)	**Other Project ID (i.e., contract #):** 17-314-0800	**Project Start Date:** 10/1/2020 (New Federal ID)
Original Project End Date:	**Current Project End Date:** 9/30/2025	**Number of Extensions:** 0

Project schedule status:

✓On schedule ☐ On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
		NA

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
	$109,916.54	NA

Project Description:

The Transportation Learning Network (TLN) was developed to serve the transportation interests of the region and complements the efforts of its various members. It provides access to information and expertise not readily available to transportation professionals in the region. TLN identifies schedules, distributes and warehouses technology transfer for its member state DOTs.

Vision: To excel on a national basis as a premier transportation technology transfer organization that serves as a model for other states.

Mission: TLN provides quality and cost-effective customer-driven technology transfer utilizing alternative platforms that meet the needs of the state, county, city, tribal and private transportation professionals.

Staff develop a list of technology transfer presentations based on priorities determined by the 4-state members of the Transportation Learning Network; topics are researched, descriptions written, presenters identified, negotiate presenter contracts and schedule presentations.

There are monthly meetings of the programming committee consisting of members from the 4-state DOTs. The committee approves identified topics and TLN staff move forward with announcing the events and putting into place a registration process.

The majority of presentations occur between October and April due to the construction season in the 4-states served by this program. During summer months, the staff and program committee members identify and prioritize technology transfer topics.

In continued response to COVID concerns and the work-from-home environment, the Transportation Learning Network delivers technical transfer topics via webinars. Individuals are able to receive these very important topics via their computers, tablets and phones.

During this reporting period, there were 19 webinars presented with a total attendance of 2,271. All presentations were recorded and are available on the learning management system.

Topics included “Geohazard Mitigation,” “Avoiding Construction Contract Claims,” “Smart Paving,” “Identifying & Quantifying Contractor Inefficiencies,” “Determining the Costs Associated with Delay,” and “Comprehensive Approach to Analysis of CPM Schedules to Measure Delays on Construction Projects.”

Over 300 participated in ATSSA Traffic Control and Maintenance of Short Duration Activities webinars.

To prepare Department of Transportation engineers to obtain their PE, TLN had 33 engineers participate in a “PE Exam Preparation for Civil Engineers” 6-part webinar series taught by a Dr. Peter Martin, New Mexico State University.

There were two Mountain Plains Consortium research webinars: Inferencing Hourly Traffic Volume and Image-Based 3D Reconstruction. Dr. Xiaoyue Cathy Liu, Civil & Environmental Engineering at the University of Utah, discussed her research on innovative spatial prediction method of hourly traffic volume on a network scale using a combination of machine learning techniques and graph theory to account for the spatial dependency.

Abbas Rashidi, Civil & Environment Engineering, University of Utah, presented his study on the feasibility of using photogrammetry for highway asset management purposes within the state of Utah. The project includes two major components: 1) evaluating available photogrammetric software packages in terms of generating high-quality point clouds of highway assets and 2) developing and evaluating necessary hardware settings (type and resolutions of cameras, using existing image repositories such as Google street views, etc.) for data collection purposes.

In addition to live presentations, 120 recorded presentations and online modules were completed.

Significant Results:

Identifying and delivering technology transfer needs of the DOTs in Montana, North Dakota, South Dakota and Wyoming. Live presentations are broadcast as webinars. The majority of these presentations are recorded and available for playback on the TLN learning management system. Along with the recordings, there are self-paced modules available 24/7. This program can reach many individuals to bring significant opportunities to increase knowledge without the need to travel great distances.

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

None encountered.