**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.*

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| --- | --- | --- | --- |
| **Transportation Pooled Fund Program Project #**  *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)*  TPF 5(333) | | **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:**  10/1/2015 (New Federal ID) |
| **Original Project End Date:** | **Current Project End Date:**  9/30/2020 | | **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** |
|  | $113,936.11 | NA |

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| **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.

During this reporting period, there were live webinars and video conference presentations. Following is a summary.

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| --- | --- | --- | --- |
| **Presentation Title** | **Delivery  Method** | **Date** | **# Attended** |

|  |  |  |  |
| --- | --- | --- | --- |
| The Art of Delegation: Effectively Guiding Direct Reports | webinar | 10/30/2019 | 47 |
| MPC 18-353 Early-Age Fiber-Reinforced Concrete Properties for Overlays | webinar | 11/7/2019 | 21 |
| High Friction Surface Treatments | webinar | 11/13/2019 | 26 |
| Reinforced Concrete & Corrosion and Mitigation | video conf | 11/14/2019 | 33 |
| MPC-540 Updating and Implementing the Grade Severity Pating System (GSRS) for Wyoming Mountain Pass | webinar | 11/20/2019 | 9 |
| Deterioration & Repair of Concrete Pavements | video conf | 11/21/2019 | 41 |
| MPC 19-373 Development of Alternative Bridge Superstructures for South Dakota Local Roads | webinar | 11/22/2019 | 18 |
| Attitude. Choices. Opportunity. | video conf | 11/26/2019 | 52 |
| Cracking the Cohesive Teams Code | video conf | 11/26/2019 | 12 |
| Embracing Change: Keeping Morale and Productivity Up When Times are Tough | video conf | 12/4/2019 | 36 |

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| --- | --- | --- | --- | --- | --- | --- |
| **Presentation Title** | **Delivery  Method** | | **Date** | **# Attended** | | |
| Super-Slab Applications for PCC Pavement, Approach Slabs and Utility Cuts | webinar | 12/5/2019 | | | 19 |
| PCC Joint Sealing and Resealing Methods | video conf | 12/12/2019 | | | 47 |
| Geosynthetic Reinforced Subgrades And Bases | video conf | 12/17/2019 | | | 67 |
|  |  |  | | |  |
|  | **TOTAL COMPLETED** | | | | **428** |

**ONLINE MODULES OCTOBER THROUGH DECEMBER 2019**

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| --- |
| **Title # COMPLETED** |
| |  |  |  | | --- | --- | --- | | ATSSA: Safe Installation and Removal of Temporary Traffic Control Devices | 1 | | | ATSSA: Work Zone Safety Performance Measures | 1 | | | Bridge Site Safety Worker Orientation | 1 | | | Introduction to NDDOT Construction Automated Records System (CARS) | 2 | | | Materials Testing: Introduction to the Soil-Moisture Density Relationship | 2 | | | Materials Testing: Lightweight Pieces in Aggregate | 2 | | | Materials Testing: Microwave and Oven Methods of Drying Soils | 2 | | | Materials Testing: Proctor Test | 2 | | | Materials Testing: Proctor Test Short Version | 1 | | | Materials Testing: Reducing Aggregate Samples | 2 | | | Materials Testing: Rubber-Balloon Test | 1 | | | Materials Testing: Sand Cone Test | 2 | | | Materials Testing: Sieve Analysis of Fine and Coarse Aggregates | 3 | | | Materials Testing: Speedy Moisture Test | 1 | | | Materials Testing: Wash Test | 2 | | | Personal Protective Equipment | 1 | | | Road Safety 365: A Safety Course for Local Governments – Module 1: The Need for Road Safety | 1 | | | Road Safety 365: A Safety Course for Local Governments – Module 2: Making Roads Safer | 1 | | | Road Safety 365: A Safety Course for Local Governments – Module 3: Planning for Safety | 1 | | | Seal Coat Module 1: Pavement Preservation, Handbook, Design, & Pay Items | 2 | | | Seal Coat Module 2: Aggregate Requirements & Binders | 2 | | | Seal Coat Module 3: Construction Details, Pavement Markings, Fog Sealing, & What's New | 1 | | | TC3 3D Engineered Models for Construction Series: 3D Engineered Models in Highway Design (Module 3) | 1 | | | TC3 3D Engineered Models for Construction Series: Applications of 3D Engineered Models in Highway Construction and Quality Assurance (Module 4) | 1 | | | TC3 3D Engineered Models for Construction Series: Introduction to 3D Engineered Models for Highway Transportation (Module 1) | 1 | | |  | | | **Title # COMPLETED** | | | TC3 AASHTO Designation: T166 | 1 | | | TC3 AASHTO Designation: T30 | 1 | | | TC3 AASHTO T 308: Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method | 2 | | | TC3 AASHTO T 312: Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor | 2 | | | TC3 Advanced Self-Consolidating Concrete | 1 | | | TC3 Aggregate Sampling Basics | 3 | | | TC3 Basic Construction Surveying | 2 | | | TC3 Basic Materials for Highway Structure Construction: Introduction | 3 | | | TC3 Basic Materials for Highway Structure Construction: Module 1 | 3 | | | TC3 Basic Materials for Highway Structure Construction: Module 2 | 3 | | | TC3 Basic Materials for Highway Structure Construction: Module 3 | 3 | | | TC3 Benchmarking and Best Practices for State Equipment Fleet Management: Best Practices | 1 | | | TC3 Benchmarking and Best Practices for State Equipment Fleet Management: Performance Metrics | 1 | | | TC3 Benchmarking and Best Practices for State Equipment Fleet Management: Performance Mgmt | 1 | | | TC3 Benchmarking and Best Practices for State Equipment Fleet Management: Performance Mgmt Sys | 1 | | | TC3 Best Practices for High Friction Surfaces: Module 1 | 1 | | | TC3 Best Practices for High Friction Surfaces: Module 2 | 1 | | | TC3 Best Practices for High Friction Surfaces: Module 3 | 1 | | | TC3 Best Practices for High Friction Surfaces: Module 4 | 1 | | | TC3 Best Practices for High Friction Surfaces: Module 5 | 1 | | | TC3 CDL Series: Air Brakes: Air Brakes Pt 1 | 1 | | | TC3 CDL Series: Air Brakes: Air Brakes Pt 2 | 1 | | | TC3 CDL Series: Pre-Trip Inspection: Module 1 | 1 | | | TC3 Change Orders, Claims, and Dispute Resolutions: Change Orders | 3 | | | TC3 Chip Seal Best Practices: Introduction | 1 | | | TC3 Chip Seal Best Practices: Module 1 | 1 | | | TC3 Chip Seal Best Practices: Module 2 | 1 | | | TC3 Chip Seal Best Practices: Module 3 | 1 | | | TC3 Chip Seal Best Practices: Module 4 | 1 | | | TC3 Chip Seal Best Practices: Module 5 | 1 | | | TC3 Chip Seal Best Practices: Module 6 | 1 | | | TC3 Concrete Series: Basics of Cement Hydration | 3 | | | TC3 Concrete Series: Construction of Concrete Pavements | 2 | | | TC3 Concrete Series: Design of Pavement | 2 | | | TC3 Concrete Series: Early Age Cracking | 2 | | | TC3 Concrete Series: Fresh Properties | 2 | | | TC3 Concrete Series: Hardened Concrete Properties - Durability | 1 | | |  | | | **Title # COMPLETED** | | | TC3 Concrete Series: Incompatibility in Concrete Pavement Systems | 1 | | | TC3 Concrete Series: Mix Design Principles | 1 | | | TC3 Concrete Series: QCQA for Concrete Pavements | 1 | | | TC3 Concrete Series: Troubleshooting for Concrete Pavements | 2 | | | TC3 Construction Inspection of Structures Series: Substructures: Module 1 | 1 | | | TC3 Construction Inspection of Structures Series: Substructures: Module 2 | 1 | | | TC3 Construction Inspector Orientation: Module 1 | 1 | | | TC3 Construction Inspector Orientation: Module 2 | 1 | | | TC3 Construction Inspector Orientation: Module 3 | 1 | | | TC3 Construction of PCC Pavement Series: Curing, Sawing, and Joint Sealing Module 1: Preventing | 1 | | | TC3 Construction of PCC Pavement Series: Curing, Sawing, and Joint Sealing Module 3: Jt Sealing | 1 | | | TC3 Construction of PCC Pavement Series: Paving Process Module 1 | 1 | | | TC3 Construction of PCC Pavement Series: Paving Process Module 2 | 1 | | | TC3 Construction of PCC Pavement Series: Paving Process Module 3 | 1 | | | TC3 Construction of PCC Pavement Series: Paving Process Module 4 | 1 | | | TC3 Construction of PCC Pavement Series: Paving Process Module 5 | 1 | | | TC3 Construction of PCC Pavement Series: Paving Process Module 6 | 1 | | | TC3 Construction of PCC Pavement Series: Paving Process Module 7 | 1 | | | TC3 Construction of PCC Pavement Series: Production Module 1 | 1 | | | TC3 Construction of PCC Pavement Series: Production Module 2 | 1 | | | TC3 Construction of PCC Pavement Series: Production Module 3 | 1 | | | TC3 Construction of PCC Pavement Series: Production Module 4 | 1 | | | TC3 Construction of PCC Pavement Series: Production Module 5 | 1 | | | TC3 Construction of PCC Pavement Series: Production Module 6 | 1 | | | TC3 Construction Safety: Recognition and Avoidance of Unsafe Conditions | 1 | | | TC3 Construction Stormwater Field Guide Training Module 1 | 1 | | | TC3 Construction Stormwater Field Guide Training Module 2 | 1 | | | TC3 Construction Stormwater Field Guide Training Module 3 | 1 | | | TC3 Construction Stormwater Field Guide Training Module 4 | 1 | | | TC3 Construction Stormwater Field Guide Training Module 5 | 1 | | | TC3 Earthwork Series: Fill Placement Introduction | 1 | | | TC3 Earthwork Series: Fill Placement Module 1 | 1 | | | TC3 Earthwork Series: Fill Placement Module 2 | 1 | | | TC3 Earthwork Series: Fill Placement Module 3 | 1 | | | TC3 Environmental Predecessor Series: Archaeology | 1 | | | TC3 Environmental Triggers Series: Air Quality Impacts | 1 | | | TC3 Environmental Triggers Series: Archaeological | 1 | | | TC3 Environmental Triggers Series: Biological Resources | 2 | | | TC3 Environmental Triggers Series: Community Impacts | 1 | | | TC3 Environmental Triggers Series: Hazardous Materials | 1 | | | TC3 Environmental Triggers Series: Noise Assessment | 1 | | | TC3 Environmental Triggers Series: Water Resources | 1 | | |  | | | **Title # COMPLETED** | | | TC3 Erosion & Sediment Control Module 1 | 2 | | | TC3 Ethics in the Transportation Industry | 1 | | | TC3 Flexible Pavement Preservation Treatment Series: Chip Seals | 1 | | | TC3 Flexible Pavement Preservation Treatment Series: Crack Sealing and Filling | 1 | | | TC3 Full Depth Reclamation (FDR) Module 1 | 1 | | | TC3 Full Depth Reclamation (FDR) Module 2 | 1 | | | TC3 Full Depth Reclamation (FDR) Module 3 | 1 | | | TC3 Full Depth Reclamation (FDR) Module 4 | 1 | | | TC3 Guardrail Series: Installation and Inspection of New Guardrails Module 1 | 1 | | | TC3 Guardrail Series: Maintenance and Repair Module 1 | 1 | | | TC3 Guardrail Series: Maintenance and Repair Module 2 | 1 | | | TC3 HMA Paving Field Inspection | 1 | | | TC3 Improving the Daily Diary | 1 | | | TC3 Maintenance of Traffic for Technicians All modules | 2 | | | TC3 Maintenance of Traffic for Technicians Module 1 | 1 | | | TC3 Maintenance of Traffic for Technicians Module 2 | 1 | | | TC3 Maintenance of Traffic for Technicians Module 3 | 1 | | | TC3 Maintenance of Traffic for Technicians Module 4 | 1 | | | TC3 Maintenance of Traffic for Technicians Module 5 | 1 | | | TC3 Maintenance Training Series: Shaping and Shoulders | 1 | | | TC3 Math Basics for Construction Inspectors | 2 | | | TC3 Math Basics for Materials Technicians | 2 | | | TC3 Pipe Installation, Inspection, and Quality Introduction | 1 | | | TC3 Pipe Installation, Inspection, and Quality Module 1 | 1 | | | TC3 Pipe Installation, Inspection, and Quality Module 2 | 1 | | | TC3 Pipe Installation, Inspection, and Quality Module 3 | 1 | | | TC3 Pipe Installation, Inspection, and Quality Module 4 | 1 | | | TC3 Pipe Installation, Inspection, and Quality Module 5 | 1 | | | TC3 Pipe Installation, Inspection, and Quality Module 6 | 1 | | | TC3 Pipe Installation, Inspection, and Quality Module 7 | 1 | | | TC3 Plan Reading: Erosion and Sediment Control Plans | 1 | | | TC3 Plan Reading: Grading Plans | 2 | | | TC3 Shop Drawings: Concrete Structure | 1 | | | TC3 Shop Drawings: Introduction | 1 | | | TC3 Shop Drawings: Steel Structure | 1 | | | TC3 Superpave Mix Design Process and Analysis Module 1 | 1 | | | TC3 Superpave Mix Design Process and Analysis Module 2 | 1 | | | TC3 Thin Polymer Bridge Deck Overlay Systems | 1 | | | TC3 Warm Mix Asphalt Module 1 | 2 | | | TC3 Warm Mix Asphalt Module 2 | 2 | | | TC3 Warm Mix Asphalt Module 3 | 2 | | | TC3 Warm Mix Asphalt Module 4 | 2 | | | TC3/SICOP Anti-icing/RWIS: Anti-icing Practice in Winter Maintenance Operations | 1 | | | **TOTAL COMPLETED** | **191** | | |

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| **Significant Results:**  Identifying and delivering technology transfer needs of the DOTs in Montana, North Dakota, South Dakota and Wyoming. Presentations are broadcast through video conferencing or 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. |