RUTGERS

Center for Advanced
Infrastructure and
Transportation

PROJECT OVERVIEW REPORT

1. UTC Identifying Number
   69A3551847102

2. Center Identifying Number
   CAIT-UTC-REG52

3. Project Title
   Bridge Deck Surface Profile Evaluation for Rapid Screening and Deterioration Monitoring

4. Principal Investigator & Contact Information
   Adriana Trias, Ph.D.
   Assistant Professor
   Rowan University
   201 Mullica Hill Road, 234 Rowan Hall
   Glassboro, NJ 08028

5. Rutgers/CAIT Project Manager
   Patrick Szary, Ph.D.

6. Customer Principal
   Gregory Renman
   Director Bridge Engineering & Infrastructure Mgt.
   New Jersey Department of Transportation (NJDOT)
   1035 Parkway Avenue
   Trenton, NJ 08625

7. Project Description
   The primary goal of this proposal is to develop a procedure that ensures proper LiDAR data collection focused on bridge deck surface geometry capturing for inspection and monitoring.

8. Implementation of Research Outcomes (or why not implemented)
   The intended outcome of the project is to help identify areas of possible early sources of deterioration of the bridge decks, allowing to better address life-cycle monitoring and assessing asset management. The implementation of the findings of this research is expected to directly impact the durability and therefore the preservation of bridge decks.

9. Impacts/Benefits of Implementation (actual, not anticipated)
   To Be Determined

10. Dates and Budget
    Start date: 3/1/2021
    End date: 2/28/2022
    UTC (CAIT) Dollars: $80,000
    Cost Sharing: $80,118
    Total Dollars: $160,118

11. Keywords
    Bridge deck monitoring, NDE, SHM, LiDAR

12. Web Links (Reports and Project Website)
    https://cait.rutgers.edu/research/bridge-deck-surface-profile-evaluation-for-rapid-screening-and-deterioration-monitoring/