

## PROJECT OVERVIEW REPORT

1. UTC Identifying Number  
69A3551847102
2. Center Identifying Number  
CAIT-UTC-REG37
3. Project Title  
Impact of Recycled Plastic on Asphalt Binder and Mixture Performance
4. Principal Investigator & Contact Information  
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5. Rutgers/CAIT Project Manager  
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7. Project Description  
The primary goal of this proposal is to evaluate the compatibility of different plastics within asphalt and evaluate the resultant asphalt binder and mixture performance of the plastic-modified material.
8. Implementation of Research Outcomes (or why not implemented)  
The intended outcome of the project is to develop a new material that would provide both a structural material for long, last asphalt pavements, as well as a potential end use for recycling plastics. It is anticipated that a series of webinars would be required to take place to state and local agencies. The webinars would provide information pertaining to the appropriate waste plastic stream products for asphalt binders and mixtures, methods and procedures on blending the recycled plastic with the asphalt materials, necessary changes and/or modifications to current mixture design procedures, and expected change to the handling and performance of plastic modified asphalt mixtures.

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

10. Dates and Budget

Start date: 8/1/2020

End date: 7/31/2021

UTC (CAIT) Dollars: \$100,000

Cost Sharing: \$0

Total Dollars: \$100,000

11. Keywords

Recycled plastic, compatibility, storage stability, asphalt, fatigue cracking, rutting resistance, moisture damage

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/impact-of-recycled-plastic-on-asphalt-binder-and-mixture-performance/>