### Project Title:
**Polymer Modified Cold Recycled Asphalt Evaluation and Methodology**

### PennDOT Technical Advisor:
Douglas Schofield

### Project Duration:
June 2013 – June 2016

### Project Purpose:
Project purpose is to:
- Evaluate the feasibility and effectiveness of using polymer modified emulsion in the production of cold recycled asphalt mixes.

The results of this project will allow the Department to extend the range of roads which are candidates for the use of cold recycled asphalt pavements. Current practice is to limit the use of this material to roads with average daily traffic of 3,000 vehicles or less (ADT \( \leq 3,000 \)), and less than 10% trucks. The data gained from this research will allow us to extend this practice to roads with higher volumes with a predictable level of success, based on enhanced physical properties such as strength, stiffness, and stability that result from adding polymer modified emulsion to the mix.

In support of PennDOT’s Strategic Goals:
- Leverage resources to maximize effectiveness and efficiency
- Promote continuous improvement and innovation

### Anticipated Outcomes:
Anticipated project outcomes include:
- A mix design process for the use of polymer modified emulsions in cold recycled asphalt pavement.
- Laboratory tests and field verified evaluations of the physical property changes that can be expected as a result of adding polymer to cold recycled asphalt mixes.

### Implementation Plan:
A design process for cold recycled pavement mixes using polymer modified emulsion, and guidance on how polymers affect pavement performance, will be incorporated into Bulletin 27: *Bituminous Concrete Mixtures, Design Procedures, and Specifications for Special Bituminous Mixtures*.

### Research Partner:
Pennsylvania State University

### Principal Investigator:
Mansour Solaimanian

### Project Cost:
$195,944.00