The Southwestern Pennsylvania Commission’s (SPC) Regional Traffic Signal Program was established to assist local municipalities with improving traffic signal operations by optimizing signal timings and upgrading existing signal equipment. The Ellwood City Signals In Coordination with Equipment Upgrades (SINC-UP) Project is a traffic signal project with the goal of optimizing signal operations at intersections along the Lawrence Ave and Fountain Ave corridors while considering all users of the intersections [See map below for project area].

Traffic Signal Coordination:

- Improves safety because vehicles stop less often, which reduces the probability for rear-end crashes
- Benefits the environment by reducing vehicle emissions
- Reduces travel costs by reducing the amount of time stopped at red lights
- Saves money at the gas station by reducing fuel consumption

As part of this project, many intersections received controller software upgrades and controller conduit elbows. The project also installed a new Type 170 controller assembly and electrical service at another intersection and a new Econolite controller and emergency vehicle preemption at another intersection.
Travel Improvements:
The results showed that the average travel time improved by 20%. The average number of vehicular stops decreased by 30%.

This corridor was coordinated prior to this SINC-UP Project, however the exclusive pedestrian phases along Lawrence Ave had insufficient pedestrian intervals. This retiming project refined the coordination along the corridor while bringing all of the pedestrian, clearance and change intervals up to the current industry standards.

Summary of First Year Benefits

- 45,240 Reduced Vehicle Hours of Travel
- 42,736 gallons Reduced Fuel Consumption
- 4,263 kg Reduced Total Pollutant Emissions
- 2,825,360 Reduced Number of Stops
- Total Benefit**: $968,227
- Benefit Cost Ratio 15:1

**reduced travel time, emissions, stops & fuel consumption