Brentwood Borough Brownsville Road (SINC-UP) Project Summary

REGIONAL TRAFFIC SIGNAL PROGRAM CYCLE 3

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 Brentwood Borough 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 Brownsville Rd corridor while considering all users of the intersections [See map below for project area].

PROJECT LOCATION

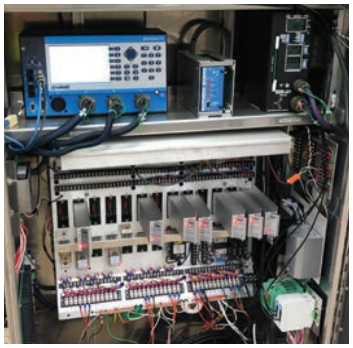
Allegheny County

1. Brownsville Rd & Marylea Ave
2. Brownsville Rd & Willock Rd

Corridor Length:
Approx. 0.20 miles

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, the Brownsville Rd and Marylea Ave intersection received a full signal replacement with ADA curb ramps. Global Positioning Satellite antenna and receivers were installed at the intersections to allow for time-based coordination. Coordination of traffic signals is one of the most cost effective ways of improving traffic flow along a corridor.

SOUTHWESTERN PENNSYLVANIA COMMISSION

Two Chatham Center, Suite 500
112 Washington Place
Pittsburgh, PA 15219-3451
P: (412) 391-5590
F: (412) 391-9160
www.spcregion.org

Domenic D'Andrea
Operations & Safety Programs Manager
(412) 391-5590 Ext. 341
ddandrea@spcregion.org

PROJECT PARTNERS

Federal Highway Administration

Pennsylvania Department of Transportation, District 11-0

Allegheny County

Brentwood Borough

Whitman, Requardt & Associates, LLP

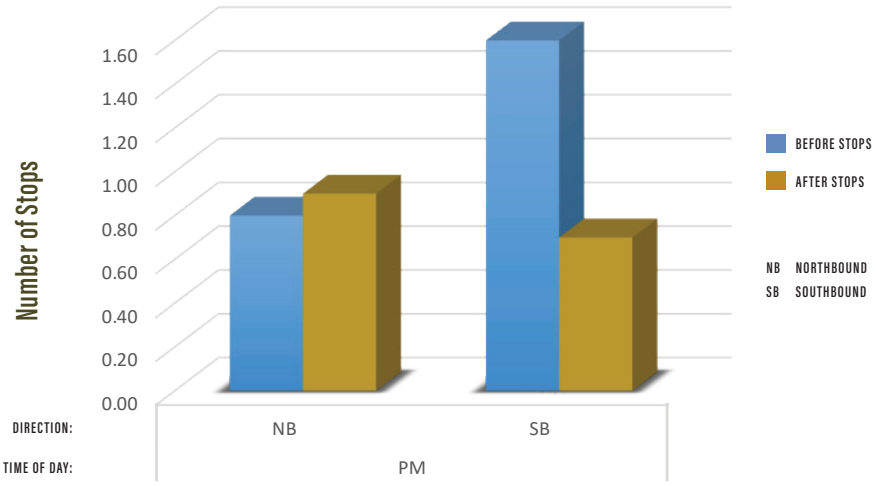
Brentwood Borough Brownsville Road (SINC-UP) Project Summary

Travel Improvements:

The results showed that PM travel time improved over 10% and 25% NB and SB respectively.

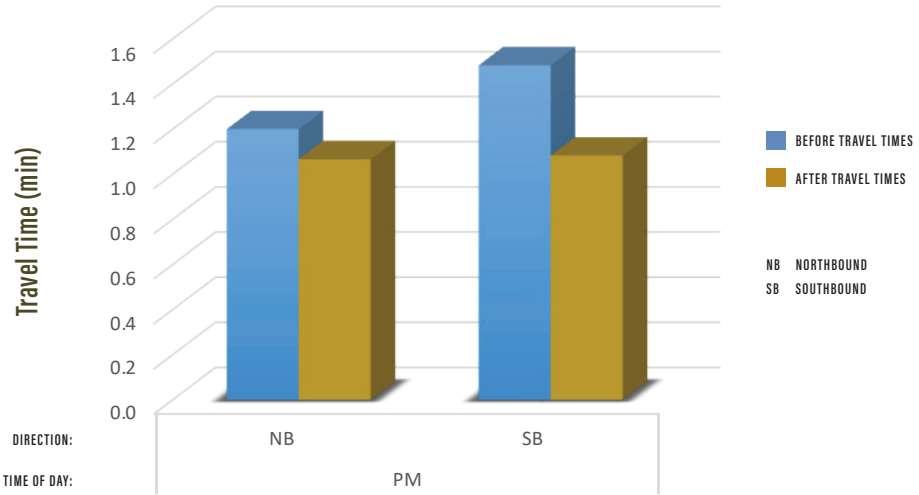
16,400 vehicles travel this corridor on an average day

Number of Stops*: Before and After Comparison



Stops are from end to end travel time run on Brownsville Rd. It does not include side street, left turns, or mid-corridor entrance.

Travel Time**: Before and After Comparison



**School congestion outside of project limits prevented AM comparisons*

Prior to this SINC-UP Project, motorists typically experienced frustration of consecutive stopping at traffic signals due to the uncoordinated signals. This retiming project coordinated the traffic patterns through these intersections which alleviated consecutive stopping and reduced the motorist's frustration. This project also implemented a school timing pattern to accommodate the school zone between intersections.

Summary of First Year Benefits

15,625

Reduced Vehicle Hours of Travel

15,599 gallons

Reduced Fuel Consumption

1,625 kg

Reduced Total Pollutant Emissions

935,321

Reduced Number of Stops

Total Benefit***

$336,509

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

Benefit Cost Ratio

9:1

https://www.spcregion.org/trans_ops_traff_vids3.asp

JUNE 2019