Eco-Ramp Metering

HOW COULD THIS HELP?

- Saves fuel
- Reduces emissions

HOW DOES THIS WORK?

- An application collects traffic and environmental conditions data to determine the most environmentally efficient operation of traffic signals at freeway on-ramps and to manage the rate of entering vehicles.

INVESTMENT

+ V2X ROADSIDE UNIT COST PER MILE-FREEWAYS
$52,000

+ V2X ROADSIDE UNIT COST PER INTERSECTION-SIGNALIZED CORRIDORS
N/A

+ V2X SIGNAL CONTROLLER COST PER INTERSECTION-SIGNALIZED CORRIDORS
N/A

+ FIBER OPTICS COST PER MILE
$158,000

TRANSPORTATION NEEDS ADDRESSED

ENVIRONMENT

SOLUTION IMPROVEMENTS

- Environmentally unoptimized freeway vehicle rate of entrance

SOLUTION PITFALLS

- Dependent on volume of probe vehicles for data and software application development.
- Requires adequate environmental data

Disclaimer: all content is for planning purposes only and published as of Summer 2020. Contact the author at shacav@mdot.maryland.gov with any questions or comments.

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION