

"Federation Corner" column  
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### **Reducing traffic congestion without adding to roads**

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The monthly newsletters of the Montgomery County Civic Federation do not just contain a record of the activities of the organization, but also provide information on a host of topics of importance to our county. For example, in the March 2013 issue (available online at [www.montgomerycivic.org](http://www.montgomerycivic.org)) MCCF President Carole Ann Barth explores "outside the box" solutions to the problem of insufficient county transportation capacity in her President's Message entitled "BRT: transit of the future or soon to be outmoded?"

Ms. Barth began her newsletter article by asking whether a countywide bus rapid transit (BRT) system, on which we are expending a great deal of effort and money, and which may take as long as 20 years to be fully implemented, might not be outmoded by the time it is finished.

"Will future MOCO residents look back and say, 'Why didn't we think ahead?'," Barth asked. "In other words," she continued, "I'm wondering if other existing (or emerging) technologies for providing transit and/or reducing congestion hold more promise. I would also like to see us explore multiple strategies for improving transit and reducing congestion."

However, the efforts of the County Executive's Transit Task Force over the past year were devoted to considering the BRT solution versus building more lanes of roadway or doing nothing. Ms. Barth opined that, just as a hammer is a poor tool for driving screws, no single transportation solution is ideal for all kinds of trips, riders, routes, or neighborhoods. In that spirit, she took a quick look at Adaptive Signal Control Technology (ASCT).

Poor traffic signal timing contributes to traffic congestion and delay. Conventional traffic signal systems use pre-programmed, daily signal timing schedules. Adaptive Signal Control Technology adjusts the timing of red, yellow and green lights to accommodate changing traffic patterns and ease traffic congestion. The basic goal of the ASCT system is to get vehicles to their destinations in as short a time as possible.

Using ASCT software, traffic sensors first collect data about the amount and direction of existing traffic on area roadways. Next, the data is evaluated and signal timing improvements are developed. Finally, ASCT implements signal timing updates. The process is repeated every few minutes to keep traffic flowing smoothly and thereby maximizing the capacity of existing roads.

Lest pedestrians and bicyclists think ASCT focuses only on motor vehicle traffic, the ASCT software can also be used to adjust signal timing to facilitate movement of large groups of pedestrians through road intersections, such as those leaving a major event like a rock concert or high school football game. And using ASCT is also good for the environment! It helps reduce emissions of hydrocarbons and carbon monoxide due to improved traffic flow shortening the time that each individual vehicle spends on the road.

According to the Federal Highway Administration (FHA), ASCT improves travel time by more than 10 percent on average. In areas with particularly outdated signal timing, improvements can be 50 percent or more. The FHA also points out that even though real-time management of traffic systems is proven to work, these systems have been deployed on less than 1 percent of the nation's existing traffic signals.

Las Vegas, Nevada is an example of a city that has invested in ASCT technology. By making the traffic signal light system smarter, and taking a flexible systems approach, Las Vegas is able to allocate “green time” wherever it is most needed to reduce congestion and keep traffic flowing smoothly. In fact, Las Vegas found that ASCT increased the capacity of its roadways by approximately 30 percent without adding one new lane-mile of roadway. And purchasing the ASCT software and implementing the system cost the Las Vegas city government far less than constructing new roads.

ASCT is certainly worth investigating before Montgomery County commits to spending billions on a new countywide BRT project. As Ms. Barth states in her MCCF newsletter piece, "Combined with an updated and expanded Ride On system, ASCT might offer real transportation improvements for far less money. But remember, this is just one tool. I believe what we really need, is a balanced, flexible transportation system designed to meet the needs of residents for work, shopping, and the full range of activities. We won't be able to develop such as system, unless we consider all the available tools."

Barth promises that future columns in upcoming MCCF newsletter issues will consider additional alternatives to solving the county's traffic and transit problems.

*The views expressed in this column do not necessarily reflect formal positions adopted by the Federation. To submit an 800-1000 word column for consideration, send as an email attachment to [montgomerycivic@yahoo.com](mailto:montgomerycivic@yahoo.com)*