Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

2206 South Main Street
Blacksburg, Virginia 24060

(Continued from front page)

needs as well as a roundabout

Traffic calming: they efficiently slow down traffic; mini-roundabouts have been extensively used in residential neighborhoods to slow traffic.

Neighborhood Roundabout

Mid-block splitter

The Miller Southside neighborhood of Blacksburg is in the final stages of a study, which began last summer. Three goals have been agreed upon: (1) reduce higher speed traffic; (2) reduce traffic "cutting through" the neighborhood; (3) include improvements compatible with a pedestrian oriented residential neighborhood. A variety of traffic calming solutions to reduce speeds and cut-through traffic on the residential streets are being considered. At the top of the list are mini-roundabouts, along with other traffic calming devices.

Gateway/Economic: can enhance the image through landscaping, signage and streetscapes of an entrance to a neighborhood or commercial area. At the Virginia Tech intersection, Mouras said signalization was considered but rejected largely due to aesthetic reasons. The administration was sensitive to creating an urbanized view, he said, on a campus that provides an otherwise pastoral appearance. They thought the visual effect of signalization was disadvantageous.

Aesthetic appeal was also a consideration at the Charlottesville Albemarle Airport. Considerable attention will be given to the landscaping since the intersection will serve as the airport gateway. VDOT also is currently considering a roundabout as part of a roadway relocation project adjacent to Winchester Regional Airport.

Accident reduction measure: many of the first U.S. roundabouts were installed to address high accident situations. Roundabouts are extremely effective in reducing frequency of accidents involving injuries or fatalities. Based on a recent comprehensive nationwide study conducted by the Insurance Institute of Highway Safety (a Virginia based company) roundabouts provide a significant achievement in safety goals. This study provided data that showed the use of roundabouts resulted in a 76% decrease in injuries and a 90% decrease in fatal/incapacitating injuries.

While roundabouts will not solve all the traffic problems, they do serve a valuable function that is becoming more and more popular here in the United States. They are a practical and aesthetical solution to intersection needs.


10/27/2004

3/19/2002

DAAccent...*to Local and State Governments*

A Publication of **Draper Aden Associates** March 2003

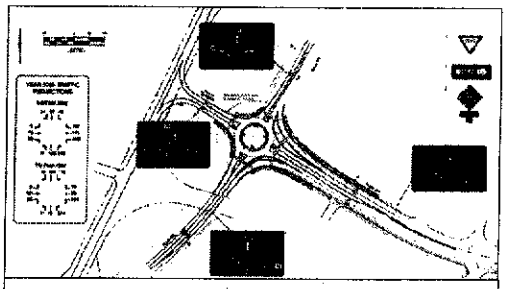
House Joint Resolution HJ594

Virginia Legislation Encourages Roundabouts

To the uninitiated, the terms roundabouts, mid-block splitters and intersection chokers sound like words you would be more likely to hear at a Friday night wrestling match than in engineering circles. As vehicular traffic continues to increase, however, so will our vocabulary of traffic calming terms such as these.

Traffic calming is the practice of reducing vehicular speeds and/or volumes through the use of physical methods such as pavement treatments, curb and gutter placements, installation of barriers and changes in street alignment. It also includes the addition of such control devices as: chokers, chicanes, traffic circles, speed bumps, roundabouts, etc.

The effectiveness and popularity of these devices have continued to spread until one in particular has recently been recognized by the Virginia State legislature as a viable alternative to traditionally regulated intersections.



This schematic shows a detail of the design plans for the Charlottesville-Albemarle Airport entrance in Albemarle County, Virginia.

House Joint Resolution 594 which states **"that the Department of Transportation be encouraged to construct more roundabouts instead of signalized intersections"** passed both the House of Delegates and Senate with significant support. The resolution further states that the **Commonwealth Transportation Commissioner is requested to "further disseminate copies of this resolution to his constituents so that they may be apprised of the sense of the General Assembly of Virginia in this matter."**

North Carolina State University, Raleigh, NC: *NCSU recently opened a single lane roundabout that safely accommodates the heavy auto, bus and pedestrian traffic in a manner compatible with the campus setting.*

Future Roundabout: *This intersection, located on Virginia Tech's campus, will soon feature a roundabout to lessen traffic congestion.*

Draper Aden Associates' Transportation Manager, Tom Flynn, spoke with the patron of HJ594, Charlottesville area Delegate Mitchell Van Yahres. A strong supporter of roundabouts, Van Yahres is optimistic we will be seeing more of them in Virginia in the near future. Part of this he attributes to recent administrative changes at the state level, and an increased focus on alternative transportation modes and solutions.

Roundabouts have been used extensively in Europe for many years. They are just recently gaining popularity in the United States. One reason modern roundabouts show much promise is their ability to meet different needs:

Intersection control: they often can provide greater capacity, or reduced delay compared to a stop sign or traffic signal. Virginia Tech recently decided to convert a busy three-way intersection on campus into a roundabout design. Steve Mouras, Director of Transportation for Virginia Tech, said one of the reasons a roundabout was chosen was because it would allow traffic flow to be continuous.

There is also ongoing activity with roundabouts involving VDOT. For example, the Route 649 widening project in Albemarle County includes a single lane roundabout at the intersection with Route 606 and the entrance to the Charlottesville-Albemarle Airport. The initial plan for a signalized intersection was replaced since it became apparent it could not meet future traffic

(Continued on back page)