



S.A.V.E. forges working relationship with PennDOT

In February 2003, S.A.V.E. representatives met with Governor Ed Rendell, Secretary of Transportation Allen Biehler, DEP Secretary Katie McGinty and Deputy Chief of Staff Roy Kienitz to present a two-lane alternative for Route 41. Since then we have been communicating regularly with Secretary Biehler and meeting with PennDOT officials to develop and promote the details of the two-lane alternative plan for Route 41 including a series of modern roundabouts. Under the governor's commitment to smart growth principles, S.A.V.E. is pleased to report that it has forged a working partnership with PennDOT to determine the best plan to secure a safe and sustainable future for Route 41. During this time, PennDOT has delayed release of the Draft Environmental Impact Statement while it brings the two-lane alternative as developed by S.A.V.E. from a conceptual plan to the next level of design and analysis.

Secretary Biehler has brought a fresh approach to the project and wishes to address community controversy concerning Route 41. If community members along Route 41 can agree on common goals for the project, this will facilitate the design of much needed improvements to the roadway. At the secretary's request, representatives from S.A.V.E. and SCCOOT (Southern Chester County Organization on Transportation) met several times to discuss the issues and strive to reach consensus on proposed Route 41 improvements. In all discussions, S.A.V.E. emphasized the firm belief that the most important, overriding concern shared by the entire 41 community is to create a safer roadway for all users. This goal, shared by the SCCOOT representatives, provides common

ground for discussion and action on the project. S.A.V.E. believes that through its comprehensive approach to solving the problems of the roadway, including the installation of modern roundabouts and traffic calming elements, and elimination of a portion of the truck traffic, its plan provides the safest roadway for the whole corridor in the shortest time frame. *For details on improved safety related to modern roundabouts, see article on Page 2.*

In addition to safety, the two-lane plan addresses three other needs identified by PennDOT/KCI in their 1994 Final Needs Study. These include decreasing congestion at the major intersections, modernizing the deteriorated infrastructure and enhancing multi-modal connections for transit-users, pedestrians and bicyclists. The two-lane plan does all this at significantly less cost (about \$47 million versus an estimated \$250 million for a four-lane alternative with bypasses). The two-lane plan also addresses the entire 20-mile roadway in a comprehensive, unified manner, minimizes direct and cumulative environmental impacts, and could be designed and implemented far more quickly than the four-lane alternatives under consideration. The sooner construction of an improved roadway begins, the sooner lives will be saved.

Clearly, adding more lanes is not the solution for Route 41. The four-lane alternatives under consideration would catalyze sprawling development and exacerbate safety concerns. By focusing only on the 9.8 mile section between the Delaware state line and Route 926, safety on the northern half of 41 from 926 to Gap would be compromised. Such a plan would encourage higher speeds and funnel four lanes of traffic into two lanes.

Route 41 provides the perfect opportunity for PennDOT to follow national trends in balancing transportation needs with land use planning goals in an innovative approach to transportation planning. Laws enacted in recent years, including the National Highway System legislation, and "context sensitive solutions" policies encourage transportation solutions simultaneously while addressing the goals of community residents. Such an approach would be consistent with Chester County's Landscapes plan that seeks to protect the scenic, aesthetic and cultural aspects of the region. S.A.V.E. will continue working with Governor Rendell and PennDOT to ensure that this unique and irreplaceable area of southern Chester County is given the special treatment it deserves.

MISSION

S.A.V.E. is a grassroots community group organized to research, make public policy recommendations, and educate the public regarding safe and sustainable long-term plans for PA Route 41 and to advocate for the integration of transportation planning with comprehensive land use planning in the corridor and surrounding communities. S.A.V.E.'s resources shall be devoted to improving safety for all users of PA 41 and other regional roads, and promoting improvements to the transportation system while simultaneously balancing the preservation of the unique natural and historic resources, agricultural lands, watersheds, and environmentally sensitive open spaces of the region.



Thinking Outside the Box

The Modern Roundabout

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The primary function of the modern roundabout is the same as a traffic light or a stop sign – it’s an intersection control device. Modern roundabouts, however, have many additional benefits. They reduce traffic delays and congestion. Collision rates and crash severity plummet. They help keep down fuel consumption as well as air and noise pollution. Maintenance is minimal. All of these benefits are accomplished while enhancing the aesthetics of a community. Roundabouts have been successful in Europe, Australia and Canada over the past two decades. Not surprisingly, the modern roundabout is rapidly gaining popularity in the United States. A

2000 preliminary report by the American Automobile Association Foundation declared, “improved traffic flow, aesthetics, and cost savings make roundabouts a good idea, and the safety gains are compelling.” PennDOT anticipated the rising popularity of roundabouts by publishing the PennDOT Guide to Roundabouts (Publication 414, May 2001) that describes the many benefits of this form of intersection control.

The Federal Highway Administration (FHWA) officially defines the modern roundabout as “a circular intersection that features channelized approaches, yield control for entry into the circular lanes, and approach geometry that assures vehicle speeds will be less than 30 mph.” Mandatory design standards require that entering traffic must yield to traffic already in the roundabout and require raised “splitter islands” at the roadway entry to the roundabout. The splitter islands force approaching traffic to reduce speed, thereby creating safer traffic flow through the roundabout as well as a safer intersection for pedestrians and other users.

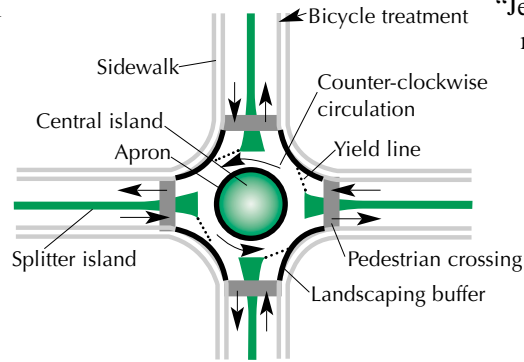
Although circular forms of roadway intersections have been around for hundreds of years, they were not well regulated and there were no uniform rules of the road. Many of these old traffic circles were inefficient, congested, confusing, and/or had high crash rates because they gave

priority to entering vehicles and encouraged high speeds. Any circular intersection built before 1990 in the U.S. most likely does not conform to modern roundabout standards, yet the public still continues to confuse modern roundabouts with the intimidating and dangerous older traffic circles – such as the so called

“Jersey Circles.” This misperception often leads to skepticism prior to installation of roundabouts in a community, but once drivers experience the subtle but important differences of modern roundabouts, they are quickly won over.

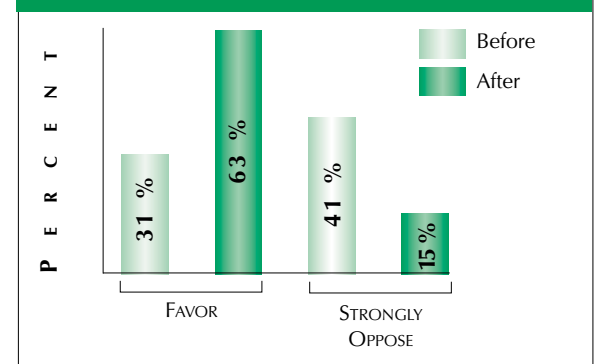
(Institute of Transportation Engineers, “Public opinion and traffic flow impacts of newly installed modern roundabouts in the U.S.,” 2002.)

Modern roundabouts are generally designed as small as possible for each unique environment in which they are being installed. Because the speeds in modern roundabouts are much lower, their operation is based on gap acceptance, rather than merging. The lower speed means the acceptable gap size is much smaller, improving the operation of the intersection. Traffic in the roundabout is kept constantly moving and prevents much of the gridlock that plagued old-fashioned rotaries. The geometric differences may seem subtle, but result in significant differences in performance and safety track records. The nearest one to Chester County is at the intersection just south of Rising Sun on Route 276.



DESIGN FEATURES OF A SINGLE-LANE ROUNDABOUT

Percent of drivers who favor and oppose roundabouts before and after construction.





Photos by Michael Wallwork, P.E. (www.roundabouts.net)

Roundabouts – before and after. Route A1A in Fernandino Beach, Florida. Before the roundabouts were installed, left, this section of Route A1A was a high-speed rural road. The road is now successfully calmed through the use of roundabouts. Photo on right shows two roundabouts installed about 600 feet apart.

SAFETY

Several recent studies conclude that roundabouts are without question the safest form of intersection traffic control. Collision rates and crash severity are both less than at other types of intersections. Statistics indicate that roundabouts can reduce intersection injury accidents by as much as 95 percent compared to signalized controls, according to the FHWA Office of Safety. http://safety.fhwa.dot.gov/fourthlevel/20/md_round.htm

A study of the intersections where roundabouts have been installed in Maryland to replace existing signals, found that the collision rate dropped from an average of five crashes per year before conversion to roundabouts, to 1.8 crashes per year at the roundabouts, a 64 percent reduction. Crash severity also dropped from an average of three injury crashes before to 0.5 crashes per year after conversion, an 83 percent reduction. And those accidents that do occur are generally low-speed rear-end or merge crashes, rather than high-speed angle 90 or 180 degree collisions at conventional intersections. (Russell, Luttrell, Rys, <http://www.ksu.edu/roundabouts>).

In a recent Insurance Institute for Highway Safety (IIHS) study of 24 intersections in the U.S. where stop control

and traffic signals were replaced with modern roundabouts, there was a 39 percent overall crash reduction, a 76 percent injury crash reduction and a 90 percent fatal crash reduction. (“Crash Reduction Following Installation of Roundabouts in the U.S.,” Insurance Institute for Highway Safety, Arlington, VA March 2000; <http://www.highwaysafety.org>).

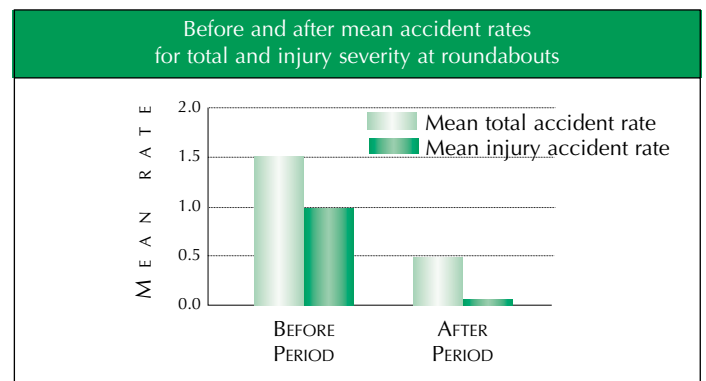
The Federal Highway Administration publication, “Roundabouts: An Informational Guide,” reports that “experience in the U.S. shows a reduction in crashes after building a roundabout of about 37 percent for all crashes and 51 percent for injury crashes.” If only small to moderate single-lane roundabouts are considered, the reductions are 73 percent for injury crashes.

MORE CAPACITY, LESS DELAY

Roundabouts allow traffic to continuously flow through the intersection with lower traffic delays. This provides higher capacity than a similar sized signalized intersection. Regardless of traffic

volume, signalized intersections have considerable dead time and start-up time. Drivers much prefer the continuous flow of roundabouts, compared to the dead time spent waiting at a red light. By slowing traffic down, capacity is actually increased through more tightly spaced circulating traffic. Because traffic from each approach can simultaneously enter a roundabout and traffic is continuously flowing, the capacity is typically higher than at stop-controlled or signalized intersections. A one-lane roundabout typically has a capacity of 2,500 to 2,800 vehicles per hour.

Design allows for larger left turn radii than signalized intersections and “truck aprons” so that trucks, emergency vehicles, and other large vehicles can comfortably navigate the roundabout and make left turns.



Roundabouts are easy to modify if circumstances change as very small changes in geometry give large increases in capacity. Single lane roundabouts can easily be converted without great expense to two or three lane roundabouts if capacity warrants.

FISCAL BENEFITS

When planned as part of new road construction, roundabouts are less expensive to build than signalized intersections and have reduced annual maintenance and operational costs when compared to signalized intersections. Unlike traffic signals, roundabouts have no additional maintenance costs other than general road care. They require no electricity, no regular tune-ups, no annual replacements of parts, suffer no blackouts and cannot be blown away.

AESTHETIC BENEFITS

Although the primary function of roundabouts is intersection control, the secondary role as traffic calming elements creates gateways to communities and main streets as they slow traffic and provide space for a grand entrance statement. Aesthetically pleasing, roundabouts can become a civic feature with fountains, statues, landscaping or other features creating a focal point. Businesses located on or near newly installed roundabouts often report an increase in business perhaps due to the roundabout providing enhanced aesthetics and a safer environment for pedestrians and drivers alike.

AIR QUALITY BENEFITS

Vehicles idling in a queue emit about seven times as much carbon monoxide as those traveling at 10 mph. Emissions at roundabouts are very small as traffic rarely stops, whereas traffic always stops at signals regardless of the amount of traffic. Wayne Elson of the U.S. EPA compiled a summary of studies of air quality components and vehicle emissions. (See the Web site <http://www.ccnh.org/ccwaynelson.htm>.)

Sources for this article, additional information and links on modern roundabouts are available at www.save41.org.

Roundabout coming to an intersection near you!

In part due to S.A.V.E.'s efforts to research the benefits of the modern roundabout and educate residents of the community about them, the southern Chester County community may soon see its first roundabout constructed at the intersection of Route 82 and Doe Run Road in East Marlborough Township. The township explored various options to solve the traffic issues at this unique three-way intersection near the Unionville School campuses and has experienced an increase in congestion between bus traffic and commuter traffic at morning rush hour. Recently, township officials agreed that a roundabout was the perfect solution to address the safety and capacity problems at the intersection rather than the installation of a traffic light near the historic village of Unionville. East Marlborough Board of Supervisors Chair Richard Hannum



Photo by Bill Baranowski
(www.roundaboutsusa.com)



Photo by Michael Wallwork, P.E.
(www.roundabouts.net)

expressed his full support of the roundabout solution, "I think that the roundabout at Doe Run Road & Route 82, which was conceived from the seed planted by the SAVE Route 41 solution, will best address the two main problems which we face, traffic flow through the intersection and the need for traffic calming on Route 82."

The studies reported that roundabouts reduced vehicle emissions for hydrocarbons by 33 percent, carbon monoxide by 36 percent, and nitric oxides by 21 percent.

ROUNDBABOUTS: PERFECT FIT FOR 41

In conjunction with professional transportation engineers and planners, including Smart Mobility, Inc., and Glatting, Jackson, Kercher, S.A.V.E. has developed a concept plan for a two-lane alternative for the full length of the Route 41 corridor. This plan includes a series of modern roundabouts and satisfies the four transportation-related needs outlined by PennDOT and KCI (safety, congestion, infrastructure improvements, and multi-modal capacity), while minimizing negative impacts. Roundabouts would vastly improve safety, reduce congestion and traffic delays, provide enhanced multi-modality, while minimizing impacts on historic and natural resources.

Reflecting the minimal environmental impact, the two-lane, roundabout centered plan could be designed, funded, and built, for the entire length of PA Route 41, far more quickly and at a fraction of the cost

than any four-lane alternative. Currently, PennDOT's planning efforts focus only on the southern half of the roadway, from the Delaware state line to Route 926, and do not anticipate construction starting until 2007 at the very earliest. Approximate cost projections for a typical four-lane plan for the southern half of Route 41 is \$149.7 million. Estimated costs for the two-lane plan for the entire 20 miles of Route 41 is \$46.8 million.

Roundabouts dovetail perfectly with a transportation plan that envisions a sustainable future for Route 41 and its communities because they provide:

- ◆ Safety, capacity, infrastructure, intermodality
- ◆ Minimal cost in shortest time frame
- ◆ Minimal delays
- ◆ Low air pollution emissions
- ◆ Aesthetic enhancements
- ◆ Minimal impact on natural and historic resources
- ◆ Consistent county and municipal planning goals
- ◆ Eradication of induced traffic and induced development effects

Through-bound truck ban task force underway

Following a request from London Grove Township last fall, citizens from at least 16 municipalities, as well as S.A.V.E. and PennDOT, met in May and June to discuss the issues involved in a proposed restriction on through-bound tractor-trailers. London Grove had extended a request to all the municipalities in the region to appoint a representative to the task force to discuss the feasibility and benefits of such restrictions.

Truck restrictions have been successfully implemented elsewhere in the country including Route 17 in Virginia, and the whole state of New Jersey. The legal precedent has been confirmed and upheld in the courts. Based on well-documented safety issues, Governor Rendell and PennDOT have the option to institute restrictions. In its three meetings to date, the task force has

examined how the initiative might be defined.

Those present have agreed that there is a need for greater education on the issues and the potential solutions, including educating local firms that they would not be affected by the ban and convincing the public that the truck ban would be beneficial to the community. Issues to be examined include the geographical context, open space and ag preservation, long-range comprehensive planning, safety, accident rates, truck volumes, legal precedent, budget implications and enforcement. Although the work of the task force sprung out of the increased awareness to address the increased amount of truck traffic on PA 41, even municipalities as far away as Pennsbury were represented, as the truck restrictions would encompass all the regional roads, so

that traffic is not just pushed from PA 41 onto even less appropriate roads.

By early fall, the task force hopes to have a draft summary of its findings. Each representative will then report back to his or her respective municipality with a recommended course of action. The report will also be used to educate area residents. Already, London Grove, Highland, West Marlborough and East Fallowfield Townships have passed resolutions in support of the through-bound tractor-trailer restrictions.

The next meeting of the Task Force is scheduled for Wednesday, August 27 at 7p.m. at the London Grove Township Building and anyone is welcome to attend.

S.A.V.E. directors attend governor's conference in May

In May, by invitation from PennDOT Secretary Allen Biehler, S.A.V.E. Directors attended the Governor's Conference on Transportation, Land Use and Economic Development in Hershey. Growth statistics cited by Secretary Biehler in his welcoming remarks bolstered the argument that a drastically different approach is called for in transportation and land-use planning. One such example is that between 1982 and 2002 the population of Pennsylvania grew 1.4 percent, while land development grew by 41.3 percent – an area the size of Rhode Island. In the five county region of Philadelphia, between 1930 and 1990, the population increased 37 percent while land used in development increased by 230 percent. S.A.V.E. representatives

were thrilled to hear the secretary asking "whether PennDOT should continue chasing development this way" and expressing the need to bring a more sensible approach to projects "based on what people want."

Keynote speaker was Harrison Rue, executive director of the Thomas Jefferson Planning District Commission and the Charlottesville-Albermarle Metropolitan Planning Organization. Rue also founded the Citizen Planner Institute, whose workshops have gained national attention for their practical approach to complex urban design, transportation and sustainability issues. Rue stressed that governments and communities can no longer afford the "de facto" plan any longer, which "has simply brought us, among other

things, McMansions, industrial parks and non-walkable communities." To achieve a new paradigm in transportation planning, an integrated public process must be undertaken up front such as community collaborative processes with trained facilitators, hands-on public workshops and with model projects, he said.

The other speaker was Robert Grow, founding chairman emeritus of Envision Utah, a public/private partnership seeking to develop a long-term growth strategy there. Grow spoke of the importance of a grassroots, bottom-up approach to regional visioning and how it has led to positive change in land use planning in Utah. More information on the approach used in Utah is available at www.envisionutah.org.

SAVE this DATE!

Friday, October 17

**Celebrate S.A.V.E.'s Achievements
at the
Annual Meeting &
Special Event!**

Invitations will be in the mail soon for an evening of fun on

Friday, October 17th

at the

Annual Meeting

and Special Event

Details will be mailed out soon.

SAVE a Life!

I/we would like to join or renew membership in S.A.V.E. and support the effort to devise and promote a safe and sustainable plan for the Route 41 corridor at the following level:

- \$20 Individual \$40 Household \$100 \$200
- \$500 \$1,000 \$5,000/above Other

Membership contributions are tax deductible to the full extent allowed by the law.

I/we have:

- enclosed a check made payable to S.A.V.E., Inc.
- authorized S.A.V.E. to charge my VISA, Mastercard, AmEx or Discover as follows:
..... / / / Expires. /

Signature

Name

Municipality

Address

.....

Telephone E-mail

- I/we prefer to be acknowledged as "Anonymous."
- Please contact me/us – we'd like to get more involved!
- I/we have enclosed a matching gift form.

SAVE our farmlands and open space!

ENDORSEMENTS

Organizations that have endorsed the S.A.V.E. vision for a two-lane, traffic-calmed Route 41 corridor include:

- American Farmland Trust
- The Brandywine Conservancy
- Sierra Club
- GreenSpace Alliance
- National Trust for Historic Preservation
- London Grove Township
- West Marlborough Township
- Pennsylvania Environmental Council
- Greater Hockessin Area Development Association
- Clean Air Council
- Environmental Defense Fund
- Elk Creek Watershed Association
- Piedmont Environmental Council
- White Clay Fly Fisherman Club
- Ox-Grove Democratic Committee
- Chester County Green Party

This edition of CrossRoads was supported in part by a grant from the Henry A. Jordan, M.D. Preservation Excellence Fund at the National Trust for Historic Preservation.



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