

*During the calendar year 2002, the Virginia Chapter, ASLA has been exploring three subjects related to the issues of 'Strategic Infrastructure'. We have divided the discussion into three avenues of exploration: stormwater, community form and transportation. This, the final avenue, focuses the conversation on issues of transportation.*

## t r a n s p o r t a t i o n

Landscape architects are playing an increasingly important role in projects that aim to balance the often competing needs of transportation, land use, and community livability. Uniquely qualified to design transportation facilities in ways that are sensitive to the community and context that they serve, landscape architects are teaming up with engineers to craft new solutions for road-related safety and mobility concerns. *Traffic calming* and *context sensitive design* are two important strategies that help to balance very real transportation needs with pedestrian and site-specific qualities of neighborhoods, Main Streets, and rural and historic routes.

Traditional methods of improving safety on state highways are not always possible or appropriate for scenic and historic roads in rural areas. Standard safety measures such as widening lanes and shoulders, adding guardrails, removing trees, and increasing sight distances through grading and vegetation management have the effect of making it easier to drive faster. The result is a vicious cycle where improvements lead to increased driving speeds, which leads in turn to more

accidents. This is particularly problematic for scenic or historic routes since the users of these roads are often unfamiliar with the road, wish to drive slowly to enjoy the views, and often include bicyclists.

Context sensitive design—sometimes referred to as CSD—offers a more balanced approach. The Federal Highway Administration describes context sensitive design as a collaborative, interdisciplinary approach that challenges all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. Context sensitive design is an approach that considers the total context within which a transportation improvement project will exist.

Traffic calming measures have also gained popularity as an effective strategy for addressing highway safety concerns without resorting to more conventional, and oftentimes drastic, engineering approaches. The primary objective of traffic calming is to increase driver awareness of operating speeds through the use of changes in horizontal and vertical roadway alignments, as well as the amount of “visual friction” (such as landscape features) along roadsides.

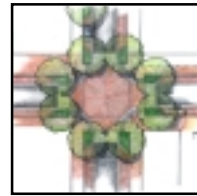
Traffic calming and context sensitive design strategies are being implemented now as part of a national rural highway demonstration project along twenty miles of U.S. Route 50

through the towns and villages of Aldie, Middleburg, and Upperville, Virginia. The design strategies are intended to increase highway safety. The object is to reduce speeding and aggressive driving through roadway design that naturally encourages motorists to drive at slower and safer speeds. A variety of context sensitive design solutions to these highway safety concerns are being implemented including:

- lowering posted speeds to better match the geometries of the existing road (rather than altering the roadway)
- use of appropriate design interventions to create a smooth and logical transition from the open rural highway to the streets of the villages and towns
- establishment of transition areas to increase the amounts of “visual friction” along the roadside as well as change the horizontal alignment to more closely match sight distances with the desired operating speeds
- creation of attractive (and very noticeable) entranceways to hamlets, villages, and towns
- narrowing the look and feel of the road sequentially as a driver approaches built up areas

The Route 50 traffic calming project is slated for final design in the Spring of 2003 and construction in the Spring of 2004.

Jim Klein, ASLA,  
Principal, Lardner/Klein Landscape Architects



*programs 2002* ‘strategic infrastructure: transportation’

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VAASLA  
P.O. Box 8223  
Charlottesville, VA  
22906