

## Principle 2: MAINTAIN A CLEAR EDGE BETWEEN TOWN AND COUNTRYSIDE

### Grow In, Not Out



What will the Shenandoah Valley look like in 20 years? Like the illustration above, if current development trends continue. On the next page is an alternative pattern for accommodating the same amount of growth.

**T**O MAINTAIN the character of the Valley as we develop, the single most important principle might be to keep the rural areas rural while encouraging development in the villages, towns, and cities. In other words—grow in, not out.

As a healthy, expanding region, we will welcome many new neighbors and enterprises in the coming years. *How* we do this will help determine the quality of life for all of us and for future generations.

The choice is clear from the accompanying illustra-

tions. Unchecked, the current pattern of sprawling development will make our beautiful Shenandoah Valley a featureless blur that is neither town nor country.

The alternative is to direct growth into cohesive communities, small and large, and to shape the scale and design of growth in rural areas so that it fits the rural setting. A more compact pattern can accommodate the

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Illustrations from *Landscapes: Managing Change in Chester County 1996-2020*, Comprehensive Planning Element, 1996. Reprinted with permission of the Chester County Planning Commission, West Chester, PA.

same amount of growth to the benefit of both town and countryside.

Communities throughout Virginia and the Valley have come to the same conclusion. Almost without exception, county comprehensive plans express a desire to

## THE GROW IN, GROW OUT QUIZ:

For each new proposed building project in your community, the following questions can be asked:

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maintain rural character and to channel expected growth into planned service areas. At the same time, cities and towns are seeking ways to encourage growth within their borders.

This strategy, however, is one of the toughest planning challenges in the nation. The lure of green fields and wide roads is hard to combat. Yet no rural protection effort can work unless people find attractive and desirable places to live in the areas designated for growth.

- Is the location appropriate?
- Does the siting respect the landscape context?
- Does the overall development layout maintain a clear edge between urban and rural?
- Do building designs reflect Valley character and traditions?

## ECONOMIC ADVANTAGES OF CURTAILING SPRAWL:

- Lower service costs
- Full use of the investment in existing water, sewer, roads, and other infrastructure
- Potential to plan efficient expansion of services
- Delay or avoidance of new infrastructure investment

- Lower per unit costs
- Less money spent on fuel and transportation
- Less time spent in cars
- Less money spent on roads
- Lower school construction costs
- Opportunity for heritage tourism
- Potential to attract higher-caliber employers

#### FOR MORE INFORMATION:

*Alternatives to Sprawl*, by Dwight Young, 1995, Lincoln Institute of Land Policy, Cambridge, MA; (800) 526-3873.

*Beyond Sprawl: Land Management Techniques to Protect the Chesapeake Bay*, Chesapeake Bay Program, U.S. Environmental Protection Agency, 1997, Document #EPA 903-B-97-005; (800) 968-7229 (free).

*Building Livable Communities: A Policymaker's Guide to Infill Development*, The Center for Livable Communities, Local Government Commission, August 1995, Sacramento, CA; (916) 448-1198.

*Chesapeake Bay Communities: Making the Connection*, Chesapeake Bay Program, U.S. Environmental Protection Agency, 1996, Document #EPA 903-R-95-018; (800) 968-7229 (free).

*Rural By Design*, by Randall Arendt with Elizabeth Brabec, Harry Dodson, Christine Reid, and Robert Yaro, American Planning Association, American Planning Association Planners Book Service, 122 S. Michigan Ave., Suite 1600, Chicago, IL 60603; (312) 786-6344 (1994).

*Who Pays for Sprawl? The Economic, Social, and Environmental Impacts of Sprawl Development: A Literature Review*, Chesapeake Bay Program, U.S. Environmental Protection Agency, 1998, Document EPA 903-R-98-011; (800) 968-7229 (free).

## Know the True Costs of Sprawl



**Which will generate more in net income for a community: a working farm or a new residential subdivision far from town?**

THROUGHOUT THE U.S. and Virginia, the low cost of using cars has helped fuel the demand for sprawling development. Increases in vehicle miles traveled and acres converted to development are far outstripping the rate of population growth.

What makes these far-flung residences feasible? Cheap gas and a host of interlocking but little recognized subsidies.

Much of sprawl is caused by the “tyranny of small decisions.” Innumerable individual decisions combine to create a landscape that in the end pleases

almost no one. Often the new residents in the first subdivision in a rural area enjoy the open spaces (and open roads) only to find that in a few years their view is filled with other houses and the roads are clogged.

In the Valley, another consideration is that subdivisions can hurt the ability of farmers to continue farming. Non-farming neighbors and congestion cause daily inconveniences to farmers, starting with potential conflicts between dogs and livestock and nuisance complaints over farm odors and practices. More insidious is the belief that farming can't last and that "cashing in" for houses is inevitable.

Built-out sprawl ultimately has more damaging effects on water quality and air quality than the farming or forestry it replaced. Sprawl also places a terrible toll on local finances because of the inefficiencies built into providing everything from utilities to school to emergency services.

#### **THINGS YOU SHOULD KNOW:**

- Government policies and society at large subsidize car travel—to the tune of between \$378 and \$935 billion per year, according to several studies.
- In addition to increased taxes to pay for services, residents of far-flung developments pay more in private transportation costs, service costs, wasted time in traffic, and innumerable inconveniences big and small.
- Maryland predicts a 21% population increase by the year 2020 and a 100% increase in land consumed by development, if current trends continue.

- Compact development rather than sprawl could save \$10.8 billion in road construction in the Chesapeake Bay region over a 30-year period, according to the Chesapeake Bay Program.
- The New Jersey State Development Plan estimated that, over a 20-year period, infrastructure for conventional sprawl development would cost \$1.3 billion more to build and \$112 million more annually for operations than would accommodating the same population increase in a more compact pattern.
- Denver recently projected a population increase of 30% but an increase in urbanized land of 185%.
- Between 1970 and 1990, California's population grew by 50%, but total number of miles traveled grew by 100%.



**Northern Virginia traffic jam: Is this the future we want for the Shenandoah Valley?**

# Delineate Gateways



Which gateway makes a better first impression? Which community looks like one in which you would rather spend time and money?

**F**IRST IMPRESSIONS ARE IMPORTANT TO communities. Just as with meeting a person, a good first impression can make a difference. A bad first impression is hard to change. The gateway into a community is like its “front door.” It provides the introduction to a community. It can either express a community’s pride and sense of place or it can give a community a poor public image.

Compare the photos of the community gateways on this and the following page. Then ask yourself the following questions:

- Which gateway makes a better first impression?
- Which one looks like a community with a greater sense of pride and place?
- Which one looks like a community you would rather spend time and money in?
- Which one looks more like the gateway into your community?

Many parts of a town or community have boundaries drawn around them. These boundaries usually exist in people’s minds. They mark the end of one kind of activity or one kind of place and the beginning of another. In many cases, a community can be made more memorable, more vivid, more alive if the bound-

ary that exists in people’s minds also exists physically on the ground. In rural areas, gateways provide an area of transition between city and countryside; in urban areas they help mark the boundaries between one community and another.

## THINGS YOU SHOULD KNOW:

- Gateways can provide information to tourists by directing them to areas of interest and by providing clues to the historical, cultural, and economic foundation of an area.
- One major gateway to the Shenandoah Valley is the Interstate-81 corridor. Tourists, new residents, and potential investors all form their first impressions of the Valley along this corridor, and the interstate interchange areas are the front door to most of our communities.
- How we plan and build along the I-81 corridor is critically important to the character of Valley communities and the image and economic health of our region.
- As anyone can see, the exceptional beauty and visual quality of the I-81 corridor has deteriorated in

recent years. Truck stops, giant signs, billboards, and fast food restaurants now dominate many of the interchange areas, and this is affecting how people perceive our region.

- A 1992 report by the Interstate-81 Corridor Council expressed it this way: “Each mile of the Western Virginia landscape carries subtle messages to the travelers along Interstate-81 about our economic health, whether we are proud of our heritage, or whether we care about the land.”

Now look at the photos that follow and think about the messages they convey.



Northern gateway to Staunton



Gateway to Mt. Jackson

**FOR MORE INFORMATION:**

*Designing Urban Corridors*, PAS Report #418, by Kirk R. Bishop, 1990, American Planning Association Planners Book Service, 122 S. Michigan Ave., Suite 1600, Chicago, IL 60603; (312) 786-6344.

“Gateways: Creating a Civic Identity,” Suzanne Sutro Rhees, *Planning Commissioners Journal*, No. 21, Winter 1996; (802) 864-9083.

“Planning Basics for Gateway Design,” by Michael Barrett, *Zoning News*, American Planning Association; (312) 431-9100.

*The Role of Civic Gateways in Promoting Community Image and Use*, by Vernon Husted, Master’s Thesis, Morgan State University, Spring 1995; (410) 263-9708.



Gateway to Edinburg



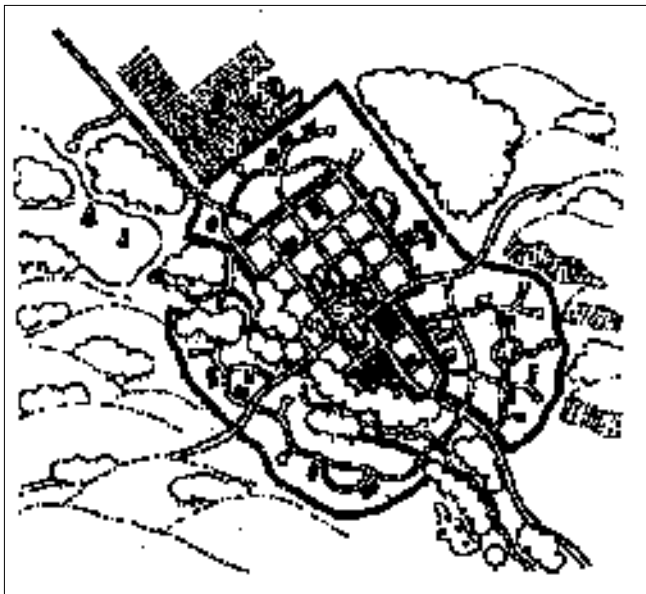
Gateway to Woodstock

## Techniques for Maintaining a Clear Edge

COMMUNITIES AROUND THE COUNTRY are using a variety of techniques to maintain a clear edge between town and countryside. Here are some of the most common techniques:

### URBAN GROWTH BOUNDARIES

An urban growth boundary is a planning tool that establishes a dividing line between areas appropriate for urban development and areas appropriate for rural or agricultural uses. Every city and town in Oregon has established an urban growth boundary. So have many communities in California and Washington. Here in the East, urban growth boundaries are being used in places like Lancaster County, Pennsylvania. For more information contact: Lancaster County Planning Commission, 50 N. Duke Street, Lancaster, PA 17068; (717) 299-8333.



Source: Greenbelt Alliance

Urban growth boundary

### GREENBELTS

Many communities have invested in open space to create greenbelts. Boulder, Colorado, for example, is surrounded by a 31,000-acre “greenbelt” of public open space and mountain parks. The greenbelt began in 1967 when voters approved an additional third of a cent sales tax for open space. Closer to

home, Maryland has a Rural Historic Villages Program which has created greenbelts around a number of small towns such as Sharpsburg, Burkitsville, and Claiborne. These greenbelts were created by purchasing development rights on surrounding farmland. For more information contact: Maryland Environmental Trust, 100 Community Place, 1st Floor, Crownsville, MD 21032-2032; (410) 514-7900.

### SMART GROWTH LAWS

Smart growth laws use the state or local government budget process to encourage growth in areas already served by existing infrastructure. For example, the state of Maryland does not prohibit development in the countryside, but as a result of its new Smart Growth Act, it will no longer pay for roads, schools or other public improvements outside of designated “smart growth areas.” Likewise, the City of Lancaster, California, allows developers to build wherever they want—as long as they pay a premium for building further from town. For more information contact: Maryland Office of Planning, 301 West Preston Street, Suite 1101, Baltimore, MD 21201; (410) 767-4432.

### DEVELOPMENT SERVICE DISTRICTS

Some Virginia communities have designated “development service districts,” which map in advance those areas where a county will accept responsibility for providing infrastructure. For example, Albemarle County has had designated growth areas since 1971. Isle of Wight County established development service districts in its 1991 Comprehensive Plan, and Frederick County has established boundaries beyond which utilities may not be extended. Targeting growth in and around these areas prevents sprawling development in other areas of the county. For more information contact: Albemarle County, Department of Planning, 401 McIntire Road, Charlottesville, VA 22903; (804) 296-5823.

# Use Open Space Development Techniques

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Suppose you were a developer with 200 acres. Which do you think would be more profitable: a development with 100 two-acre lots and no open space, or a development with 100 one-acre lots and 100 acres of open space?

COMMUNITIES ACROSS VIRGINIA are realizing that they can conserve their special open spaces and natural resources at the same time they achieve their development objectives.

Subdivisions in rural areas are not encouraged. But once a rural location is selected, there are still ways to protect the rural landscape by carefully planning the new development.

Each time a property is developed into a subdivision, an opportunity exists for adding land to a community wide network of open space. Conservation design simply rearranges the development on each parcel as it is being planned so that half (or more) of the buildable land is set aside as open space. Without controversial “down zoning,” the same number of houses can be built in a less land consumptive manner, allowing the balance of the property to be protected and added to a network of community green space. The density neutral approach outlined below is a fair and equitable way to balance conservation and development.

Open space or cluster developments can reduce some

of the negative impacts of new rural subdivisions by minimizing the loss of farmland and forest while also increasing property values. These subdivisions provide the same number of dwelling units as conventional development. They are carefully designed, however, to preserve parts of a rural site and cluster the houses on the remainder.

Many counties in Virginia and elsewhere require “clustering”; others allow it as an option in their rural areas. Open space developments can be a profitable option for small-scale subdivisions. They can blend houses into the landscape and to some degree can allow for the continuation of working farms.

It is important to recognize that while open space subdivisions provide many benefits for people, wildlife and the economy, they cannot replace the need for a solid policy of farmland and rural area protection.

Open space in a development can provide the following benefits:

- allows continued farming or forestry
- provides common areas for residents’ use

# Open Space Site Design

DIAGRAMS BY RANDALL ARENDT



Virginia farm before development



Virginia farm after conventional development



Virginia farm after open space development

- protects environmentally sensitive areas
- combinations of the above

Advantages to developers:

- lowers development costs
- fosters greater acceptance from neighbors
- provides a valuable marketing advantage

Advantages to residents:

- provides certainty that views will be preserved
- ensures access to open space
- lowers maintenance costs
- provides potential for community parks
- enhances property values

Advantages to community:

- protects scenic views
- helps preserve rural character
- allows for continued agriculture
- improves habitat protection
- lowers service costs

## THINGS YOU SHOULD KNOW:

- A 1995 nationwide survey of prospective home buyers conducted for a group of large-volume home builders found that consumers rated “lots of natural open space” as an “extremely important” feature in new residential development. In fact, open space rated second overall out of 40 possible features.
- In its designated rural areas, Fauquier County requires that 85 percent of the land be permanently protected. A variety of subdivisions have been built to these standards.
- Isle of Wight County requires preservation of 50 percent of land in its Rural Preservation District.
- A National Association of Home Builders comparison of a conventional layout versus a clustered layout with 20 percent preserved open space found that the open space design cut development costs by one third.

## The Conservation Design Concept

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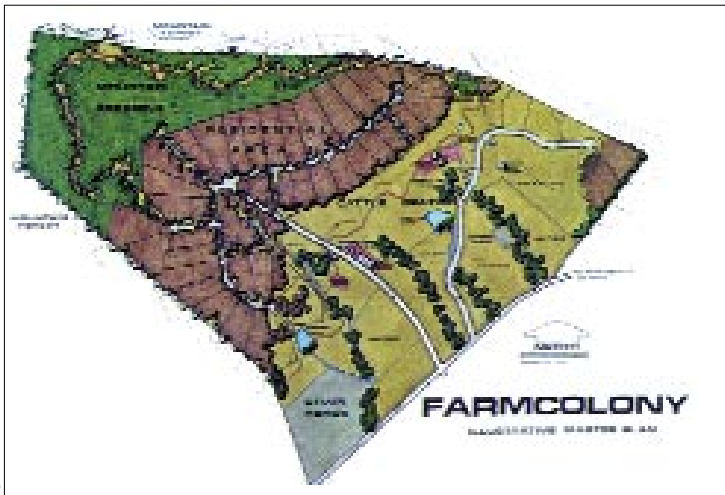
In his book *Growing Greener: Putting Conservation into Land Codes*, land use expert Randall Arendt explains how open space design works.

Designing subdivisions around the central organizing principle of land conservation is not difficult. However, it is essential that ordinances contain clear standards to guide the conservation design process. The four-step approach described below has proven to be effective in laying out new full-density developments where all the significant natural and cultural features have been preserved.

**Step One** consists of identifying the land that should be permanently protected. The developer performs a detailed site analysis in order to precisely locate features to be conserved. The developer first identifies all the constrained areas, such as wetlands, floodplains, and steep slopes, called *Primary Conservation Areas*. The developer then identifies *Secondary Conservation Areas*, which comprise noteworthy features of the property that are typically unprotected under current codes: mature woodlands, greenways and trails, river and stream corridors, prime farmland,



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The master plan for Farmcolony in Greene County clusters homes to protect farmland and the mountain background, as shown in the photo and map above.

- A study of home values in two subdivisions that are nearly identical except that one reserved 50% of the site as open space found that the clustered homes appreciated 12.7 percent more than those in the conventional subdivision, despite having smaller lots.
- The Maryland Planning Office estimates that the same housing density accommodated on one-acre lots saves approximately \$3,500 per lot in development costs compared to five-acre lots.



© WINTERGREEN

Wintergreen in Nelson County clusters homes to preserve natural areas.

hedgerows and individual free-standing trees or tree groups, wildlife habitats and travel corridors, historic sites and structures, scenic viewsheds, etc. After “greenlining” these conservation elements, the remaining part of the property becomes the *Potential Development Area*.

**Step Two** involves locating sites of individual houses within the Potential Development Area so that their views of the open space are maximized. The number of houses is a function of the density permitted within the zoning district.

**Step Three** simply involves “connecting the dots” with streets and informal trails, while **Step Four** consists of drawing in the lot lines.

This approach reverses the sequence of steps in laying out conventional subdivisions, where the street system is the first thing to be identified, followed by lot lines fanning out to encompass every square foot of ground into houselots. When municipalities require nothing more than “houselots and streets,” that is all they receive. But by setting community standards higher and requiring significant open space as a precondition for achieving full density, officials can effectively encourage conservation subdivision design. The protected land in each new subdivision would then become building blocks that add new acreage to community-wide networks of interconnected open space each time a property is developed.

#### **FOR MORE INFORMATION:**

*Growing Greener: Putting Conservation Into Local Codes*, Natural Lands Trust, 1031 Palmers Mill Road, Media, PA 19063; (610) 353-5587.

*Preserving Rural Character*, by Fred Heyer, PAS Report # 429, 1990, American Planning Association Planners Book Service, 122 S. Michigan Ave., Suite 1600, Chicago, IL 60603; (312) 786-6344.

*Rural Areas Land Use Plan*, Fauquier County, Virginia, December 1995, Department of Community Development, (540) 347-8703.

*Rural By Design*, by Randall Arendt with Elizabeth Brabec, Harry Dodson, Christine Reid, and Robert Yaro, 1994, American Planning Association, American Planning Association Planners Book Service, 122 S. Michigan Ave., Suite 1600, Chicago, IL 60603; (312) 786-6344.