

Building Livable Communities

Jefferson Area Eastern Planning Initiative

How will we live?

Building Livable Communities

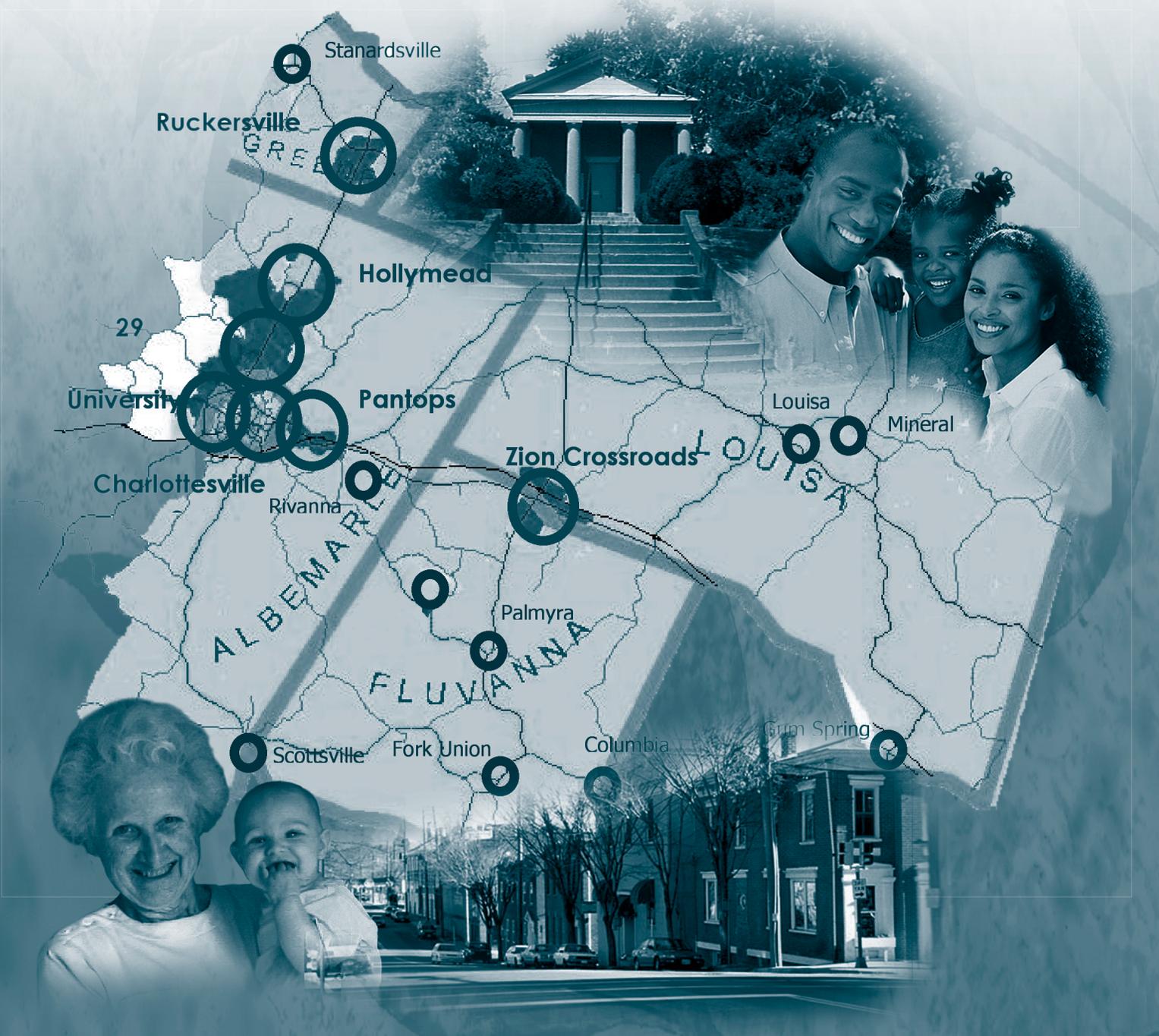
Where will we live?

Building Regional Agreements

How will we get there?

Building Success

Changing where and how we grow — by building around historic town centers in walkable, village scaled development patterns - could save \$500 million in transportation system investments over the next 50 years. It would also preserve more forests and farms, provide better access to jobs, reduce congestion, save energy, and protect water quality.



Sustainability Accords of 1998

These Sustainability Accords - or principles to guide regional growth - were “plugged into” the EPI computer model and used to compare how different growth patterns would affect our environment and quality of life. (see results in table on p.4)

- Encourage strong ties between urban and rural areas
- Strive for a size and distribute the human population in ways that preserve vital resources
- Retain the natural habitat
- Ensure water quality and quantity are sufficient to support people and ecosystems
- Optimize the use and re-use of developed land and promote clustering
- Promote appropriate scale for land uses
- Retain farm and forest land
- Develop attractive and economical transportation alternatives
- Conserve energy
- Provide educational and employment opportunities
- Increase individual participation in neighborhoods and communities



Downtown Charlottesville, an urban-mixed use community, is one of nearly twenty community types in the EPI study area

How will we live?

BUILDING LIVABLE COMMUNITIES

The small city and rural areas that make up the Charlottesville, Virginia region are growing rapidly. While growth stimulates new economic and cultural resources, many are concerned that the natural beauty of the Blue Ridge Mountains and the historical ambience of Monticello are being encroached upon by strip commercial development and dispersed subdivisions. These concerns prompted the Sustainability Council of the Thomas Jefferson Planning District Commission (TJPDC) to develop the broadly supported 1998 “Sustainability Accords” listed to the left.

In January 2000 the TJPDC launched the Jefferson Area Eastern Planning Initiative (EPI) with a grant from the Federal Highways Administration (FHWA) Transportation & Community & System Preservation (TCSP) program. The EPI Advisory Committee, made up of elected officials, residents, and leaders from business, development, environmental and community groups, met eleven times and hosted four public workshops during the two-year study, focusing on three key questions:

- How will we live? – In what types of communities do we want to live and work by the year 2050?
- Where will we live? – What areas in the region are suitable for urban development and what areas are off limits?
- How will we get there? – What steps are needed to move the region from where it is now to the desired types of communities and growth patterns?

NOTE: The EPI is called “The Eastern Planning Initiative” because our funding required us to study the faster-growing, or Eastern, portions of the five-county region. Although not part of the original study, Nelson County has recently adopted a new Comprehensive Plan based on the EPI principles.

HOW WILL WE LIVE? COMMUNITY ELEMENTS

How can community design improve everyday quality of life? The project team developed drawings and spreadsheets describing the physical characteristics of 17 existing community types or “elements” throughout the region, from Charlottesville neighborhoods to small towns like Stanardsville and Palmyra. Each element was scaled to a ½ mile circle, about a 5-minute walk from edge to center, which made it easy for participants to visualize and compare them. Residents evaluated the community elements based on personal perspectives and the regional Sustainability Accords. The team then developed enhanced urban and suburban community elements, showing how more compact growth could occur over time.

DESIGNING DESIRABLE COMMUNITIES

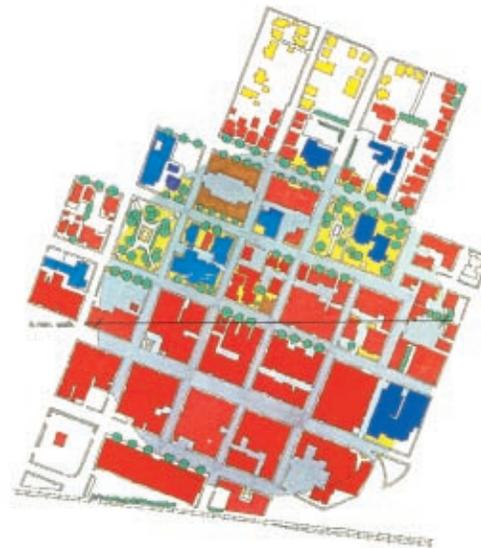
These design principles were developed by observing our region’s historic communities, and can be applied to downtown neighborhoods, growing suburbs, or rural small towns.

- Create a focal point that establishes community identity
- Provide a variety of activities to encourage interactions and improve convenience
- Design buildings and distances at a pedestrian scale
- Provide options to walk, bike, drive, and use transit
- Make open spaces accessible and available

Urban Mixed-use



East Market Street



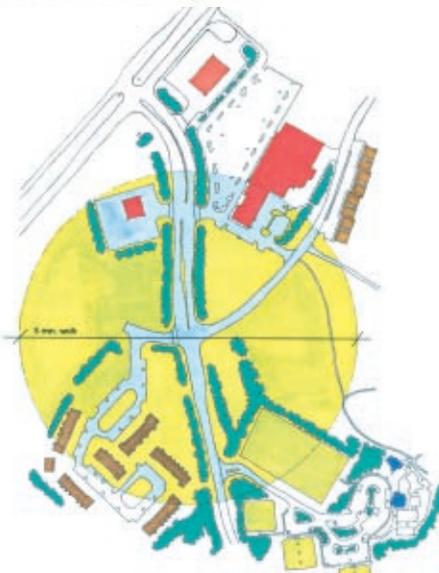
Urban Mixed-Use



The “community element” diagrams were based on a variety of existing downtown, suburban, and small town neighborhoods. The Urban Mixed-Use element at right combines a healthy mix of housing, work places, shopping, culture and recreation within a 5-minute walk. According to the US Census, over 16% of Charlottesville residents walk to work.

Enhanced Suburban Mixed-use

How it Is Today.....



Suburban Mixed-Use



How it Could Develop



Enhanced Suburban Mixed Use



The diagram on the left shows a typical Suburban Mixed-Use development, with shopping, offices, apartments and homes separated and “buffered”- and too far apart to make walking possible or transit workable. At right, the Enhanced Mixed-Use diagram shows how the same neighborhood could be developed more compactly, over time into a walkable, workable “transit target”.



Clustering growth in strategically placed, high quality communities allows the region to preserve rural vistas and historic areas.



Small town businesses thrive when land development and transportation are designed to ensure villages are the focal points for rural areas.

Where will we live?

REGIONAL GROWTH SCENARIOS

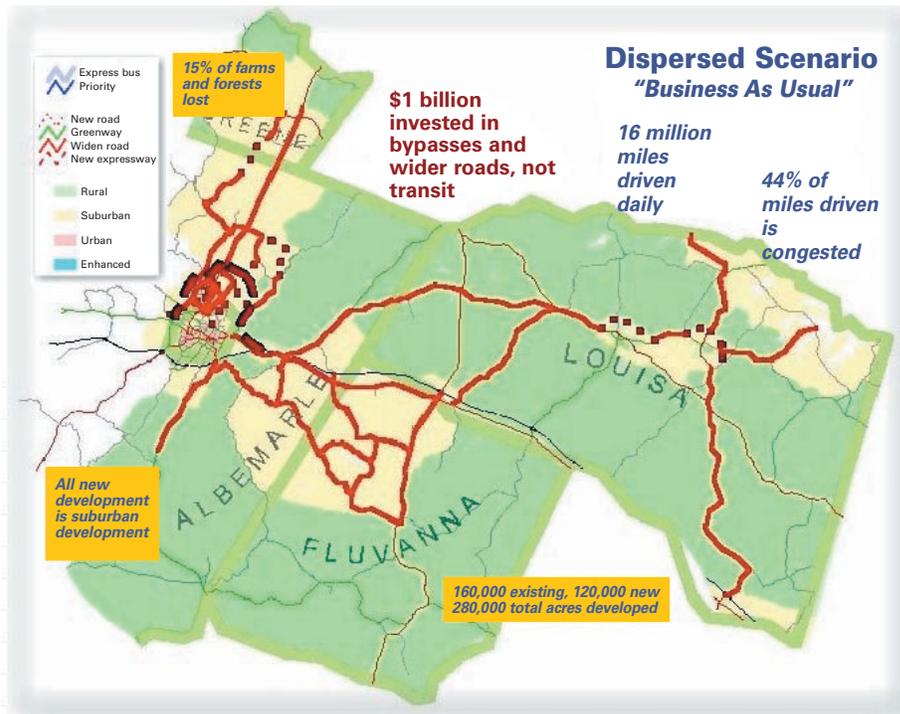
Through games developed by the project team, residents created maps of possible future development patterns by clustering community elements. Using the CorPlan model, the team converted the maps into three scenarios that compared impacts on transportation, land consumption, and other factors from the Sustainability Accords. The reaction from the public at the workshops was clear: residents rejected a dispersed, low-density pattern, and preferred clustered enhanced communities along major corridors and key crossroads.

The Dispersed Scenario to the right shows what can happen by the year 2050 if recent development trends continue. Suburban communities (yellow) will continue to spread north along US 29 and east along US 250. A large network of wider roads and bypasses costing about \$1 billion will be needed, and transit will not be feasible outside the core city.

The Town Centers and Urban Core scenarios, by contrast, feature urban (red) and enhanced suburban (blue) community elements as the building blocks for development. Growth would be concentrated in and around Charlottesville, with varying options for growth at major crossroads (Town Centers) or around existing villages and towns (Urban CoreL and CoreM).

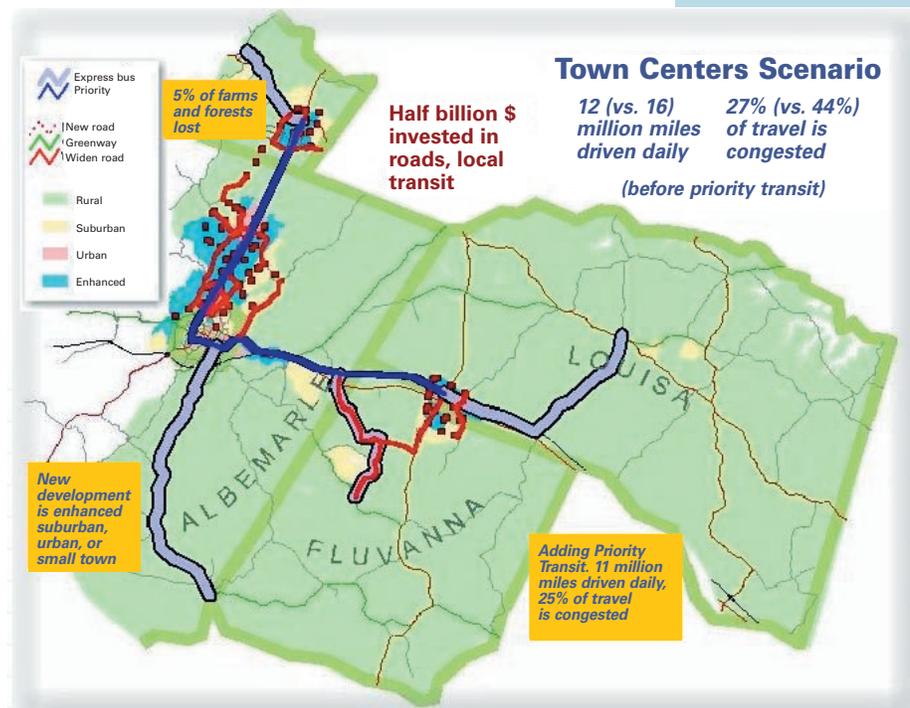
The transportation system for the alternative scenarios is based upon a pedestrian-friendly street network in the development areas and allows for extensive expansion of the transit system, including rail or bus rapid transit if the community wishes. Large freeways around the city would not be necessary. The street system would cost about \$500 million, half as much as the network required by the Dispersed Scenario. The table below shows some real differences in the scenarios. While all would accommodate the same anticipated growth of people and jobs, the alternative scenarios would consume much less land and reduce overall roadway congestion significantly.

HOW THE SCENARIOS COMPARE			
PERFORMANCE MEASURE/ <i>Sustainability Accord(s) Goals (in italics)</i>	DISPERSED	TOWN CENTERS	URBAN CORE
Percent Farms & Forests <i>Retain resources/habitat/farms/forests</i>	55 %	64 %	65 %
Percent Developed <i>Retain resources/habitat/farms/forests</i>	45	36	35
Percent Living in Clustered Communities <i>Optimize use/human scale</i>	13	61	68
Percent Non-Auto Trips <i>Transportation Alternatives</i>	4	15	18
Annual Gallons Gas Consumed (billions) <i>Conserve Energy</i>	155	121	110
Percent Travel Congested <i>Employment/Education Access</i>	44	27	20
Water Quality & Quantity <i>Water Quality & Quantity</i>	Poor	Good	Good



The Dispersed Scenario assumes “business as usual” growth sprawling across large parts of the landscape, shown in yellow. It would also require \$1 billion in investment for new bypasses and wider roads. Even with the new roads, nearly twice as much travel would be congested as in the alternative scenarios.

In the Town Centers scenario, more compact new growth covers less land and provides more real choices for getting around. Simply shifting one out of six car trips to walking, biking or transit would reduce the need for another \$500 million in roadway investments.

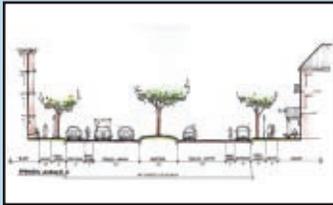


The Urban Core Scenario (not shown) in which development was clustered more intensely around the existing City and one or two towns, took slightly less land area and resulted in less congestion and more non-auto trips than the Town Centers Scenario. Both more compact scenarios performed far better than the Dispersed Scenario – see “How the Scenarios Compare” on page 4.

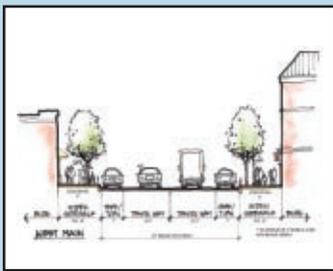
New roadway design standards can help create more walkable communities, an enhanced business environment, and still move lots of cars efficiently.



Boulevard Streetscape



Four-lane cross section



Two-lane cross section

Featuring sidewalks and amenities such as landscaped medians, boulevards have design speeds of 35 mph or less and daily traffic volumes of 30,000 or less.

From Livable Communities to Regional Agreements

WILL THE REGION GROW?

The VA Employment Commission forecasts study area growth from 180,000 now to 330,000 by the year 2050. This was the target used for the EPI, but no one can predict with any certainty how much the region will grow. The important point is for a region to prepare for the future by agreeing on where and how growth should occur. Well-designed, strategically located growth allows a region to increase mobility and reduce congestion while preserving rural areas and cultural resources.

WHAT IS A COMMUNITY, AND HOW DOES ITS DESIGN AFFECT TRANSPORTATION?

Physically, communities are small places, about a quarter mile in diameter, where buildings, streets and activities are interconnected. The EPI scenarios were created by clustering urban or enhanced suburban communities to form a variety of distinct areas about a mile in diameter. These community clusters feature vibrant commercial cores surrounded by walkable residential communities, like downtown Charlottesville is today. Because the cluster features a variety of activities close together, walking, bicycling, and transit are pleasurable and practical. The EPI model predicts that walkable communities can shift one in six car trips to a walk or bike trip, which reduces roadway congestion noticeably. The preferred scenarios also include bus routes to all developed areas which can be expanded to bus rapid transit or rail as the region grows.

WHAT KINDS OF COMMUNITIES ARE BEST?

It's about choice. Some people like urban areas, some prefer small towns, and others want wide-open spaces. Regardless of size, well-designed communities include gathering points, clear boundaries, and a mix of activities close enough to encourage walking. When livable communities are located strategically around a region, more people have the choice to live near jobs and community activities while enjoying a high quality of life.

WITH MORE PEOPLE WALKING, BIKING AND USING TRANSIT, ARE NEW ROADS NEEDED?

Some new roads will be needed to support the preferred scenarios, but the proposed urban street networks are highly cost-effective and have few environmental impacts compared to the major bypasses required by the dispersed scenario. An urban network can be created by enhancing, connecting and adding some new suburban and urban streets in strategic places to set a walkable framework. The system includes main streets in town centers, avenues in smaller communities and local streets in neighborhoods. The centers are connected by boulevards lined with shops and restaurants and designed for cars, buses, bikes, and pedestrians to share.

HOW CAN EACH LOCALITY THRIVE IN A GROWING REGION?

The urban, enhanced suburban, and small town clusters in the preferred scenarios feature a balance of jobs and housing in each locality, generating a mix of business and residential tax revenues. The Dispersed Scenario, by contrast, projects that rural areas will fill up with suburban housing but few other activities. This situation ultimately puts localities into a "catch-22" cycle: they compete with their neighbors to attract businesses that help pay for the services triggered by bedroom growth – but then find that the new jobs and shopping draw even more residents. Alternatively, regions that agree upon a vision for strategically located, high-quality development can work together to ensure that each community attracts a healthy mix of jobs and population.

Dispelling the Myths

MYTH 1 – WE CAN BUILD OUR WAY OUT OF CONGESTION

Building new freeways and widening roads encourages development to spread, making trips longer and causing growth in overall vehicle miles traveled. The net result is more congestion. The EPI found that the number of congested miles driven under the Dispersed Scenario is nearly twice that of the Town Centers and Urban Core Scenarios despite adding twice the number of roadway lane miles.

MYTH 2 – DENSITY CAUSES CONGESTION

It is logical to think that more density leads to more congestion. But combining local trips into well-designed compact development areas actually reduces congestion for two reasons: 1) typical trips are shorter, resulting in fewer vehicle miles driven, and 2) people can choose to walk, bicycle or take transit at least some of the time. The EPI analysis confirms this. The more compact Town Centers and Urban Core Scenarios result in half the congestion of the Dispersed Scenario with far fewer road investments.

MYTH 3 – DENSITY IS UNATTRACTIVE AND NOT MARKETABLE

The EPI scenarios, in response to strong preferences expressed by local residents, don't call for any new or existing communities to exceed the density of downtown Charlottesville (buildings up to four stories high and five or fewer single family homes per acre). The urban and enhanced suburban communities are able to accommodate more people and jobs by organizing streets, parking, public spaces and buildings more efficiently so suburban places can gradually fill in with attractive, livable amenities. It is primarily the proximity and improved connectivity of the enhanced elements that allows more people to live and work in them, not always bigger buildings or smaller yards. Nationally, these types of community designs are faring quite well in the marketplace.

MYTH 4 – CONTROLLING GROWTH CAUSES HOUSING PRICES TO INCREASE

Limiting the amount of developable land would raise housing prices if demand exceeded supply. But all of the EPI regional scenarios allow enough land for the anticipated growth. The amount of land needed for new development under the Dispersed scenario is twice what is needed for the other scenarios because virtually all new development would spread into suburbs and rural areas. The alternative scenarios assume that new development would be focused in urban centers, enhanced suburban communities, small towns and villages. These mixed-used community clusters naturally feature a variety of housing types and prices, just as they do today in downtown Charlottesville and the village of Palmyra. Localities can further boost a variety of housing in targeted areas through incentives such as location-efficient mortgage programs and regulations such as inclusive zoning.

MYTH 5 – EVERYWHERE WILL LOOK LIKE DOWNTOWN CHARLOTTESVILLE

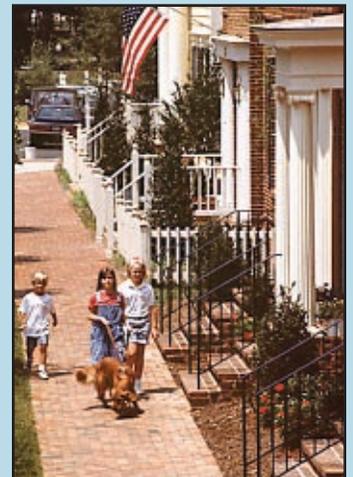
Participants at EPI workshops and the Advisory Committee agreed that a wide variety of community types and land uses were desirable. The key to improving future development is to make enhancements to several community types, especially in suburban areas, such as giving them focal points and making them walkable. The alternative scenarios feature a variety of community types including urban, enhanced suburban, and traditional suburban areas as well as small towns and villages. Many people will also choose to live in rural areas, but the convenience and attractiveness of the targeted development centers will help localities target most new growth to community centers and preserve open spaces rather than having no choice but to spread out into farm and forestland.



Small, usable parks are a key element of compact development.



Compact neighborhood development can help preserve rural character.



Walkable neighborhood streets make it easier for kids to get around safely.

“Wisdom holds that land use and transportation planning go together like a horse and cart, but this is the first planning effort that hitches them together.”

*Sally Thomas,
Member of EPI Advisory Committee,
MPO Policy Board & Albemarle
County Board of Supervisors*



*Thomas Jefferson – America’s
father of sustainability and
innovation – charged us with
considering the needs of future
generations as we plan for our
communities’ growth.*

How will we get there?

BUILDING SUCCESS

The Advisory Committee and the public agree that business as usual is not a preferred course. They also agree that changing course could be quite a challenge. They asked questions such as: Is it possible to build walkable communities in our auto-oriented society? Is it possible to cluster communities in areas where growth makes sense? Is it possible to change the way roads are planned and built? Is it possible for all localities to agree on a coordinated approach? What happens if not everyone buys into this new approach?

To address these challenges, the Advisory Committee recommends that the localities in the region work together to achieve the keys to success listed to the right. Some have already been initiated or are under consideration. Albemarle County has defined designated development areas in its comprehensive plan and recently incorporated the Neighborhood Model, a blueprint for livable communities, into its plan. Fluvanna County is updating its zoning ordinance; Nelson County is incorporating community elements into its comprehensive plan and zoning ordinance. Charlottesville recently completed a Commercial Corridor Study to promote livable communities and is rewriting its zoning code, and Greene County is now embarking upon a comprehensive plan update. TJPDC just completed a Regional Economic Development Plan and is developing the UnJAM 2025 transportation plan that meshes the MPO’s goals for the urban area with new visions for the rural areas.

The Advisory Committee lauds the region’s localities for all their efforts to work toward a sustainable future and presents this study as an important resource in taking another important step forward.

KEY SUCCESS FACTORS: A REGIONAL AGENDA FOR CHANGE

- Build in designated development areas
- Maintain viability, character, and scale of small towns
- Maintain development area boundaries
- Build quality communities by using urban or enhanced suburban designs in development areas.
- Preserve rural areas
- Coordinate investments so infrastructure supports and directs desired development
- Ensure regional equity so that the benefits and fiscal impacts of development are shared fairly among the localities in the region
- Ensure affordability with incentives such as inclusionary zoning and location-efficient mortgage programs.

The CorPlan model can be downloaded from FHWA free to any interested parties. Other EPI products available from FHWA include detailed reports from the study, and a handbook for other communities interested in trying a similar approach. For more information, visit www.fhwa.dot.gov/tcsp or contact Felicia Young of the FHWA, felicia.young@fhwa.dot.gov; (202) 366-1263.

For more information on the TJPDC’s ongoing work in sustainable transportation and land use planning, visit www.tjpd.org or contact Executive Director Harrison Rue at hrue@tjpd.org, (434) 979-7310.