Sustainable Development and Livability in Rural Regions

Harrison Rue

NADO Rural Transportation Conference

August 25, 2011

Overview

- What is livability/sustainability in transportation?
- FHWA/FTA research & resources
- Examples of innovative plans and realistic projects at the local, regional, and state levels
- What livability means in small towns & rural areas
- The power of the multimodal network

HUD-DOT-EPA
Sustainable Communities Partnership

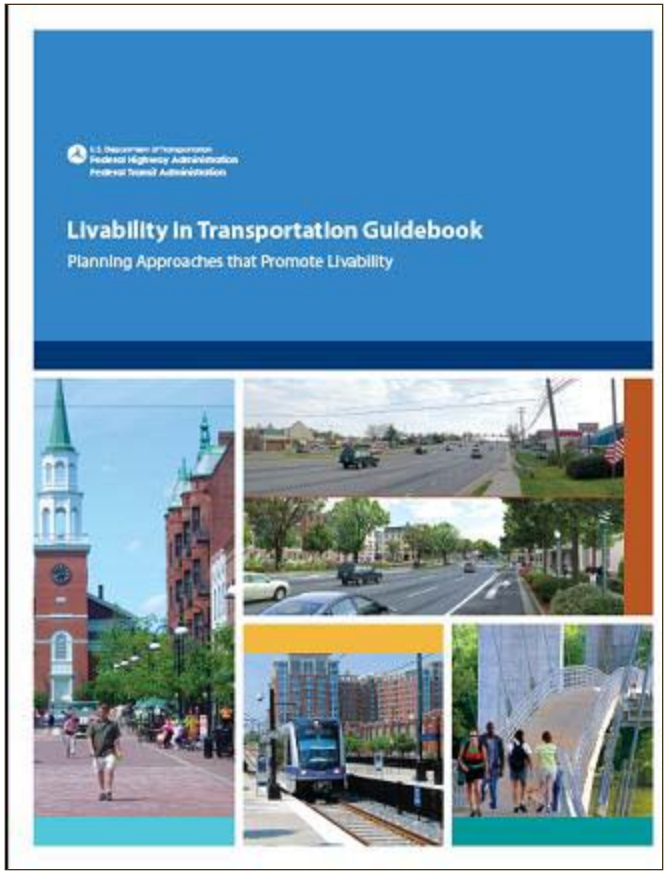
- Aims to improve access to affordable housing, provide more transportation options, and lower transportation costs while protecting the environment in communities nationwide
- Encourages livability principles to be incorporated into Federal programs & funding
  - Making progress through: DOT TIGER grants coordinated with HUD grants, FTA innovative transit funds, HUD Sustainable Communities grants, HUD-DOT participation in EPA's Smart Growth program, and other initiatives

HUD-DOT-EPA Livability Principles

- Provide more transportation choices
- Promote equitable, affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate and leverage Federal policies and investment
- Value communities and neighborhoods

Livability in Transportation Guidebook

- Developed by FHWA & FTA
- Designed as a general practitioners resource
- For use by State DOTs, MPOs, RPOs. and others in the advancement of livable communities
- Includes rural examples



Available on the FHWA Livability Website

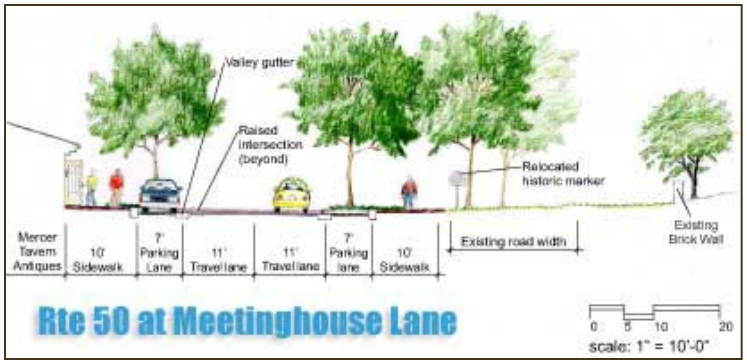
http://www.fhwa.dot.gov/livability/case_studies/guidebook/

Livability in Transportation Guidebook Table of Contents

- Executive Summary
- Introduction
- Project Highlights
- Visioning
- Planning and Process
- Policy
- Partnership
- Design
- Implementation and Funding
- Conclusion

Why now?

- We have built one of the world's largest and best highway networks
- We have not yet put the same effort into completing a system that works as well for walking, wheeling, or taking transit
  - Balanced approach can maximize the effectiveness of existing investments
  - By targeting transportation funding to support reinvestment in existing communities, we can build more choice, convenience, and cost-effectiveness into the transportation system



Livability in Transportation: Background

- Long practiced at local & regional level
- Many state policy efforts
- Variety of 'brand names'
  - livability, sustainability, smart growth, walkable communities, new urbanism, healthy neighborhoods, active living, transit-oriented development, complete streets, etc.
- The common element is that transportation planning is no longer a stand-alone exercise

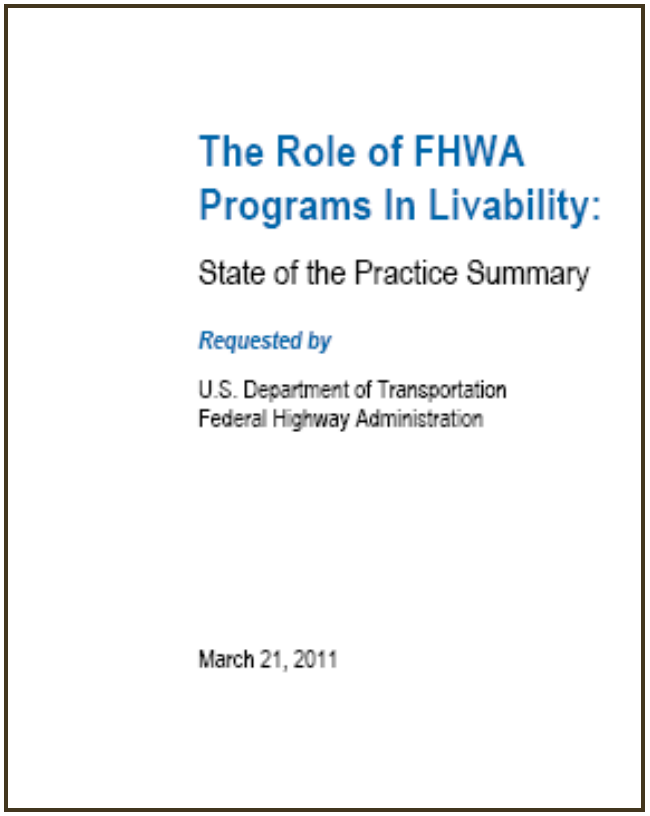
What is livability in transportation?

Livability in transportation is about using the quality, location, & type of transportation facilities & services available to help achieve broader community goals such as access to good jobs, affordable housing, quality schools, & safe streets. This includes:

- **Addressing road safety & capacity** issues through better planning & design
- **Maximizing & expanding new technologies** such as intelligent transportation systems & quiet pavements
- **Using travel demand management** approaches in system planning & operations
- **Developing high quality public transportation** to foster economic development
- **Community design** that offers residents & workers the full range of transportation choices
- **Strategically connecting the modal pieces** - bikeways, pedestrian facilities, transit services, & roadways-into a truly intermodal, interconnected system

The Role of FHWA Programs in Livability
State of the Practice Summary

- More current research on:
  - Role of Highways and Highway Programs
  - Strategies for Implementing Livability
  - Processes, Performance Measures, and Tools



Available on the FHWA Livability Website

http://www.fhwa.dot.gov/livability/state_of_the_practice_summary/

Livability and Sustainability

Commonalities and Differences between Livability and Sustainability

Since before the nation's founding, sustainability has traditionally meant meeting the needs of the present without depleting resources or harming the environment for future generations (paraphrased from President Thomas Jefferson, 1789). More recently, livability has referred to community quality of life, including transportation and housing choice and access.

Key Commonalities. Livability and Sustainability both:

- Address issues of social equity (e.g., the needs of low income, young and old, disabled, and minority populations).
- Address issues of human health (livability focuses more on 'active living'-type strategies; sustainability focuses more on environmental air/water quality-type impacts).
- Promote more environmentally sustainable travel options.
- Promote economic development (at different scales)

Key Differences.

- Sustainability includes a long-term, multi-generational focus (meeting the needs of the present while protecting natural and historic resources for future generations).
- Sustainability addresses larger environmental goals such as improving water and air quality, reducing climate impacts, increasing energy efficiency, and decreasing dependence on foreign oil.
- Livability can be less specific about larger environmental goals (although the Livability Principles include specific environmental outcomes).
- Livability includes more detailed strategies to improve travel choices and accessibility, lower transportation and housing costs, coordinate Federal policies and investments, and support neighborhoods and communities.

Research Results

- Agencies have implemented livability in transportation by creating safer, more balanced local and regional multimodal roadway networks
- Creating livable transportation systems requires an interdisciplinary approach
- Livable transportation plans &projects are most successful when planned in support of broader community goals
- Majority of implementation projects occur at the local scale –with MPO/RPO/State partners & funding
- Significant differences between rural or gateway communities, urban, and suburban areas,

Roadway solutions vary in scale

- Roundabouts and road diet in Hamburg NY improved capacity, safety, and business access.
- Charlotte's rebuilt I-277 interchange
  - helped reconnect surrounding surface streets
  - improved walkability with sidewalks, crosswalks and medians
  - created redevelopment sites connected to downtown

M&O and TDM strategies applied at urban and rural scales

- Pittsburgh's **ParkPGH** technology helps drivers find available parking near downtown cultural events
- Smartphone 'app' provides the number and price of available spaces in all nearby garages, with data updated each minute through video cameras at each entry/exit

Grand Canyon South Rim Visitor Transportation Plan

- ITS traveler info, parking, and new shuttle bus service has increased Park access while reducing vehicle traffic

Benefits of Incorporating Livability

Transportation and land use — support compact, connected communities
- Small 'town center' development
- guide growth to protect natural and working lands

Environmental — reduced footprint
- Reduced GHGs from increased walking/biking
- Compact development requires less land

Health and social — reduced obesity, improved sense of community
- Increased convenience for walking/biking to destination
- Public places created

Economic — efficiently use available resources and boost local economy
- Improve multimodal access to jobs;
- reinvent/reinvest in existing corridors

Regional strategies

Working at the regional scale

- Regions are the right scale for federal & state agencies to work with communities
- MPOs, RPOs & COGs have been integrating transportation, land use, housing & environmental planning effectively
- Federal partnership is helping to support & expand those approaches
- Business & development participation is essential for success


Thomas Jefferson Planning District Commission
12 Commissioners
Representative sample of TJPDC's continuing efforts in each program area
Community Participation
Local Governments
Sustainability Accords
Transportation
* Metropolitan Planning Organization
UnJAM 2025
29H250 Project
Hillsdale Traffic Safety Study
Rural Transportation
UnJAM 2025
Nellysford Safety Study
Scottsville Road Design
Bike & Walk
Bike, Pedestrian & Greenways Plans
Walkability Workshops
RideShare
Carpool Matching
Guaranteed Ride Home
Park & Ride Lots
SchoolPool
Commuter Information Team
Community Planning
County Comprehensive Plans
Design Manual For Small Towns
Eastern Planning Initiative
Charlottesville Consolidated Plan
Community Planning Assistance
Legislative Liaison
Legislative Newsletter
Legislative Program
Final Legislative Report
Communication & Participation
Website www.tjpdc.org
eNews
Hands-on Public Workshops
Training Workshops
Conferences
Data & Mapping
Mapping & Graphic Services
Regional Facts
Weldon Cooper Statistics
Sample Maps
US Census Data
Housing & Human Services
HOME Consortium
Housing Directors Council
Mixed Use Conference
Homeless MIS
Homeless Services Support
* Disability Services Board
Disability Etiquette Training
Needs Assessment
Universal Design Library
Guide to Services
Employer of the Year Award
Environment
Moore's Creek TMDL Project
Rivanna River Basin Project
Regional Solid Waste Management Plan
Darden Towe Kiosk
Workforce & Economic Development
* Local Workforce Investment Board
One-Stop System
Employer Services
Job Seeker Services
MetroTech
Youth Programs
Regional Economic Development Plan
Thomas Jefferson Venture
* Denotes separate Board staffed by TJPDC

Getting there

- Integrated regional strategies
  - Transport, housing, infrastructure, envionment
- Hands-on public participation
- Interagency project teams
- Coordination of plans & projects
  - Across jurisdictions & agencies
  - Include multiple programs & funding
- Plans incorporate action agendas

Effective public process

1. Identify community values
2. Combine programs & problems
3. Bring everyone to the table
4. Use process to educate, train, and introduce innovative solutions
5. Develop scenarios to test all issues
6. Use science to model the visions
7. Incorporate preferred scenario into project programming and funding

Bring everyone to the table

UnJAM 2025 WorkBooks

- **Discuss & mark-up page by page together**
  - **Blueprint-sized**
  - **group workbook**

This WorkBook is based on your ideas from the UnJAM Round 1 workshops. The MPO Citizens' – or Committee has been reviewing and expanding on those ideas, and working with staff to develop the Un 2025 Plan. Your input tonight will help to refine and prioritize these concepts.

As suburban development has spread outward from Charlottesville over the past fifty years, the transpo infrastructure has not kept up with either the pace of development – or with the needs of the families ar businesses who made the move. The UnJAM Plan's focus is on completing the system, improving safety mobility of all modes, and making the best use of our existing roadway investments.

Pedestrian Friendly Streets and Highways
- Complete and connect sidewalk system
- Safe, usable crosswalks with pedestrian refuges
- Better lighting, signage, landscaping and signals

Complete Bicycle Network and Amenities
- On-road bike lanes on urban streets
- Off-road multi-purpose trails along major corridors
- Protected parking at all destinations

Efficient Transit System integrated with other travel mode
- Bus Rapid Transit (BRT) for fast, frequent service on major corrid
- Commuter Express service to outlying areas
- System improvements for downtown and neighborhoods
- Technology implementation to maximize efficiency and convenienc

Improved, Expanded Roadway Network
- More complete network of parallel and connector roads
- Re-engineer existing major roads for increased capacity, safety, and enhanced business environment
- Develop new roadway designs for balanced, multi-modal performance

Safe & Efficient Freight Movement
- Separate freight movements from passenger travel where possible
- Support on-time delivery needs of business and industry

Policy and Regulatory Changes
- Amend codes and standards to encourage more flexible roadway and development designs
- Adjust funding formulas to deliver a truly multi-modal system
- Expand modeling and forecasting capabilities to coordinate transportation and land use planning


Safe Pedestrian Environment


Freight

Re-Engineering Roadways

We can stretch limited transportation funding by making better use of existing roadways. New intersection and corridor designs can improve safety, capacity, and convenience – while stimulating economic development. Since most congestion is caused by signals at intersections, it is more cost-effective and safer to fix the intersections than to widen the entire road.

Meadow Creek Parkway was originally designed as a wider, higher-speed, road. Both City and County sections were redesigned as a 2-lane, lower-speed parkway with multi-purpose trail. Grade-separation and/or roundabouts at intersections like Rt. 250 & McIntire would keep traffic flowing freely while improving pedestrian and bicycle connections to the park.

- *Should VDOT roadway standards be changed to allow these kinds of designs from the start?*
- *Meadow Creek from 250 to Rio is programmed for construction. Should Phase 2 north of Rio be a priority?*

Route 29/Hydraulic/250 The Rt. 29/250 corridor can work more efficiently for both local and through traffic by re-engineering key intersections like Hydraulic, Greenbrier, Rio, and Airport Rd. If coupled with parallel roads, better connections through shopping centers, and priority transit, roadway capacity could be increased.


Hwy 192 in Santa Barbara is a major highway that could cut off the central business district from the waterfront. The underpass is carefully designed for walking, biking, and transit, and the pedestrian district is built out right up to the highway.


Dupont Circle – where Rt. 29 passes through downtown DC – carries lots of traffic through a vibrant, walkable business district. Careful separation of through and local traffic reduces conflicts and increases capacity and safety for all modes.

- *Should workable alternative designs be developed for the 29/Hydraulic/250 area, instead of widening for more turn lanes?*
- *Should the Hydraulic/250 and Hillsdale /Hydraulic intersections be included in the study?*
- *How can we best consider the needs of area business and property owners?*

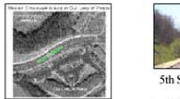
Roundabouts were a popular Round record for dramatically improved safety and bike crossings, and increased capac the new Airport intersection, with conc Hillsdale Drive and Rt. 20 in Scottsville


Roundabouts make drivers slow down as they approac of people and vehicles to reduce conflicts and increase

- *What kind of education & awaren alert drivers to newly installed*
- *What other locations should be a (see map next page)*
- *Landscaping in the islands is nee work. Who should be responsi*

Hillsdale Drive Traffic Safety JAB businesses and residents worked with V develop age-friendly pedestrian improve The improvements would better link residents with services, shopping, and transit, and improve connections to the Rivanna Greenway.


Typical Median Crosswalk


Proposed Hillsdale crossing

- *Will the median crosswalks help seniors and kids to cross the road more safely?*
- *Should making streets age-friendly receive more priority in roadway design?*
- *What other major streets need attention?*

and goods without dividing neighborhoods.


5th Street Extended


W. Main St. Corridor

- *What kinds of designs are appropriate for roads like Fontaine, Ivy, Georgetown, Airport, Monticello, and 250 East?*
- *Could West Main between downtown and UVA be redesigned to improve walking, biking, and transit service?*
- *With more convenient off-street parking, peak hour lane priority, and technology, could transit operate faster?*

New Roads

There are several proposed new roadways, many of which have been in the Long-Range Transportation Plan for years, and others that are new ideas. Some of the older identified routes could also be a modified design along the lines of those discussed on the previous page.

Southern Connector: A connector between expanding southern neighborhoods would allow residents to connect and access services without clogging City streets. Three potential routes have been identified: inside 64 from Avon Street to 5th St., outside 64 from Avon to 5th, using Southern Parkway near Mill Creek, and outside 64 from Route 20 to Old Lynchburg Road. In either case, the road could be a lower-speed neighborhood street or parkway.

- *Which route should be developed first,and why?*
- *What kind of design should be used?*

Eastern Connector: Several potential routes have been identified to connect northern neighborhoods to eastern, and move traffic from 29 to 250 East or I-64 without clogging downtown. Ideas include: close-in short connectors running from 250 to Rt 20; neighborhood streets connected through subdivisions north of 250; new routes from Rt 20 to Rio Road near Pen Park or above Key West; a new road from 20 to Polo Grounds, or improvements from 20 to Proffit Rd. Many options could tie-in to the Meadow Creek Parkway.

- *Is it better to make the connections close or farther out?*
- *What are the advantages and obstacles in each case?*
- *Which option(s) should be a priority?*

North Grounds Connector: This connector would run from Rt. 250 to UVA. It could connect to the new parkway idea (discussed above) with a much lower-scaled grade separated interchange. One option being explored would have a roundabout at each off-ramp, to keep traffic moving smoothly while permitting bike and pedestrian crossings. The connector is recommended as a 3-lane roadway.

- *Should the North Grounds Connector be allowed to connect to 250 at-grade, or be required to have a tight grade-separated interchange?*
- *What are the advantages and obstacles in each case?*

Western Bypass: This long-studied and controversial roadway alignment is currently on hold while alternatives are being explored. One alternative that has been suggested would consider a lower-speed 2-lane connector road on parts of the Bypass alignment, possibly from Rt. 250/North Grounds Connector to Hydraulic. This new road could be designed as a parkway with separate multi-purpose trail, and may exclude large trucks.

- *Should the parkway concept be explored?*
- *If so, what kinds of issues should be considered?*
- *How far should a connector go, what roads should it connect to?*

Hillsdale Drive Extension: Funding is programmed for an extension of Hillsdale Drive from Greenbrier to Hydraulic. The old alignment went behind the Senior Center and Shopping center, very close to the creek. An alignment alng Pepsi Place through Seminole Square parking lot is being considered. Though this would cut through an existing building, it would create an opportunity for additional 'streetfront' development of that property.



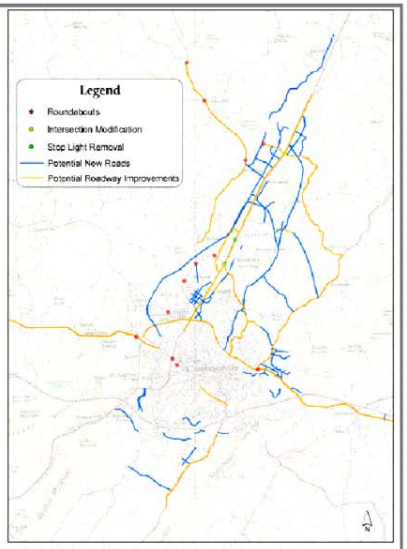
Hillsdale after

- *Would this kind of walkable redevelopment be an advantage for nearby neighborhoods?*
- *Would it provide a more direct bus route, with greater customer access?*
- *What other locations could use these ideas?*

Subdivision & Neighborhood Connectors: Residents of many existing neighborhoods have asked for better connections to adjacent neighborhoods and services, without having to make long detours or use major highways. The 9th/10th Connector of West main is a good example. Suggestions include Forest Lakes/Hollymead, Downtown mall to Jefferson School, Biscuit Run (Mill Creek/Lake Reynovia), Sunset Avenue, Commonwealth/Rio, and the Pantops area.


Neighborhood Connector


9th / 10th St. Connector



Potential New Roads and Roadway/Intersection Improvements

Effective public process

- Getting people to the table
- Well-designed process
  - Facilitator training
  - Issues oriented focus groups
  - Hands-on public workshops
- Comprehensive, exciting, visual plan
  - Get buy-in and determine priorities
- Proceed with model projects

Effective public process

Does not replace governance and

good business with anarchy

- The people ‘own’ the process
- The designers do their work
- The developers ‘own’ the projects
- The decision makers still make the tough decisions
- The plans get built

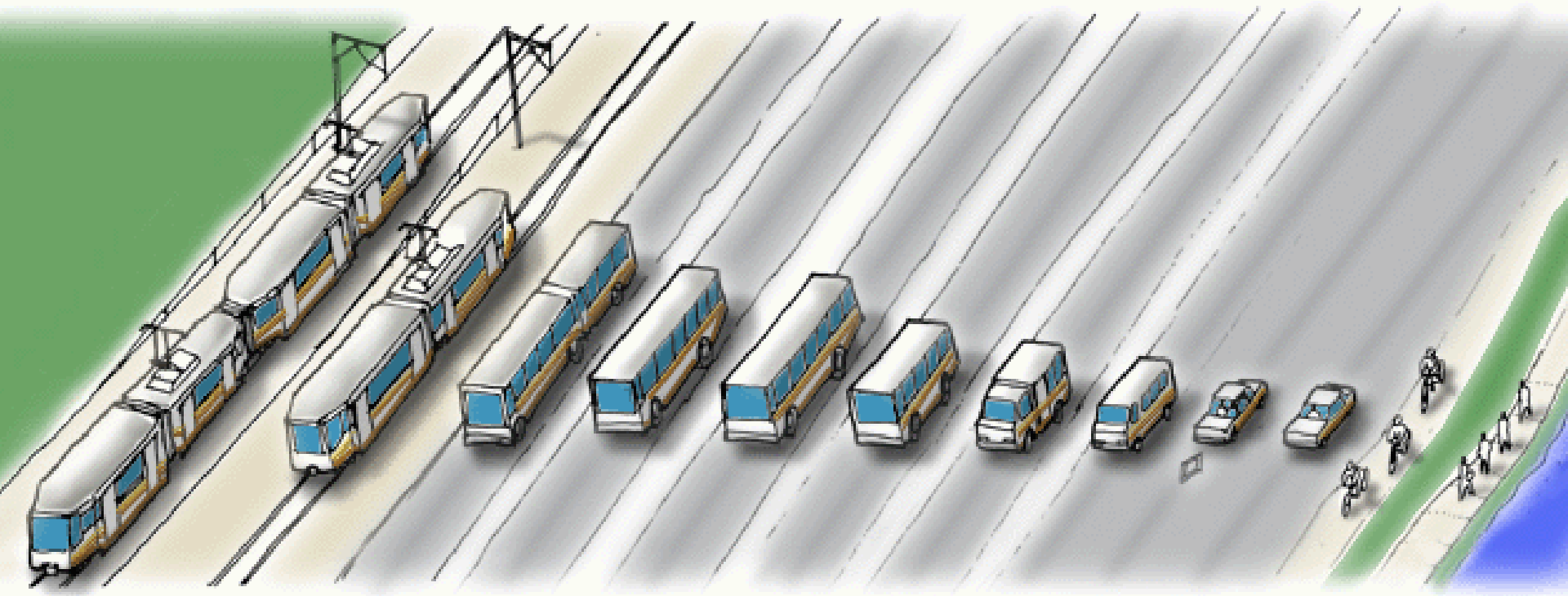
www.terrain.org-rue (two articles)

Provide more transportation choices

1. **Provide more transportation choices.** Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

Mobility choices

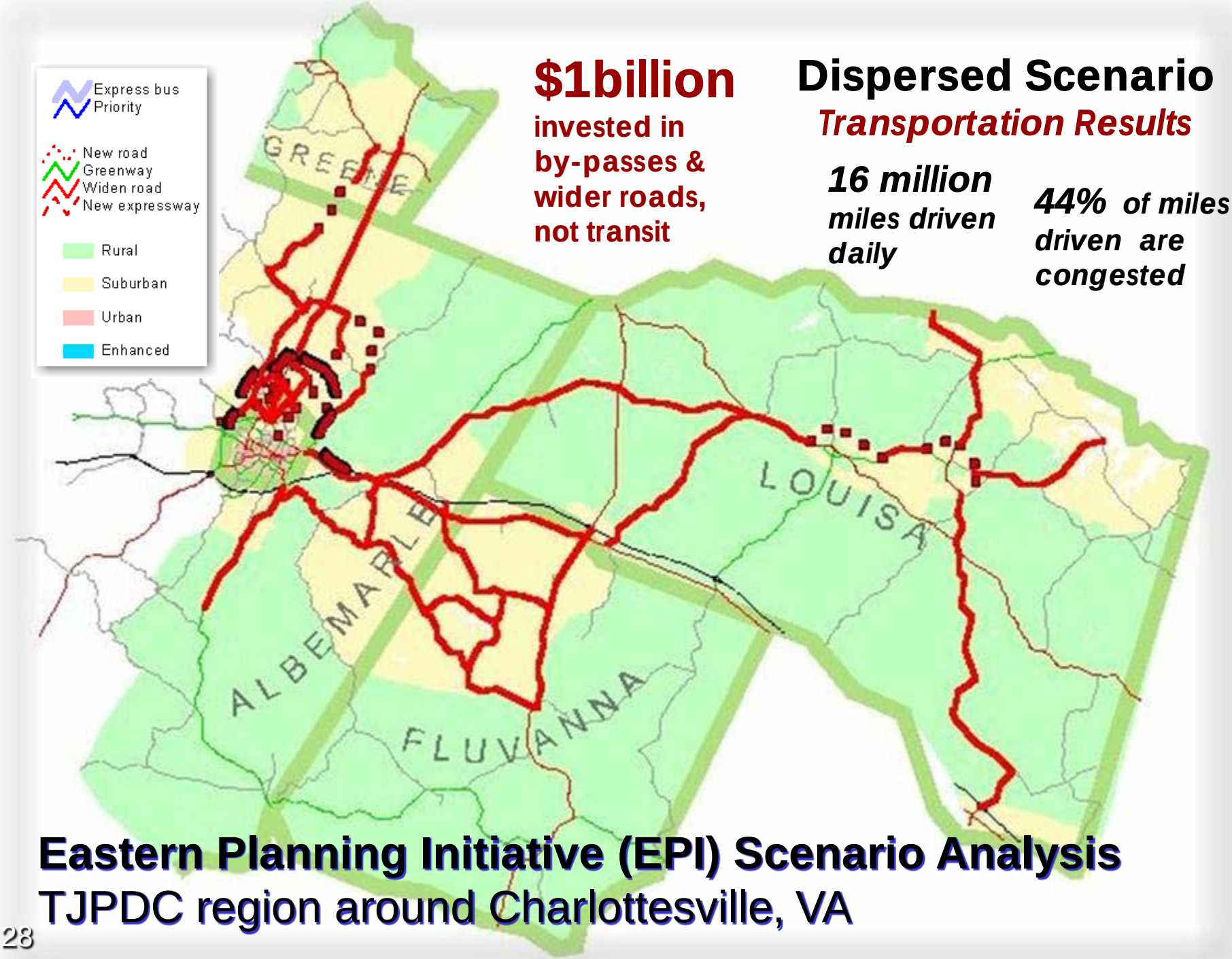
How do you get around now?



How do you want to get around in the future?

TJPDC Sustainability Accords:
Regional values as performance measures

- Encourage and maintain strong ties between the region's 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



$1billion
invested in by-passes & wider roads, not transit

Dispersed Scenario

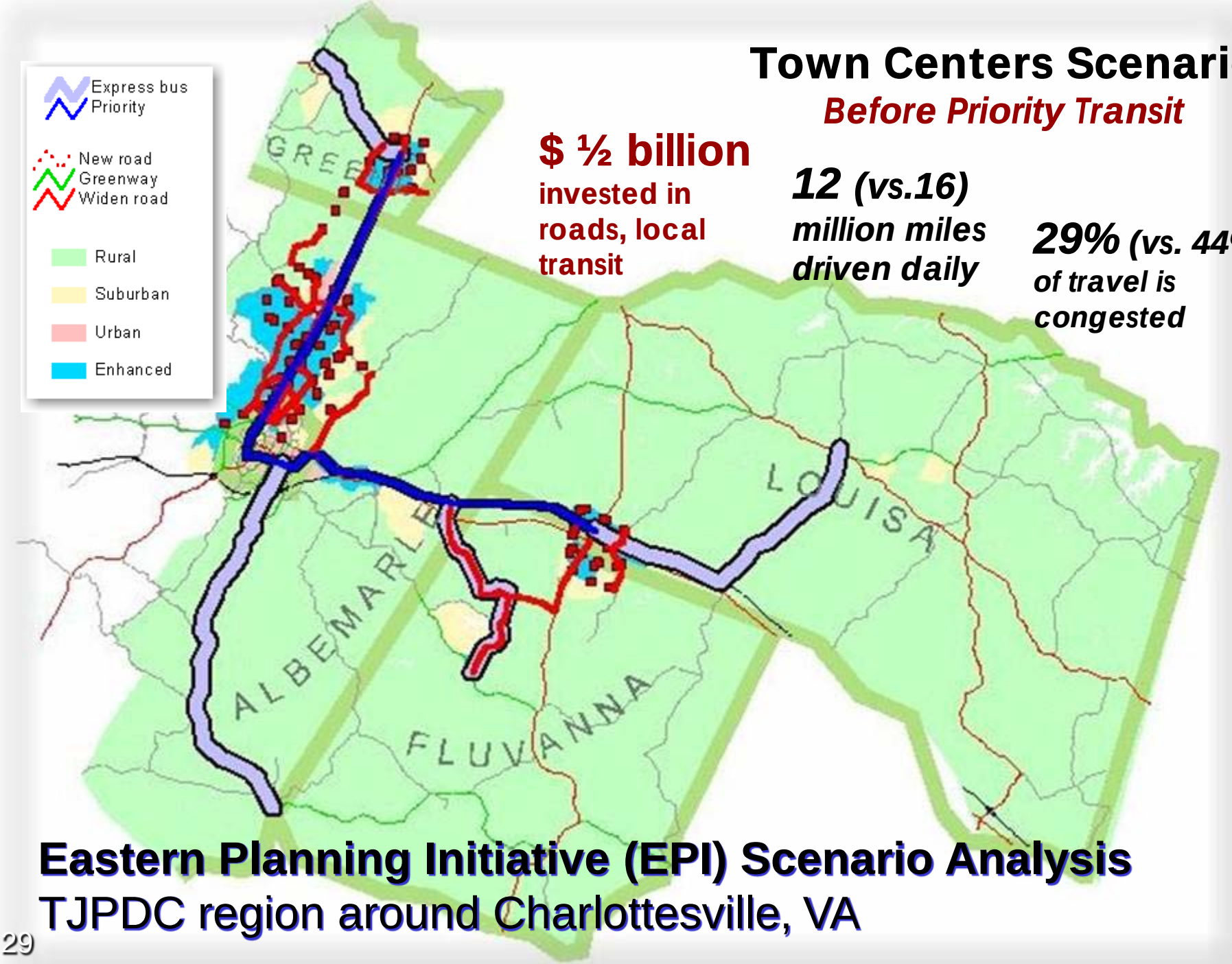
Transportation Results

16 million ***miles driven daily***

44% ***of miles driven are congested***

Eastern Planning Initiative (EPI) Scenario Analysis

TJPDC region around Charlottesville, VA



Town Centers Scenario

Before Priority Transit

$ ½ billion
invested in roads, local transit

12 (vs.16)
million miles driven daily

29% (vs. 44%)
of travel is congested

Eastern Planning Initiative (EPI) Scenario Analysis

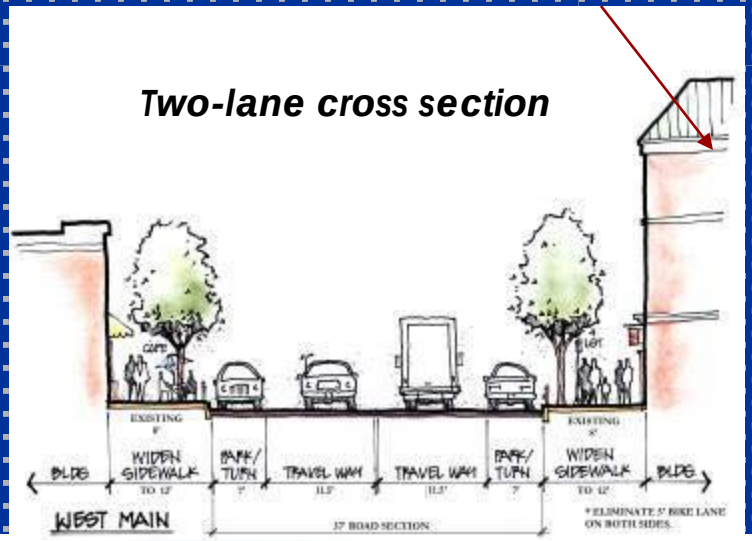
TJPDC region around Charlottesville, VA

Boulevard Design Characteristics

"People Friendly Streets"

Buildings brought to street for enclosure / interest

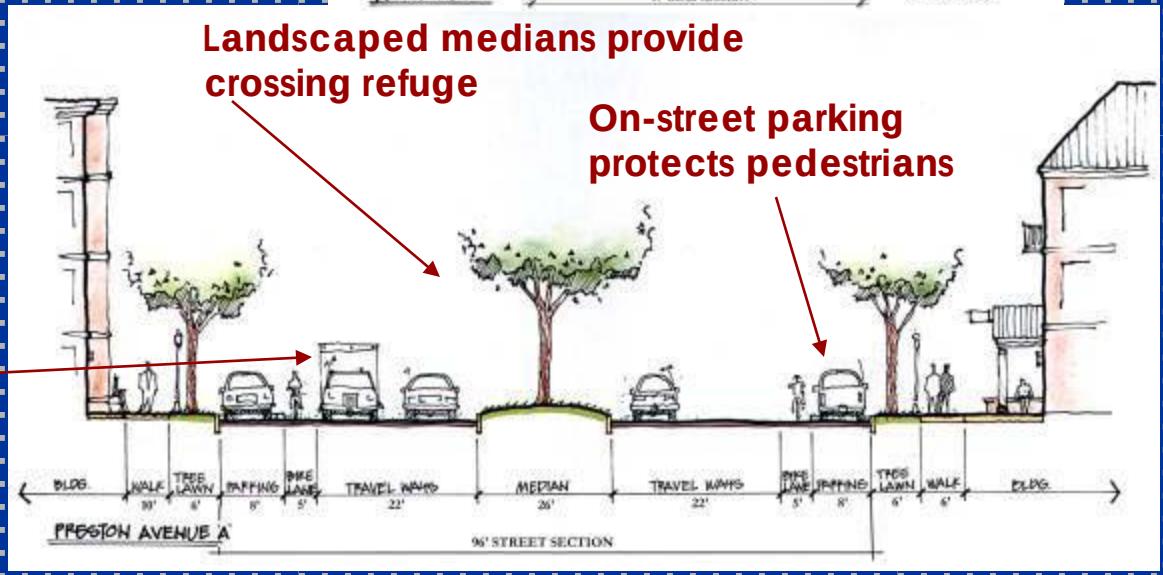
Streetscape



Landscaped medians provide crossing refuge

On-street parking protects pedestrians

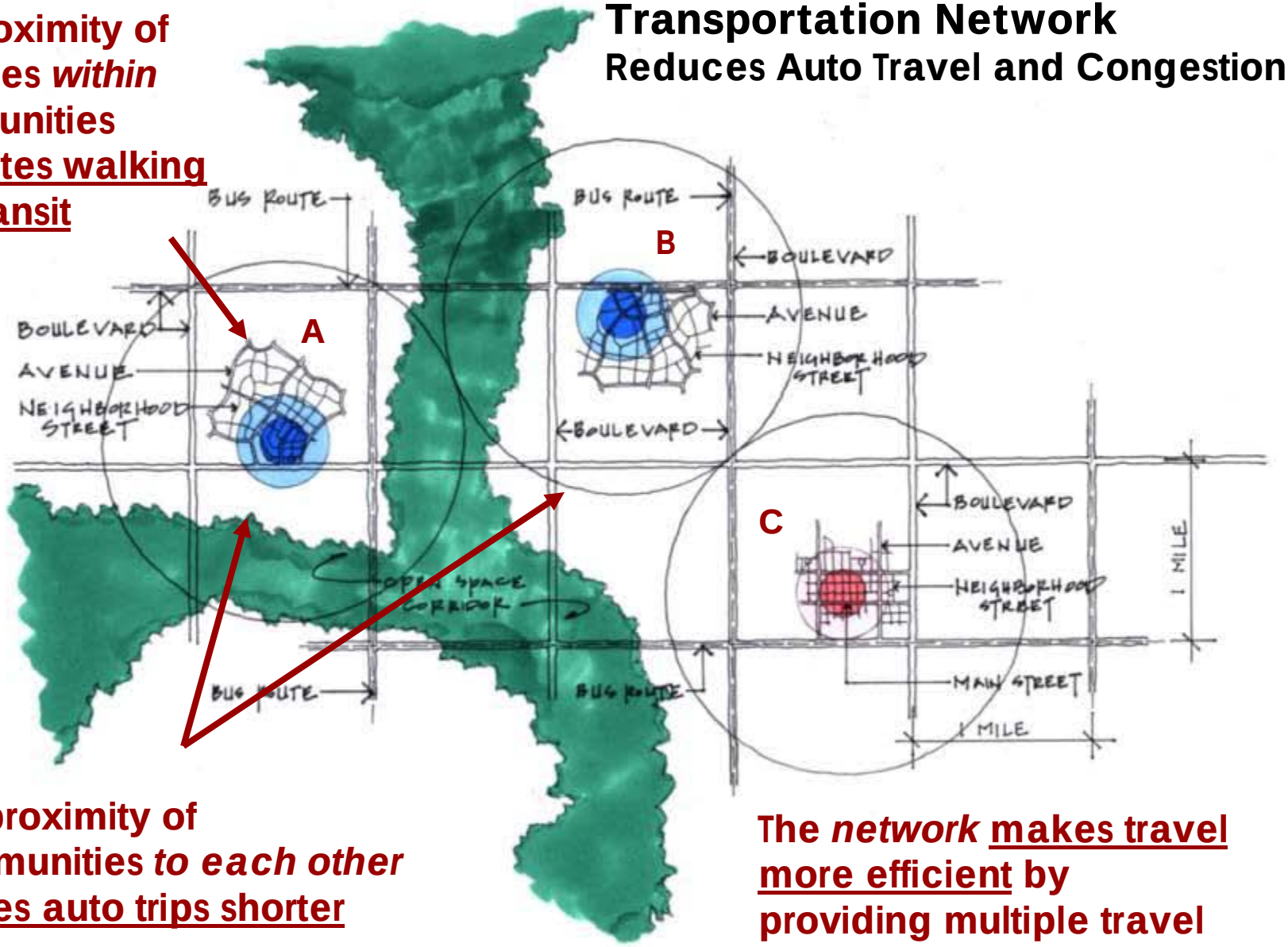
Bus amenities include shelters and by-pass lanes



Four-lane cross section

Transportation Network
Reduces Auto Travel and Congestion

The proximity of activities *within* communities promotes walking and transit



The proximity of communities *to each other* makes auto trips shorter

The *network* makes travel more efficient by providing multiple travel choices

How the Regional Scenarios Compare

All scenarios assume @ 330,000 population and 220,000 employment

Measure / Sustainability Accord	Disp-ersed	Town Ctr
Pct. Farms and Forests Retain resources/habitat/farms/forests	*55*	64
Pct. Developed Retain resources/habitat/farms/forests	*45*	36
Pct. Living In Clustered Communities Optimize use/cluster/human scale	*13*	61
Pct. Non -auto Trips Transportation Alternatives	*4*	15
Annual Gallons Gas Consumed (billions) Conserve Energy	*155*	121
Pct. Travel Congested Employment / Education Access	*44*	27
Water Quality and Quantity Water Quality and Quantity	*Poor*	Good

Red/italics– Comparatively worst

Why complete the streets & networks?

It's the best way to maximize capacity of existing roadways – at affordable costs

Street capacity exercise

People: The more the merrier

Promote equitable, affordable housing

2. **Promote equitable, affordable housing.** Expand location-and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

Redevelopment as Transit Target

Aging ‘greyfield’ shopping center on suburban corridor

Redevelopment as Transit Target

Mixed use/residential infill on under-used parking lot

Redevelopment as Transit Target

Redevelopment of existing buildings

Redevelopment as Transit Target

Amenities for walkability and interaction

Redevelopment as Transit Target

Expansion as market demands

Nellysford Business Development

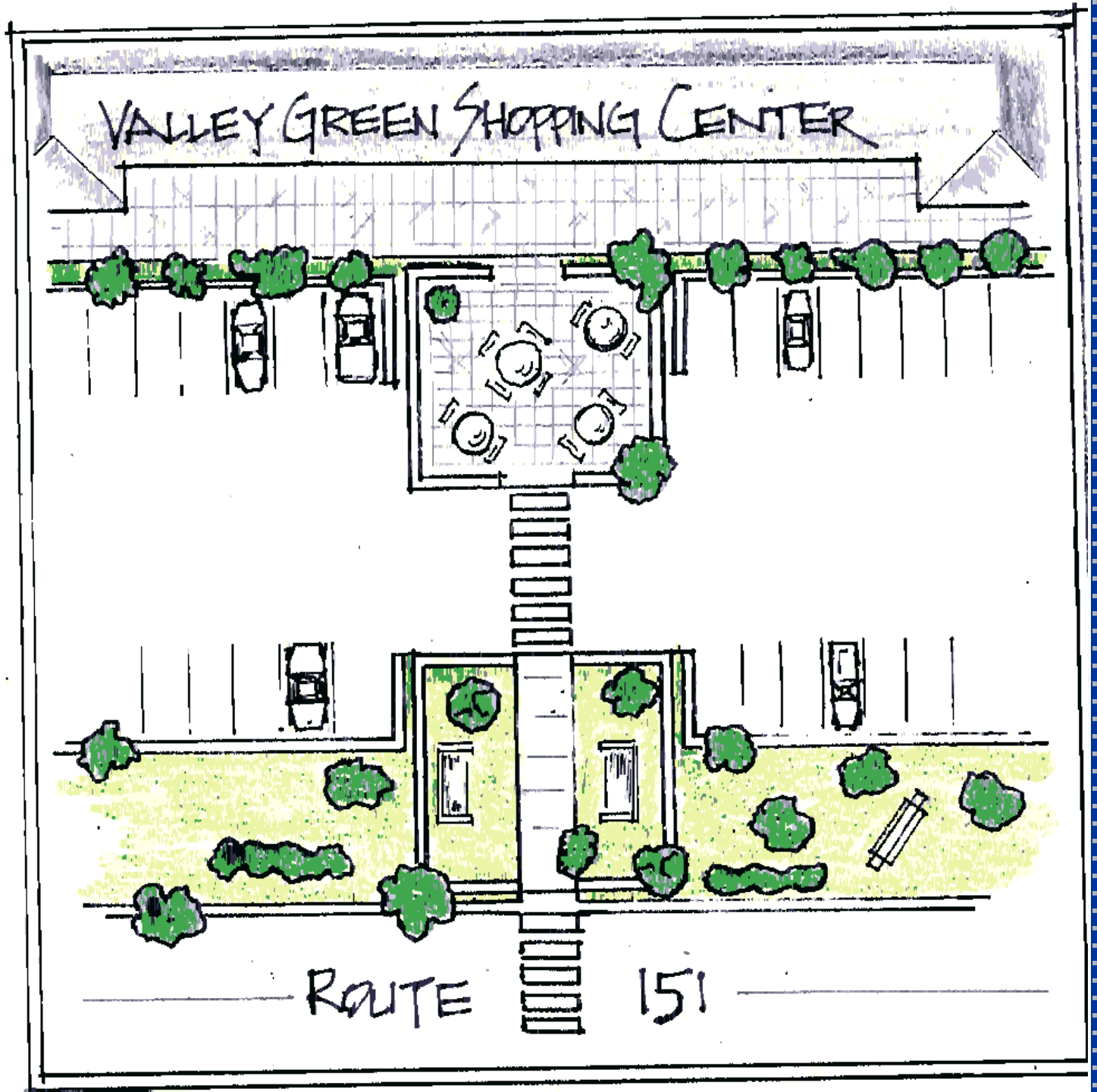
- Attract a Bigger Market Share for Existing Businesses
- Market Nellysford as a Dining & Entertainment Center
- Establish a Permanent Farmers Market
- Encourage New Shops and Offices with Valley Green as a Focal Point
- Encourage a Cluster of New Shops and Businesses within the New Mixed Use Area

Valley Green Shopping Center

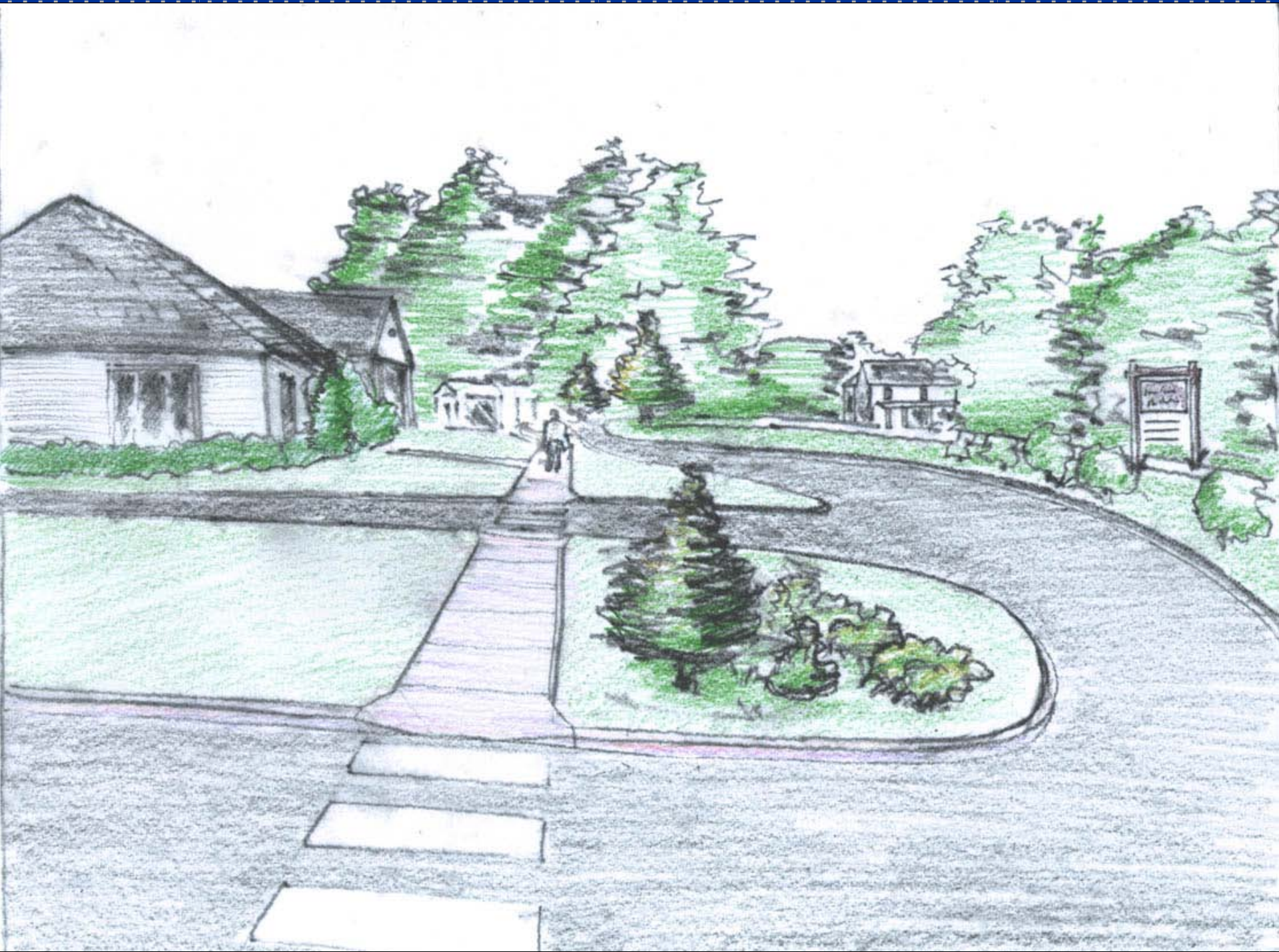

VALLEY GREEN SHOPPING CENTER
EXISTING
← ROUTE 151 →


VALLEY GREEN SHOPPING CENTER
PHASE I
NEW PATIO
← ROUTE 151 →
NEW SIDEWALKS & GREENERY


VALLEY GREEN SHOPPING CENTER
PHASE II
SECOND PATIO
101
NEW PATIO
← ROUTE 151 →
NEW SIDEWALKS & GREENERY


VALLEY GREEN SHOPPING CENTER
ROUTE 151


H2O TO GO
BREW IT UP!



Enhance economic competitiveness

3. **Enhance economic competitiveness.** Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services, and other basic needs by workers, as well as expanded business access to markets.

Maine – Gateway 1 Corridor

Three-phase planning approach aligned with corridor visioning, planning, and implementation

1. Identify issues & attitudes in the corridor and then reach agreement on the roles & responsibilities of partners
2. Develop a Corridor Plan
3. Implement and Monitor the Corridor Plan

Extensive public engagement & interagency partnerships

Partners agreed on three long-term outcomes:

1) moving goods & people safely & smoothly;
2) preserving the scenic, rural qualities along the corridor;
3) expanding the ability to grow jobs in the corridor

21 Communities Involved in the Gateway 1 Corridor Plan

Entry corridor- Existing conditions

Entry corridor-– Complete Street

Extending & connecting the grid with complete streets, plus block-by-block redevelopment provides Transit Targets & mode choice

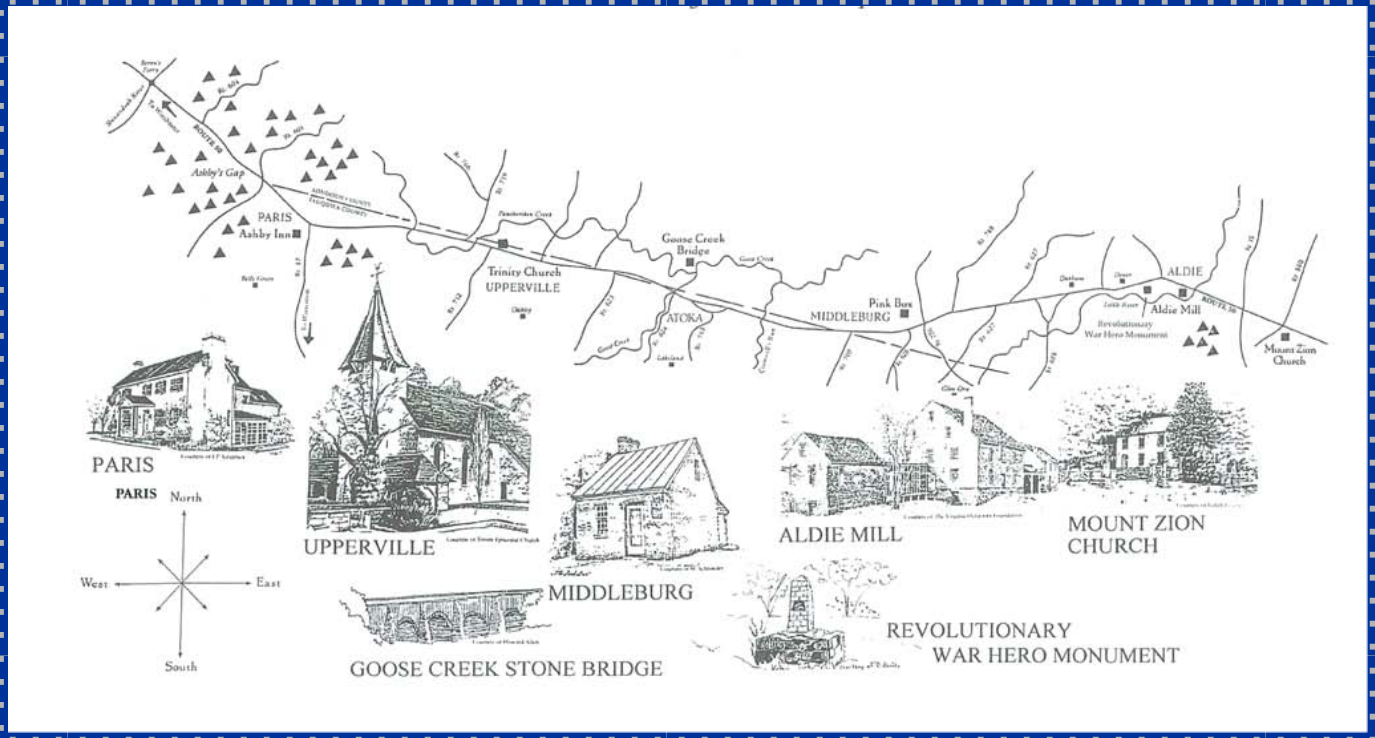
Entry corridor - Complete Street

Completing the landscaping provides enhanced walking & wheeling choices and business environment

Support existing communities

4. **Support existing communities.**
   Target Federal funding toward existing communities—through strategies like transit oriented, mixed-use development, and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

Route 50 Rural Traffic Calming, VA



Community-Driven Goals:

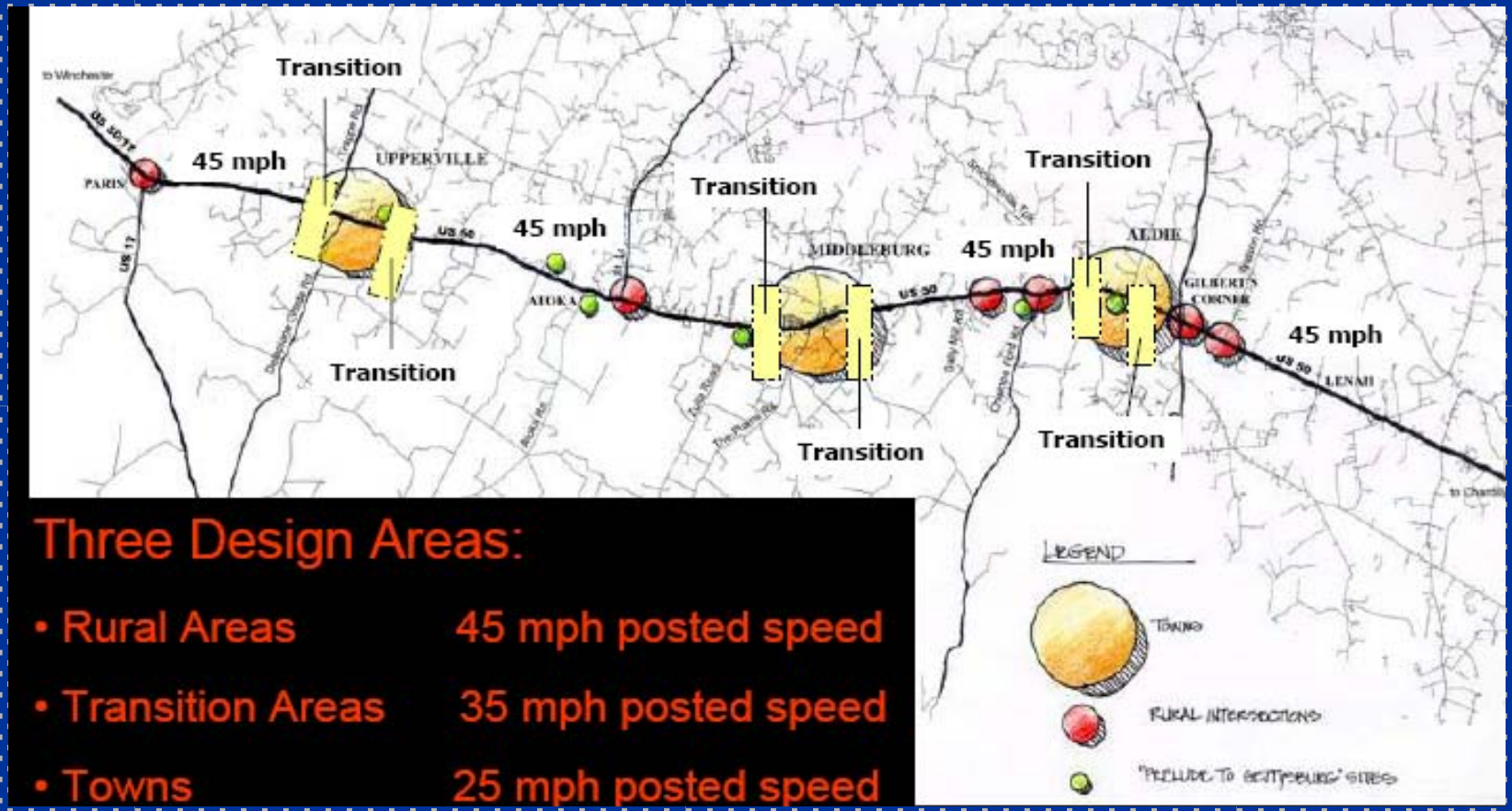
- Increase quality of life
- improve conditions for pedestrians,
- create safe and attractive streets
- reduce the negative effects of automobiles on the environment.

Objectives:

- slow traffic & reduce collisions
- reduce the need for police enforcement
- provide more greenery
- enhance historical, agriculture, & natural setting
- increase access to main street
- accommodate but not invite through traffic.

Route 50 Rural Traffic Calming, VA

Rt. 50 Design context zones transition from rural highway to towns



Three Design Areas:

- Rural Areas — 45 mph posted speed
- Transition Areas — 35 mph posted speed
- Towns — 25 mph posted speed

Route 50 & Route 15

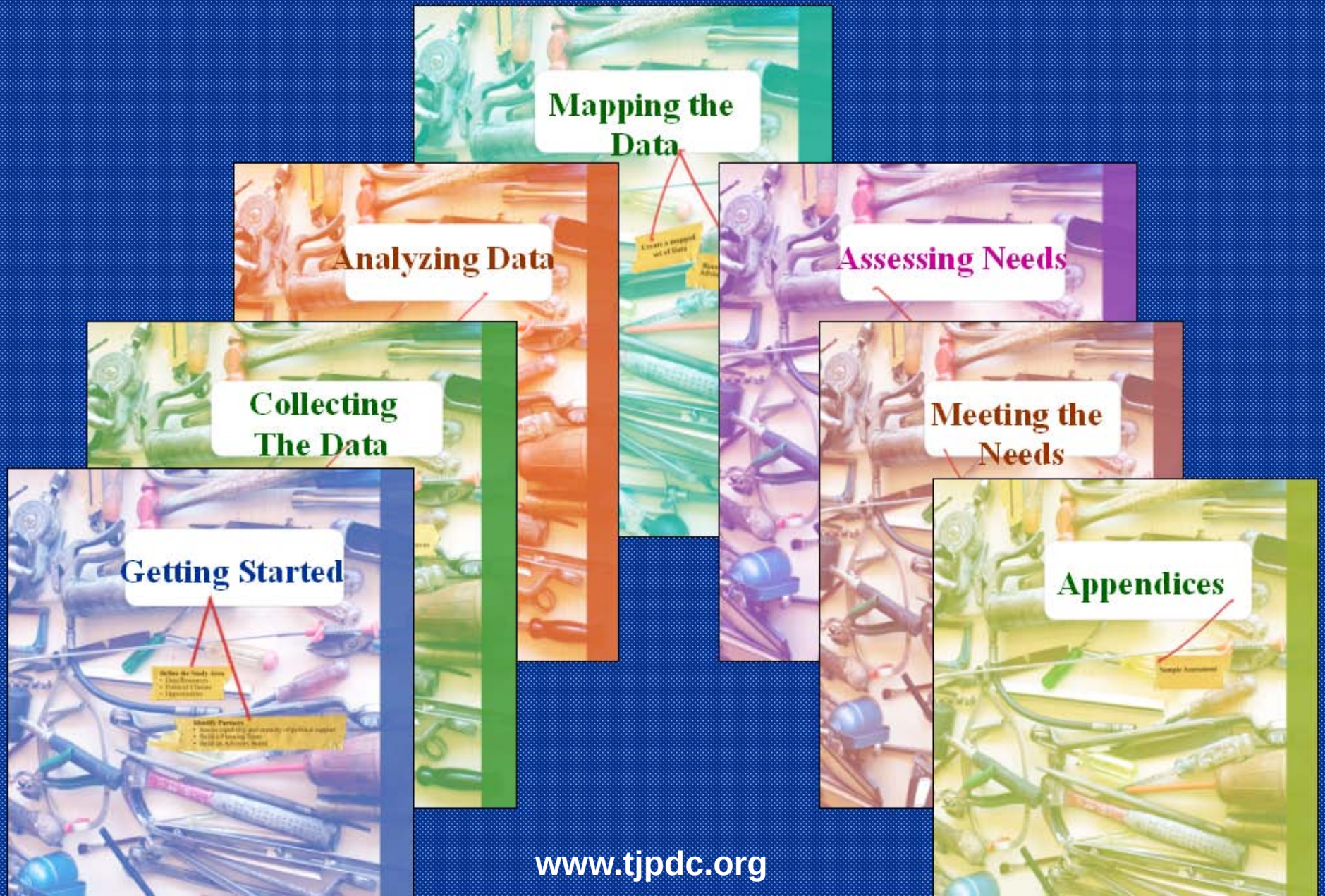
- A system of roundabouts at a rural highway intersection addresses increasing congestion & safety issues
- Addition of a new triangular 'cut-off' road, with two new roundabouts, removes excess turning movements from the main roundabout
- Rural character is preserved, along with potential for compact growth

Gilberts Corner Linked Roundabouts

Coordinate and leverage Federal policies and investment

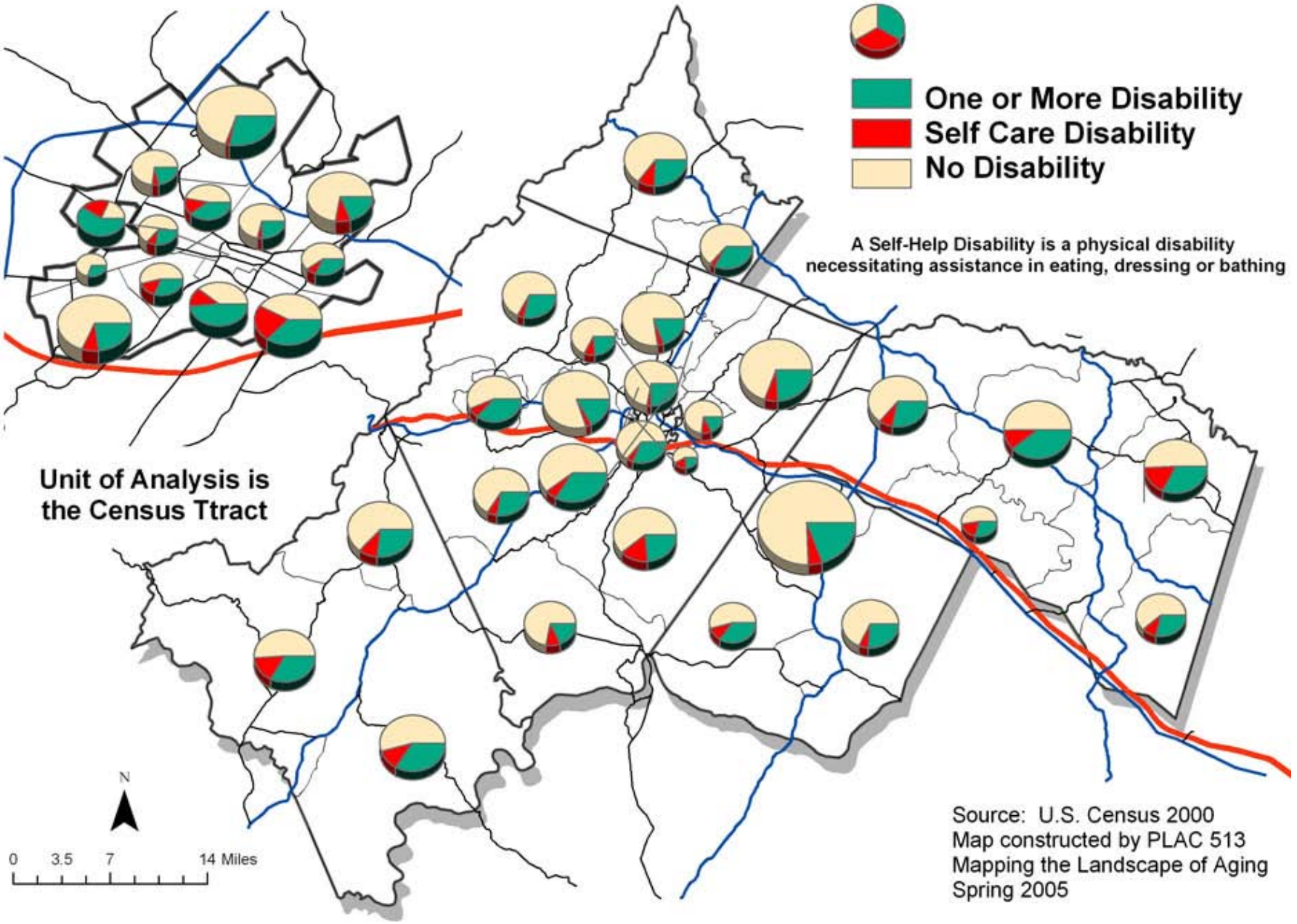
5. **Coordinate and leverage Federal policies and investment.** Align Federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.

Transportation & Housing Alliance Toolkit

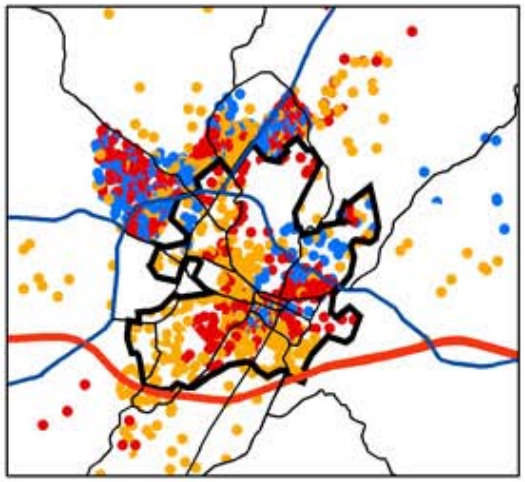


www.tjpdc.org

Population 65 and Older by Disability Type



Homeownership among the Senior Population
(Housing Tenure by Age of Household Head)



Unit of Analysis:
Dots Random within Census Block Group

Age of Renting Household Head

1 Dot = 1

- Renter 85 or Older
- Renter 75 to 84 Years
- Renter 65 to 74 Years

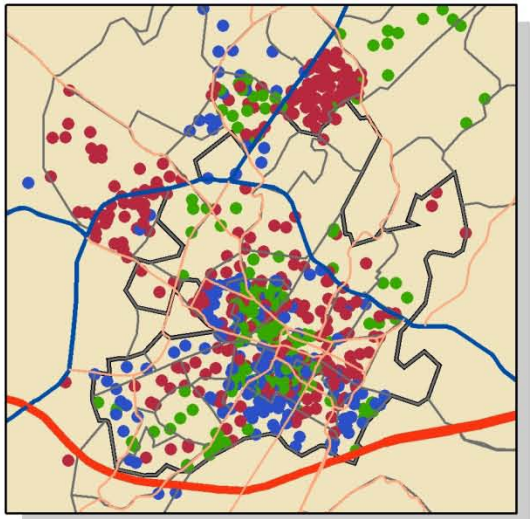
Stanardsville
Greene
Ruckersville
Crossroads
Free Union
Earlysville
Hollymead
White Hall
Crozet
Albemarle
Afton
Charlottesville
Keswick
Trevilians
Louisa
Mineral
Louisa
North Garden
Fluvanna
Wintergreen
Montebello
Palmyra
Esmont
Totier Hills
Nelson
Rockfish
Scottsville
Gum Spring
Lovingston
Columbia
Arrington

N

0 3.5 7 14 Miles

Source: U.S. Census 2000
Map constructed by PLAC 513
Mapping the Landscape of Aging
Spring 2005

Households with No Car Available By Age of Household Head: Senior Householders



Charlottesville Vicinity

Each Dot is 2 households

Household Head 55 to 64 years old n= 601

Household Head 65 to 74 years old n= 725

Household Head 75 years or older n= 1348

Block Group Level of Detail

Stanardsville
Greene
Ruckersville
Crossroads
Free Union
Earlysville
Hollymead
White Hall
Crozet
Afton
Charlottesville
Keswick
Trevilians
Louisa
Mineral
Louisa
Lake Montecello
North Garden
Albemarle
Fluvanna
Palmyra
Wintergreen
Montebello
Nelson
Esmont
Totier Hills
Rockfish
Scottsville
Gum Spring
Lovingston
Columbia
Arrington

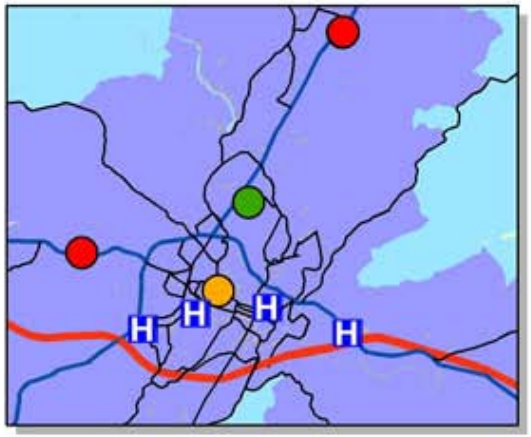
Counties
US Routes
Interstates
Other Highways

N

0 4.5 9 18 Miles

Source: U.S. Census 2000, Block Groups
Map constructed by UVa PLAC 513
Transportation and Housing Accessibility Project
Spring 2006

Travel Time to Nearest Major Health Facilities in the Thomas Jefferson Planning District



Major Health Facilities

- Major Clinic
- Department of Health
- Hospital
- Immediate Doctor

- Less than 10 minutes
- 11 to 20 Minutes
- 21 to 30 Minutes
- 31 to 60 Minutes
- More than 60 Minutes

Greene

Albemarle

Louisa

Fluvanna

Nelson

N

0 1.5 3 6 Miles

- US ROUTE
- Interstate
- Other Highways

The color gradient displays the shortest travel time on the average for each census block to the nearest Major Health Facility. This includes major hospitals and their clinics, County Departments of Health and immediate care clinics. Other health centers by private doctors are not shown here.

Prepared by PLAC 513, Spring 2005, UVa, Prof. David Phillips

THA Goals: Meeting the needs

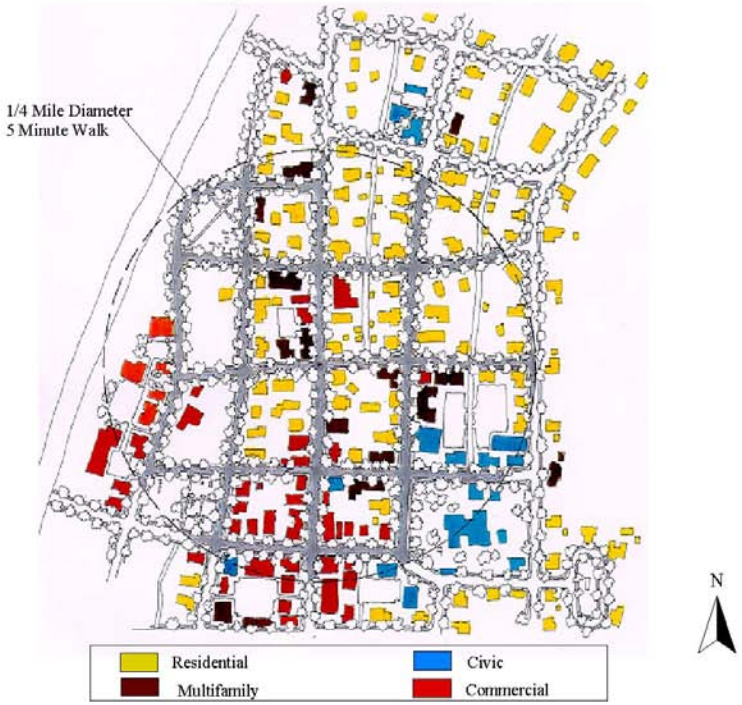
- Understand housing & transportation needs of people with disabilities
- Incorporate into coordinated cross-program and project-based solutions
- Policy, project, & program recommendations
  - At the Local/Regional Level
  - At the State Level

Value communities and neighborhoods

6. **Value communities and neighborhoods.** Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

Nelson County Comp Plan – rural area

Nelson County Comprehensive Plan
Rural Small Town Development Model



Small Town

A well-defined center of rural activity that is surrounded by sparsely developed, or sparsely populated rural or agricultural land. The area contains at least several of the following land uses: residential, retail, office, civic, institutional, limited industrial, and park/recreation.

Building Sizes - Building scale should be compatible with exsting buildings.

Proximity of Activities and Methods of Transportation - High proximity, balanced travel among automobile, rural transit, bicycling, and walking.

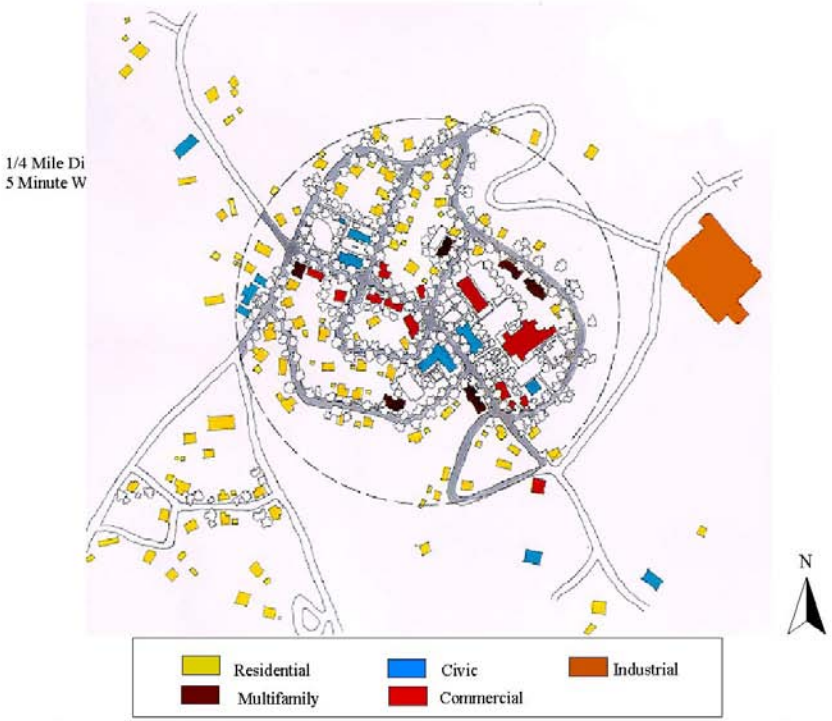
Locational Requirements - Usually at or near a crossroads; sometimes major highways.

Parking Characteristics - A mixture of on-street parking, parking lots, and driveways.

Growth/Change Potential - Relatively stable. However, some areas are facing growth pressures and suburbanization, while others are losing residents. Infill development is encouraged.

Prepared by the Thomas Jefferson Planning District Commission and The Design Resources Center January 2002

Nelson County Comprehensive Plan
Rural Village Development Model



Rural Village

A center of rural activity, smaller than a small town, surrounded by sparsely developed, or sparsely populated rural or agricultural land. The area may contain residential, commercial, civic, institutional, or industrial uses.

Building Sizes - Building scale should be compatible with exsting buildings.

Proximity of Activities and Methods of Transportation - Moderate proximity, balanced travel among automobile, rural transit, bicycling, and walking.

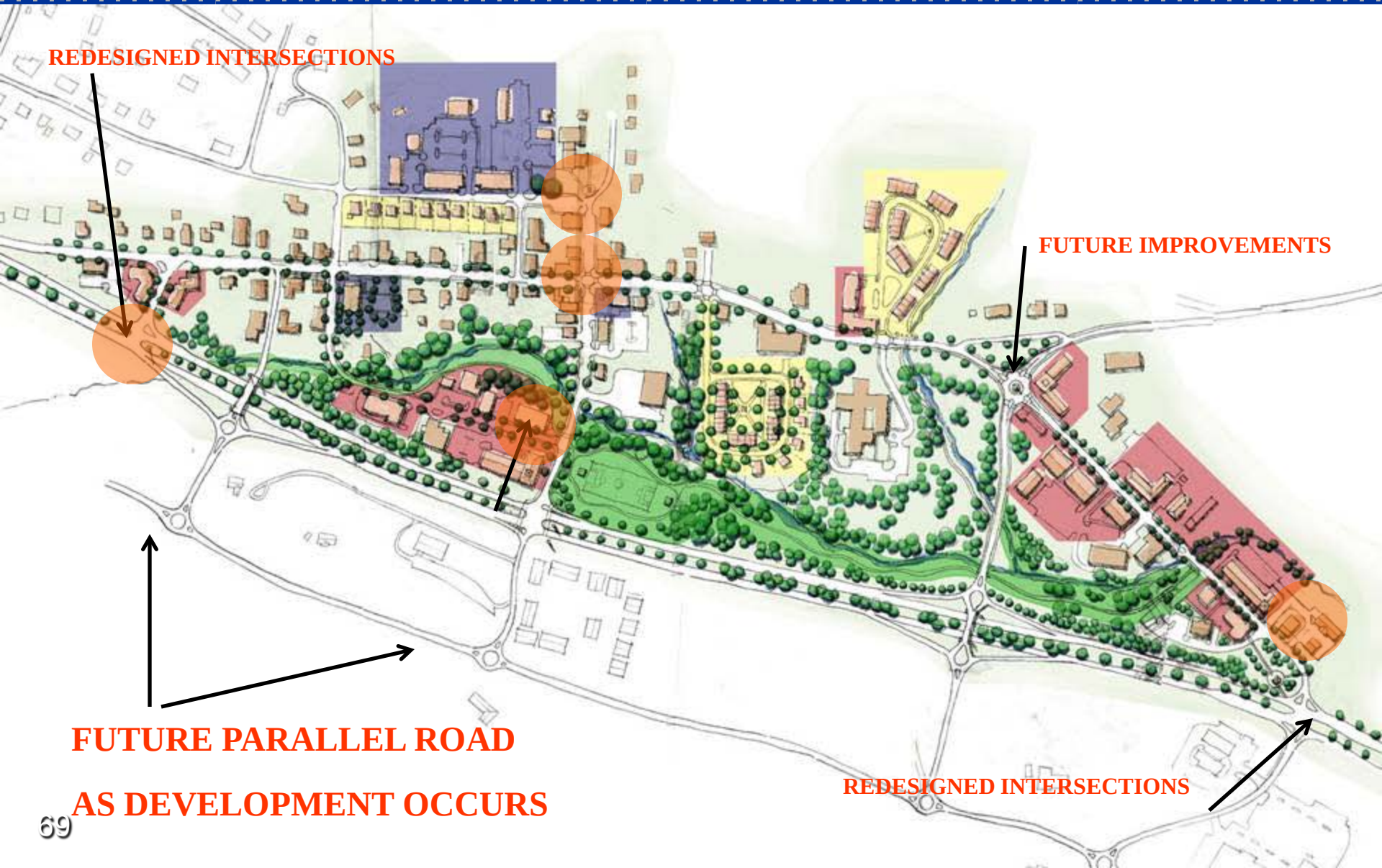
Locational Requirements - Located at or near crossroads; sometimes major highways.

Parking Characteristics - A mixture of on-street parking, parking lots, and driveways.

Growth/Change Potential - Relatively stable. However, some areas are facing growth pressures and suburbanization, while others are losing residents.

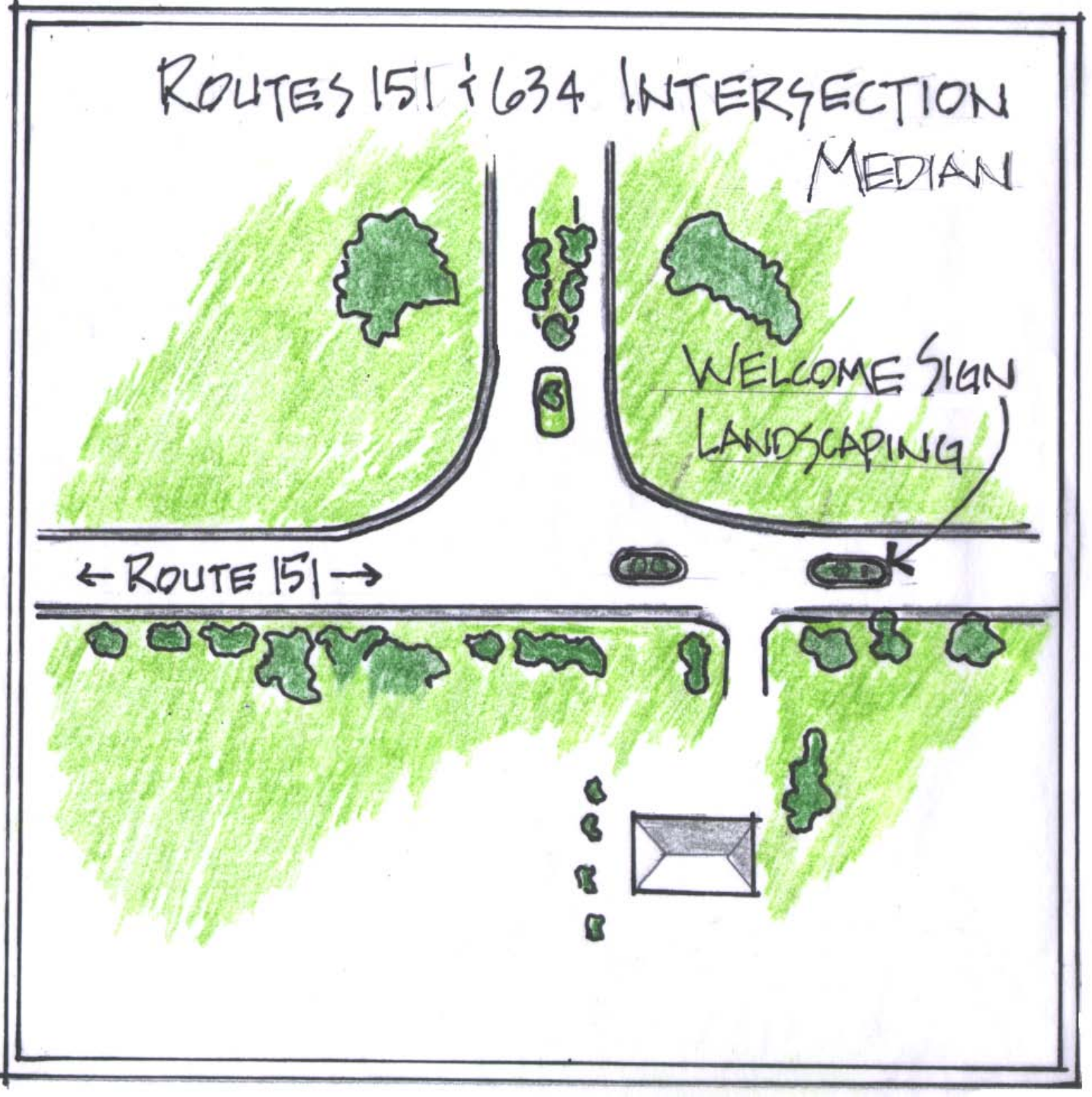
Prepared by the Thomas Jefferson Planning District Commission and The Design Resources Center January 2002

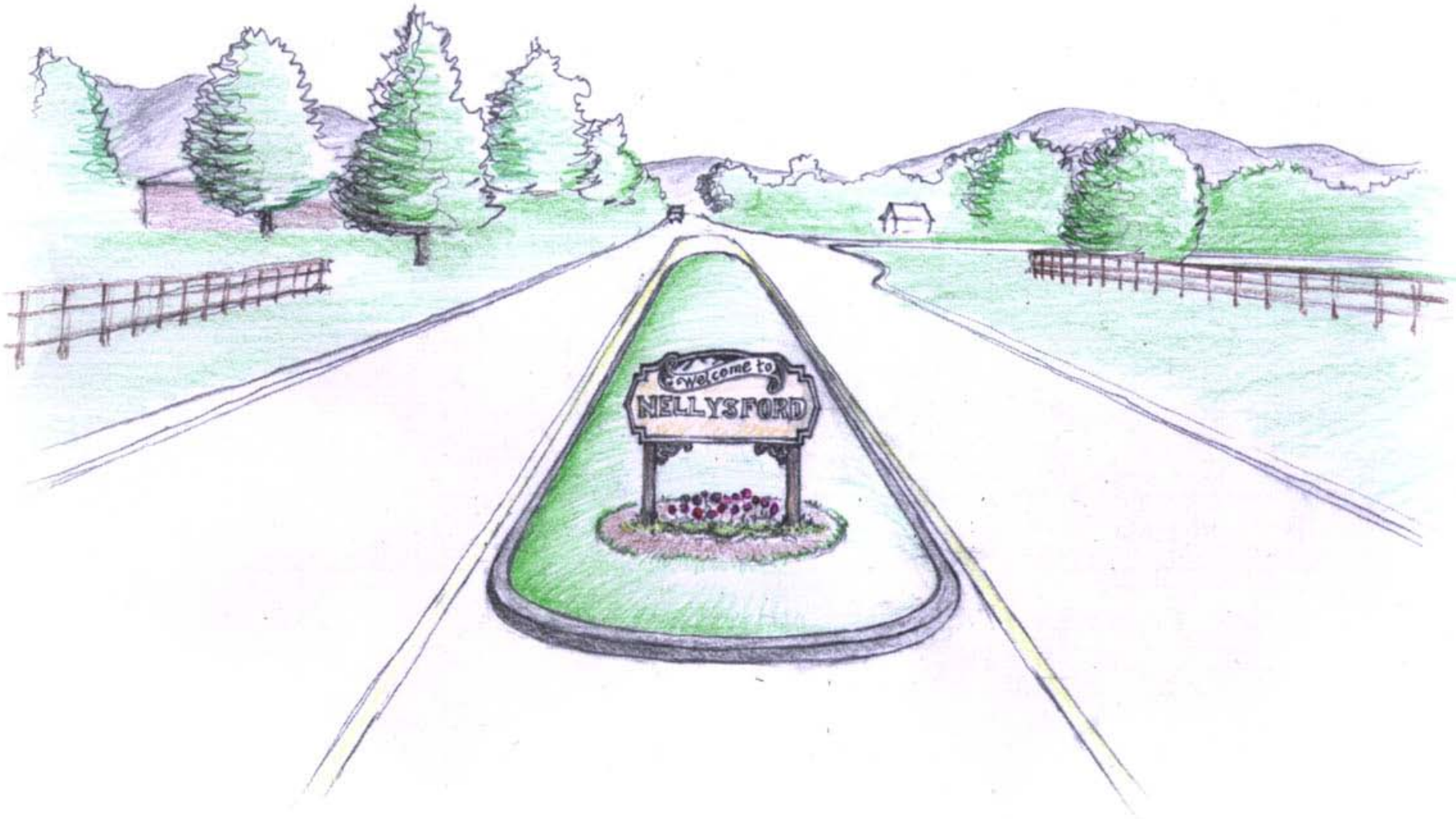
Small town revitalization - Lovingston, VA



Networks and connectivity

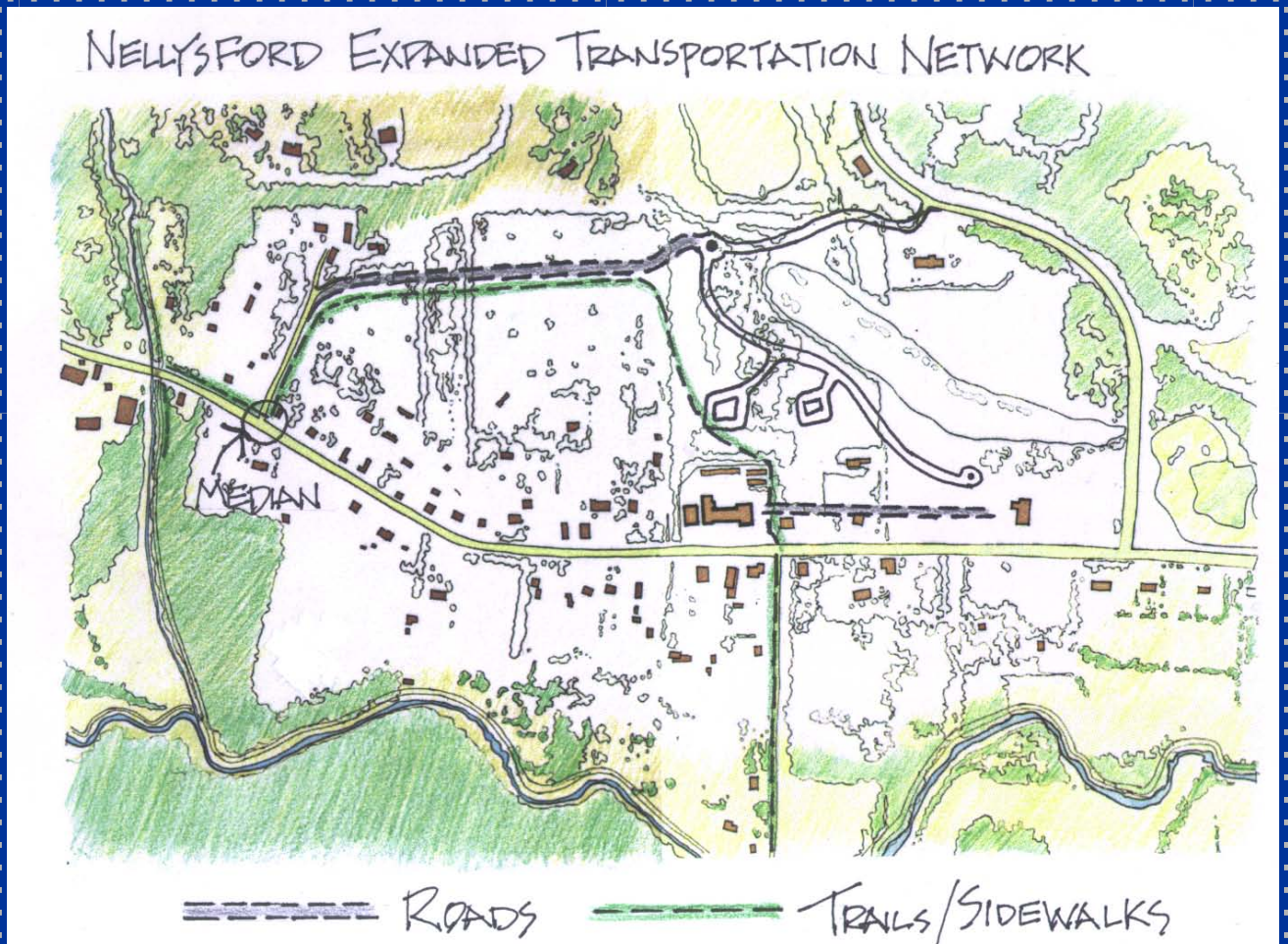
Key strategy in urban, suburban, and rural areas


ROUTES 151 & 634 INTERSECTION
MEDIAN
WELCOME SIGN
LANDSCAPING
← ROUTE 151 →


welcome to
NELLYSFORD

Transportation

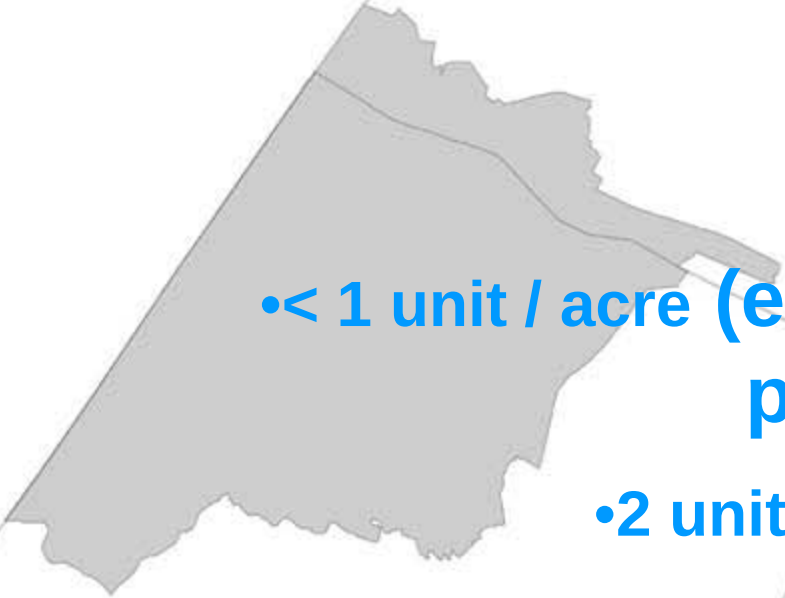
- Plan for a New Road Parallel to Rt. 151 as individual properties develop



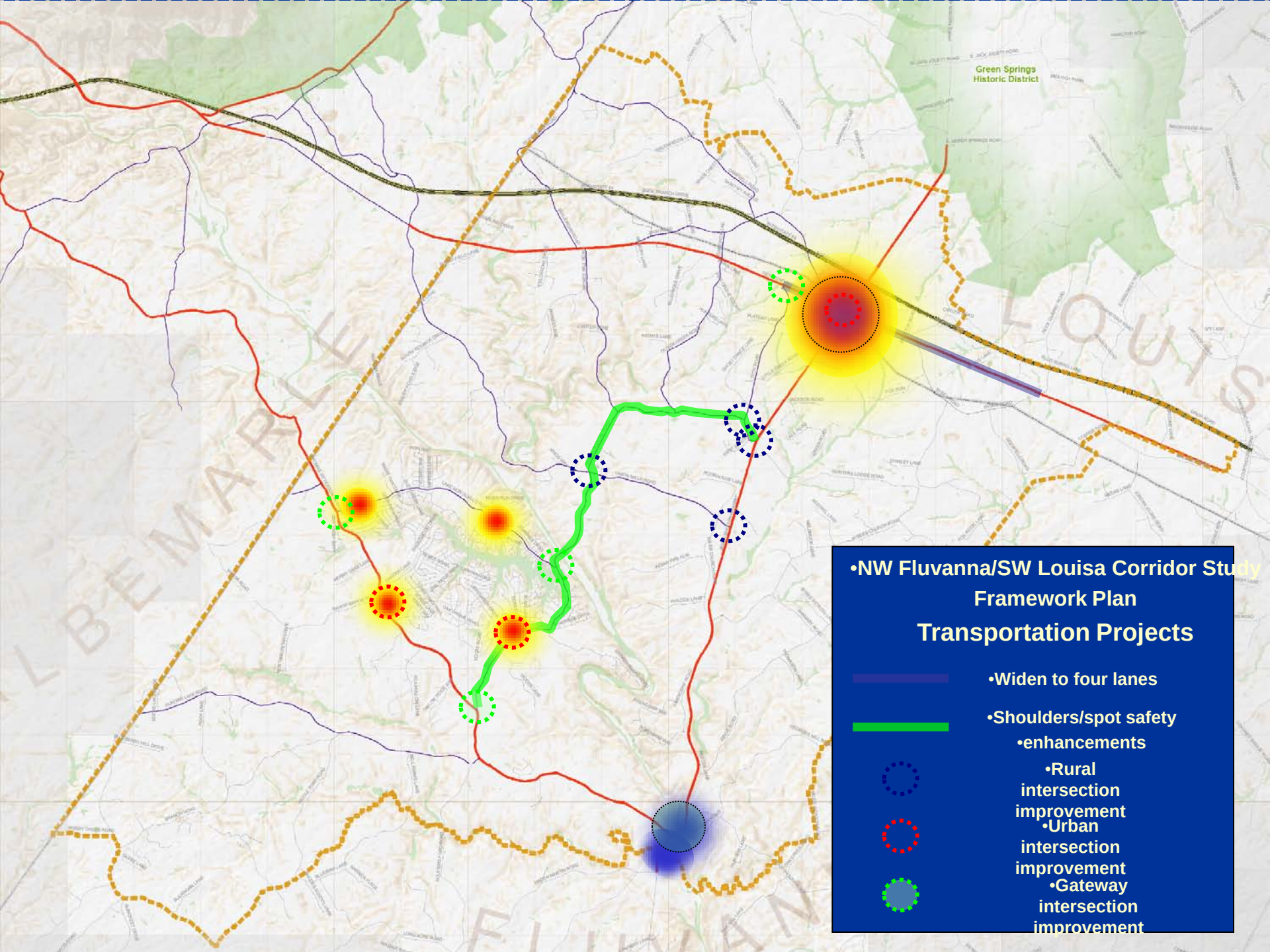
NW Fluvanna-Louisa Corridor Study

- VDOT, two counties, & TJPDC
  - Fast-growing ¼ of rural county
  - Expanding commercial area of adjacent county
- Focused sub-area scenario planning
- Guidelines to use in Comp Plans
- Transportation improvements
  - Public projects & developer proffers

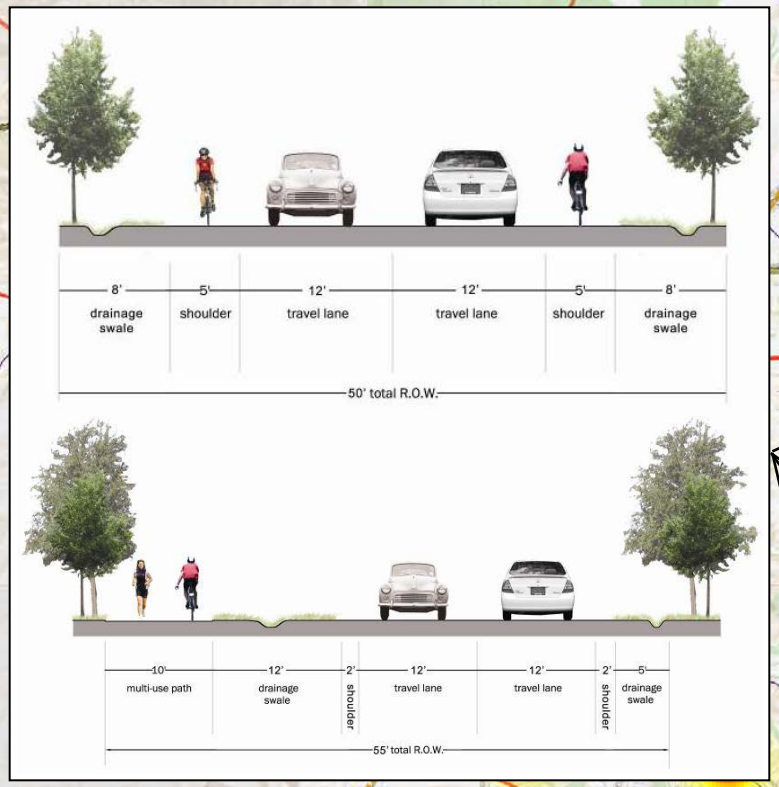
Land area consumed by projected housing at:

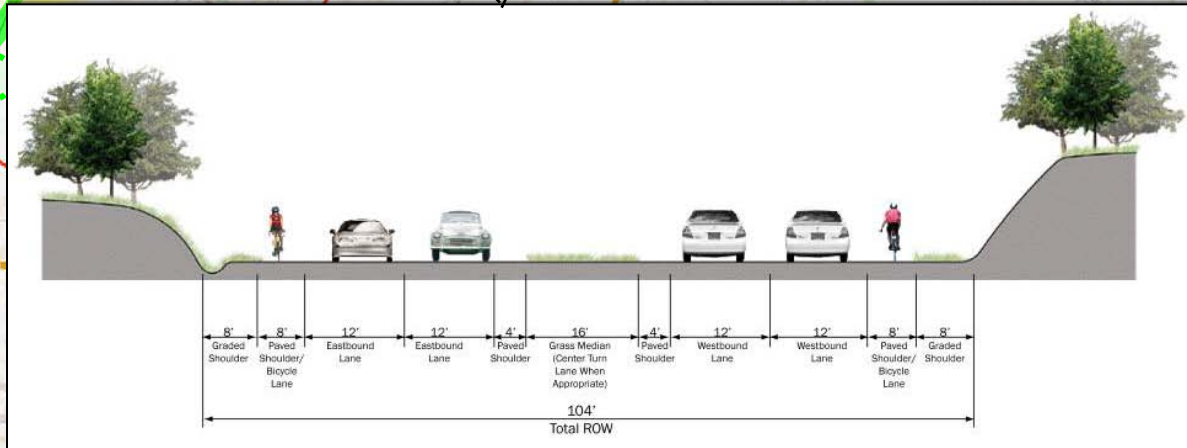


- < 1 unit / acre (existing pattern)
  - 12,222 square acres
- 2 units / acre
  - 5,500 square acres
- 4 units / acre
  - 2,700 square acres
- 8 units / acre
  - 1,375 square acres
- 12 units / acre
  - 916 square acres


Green Springs
Historic District
•NW Fluvanna/SW Louisa Corridor Study
Framework Plan
Transportation Projects
•Widen to four lanes
•Shoulders/spot safety
•enhancements
•Rural
intersection
improvement
•Urban
intersection
improvement
•Gateway
intersection
improvement

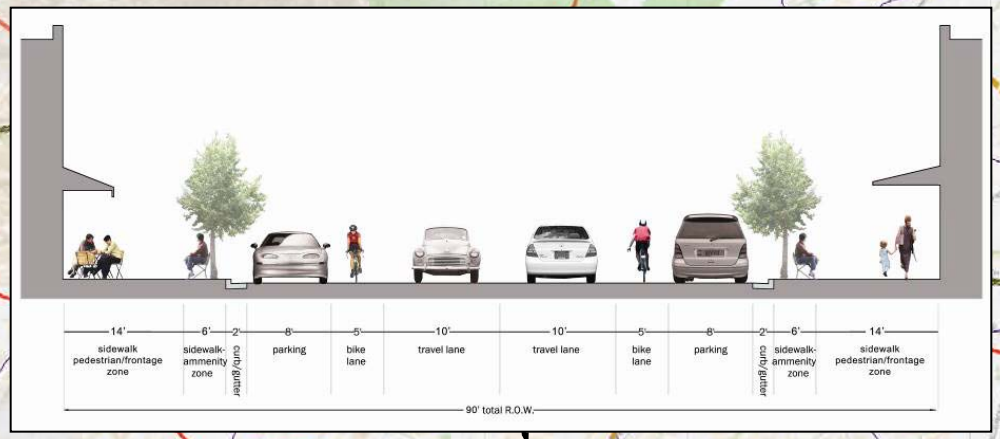
Rural context
- outside of target areas
- emphasis is on mobility

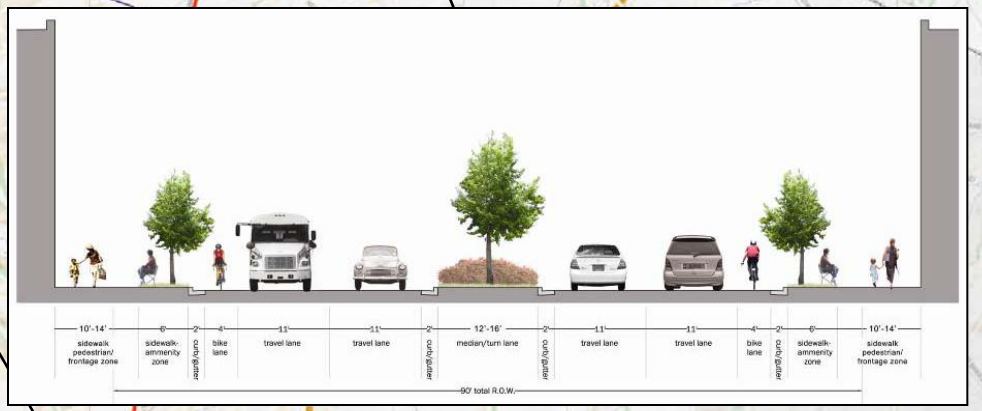




Urban context

- emphasis is on activities, pedestrians
- slower speeds
- amenities





Green Springs Historic District

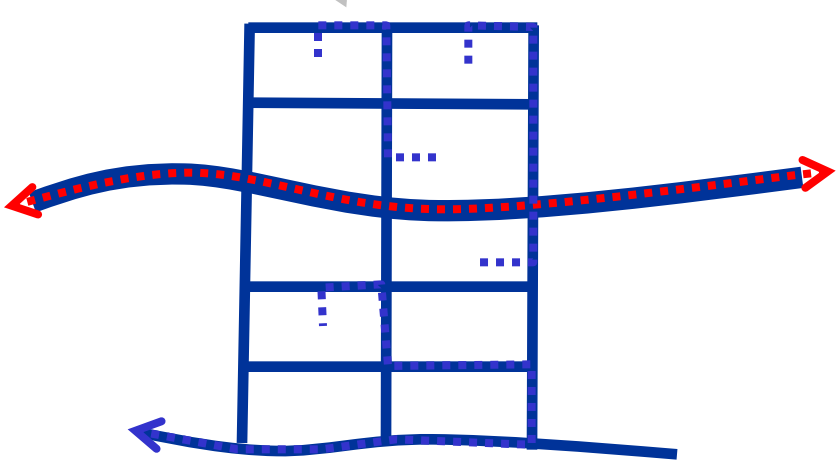
- **Priority transit at Zion Crossroads**
- 500 homes & 2,500 jobs within walking distance
- 7,000 homes & 24,000 jobs in total market area
- - Express bus on I-64 to start
- - Ultimately fixed guideway

Circulator at Lake Monticello and Zion Crossroads

- local access
- - frequent service

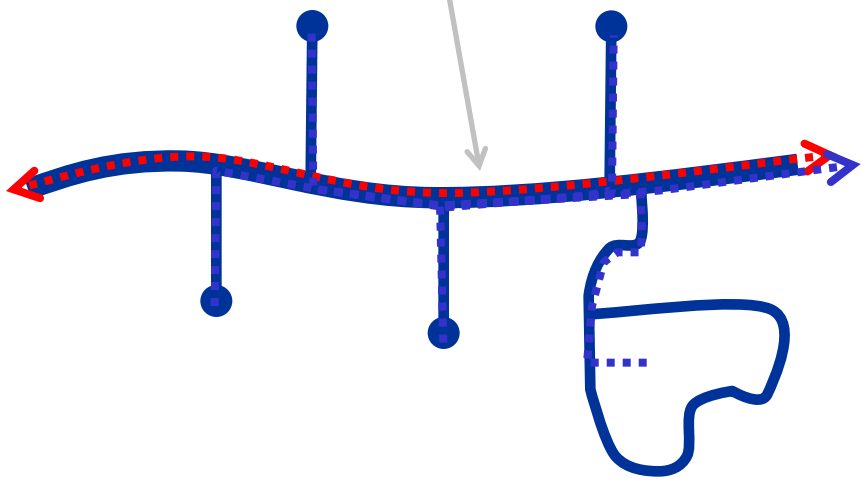
Connectivity

•Short trips can be made on the local street network



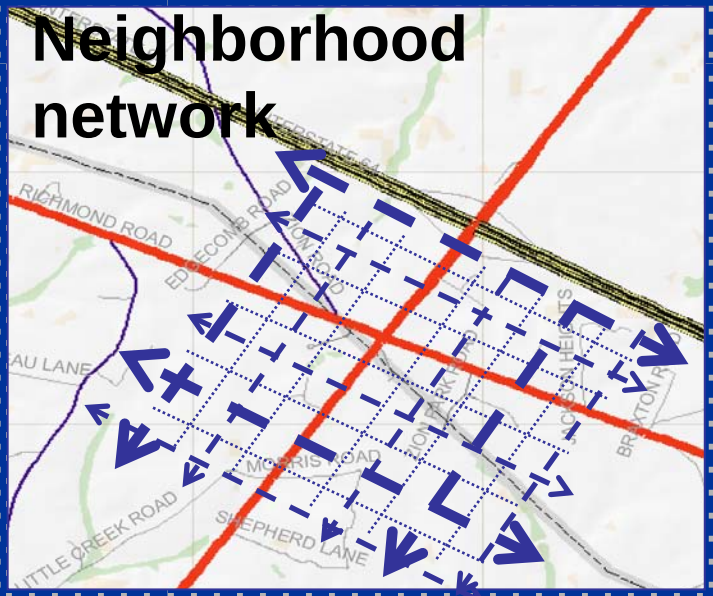
• Good connectivity

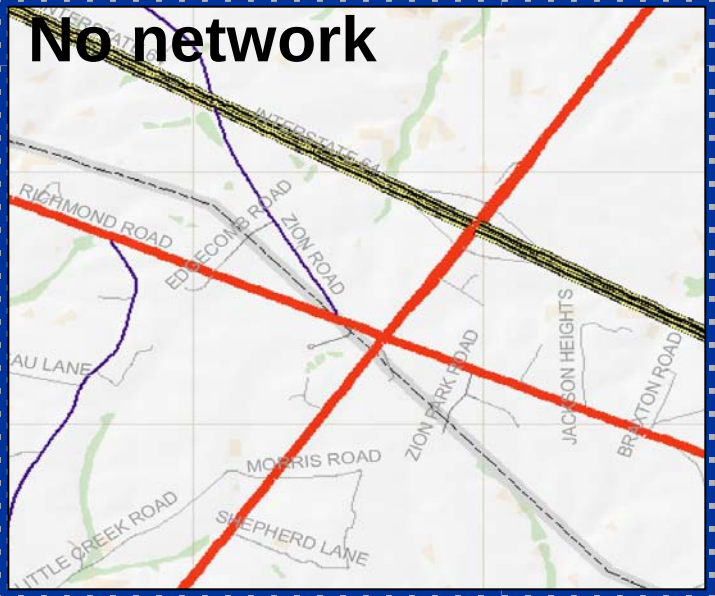
•All trips must use the main arterial



• Poor connectivity

NWFL Intersection volume at buildout





108,000
total volume

US 250 17,600 21,100

36,200

US 15 33,100

179,000
total volume

US 250 39,700 40,600

57,900

US 15 41,300

Zion Crossroads of the future…

Vs


Zion Crossroads neighborhood

NWF Framework Plan

Northwest Fluvanna /
Southwest Louisa Corridor Study
Framework Plan
June 1, 2007

DRAFT

Thomas Jefferson Planning District Commission

VDOT

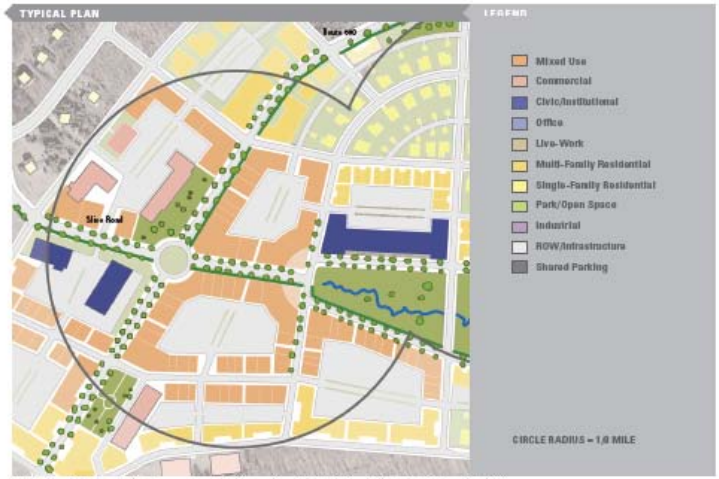
RENAISSANCE PLANNING GROUP

Guidelines for Fluvanna Comp Plan

3-C NEIGHBORHOOD MIXED-USE

The Neighborhood Mixed-Use place type incorporates multiple uses into a walkable, pedestrian-friendly environment with compact block sizes. Ideally, Neighborhood Mixed-Use areas will include a mix of retail and office uses at the center, with connected residential uses at the edge. A centralized public space is encouraged to establish the identity of the center as a focal point and important civic space in the community.

Through a series of steps, a conventional suburban area may be transformed into a more vibrant and diverse Neighborhood Mixed-Use center. The images above illustrate a potential transformation along Route 600, just north of Slice Road, in Lake Monticello. Beginning with a new approach to the pedestrian environment, the area develops a character of walkability. Continued improvements and infill development reestablish the site as a new Mixed-Use Center.



Potential neighborhood mixed use center at the intersection of Route 600 and Slice Road in Lake Monticello.

3-C NEIGHBORHOOD MIXED-USE

1 CONNECTIVITY

Street Types

Commercial areas within Neighborhood Mixed-Use elements should incorporate Main Street standards. As land use turns to residential, neighborhood streets should be incorporated. When larger, high-speed roads enter the pedestrian-oriented core of a Neighborhood Mixed-Use element, the cross-section should shift into a Commercial Street, to balance vehicular and pedestrian needs.

Connectivity & Block Size

Because of the building density, small block sizes are appropriate for the Neighborhood Mixed-Use element. Block sizes for commercial uses must be expanded to accommodate large retail stores without disrupting the overall block network. Where there are smaller scale storefronts, office uses, and residential, the block size should be minimized.

2 SITE DESIGN

Building Height & Frontage

The tallest buildings making up the Neighborhood Mixed-Use element should be concentrated around the Main Street to provide a sense of spatial enclosure, creating an 'urban room' for pedestrians. Setbacks should be minimized, with no setback along areas serving as Main Street.

Parking

On-Street parking is encouraged along both commercial and residential streets. Surface parking should be placed to the rear of buildings, shielded from the sidewalk and Main Street setting. Large surface parking lots should be placed within the interior of blocks and arranged to maximize sharing between multiple uses.

3 LAND USE

Mix of Uses

Although the Neighborhood Mixed-Use element has a retail bias, a diverse integration of uses, including storefront retail, office, civic, and residential is recommended. This mixed-use quality is important to the vibrance of the center, creating an energized streetscape for residents, patrons, and workers.

Density

The Neighborhood Mixed-Use element combines higher density retail and residential uses. Large parking areas should be minimized in order to optimize the potential density of the center. Most residential uses should be mutli-family, with single-family residences only appropriate at the edges.

4 OPEN SPACE

Integration of Open Spaces

Due to its development intensity, the Neighborhood Mixed-Use element allows limited opportunities for open space. A Town Square or Pocket Park is the most appropriate type of open space and is encouraged to establish a public civic space at the core. Greenways may connect between the center and peripheral areas. Recreational Parks may be integrated at the edge of the commercial area to serve the community at large.

Neighborhood Mixed-Use Summary

Street Types (p 20)
Commercial Street
Main Street
Neighborhood Street

Block Size
300'-600'

Building Height (p 22)
2-4 Stories

Frontage (p 22)
Storefront
Porch

Parking (p 25)
On-Street
Surface
Residential

Mix of Uses
Storefront Retail (25-75%)
Civic (10-25%)
Office (10-25%)
Restaurant (10-25%)
Multi-Family Res (10-35%)
Single-Family Res (5-20%)

Density
Commercial FAR: 1.0
Residential DUA: 8-10

Open Space (p 27)
Town Square
Pocket Park
Neighborhood Park

urban ← COMMUNITY ELEMENT MATRIX → rural

	Regional Mixed-Use	Regional Employment	Neighborhood Mixed-Use	Neighborhood Residential	Village	Rural Cluster
Connectivity						
Street Types (p 20)	Commercial Street Main Street Neighborhood Street	Commercial Street Main Street Neighborhood Street	Commercial Street Main Street Neighborhood Street	Neighborhood Street	Commercial Street Neighborhood Street Rural Road	Neighborhood Street Rural Road
Block Size	400'-800'	400'-800'	300'-600'	200'-600'	200'-600'	200'-varies
Site Design						
Building Height (p 22)	2-6 Stories	2-6 Stories	2-4 Stories	1-3 Stories	1-3 Stories	1-2 Stories
Frontage (p 22)	Commercial Storefront	Commercial Storefront	Storefront Porch	Storefront Porch Residential Yard	Storefront Porch Residential Yard	Porch Residential Yard
Parking (p 25)	Structured On-Street Surface	On-Street Surface	On-Street Surface Residential	On-Street Surface Residential	On-Street Surface Residential	Residential
Land Use						
Mix of Uses	Large Commercial (25-40%) Storefront Retail (25-40%) Civic (10-25%) Office (10-25%) Restaurant (10-25%) Multi-Family Res (5-20%)	Office (25-75%) Health/Medical (10-25%) Light Industrial (10-25%) Storefront Retail (5-20%) Multi-Family Res (5-20%)	Storefront Retail (25-75%) Civic (10-25%) Office (10-25%) Restaurant (10-25%) Multi-Family Res (10-35%) Single-Family Res (5-20%)	Single-Family Res (25-75%) Multi-Family Res (25-50%) Limited Retail (10-25%)	Storefront Retail (10-25%) Civic (10-25%) Office (10-25%) Restaurant (5-20%) Multi-Family Res (25-50%) Single-Family Res (25-75%)	Single-Family Res (50-100%) Multi-Family Res (25-50%) Limited Retail (10-25%)
Density	Commercial FAR: 2.0 Residential DUA: 10-15	Commercial FAR: 2.0 Residential DUA: 10-15	Commercial FAR: 1.0 Residential DUA: 8-10	Commercial FAR: .5 Residential DUA: 4-10	Commercial FAR: .75 Residential DUA: 4-8	Commercial FAR: .5 Residential DUA: 2-6
Open Space						
Open Space (p 27)	Town Square Pocket Park	Pocket Park	Town Square Pocket Park Neighborhood Park	Neighborhood Park Recreational Park	Neighborhood Park Recreational Park Passive Open Space	Neighborhood Park Recreational Park Passive Open Space

4 COMMERCIAL FRONT

DIAGRAM OF TYPICAL FRONTAGE

The Commercial Front is used for buildings facing onto Commercial Streets. Because Commercial Streets are higher-speed thoroughfares, they provide a challenge to walkability and pedestrian comfort. Without the presence of on-street parking, landscaping takes a primary role in defining the pedestrian environment. Street trees and setbacks help to separate the pedestrian realm from vehicular traffic. Despite their setback, buildings should address the street and provide an appropriate degree of enclosure - signaling that one has entered a walkable, urban area.

setback **0'-15'**

4 STORE FRONT

DIAGRAM OF TYPICAL FRONTAGE

A Store Front is intended to promote retail activity. The front building facade should be at or near the edge of the right-of-way. Higher ground floor heights ensure a civic presence at street level. The ground floor often has large windows, drawing attention inward and allowing pedestrians to window shop. Awnings and signage may cantilever over the right-of-way.

setback **0'-10'**

4 PORCH FRONT

DIAGRAM OF TYPICAL FRONTAGE

A Porch Front is designed to promote social interaction between pedestrians and residents of individual houses without compromising the privacy of those same residents. It is typically found in American neighborhoods built between 1890 and 1940.

setback **5'-20'**

4 RESIDENTIAL YARD

DIAGRAM OF TYPICAL FRONTAGE

A Residential Yard uses a substantial building setback. The front yard created may be fenced or unfenced and should have similar landscaping to adjacent yards. With the deep setback as a buffer, the common lawn front can be suitable for higher speed thoroughfares.

setback **15' min**

4-D OPEN SPACE

3 NEIGHBORHOOD PARK

EXAMPLE DIAGRAM

A neighborhood park is an open public space serving a residential area. The space may be used for civic gatherings and recreation. Neighborhood parks provide a safe open area free from moving traffic for children and neighborhood residents. Neighborhood parks may be bound by residences or small scale institutional or civic buildings to form a common green. These parks are intended to serve the local area, unlike recreational parks, which serve a larger residential population.

4 RECREATIONAL PARK

EXAMPLE DIAGRAM

Recreational parks are open public space, ranging from three to ten acres, reserved for civic gatherings and recreation. Often, recreational parks are designed around existing natural features. Its landscape consists primarily of grassy areas, paved or unpaved walks, and shade trees. Formal playing fields may be established to serve community needs. The park should be surrounded by a mix of residential, commercial, and civic buildings. Recreational parks may also serve nearby institutions, such as schools. Parking needs and other necessary facilities must also be considered and sensitively integrated with the landscape.

5 GREENWAYS

EXAMPLE DIAGRAM

Greenways provide places for recreation and help maintain the scenic quality of landscapes. It is important from a transportation mobility and access perspective that greenways function by connecting places where people want to go: neighborhoods, business centers, shopping areas, schools and parks. Additionally, greenways provide an excellent opportunity for embedded community and neighborhood parks. Greenways also provide opportunities for unique recreational activities such as mountain biking and equestrian trails.

6 PASSIVE OPEN SPACE

EXAMPLE DIAGRAM

Passive open space provides scenic views and may accommodate greenway trails and walking paths. Golf courses may also be incorporated into passive open space. Recreational uses such as playing fields or courts are not typically included however. Passive open space may be retained to serve individual neighborhoods or the overall community. Rural and agricultural land may be preserved as passive open space.

Transit-Ready Development

Strategies for how development in greenfield (or infill) sites can:

- Incorporate transit-supportive strategies early on
- Grow into transit-oriented development over time

Transit-Ready Development

- Mixed land uses and diversity of housing types
- Pedestrian-friendly site plan, with generous sidewalks and comfortable transit stops
- A neighborhood street grid (plenty of connections versus cul-de-sacs)
- Transit routes and stops that are
  - incorporated into current development
  - or factored into future plans
- Public and commercial facilities designed as Transit Targets and community focal points

Transit-Ready Development

- Regional transit planning, across jurisdictions
- Developer marketing plans that take advantage of transit-supportive strategies
  - Wide range of housing products
  - One-car (or no-car) families
  - Location-efficient mortgages
- ‘Early-action’ transit service
  - Commuter coaches, Circulator trolleys

Reclaiming a corridor

Becoming a Transit-Ready neighborhood center

Reclaiming a corridor

Medians and pedestrian improvements

Reclaiming a corridor

Continue public improvements

Reclaiming a corridor

Mixed-use infill development on individual properties

Reclaiming a corridor

Continue infill development

Reclaiming a corridor

Landscape matures over time

Reclaiming a corridor

Add transit service as market grows

Community Involvement

- Organize a Civic Participation Event
- Institute a monthly “I Dine and Shop in Nellysford” Evening
- Create an “I Brake for Nellysford” Bumper Sticker Campaign

Community Involvement

Organize a Civic Participation Event

Community Involvement

Simulate a Route 151 Pedestrian Median and Crosswalk at Valley Green Shopping Center

Community Involvement

Simulate a Route 151 Pedestrian Median and Crosswalk at Valley Green Shopping Center

Focused investment strategies

- Review available funds/projects across all partners (inc private)
- Re-purpose $$ ‘accruing’ into multimodal corridor target areas
- Target short-term action:
  - TDM, operational & access, transit & walk-bike improvements, connect-the-dots links to private investment
- Complete the Networks

Questions?

Harrison Rue

hrue@icfi.com

(919) 293-1647