

ROCKINGHAM

— COUNTY —

VIRGINIA



STONE SPRING URBAN DEVELOPMENT AREA PLAN

Recommended by the Planning Commission December 3, 2020

Adopted by the Board of Supervisors January 22, 2020

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INTERNATIONAL

ACKNOWLEDGEMENTS

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STONE SPRING UDA PLAN

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EXECUTIVE SUMMARY

WHAT'S AT STAKE?

The population in Rockingham County ("County") is growing. The population is projected to increase by 17.5 percent between 2017 and 2040, according to the U.S. Census. To meet this growth, the County needs to determine the most effective course of development for infrastructure (roads, water, sewers), as well as the development-associated local government services (police, fire protection, schools), while meeting its fiscal responsibilities.

What does the future hold for the County as it relates to this new development? The traditional auto-orientated development model is not the most efficient use of land. Land uses are separated, requiring more vehicle trips, and large parking lots located between buildings and the street, which discourages walking. Recently completed developments in Botetourt County at the Daleville Town Center and One Loudoun in Loudoun County, provide examples for a new direction and opportunity. Both demonstrate a real home-grown desire for creating neighborhoods with a mix of uses, that are walkable and are planned around parks and trails.

HOW WE ADDRESS THE ISSUE

The Urban Development Area (UDA) Grant Program provides an opportunity to plan and develop land in the most efficient manner. With guidance by the UDA Advisory Committee, stakeholders and staff, the Stone Spring Urban Development Area Plan (Stone Spring UDA) creates a 20-year vision for the development of new walkable neighborhoods and infrastructure investments within four focus areas for growth. The key elements of the vision were crafted by input by the UDA Advisory Committee through a series of exercises that determined the most important

design and streetscape elements to see reflected in the final plan (see page x for the worksheet example). The results provided the foundation for creating neighborhood principles, design, and streetscape guidelines for the Stone Spring UDA. See the Design and Streetscape Worksheet on page 12, the numbers indicate the vote total.

The Stone Spring UDA provides a blueprint for neighborhood development based on traditional town patterns, known as Traditional Neighborhood Development (TND). TND is based on the principle that neighborhoods should be walkable, achieved by compact, mixed-use development, with pedestrian-oriented development blocks that are sized for easy walking distance and characterized by an interconnected network of streets that are articulated with trees, on-street parking, and a variety of routes for vehicle traffic while facilitating walking, cycling and transit. The Stone Spring UDA Plan focuses on the physical form and massing of buildings—on scale, block size, and the relationship between building edges and the public realm.

THE CHALLENGE

Is there a market for TND in Rockingham County? It is difficult to forecast with accuracy just how much the market for TND real estate is growing; there is no doubt that the size of the market will be increasing over the next 20 years. Growing consumer demand for TND is based on demographic trends and changing buyer preferences based on dominate e-commerce trends. Diminishing traditional big box retail stores across the country and changes in the shopping experience, show there is a demand for mixed-use developments that include public amenities, such as event and recreation space and fine dining. Local TND examples include Daleville Town Center.

A detailed 2012 report by George Washington University's Center for Real Estate and Urban Analysis, in partnership with the Urban Land Institute, revealed how walkable urban places and projects will drive tomorrow's real estate industry and the U.S. economy. Walk Score, a private company that measures walkability across the United States has found

that communities that receive a high score see a 5 to 8 percent increase building and property values.

An overwhelming percentage of home buyers and renters prefer single-family homes in neighborhoods that are a walkable. A detailed 2013 survey by the National Association of Realtors indicated 50 percent prefer a traditional walkable community, while 45 percent prefer a conventional suburb. When asked to choose between a neighborhood that “has a mix of houses and stores and other businesses that are easy to walk to” versus a neighborhood that “has houses only and you must drive to stores and other businesses,” the walkable neighborhood was preferred 60 percent to 35 percent.

In addition to the growing demand for walkable neighborhoods, the fiscal benefits of compact development have been well documented. Infrastructure costs for TND neighborhoods are less than conventional suburban development (per housing unit). The 2010 EPA Infrastructure Case Study, documented reductions in infrastructure costs due to TND patterns ranging from 32 to 47 percent, with the extent of cost savings based principally on density. Furthermore, compact development yields more tax revenue per acre.

Perhaps the biggest challenge is quantifying financing of TND, from land acquisition to construction financing. Critical financial issues that affect the implementation of the Stone Spring UDA include:

- Assembling a large quantity of land is costly.

TND requires dense (usually quarter-acre lot) residential blocks with an internally-oriented neighborhood and enough people to help support the commercial and civic function to get the proforma to work. The good news is that the cost of land in the Stone Spring UDA is much more affordable than denser cities and counties.

- Lender avoidance of risk in untested markets makes financing innovative development difficult.

The good news is that lenders are less cautious in markets, such as northern Virginia, that have higher levels of density, income, and a defined transportation network that enables greater connectivity between employment and residential centers. As noted, there have been recent TND developments in Botetourt and Loudoun County that lend supportive evidence that the market is changing in this area for this type of product. It may take a developer with experience implementing TND development in transitioning markets.

- The process of amending a municipal zoning ordinance to accommodate a TND can be costly, time-consuming, and filled with unknowns; plus, there is a real risk that the municipality will fail to enact the necessary provisions.

To overcome this challenge, the Stone Spring UDA proposes specific design and streetscape guidance that are essential for TND and offers a phasing strategy for amending the County’s Zoning Ordinance. See Key Principles Phasing Diagram on Page 13.



A 20-YEAR MASTER PLAN AND VISION

Great neighborhood developments are not created overnight, they evolve over time. The Stone Spring UDA is organized as a 20-year master plan, a component of the Comprehensive Plan, providing a vision of neighborhoods connected with trails, walking and bicycles paths, and anchored with parks and activity centers. The County can use the project investment to create safer streets and public open spaces, by specifying design and streetscape guidelines to the developers financing the TND's. The County can build on the demand for TND, by capitalizing on the strength of the local housing market and broader economic and market trends, which are favoring TND. The Stone Spring UDA contains the following sections, which can act as standalone documents:

1. **10 Guiding Principles That Make a Neighborhood** (Page 15) integrates the feedback from the advisory committee into 10 principles and articulates a vision for a walkable neighborhood to guide future development within the UDA.
2. **Form-Based Transect to Guide Future Growth** (Page 25) creates the physical context by defining a series of zones, with height and setback requirements, that transition from suburban areas to denser urban neighborhood centers.
3. **Neighborhoods Connected by Pedestrian and Bicycle Pathways** (Page 37) envisions a pedestrian and bicycle trails network connecting the focus areas promoted for neighborhood growth (Stone Port, Stone Ridge, Boyers Crossing, and Crossroads).
4. **Design and Streetscape Guidelines** (Page 49) provides guidance for architectural and streetscape design, based on best practices, allowing for more granular control of the built elements.
5. **Neighborhood Concepts** (Page 61) employs the form-based transect, design and streetscape guidelines, to create neighborhood concepts for each of the focus areas:

 Stone Port
 Boyers Road
 Stone Road
 Crossroads

 Glossary (Page 101)

The Stone Spring UDA is a high-level document that provides a guiding vision. The County will need to make plan components refinements as it is implemented.

RECOMMENDATIONS

1. Adopt the Stone Spring UDA as part of the Comprehensive Plan to formalize the vision for the UDA. The Comprehensive Plan drives the creation of more detailed area plans and zoning ordinances

By adopting Stone Spring UDA, the County can begin to promote development in the focus areas of the UDA and capitalize on the existing infrastructure along Stone Spring Road. The County can begin to promote and market the Stone Spring Pedestrian and Bicycle Trail concept of linking various neighborhoods in the UDA.
2. Refine the Form-Based Transect with a focus on the height and setback requirements for each of the zones, in a subsequent planning process. A deliverable of this phase could be specific zoning language for the adoption of the transect into the Code of Ordinances for each of the focus area
3. Prioritize design guidelines related to physical form and massing of buildings—on scale, block size, and the relationship between building edges and the public realm. Per the Short, Mid and Long-term Phase Diagram on page 23, design guidelines that relate to building and parking placement, as well as sidewalks should be considered Phase 1. The remaining guidelines can be phased, based on what's appropriate for current market conditions.

By adopting design guidelines and form-based transect, the County can more closely promote the design and character of development in the UDA. The result can be better utilization of land area, improved tax benefits, and lower capital costs. When correctly designed, the costs to the developers are returned with higher value projects.
4. Update the development review process so that development proposals are reviewed for consistency with the Comprehensive Plan, the Stone Spring UDA and the Code of Ordinances. A good development proposal will receive an expeditious approval by meeting the vision of the Stone Spring UDA.

A. INTRODUCTION

Stone Spring UDA Plan (UDA Plan) provides Rockingham County with a vision of how future growth can be accommodated while protecting rural and established suburban areas. All concepts articulated in the UDA Plan are proposed within the UDA boundary, as adopted by the County in 2015.

With guidance from a UDA Advisory Committee, County staff and stakeholders, the UDA Plan establishes principles for guiding the creation of neighborhoods from large underutilized or undeveloped parcels of land. A strategy to create zones of where more intense development can go and where it transitions to established single family neighborhoods will utilize **form-based transect**. Design and streetscape guidelines based on the concepts of **traditional neighborhood design (TND)** that embody classic characteristics of traditional communities such as walkable neighborhood centers and interconnected streets and blocks, diversity of land uses will guide development within the UDA. And finally, illustrative concepts that show what future growth may look like when employing TND placemaking strategies.

B. BACKGROUND

UDAs were authorized by the Code of Virginia in 2007 (Virginia Code § 15.2-2223.1.) as a requirement for certain high growth localities to designate areas “sufficient to meet projected residential and commercial growth in the locality for an ensuing period of at least 10 but not more than 20 years.” In 2012 the Code was amended to define UDA more broadly and make them optional rather than mandatory.

The primary purpose of UDA legislation is to improve the future efficiency of state-funded road construction and maintenance. Under the House Bill 2 legislation established in 2014, areas designated as UDA in a local comprehensive plan have an additional level of potential eligibility for transportation funding from the State, because of its proximity to transportation facilities, redevelopment/infill potential, and higher density development that incorporate the principles of TND.

The County was awarded a Tier 1 Grant under this program for \$65,000 in the form of

consultant assistance, with the assignment of Michael Baker International (“Michael Baker”) and the Renaissance Planning Group, also known as the “Consultant Team,” to provide the professional consulting services. A Scope of Services was developed within the overall requirements of the Grant Program.

The Consultant Team assisted the County in building on the previous work done when the UDA was first designated in 2011, and later expanded in 2015. The Consultant Team evaluated the current land use and transportation system, as well as future development areas and population projections within the designated UDA and County. The result is a subsection of the Comprehensive Plan, the UDA Plan will address land use, streetscape design and connectivity throughout the UDA. The UDA Plan incorporates the principles of TND for new development, and includes a **Complete Streets** approach intended to strike a balanced experience for all modes of travel (for vehicles, transit, pedestrians and bicyclists) creating a sense of place in the County’s most rapidly urbanizing area. The UDA Plan assists the County in promoting economic development and more effectively coordinating transportation and land use planning.

Traditional Neighborhood Design (TND) is a project that should include a range of housing types, a network of well-connected streets and blocks and a variety of public spaces, and should have amenities such as stores, schools within walking distance of residences.

A form-based transect defines a series of zones, with height and setback requirements, that transition from sparse rural farmhouses to the dense urban core. Each zone is fractal in that it contains a similar transition from the edge to the center of the neighborhood.

Complete Streets are a transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation.

C. THE PLANNING PROCESS

With the amount of underutilized or undeveloped land located in the UDA, there is a tremendous opportunity to plan how and where future growth most appropriately should go and how it will be shaped over the next 20 years to create memorable places with vibrant neighborhoods that are linked by a street network that moves pedestrians, cyclists and vehicles in the safest way possible. In planning for future growth, a strategy must also be in place to protect established rural and suburban areas with a transition to the areas that will become more urbanized in the future.

The development of the Stone Spring UDA Plan was guided by the UDA Advisory Committee (Committee), with County staff and local stakeholders. One of the first questions asked by Committee members was how do we prime the pump? How do we get the process going? A process to answer that question started with the examination of the UDA area, including recent development activity. A concurrent review of best practice examples of greenfield development was undertaken to determine any common themes or strategies.

There has been significant investment in the UDA area, specifically with the Sentara RMH Medical Center and some of the recent development proposals along Stone Spring Road, at Port Republic Road, as well as with the Preston Lake development proposal, located at Stone Spring Road and US-33. These developments represent hubs of investments, and something to build on.

Located near these hubs are large tracts of underutilized and undeveloped land where density could be promoted. Density came up as the number one issue to solve, because without it the desired retail and commercial uses will not be sustainable. Our first workshop exercise asked participants to place a green dot on a map of where development should go. The results overwhelmingly consolidated interest at the undeveloped parcels along the Stone Spring Road at the intersections of Port Republic Road and US-33. From this exercise a total of five areas of interest were established: (Option 1) the undeveloped areas at the in-

tersection of Stone Spring and Port Republic Road and (Option 2) the intersection of US-33 and Stone Spring Road are areas that can accommodate the most amount of density because of the available developable land and consolidation of infrastructure investments along Stone Spring Road. (Option 3) Boyers Road was identified as more of a transition area in which density would step down in scale before the more established single-family residential neighborhoods to the south. Focus areas (Option 4) redevelopment of the golf club located along Shen Lake Road was later dropped from further evaluation, and (Option 5) the County Park (renamed Crossroads), to include the undeveloped areas south of the Route 33 and Cross Keys intersection. The four areas within the UDA boundary became to be known as:

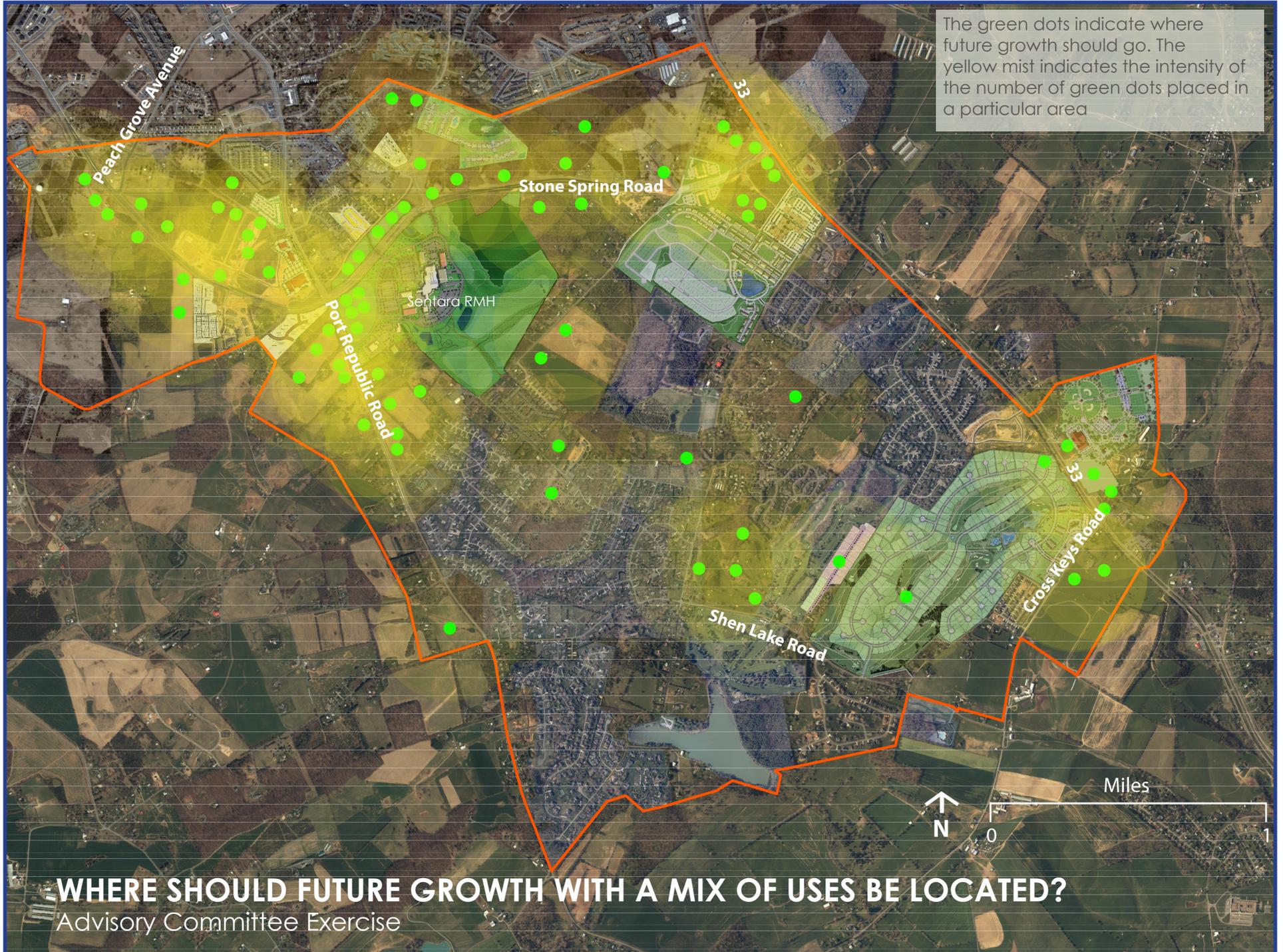
Stone Port: defined by the intersection of Port Republic and Stone Spring Road, and the areas west along Stone Spring Road up to Peach Grove Avenue.

Stone Ridge: defined by the intersection of Stone Spring Road and US-33, including the Preston Lake development site and the areas up Stone Spring Road to Reservoir Road.

Boyers Crossing: defined by the frontage along Boyers Road from Port Republic to Stone Spring Road.

Crossroads: defined by the undeveloped land located southwest to the intersection of Route 33 and Cross Keys, extending to the County Park

The next exercise established the design and streetscape principles that would be supported within the focus areas. The overwhelming feedback from the Committee focused on creating a consistent walkable sidewalk experience with street trees and lighting with greater mixed-use density on compact street blocks (with the buildings closer to the street frontage), crosswalks, streets that are safe for pedestrians and bicyclists, places that bring people together (such as parks and plazas) and establishing neighborhood identity that is the culmination of these ideas. Finding locations for a new fire department and school were also indicated during the process.



Input from these exercises provided the spring board to develop the themes and concepts to guide the UDA Plan. The UDA Plan is organized by the following sections that describes the larger vision and themes of creating neighborhoods, codifying concepts into specific zones, creating a strategy that connects neighborhoods, developing design guidance that supports the pedestrian experience and providing concepts that explore priorities and possible phasing strategies

1. THE 10 GUIDING PRINCIPLES OF WHAT MAKES A NEIGHBORHOOD

The first critical task was to create principles that provide a roadmap for the next 20 years, and the second, was to create a phasing strategy that introduces these principles when the economics and market demand are sustainable. These guiding principles are based on the evaluation of greenfield redevelopment examples in similar contexts in which undeveloped or underutilized land was developed into thriving neighborhoods. What to get right in the first phase is critically important, such as creating a discernible center that would attract future investment in the near-term. Analysis of best practice examples also indicated the importance of allowing for flexibility in terms of land use, and focusing on form first, such as placing buildings placed closer to the street early in the process and having a strategy to encapsulate parking in the mid- to long-term from a land value perspective.

2. FORM-BASED TRANSECT TO GUIDE FUTURE GROWTH (AND PROTECT RURAL AND ESTABLISHED SUBURBAN AREAS)

The transect is a valuable tool that establishes criteria for form and land use that are specific to areas. By using this tool, the UDA Plan can promote Stone Port and Stone Ridge as more dense, while Boyers Crossing and Crossroads as a transition area to the established suburban areas. In addition, the transect can maintain the character of the rural areas as well as the established suburban areas in the UDA.

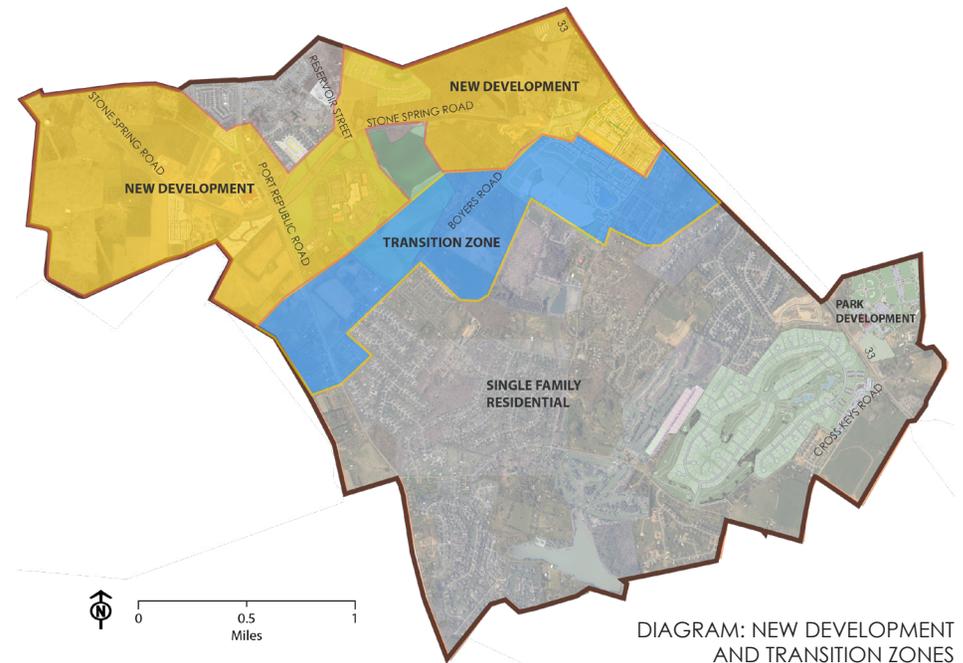


DIAGRAM: NEW DEVELOPMENT AND TRANSITION ZONES

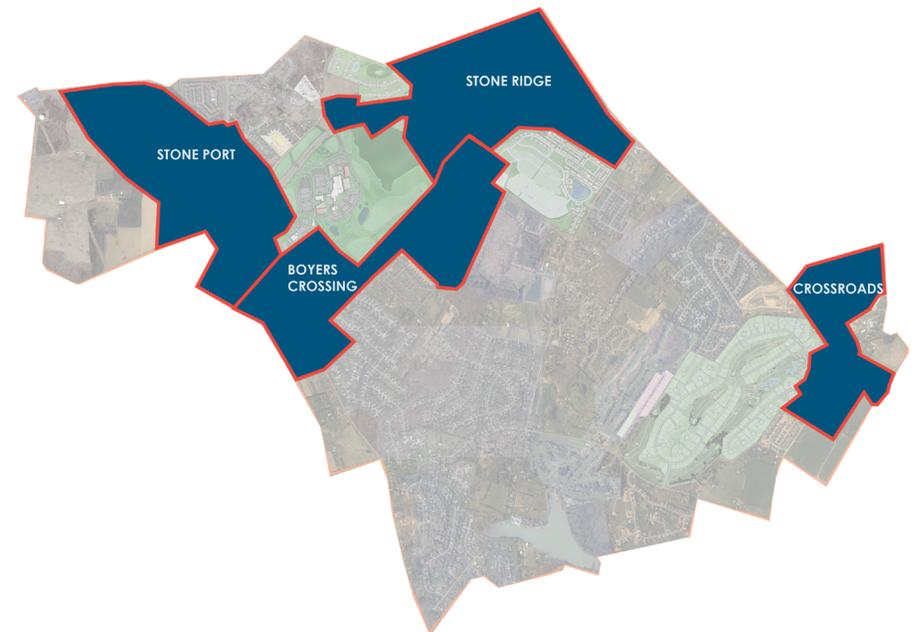


DIAGRAM: FOCUS AREAS

WHAT DESIGN AND STREETScape ELEMENTS ARE MOST IMPORTANT TO YOU?

BASED ON THE NUMBER VOTES (AS INDICATED ON THE LEFT SIDE OF EACH PHOTO)



26 SIDEWALKS WITH A CLEAR PEDESTRIAN PATH, STREET TREES AND LIGHTING



21 BUILDINGS CLOSER TO THE STREET / PARKING BEHIND THE BUILDING



20 NEIGHBORHOOD CENTERS



23 GREATER DENSITY / MIXED-USE DEVELOPMENT



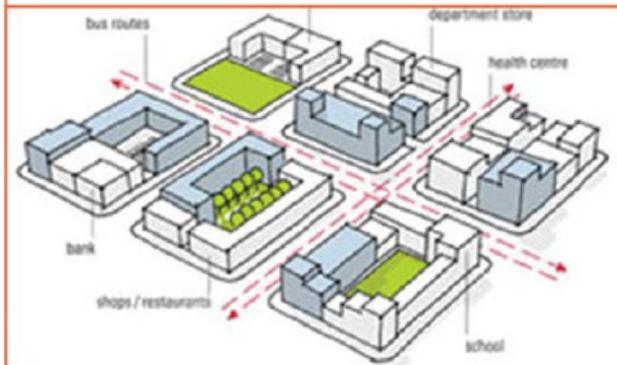
21 BICYCLE LANES



19 NEIGHBORHOOD IDENTITY



23 CROSSWALKS



20 COMPACT STREET BLOCKS

OTHER DESIGN ELEMENTS THAT RANKED HIGH:

- TRAFFIC CALMING
- GROCERY STORE
- LIBRARY (CIVIC BUILDING)
- SCHOOL

3. NEIGHBORHOODS CONNECTED BY PEDESTRIAN AND BICYCLE PATHWAYS

The UDA Plan builds upon the 2016 Harrisonburg-Rockingham MPO Bicycle and Pedestrian Plan by connecting Stone Port, Stone Ridge and Boyers Crossing and its proposed parks with existing and new pedestrian and bicycle multi-use paths. The UDA Plan envisions a Stone Spring Pedestrian and Bicycle Trail, based on the concept of Huckleberry Trail in Blacksburg and Christiansburg, that connects Stone Ridge with Stone Port, and is gradually built out as development occurs in these areas. The UDA Plan expands on the bicycle study network for Boyers Road with a proposed multi-use path that extends into Stone Ridge. Envisioning the big picture, Stone Spring Road, Boyers Road, and the existing Port Republic Road facilities would create a complete and continuous circuit through the heart of the UDA, as shown on page 38.

4. DESIGN AND STREETScape GUIDELINES

Design and streetscape guidance is articulated for lot size, building massing, modulation, facades, entries and streetscape elements along the public right-of-way to enhance the pedestrian experience.

5. NEIGHBORHOOD CONCEPTS

Neighborhood concepts are provided for Stone Port, Stone Ridge, Boyers Crossing and Crossroads, suggesting urban design strategies, park locations, development concepts and phasing strategies. There are many scenarios in which development can proceed in these areas, and what is shown in this section is just one approach that is based on the neighborhood principles and design guidelines articulated in the previous sections of the UDA Plan.

The neighborhood concepts also evaluate how to plan for transitioning from surface to structured or encapsulated parking. A development model that is based only on surface parking is not sustainable in the future. For example, an average two-bedroom unit (approximately

+/- 1,200 SF) requires 1.5 parking stalls. The average square footage to support one surface parking stall (the stall, percentage of the drive aisle, walkway, site topography and landscaping is 350 square feet per stall. For every 2-bedroom (1,200 SF) in the County, about 525 SF of surface area is required. To achieve the type of density necessary to sustain commercial and retail use, the amount of land area to accommodate surface parking is significant and will need to be reduced in the future by gradually transitioning to encapsulated parking in order to achieve the necessary density to support the types of uses desired.

STONE SPRING UDA PLAN DOCUMENT ORGANIZATION



