

ROCKINGHAM

— COUNTY —

VIRGINIA



STONE SPRING URBAN DEVELOPMENT AREA PLAN

FINAL DRAFT - OCTOBER 2019

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INTERNATIONAL

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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 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:

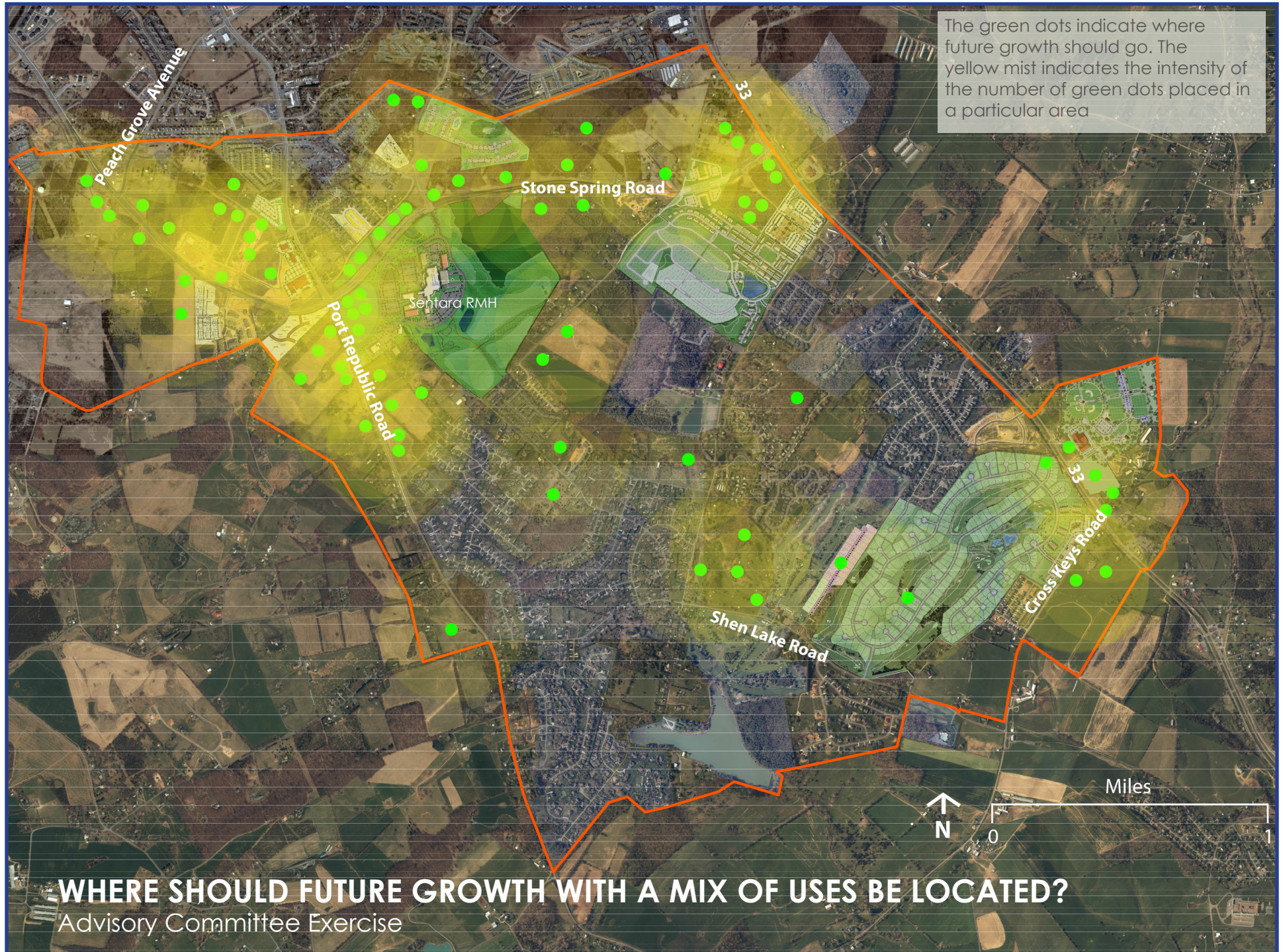
Stone Port: defined by the intersection of Port Republic and Stone Spring Road, and the areas west along Stone Spring Road up to Peach Grove Avenue.

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 area 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.

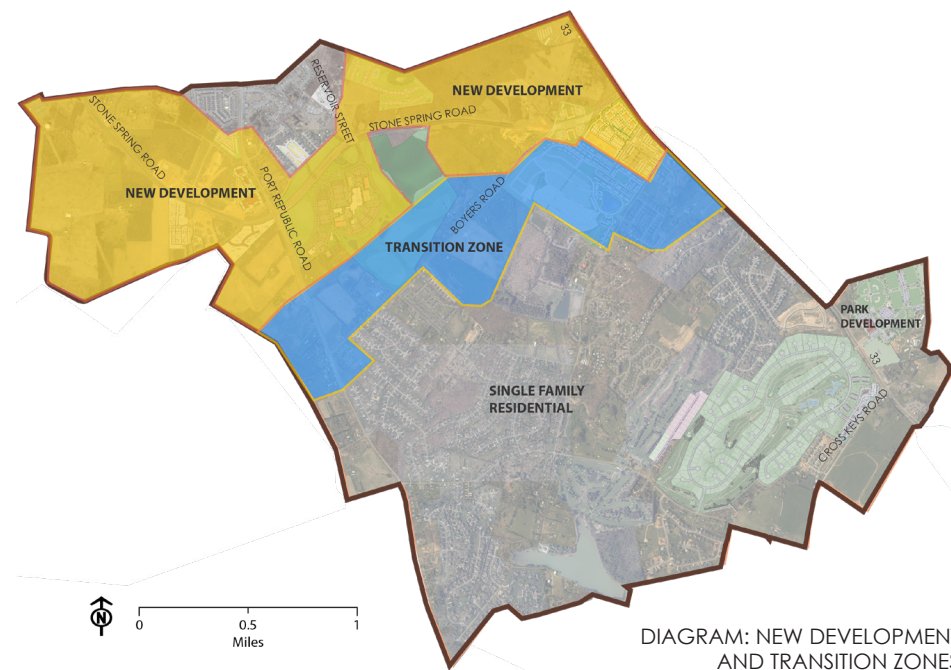


DIAGRAM: NEW DEVELOPMENT AND TRANSITION ZONES



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



23 GREATER DENSITY / MIXED-USE DEVELOPMENT



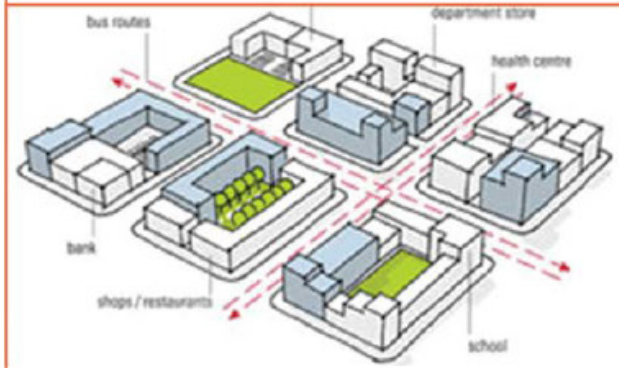
23 CROSSWALKS



21 BUILDINGS CLOSER TO THE STREET / PARKING BEHIND THE BUILDING



21 BICYCLE LANES



20 COMPACT STREET BLOCKS



20 NEIGHBORHOOD CENTERS



19 NEIGHBORHOOD IDENTITY

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





1. THE TEN GUIDING PRINCIPLES OF WHAT MAKES A NEIGHBORHOOD

WHAT MAKES A NEIGHBORHOOD?

10 PRINCIPLES

Many parts makes a neighborhood. A neighborhood has stores and shops that satisfy everyday needs within an easy walk with safe and friendly streets on which people feel they “belong.” Residential streets feel public, and more like open space than traffic ways. Streets are a pleasant part of the neighborhood. A great neighborhood has many choices to move on foot, by bicycle, transit, and auto. A neighborhood has places for people to meet, talk and be neighborly with gathering places that include parks, plazas, sidewalks, and shops. And lastly, a great neighborhood has its own character, shaped by its physical setting, streets, buildings, open spaces, history, and the people who live in them.



A discernible center



Connected sidewalks with a clear pedestrian path, street trees and lighting



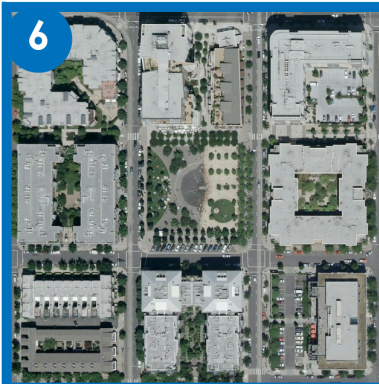
Buildings placed close to the street to create a sense of place



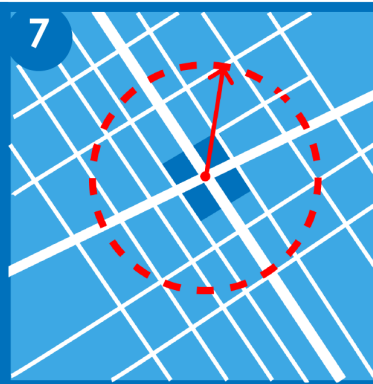
Parking placed behind buildings and away from street frontages



Complete Streets - a balance between cars, pedestrians and bicyclists



Compact street blocks that encourage walking



Most of the dwellings are within a five minute (1/4 mile) walk to the center



Greater density, with a variety of dwelling types and commercial activity



Neighborhood Identity



Prominent civic and public buildings

1 DISCERNIBLE CENTER

LOCAL CASE STUDY EXAMPLES

One Loudoun Town Center, Loudoun County

Daleville Town Center, Botetourt County,



Every neighborhood should have a discernible center, that is walkable from a quarter-mile radius. The center can accommodate programmed or spontaneous events, or simply be a place people relax or meet friends. The center is often a hardscaped plaza, green or a park space; sometimes it could even be a busy street corner. The center is supported and framed by mixed-use development with uses directly facing the center.



The first phase for both town centers for Daleville and One Loudoun established a multi-functional plaza space that accommodates festivals, farmers markets and other events in order to create a destination and attract future development.



2 CONNECTED STREETS, CONDUCTIVE TO PEDESTRIANS AND CYCLISTS



Streets within the neighborhood form a connected network, which disperses traffic by providing a variety of pedestrian and vehicular routes to any destination. Interconnected street grid network disperses traffic & eases walking.

KEY

1. An interconnected street grid disperses traffic and encourages walking with consistent and unencumbered sidewalks between street blocks
2. Striped bicycle lanes are continuous between street blocks
3. A high quality pedestrian network and public realm makes walking pleasurable with sidewalk bulb-outs at street intersections and enhanced crosswalks that are highly visible.

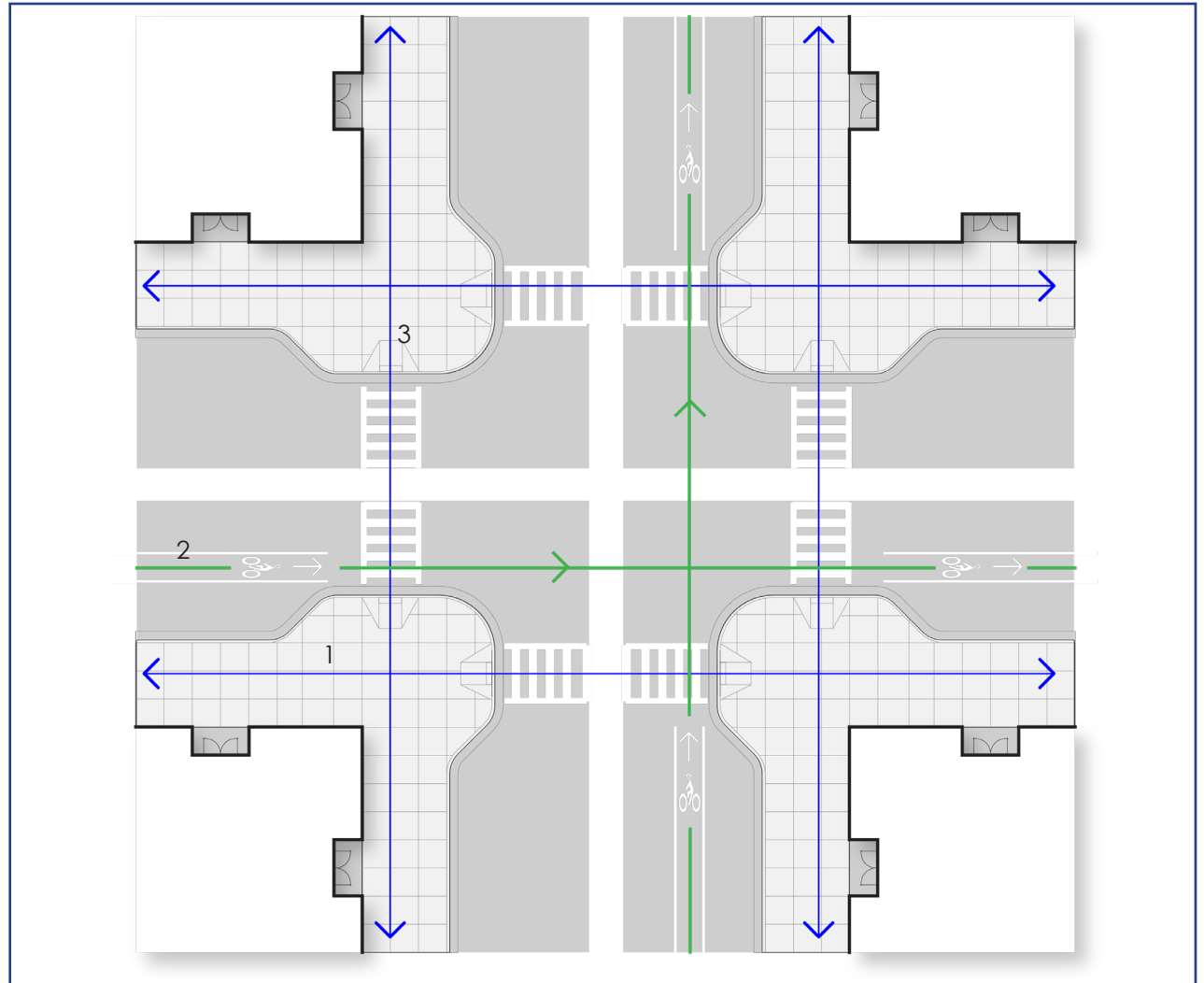


DIAGRAM: STREET GRID CONNECTIVITY

3 BUILDINGS PLACED CLOSE TO THE STREET TO CREATE A SENSE OF PLACE

4 PARKING PLACED BEHIND BUILDINGS AND AWAY FROM STREET FRONTAGES



Buildings in the neighborhood center are placed close to the street, creating a well-defined outdoor space.



Parking lots and garage doors rarely front the street. Parking is relegated to the rear of buildings, usually accessed by alleys.

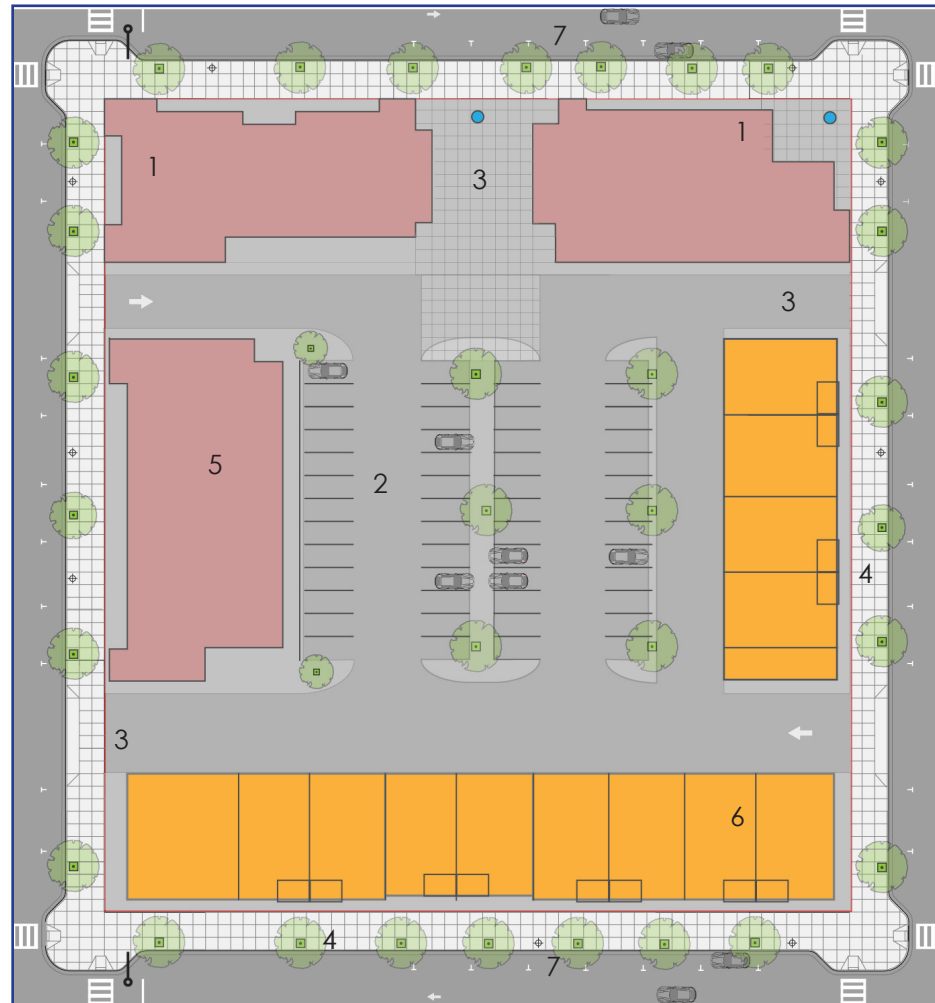


DIAGRAM: PLACEMENT OF DEVELOPMENT ON STREET BLOCK

KEY

1. Buildings located close to the street; emphasize the street corner
2. Parking internalized, based on structural bays for future parking structure build-out
3. Entries to the parking area
4. Ground floor units have direct access to the sidewalk
5. Commercial (pink)
6. Townhomes (orange)
7. On-street parking

5

COMPLETE STREETS



Complete streets have no singular design prescription. Each one is unique and responds to its community context; however, complete streets are designed to balance drivers, pedestrians, and bicyclists. A complete street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, handicap-accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

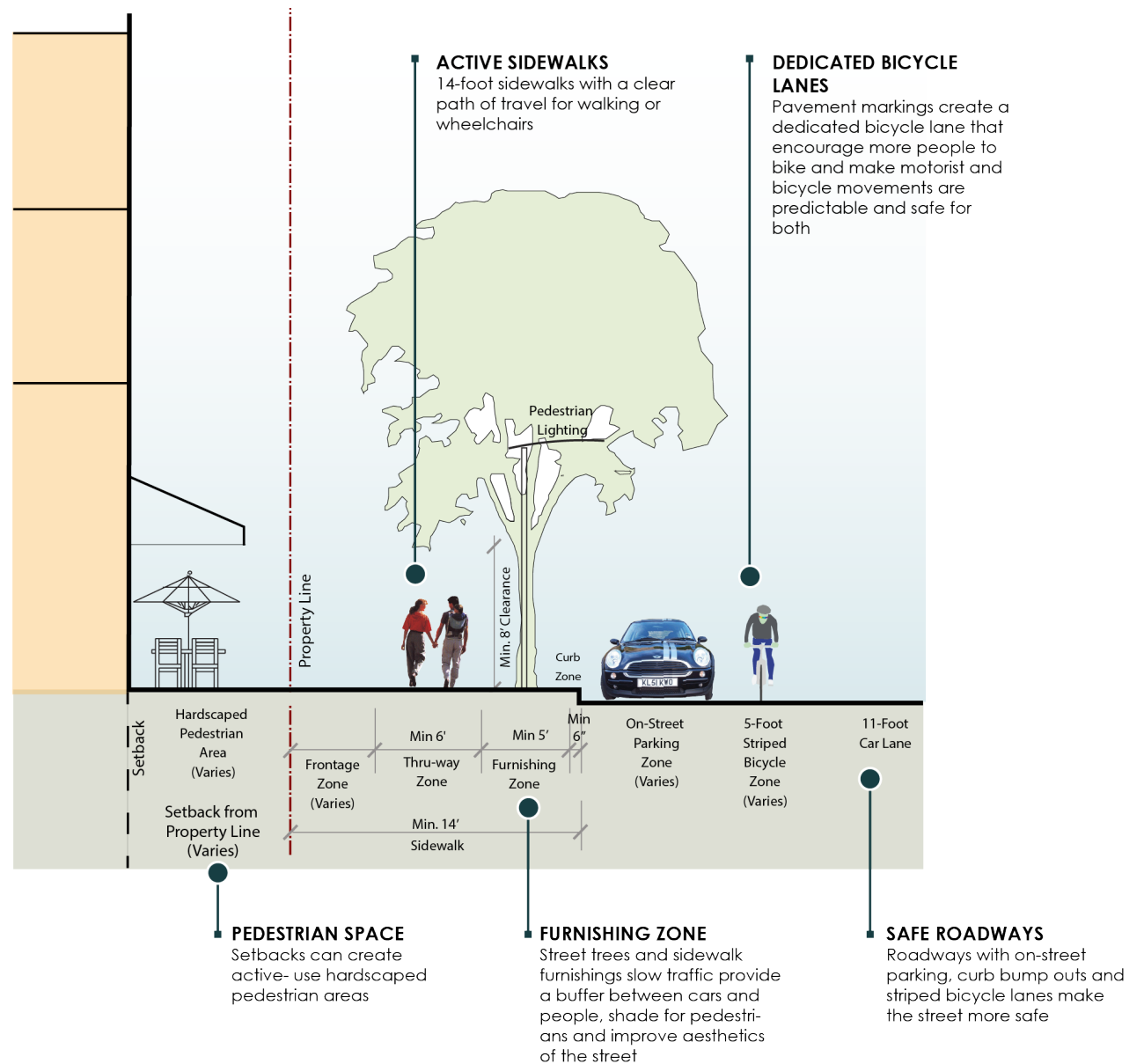


DIAGRAM: COMPLETE STREETS SECTION

6

COMPACT STREET BLOCKS THAT ENCOURAGE WALKING



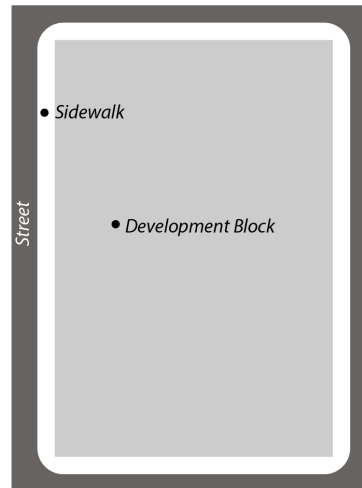
Compact street blocks that are 200 to 400 feet wide and up to 600-feet deep provide a comfortable neighborhood scale that facilitates a fine-grain development pattern and walking experience. For blocks that exceed the maximum recommended length of 600 feet, a mid-block pedestrian path is recommended to allow for passage.

Street blocks should take advantage of southern exposure when designing a plaza and emphasize mid-block pedestrian walkways to facilitate walking.

Typical Compact Street Block

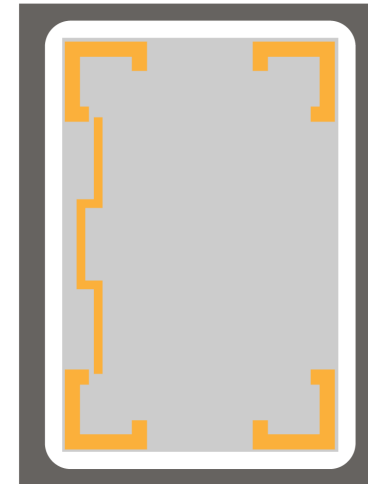
300 Feet to 600 Feet

200 Feet to 400 Feet



Emphasize the Corners

Emphasize the street block corners by architectural massing, height or material composition

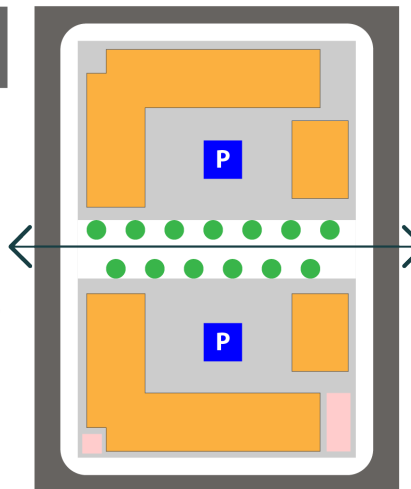


Mid-Block Pedestrian Paseos

Incorporate pedestrian paseos at the long-end of the block

Buildings placed towards the street frontage

Parking located behind the building



Design for Southern Exposure

Incorporate pedestrian plaza with landscaping and trees with active uses at the ground floor at the southern exposure of the block by building setback

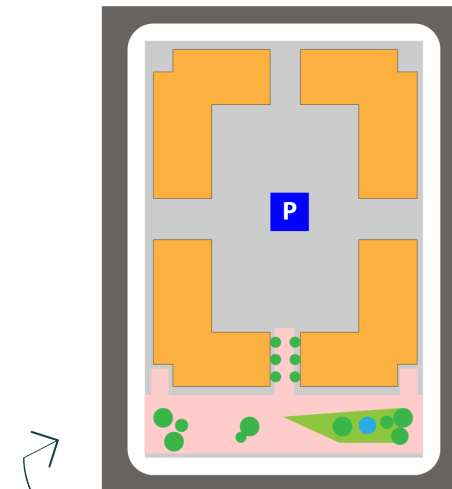
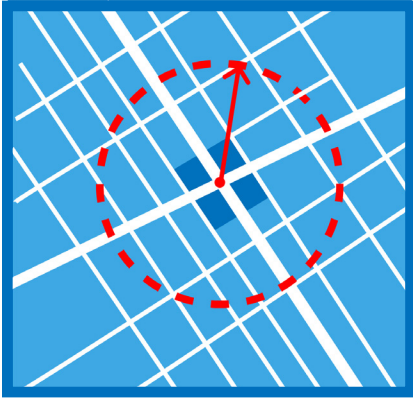


DIAGRAM: BLOCK LAYOUT SUGGESTIONS

7

1/4 MILE WALK TO THE CENTER



Most of the dwellings are within a five minute (1/4 mile) walk to the center. The center can be a park, plaza, event center, or street.

8

GREATER DENSITY WITH MIXED-USE DEVELOPMENT



Greater density, with a variety of dwelling types and commercial activity, provides synergy among uses and creates an immediate critical mass to sustain retail and commercial uses.

9

NEIGHBORHOOD IDENTITY



Neighborhood identity provides the brand and image of the area, and a basis for a marketing strategy to promote businesses, events and future development opportunities.

10

PROMINENT CIVIC AND PUBLIC BUILDINGS



Certain prominent sites at the termination of street vistas or in the neighborhood center or park, should be reserved for civic buildings (library, post office, city hall). These provide sites for community meetings, education, and religious or cultural activities.

DIAGRAM: PHASING THE GUIDING PRINCIPLES (PAGE 23)

The phasing diagram illustrated on Page 23 describes how the guiding principles that create a great neighborhood can be phased over time. Getting the placement of buildings right, and establishing a center of the neighborhood is critical in the earlier phases of a neighborhood. As more development is planned, addressing how parking should be treated becomes a critical component.

I. SHORT-TERM PHASE

1. A discernible center

Built over several phases: Phase I: Identify a Neighborhood Center, such as public square, future park, a civic building, or a Main Street

9. Create Neighborhood Identity

Create a sense of place through branding, district identification and wayfinding elements

2. Connected sidewalks with a clear pedestrian path, street trees and lighting

Each block with new development should have a continuous 14-foot sidewalk with street trees and pedestrian lighting

3. Buildings placed close to the street to create a sense of place

Phasing strategy for new buildings to emphasize important street corners when existing buildings are located on the site

II. MID-TERM PHASE

7. Most of the dwellings are within a five-minute (1/4 mile) walk to the center

Prioritizing development along highly visible streets, neighborhood parks and the Stone Spring Pedestrian and Bicycle Trail

5. Complete Streets with a balance between cars, pedestrians and bicyclists

Each block should be connected with continuous sidewalks, striped bicycle lanes and 11-foot lanes for cars

6. Create compact street blocks that encourage walking

Implement shorter block sizes from larger parcels (200-400 foot wide, 300-600 foot deep) to improve walkability

4. Parking placed behind buildings and away from street frontages

All parking should be placed behind the building and away from street view. Plan the site to accommodate future structured parking encapsulation

III. LONG-TERM PHASE

8. Greater density that includes a mix of dwelling units and commercial uses

Ground floor commercial use with residential development

10. Prominent civic and public buildings

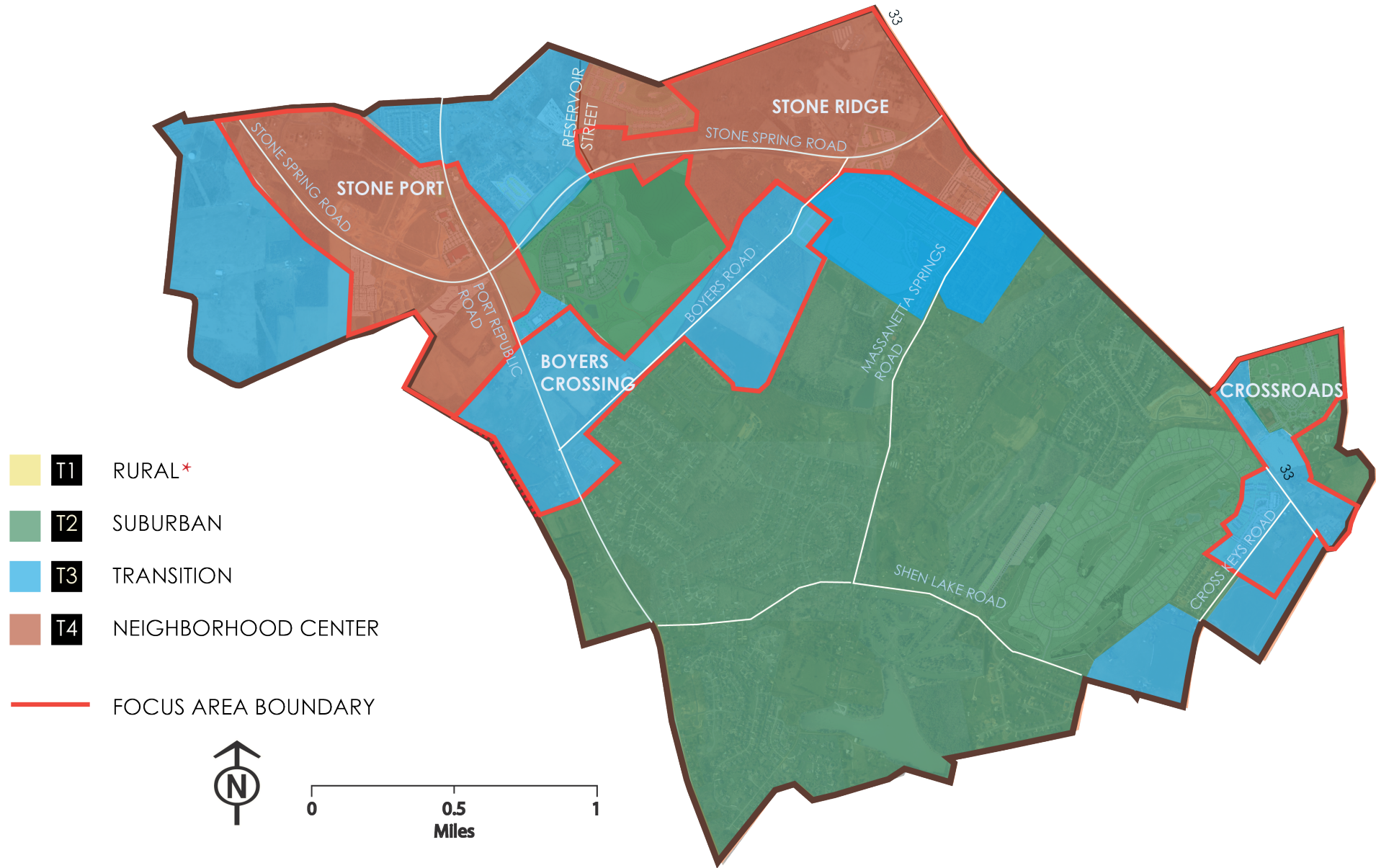
Could be the location of a library with an adjoining park, or a hardscaped plaza for neighborhood events

DIAGRAM: PHASING THE GUIDING PRINCIPALS



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

STONE SPRING UDA TRANSECT MAP



* The T1 Rural Transect is not used in the Stone Spring UDA, but is identified in the legend to maintain the standard format and to have the transect applicable to other parts of the County where there are rural areas.

Stone Spring Transect - A Means of Preservation and Transformation

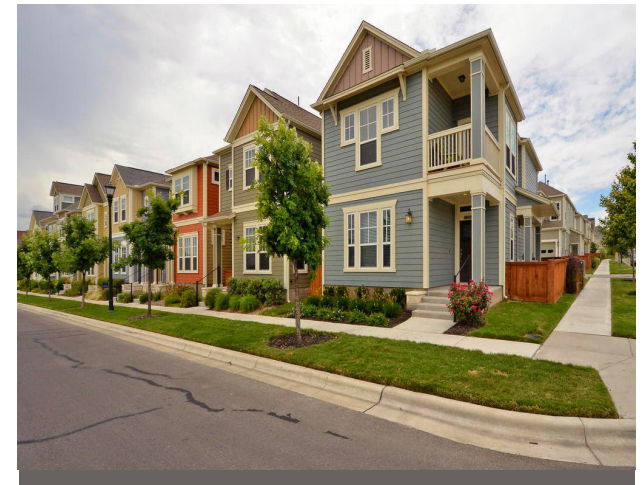
The Stone Spring Transect (Transect) adapts the 10 guiding principles of “What Makes a Neighborhood” into criteria for form, height, setbacks, streetscape elements and neighborhood character, specific to zones within the Stone Spring UDA.

The Transect is a tool that guides the placement and form of buildings and landscape, allocates uses and densities, and appropriately details civic spaces, including street character and its elements, such as street trees, lighting and finishes for each street thoroughfare. The Transect is also a geographic cross section used to reveal a sequence of environments within the Stone Spring UDA. This cross-section is used to identify level and intensity of neighborhood character within a continuum that ranges from rural to urban. The Transect is customized to the vision of the Stone Spring UDA, as articulated by the UDA Advisory Committee and stakeholders, by preserving the physical character of the rural and established suburban areas located south of Boyers Road and west of US-33, and promoting a more compact and mixed-use character along Stone Spring Road, particularly at the intersections of Port Republic Road and US-33.

The segmentation of the Transect continuum for the Stone Spring UDA is accomplished by creating four different Transect Zones that

transition from the sparse rural areas (Rural T1 - not located in the UDA), to the predominately single-family neighborhoods located south of Boyers Road and west of US-33 (Suburban T2), to the transition zones known as Boyers Crossing and Crossroads (Transition T3) where development steps down in height and intensity towards the single-family neighborhoods of Massanetta Springs, and finally, to the future growth areas known as Stone Ridge and Stone Port (Neighborhood Center T4), located along Stone Spring Road, that will become more dense over time with compact mixed-use development.

Each zone is based on how development relates to the context of the surrounding community, especially the relationships between buildings and the street, pedestrians and vehicles, and public and private spaces. For example, incorporating a variety of residential and commercial spaces into a single neighborhood, such as multi-story buildings and public squares will be allocated to Neighborhood Center T4. In Transition T3 Zone, residential density would gradually decrease starting with apartments to townhouses to fully detached houses. Both Transition and Neighborhood Center zones would have park spaces that would have residential development located within a quarter mile walking distance. Efforts to implement the principles of the transect must be accompanied by changes to the County’s zoning ordinance.



Transition T3 Example



Transition T4 Example

TABLE: TRANSECT ZONE DESCRIPTIONS

This table provides descriptions of the character of each transect zone within the Stone Spring UDA which includes general character, building placement, height, setbacks and type of civic space.

Transect Zone Descriptions. This table provides descriptions of the character of each T-zone within the Stone Spring UDA in addition to design guidance provided for T3 and T4.



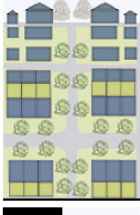
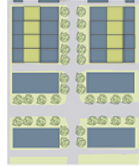
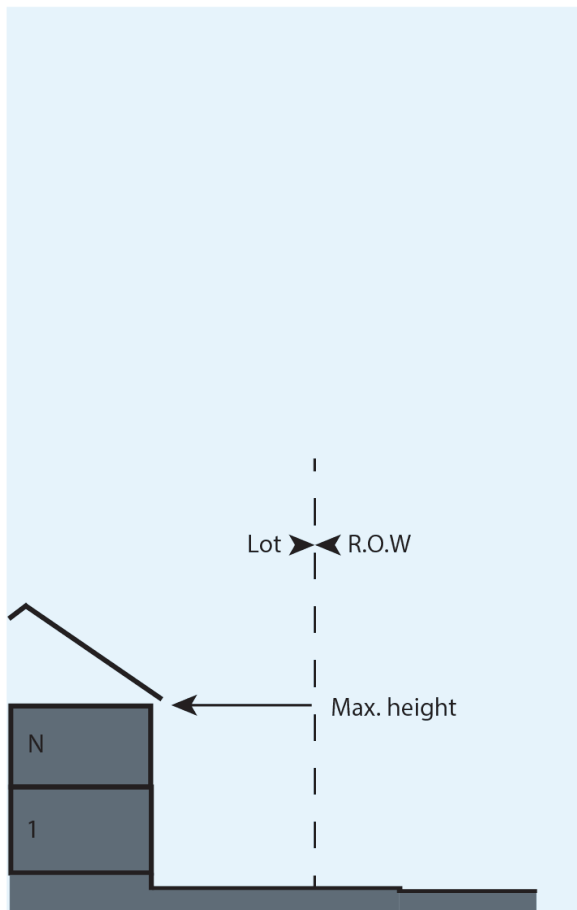
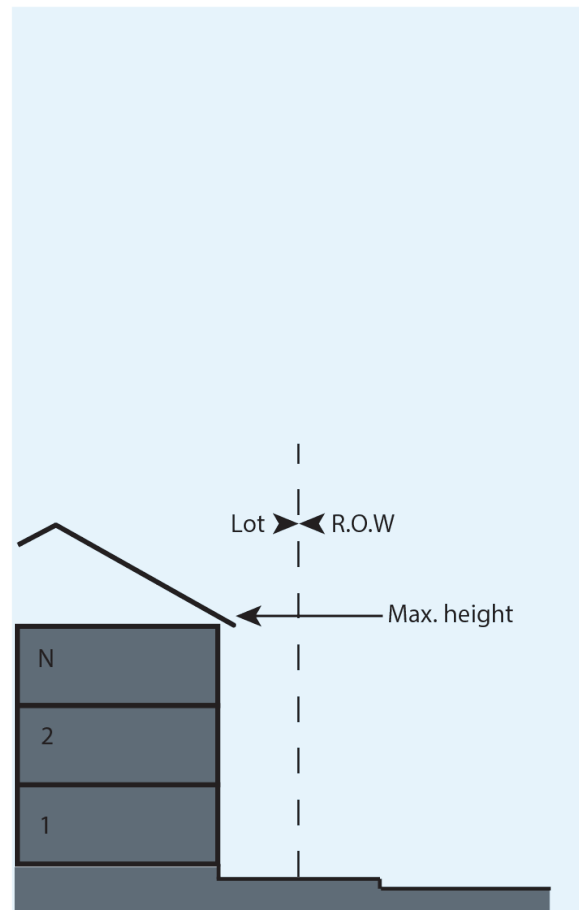
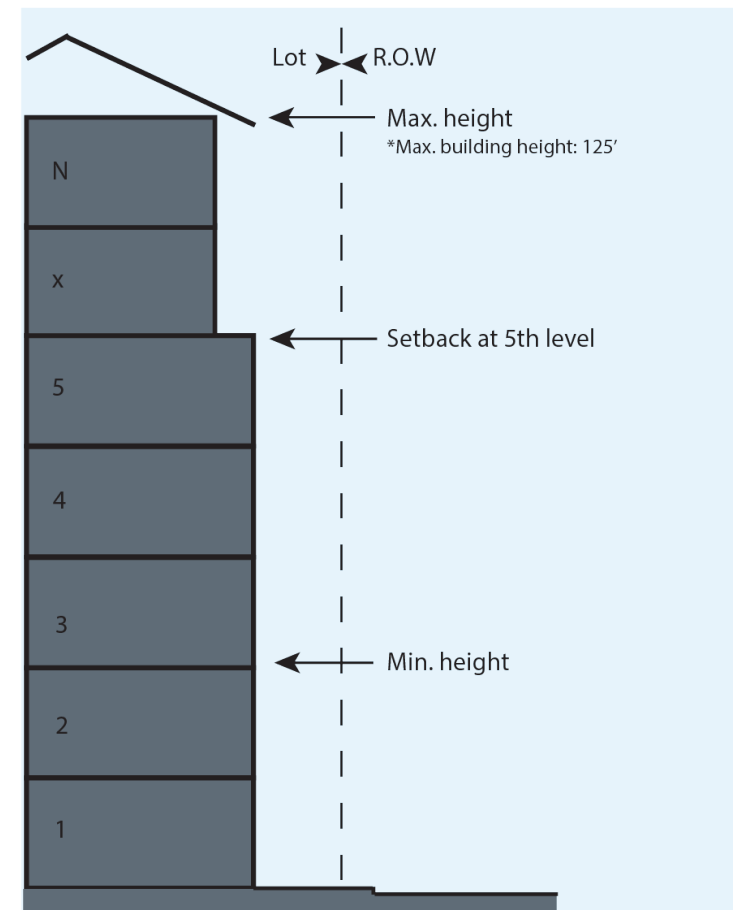
<div>T1</div> 	<p>T-1 RURAL (R)</p> <p>T-1 Rural Zone consists of sparsely settled lands in open or cultivated states. These include woodland, agricultural land and grassland. Typical buildings are farmhouses or detached single family structures.</p>	<table><tr><td>General Character:</td><td>Primarily agricultural with woodland & wetland and scattered buildings</td></tr><tr><td>Building Placement:</td><td>Variable setbacks</td></tr><tr><td>Frontage Types:</td><td>N/A</td></tr><tr><td>Typical Building Height:</td><td>1 to 2 story</td></tr><tr><td>Type of Civic Space:</td><td>Parks, greenways</td></tr></table>	General Character:	Primarily agricultural with woodland & wetland and scattered buildings	Building Placement:	Variable setbacks	Frontage Types:	N/A	Typical Building Height:	1 to 2 story	Type of Civic Space:	Parks, greenways
General Character:	Primarily agricultural with woodland & wetland and scattered buildings											
Building Placement:	Variable setbacks											
Frontage Types:	N/A											
Typical Building Height:	1 to 2 story											
Type of Civic Space:	Parks, greenways											
<div>T2</div> 	<p>T-2 SUBURBAN (S)</p> <p>T-2 Suburban Zone consists of low density residential areas, defined by the neighborhood of Massanetta Springs. Planting is naturalistic and setbacks are relatively deep. Blocks are large and the roads irregular to accommodate natural conditions.</p>	<table><tr><td>General Character:</td><td>Lawns, and landscaped yards surrounding detached Single-family houses. No curb or sidewalks in most areas</td></tr><tr><td>Building Placement:</td><td>Large and variable front and side yard setbacks</td></tr><tr><td>Frontage Types:</td><td>Porches, fences, naturalistic tree planting</td></tr><tr><td>Typical Building Height:</td><td>1 to 2-story</td></tr><tr><td>Type of Civic Space:</td><td>Parks</td></tr></table>	General Character:	Lawns, and landscaped yards surrounding detached Single-family houses. No curb or sidewalks in most areas	Building Placement:	Large and variable front and side yard setbacks	Frontage Types:	Porches, fences, naturalistic tree planting	Typical Building Height:	1 to 2-story	Type of Civic Space:	Parks
General Character:	Lawns, and landscaped yards surrounding detached Single-family houses. No curb or sidewalks in most areas											
Building Placement:	Large and variable front and side yard setbacks											
Frontage Types:	Porches, fences, naturalistic tree planting											
Typical Building Height:	1 to 2-story											
Type of Civic Space:	Parks											
<div>T3</div> 	<p>T-3 TRANSITION (T)</p> <p>T-3 Transition Zone consists of a primarily residential fabric but with some commercial emphasis along Port Republic Road. The zone may have a focused range of building types: single-family and townhomes. Setbacks and landscaping are consistent. Streets have curbs and sidewalks with medium-sized blocks.</p>	<table><tr><td>General Character:</td><td>Mix of single family houses, townhouses with commercial activity located along Port Republic Road. Balance between landscape and & buildings; presence of pedestrians</td></tr><tr><td>Building Placement:</td><td>Shallow to medium front & side yard setbacks</td></tr><tr><td>Frontage Types:</td><td>Stoops, porches, fences, dooryards</td></tr><tr><td>Typical Building Height:</td><td>1 to 2-story single family, 1-3 story townhomes, and 1 story commercial use along Port Republic Road</td></tr><tr><td>Type of Civic Space:</td><td>Parks, plazas and a multi-use pathway along Boyers Road</td></tr></table>	General Character:	Mix of single family houses, townhouses with commercial activity located along Port Republic Road. Balance between landscape and & buildings; presence of pedestrians	Building Placement:	Shallow to medium front & side yard setbacks	Frontage Types:	Stoops, porches, fences, dooryards	Typical Building Height:	1 to 2-story single family, 1-3 story townhomes, and 1 story commercial use along Port Republic Road	Type of Civic Space:	Parks, plazas and a multi-use pathway along Boyers Road
General Character:	Mix of single family houses, townhouses with commercial activity located along Port Republic Road. Balance between landscape and & buildings; presence of pedestrians											
Building Placement:	Shallow to medium front & side yard setbacks											
Frontage Types:	Stoops, porches, fences, dooryards											
Typical Building Height:	1 to 2-story single family, 1-3 story townhomes, and 1 story commercial use along Port Republic Road											
Type of Civic Space:	Parks, plazas and a multi-use pathway along Boyers Road											
<div>T4</div> 	<p>T-4 NEIGHBORHOOD CENTER (NC)</p> <p>T-4 Neighborhood Center Zone consists of higher density mixed use buildings that accommodate residential (townhouses, apartments), commercial, office and retail. The NC has compact network of neighborhood streets, with consistent sidewalks, street tree planting, and buildings placed close to the sidewalks and street. Development is organized around neighborhood parks within a 1/4 mile walk.</p>	<table><tr><td>General Character:</td><td>Commercial mixed with townhouses, larger apartment houses, offices, civic buildings; predominantly attached buildings; trees within the public right-of-way; substantial pedestrian activity; zparking is placed behind he building or it may be encapsulated in structured parking</td></tr><tr><td>Building Placement:</td><td>Setbacks up to 10' or none, depending on the street type buildings oriented to street, defining a street wall</td></tr><tr><td>Frontage Types:</td><td>Stoops, storefronts, galleries, porches, doorways</td></tr><tr><td>Typical Building Height:</td><td>3- to 6-story with some variation</td></tr><tr><td>Type of Civic Space:</td><td>Parks, plazas and squares, median landscaping and connectivity to the Stone Spring Pedestrian and Bicycle Multi-Use Trail</td></tr></table>	General Character:	Commercial mixed with townhouses, larger apartment houses, offices, civic buildings; predominantly attached buildings; trees within the public right-of-way; substantial pedestrian activity; zparking is placed behind he building or it may be encapsulated in structured parking	Building Placement:	Setbacks up to 10' or none, depending on the street type buildings oriented to street, defining a street wall	Frontage Types:	Stoops, storefronts, galleries, porches, doorways	Typical Building Height:	3- to 6-story with some variation	Type of Civic Space:	Parks, plazas and squares, median landscaping and connectivity to the Stone Spring Pedestrian and Bicycle Multi-Use Trail
General Character:	Commercial mixed with townhouses, larger apartment houses, offices, civic buildings; predominantly attached buildings; trees within the public right-of-way; substantial pedestrian activity; zparking is placed behind he building or it may be encapsulated in structured parking											
Building Placement:	Setbacks up to 10' or none, depending on the street type buildings oriented to street, defining a street wall											
Frontage Types:	Stoops, storefronts, galleries, porches, doorways											
Typical Building Height:	3- to 6-story with some variation											
Type of Civic Space:	Parks, plazas and squares, median landscaping and connectivity to the Stone Spring Pedestrian and Bicycle Multi-Use Trail											

DIAGRAM: BUILDING CONFIGURATION HEIGHTS

This diagram shows the configurations for different building heights for each Transect Zone. Recess lines and expression lines shall occur on higher buildings as shown. N = maximum height


T2 SUBURBAN (S)**T3** TRANSITION (T)**T4** NEIGHBORHOOD CENTER (NC)

SPECIFIC FUNCTION & USE

This table shows specific functions and uses within Transect Zones.

TABLE: Specific Function & Use. This table delegates specific functions and uses within Transect Zones.

	T1 RURAL ZONE	T2 SUB-URBAN ZONE	T3 TRANSITION ZONE	T4 NEIGHBORHOOD CENTER ZONE
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1. BLOCK SIZE				
Block Perimeter	no maximum	as required	3,600 ft. max	2,400 ft. max
2. CIVIC SPACES				
Park	permitted	permitted	permitted	permitted
Green	permitted	permitted	permitted	permitted
Square	not permitted	not permitted	permitted	permitted
Plaza	not permitted	not permitted	permitted	permitted
Playground	permitted	permitted	permitted	permitted
3. LOT OCCUPATION				
Lot Width	by Adjustment	as required	1,200 ft. max	600 ft. max
Lot Coverage	by Adjustment	as required	70 % max	80 % max
4. SETBACKS - PRINCIPAL BUILDING				
(g.1) Front Setback (Principal)	48 ft. min	as required	10 ft. min , 20 ft. max	0 ft. min , 10 ft. max
(g.2) Front Setback (Secondary)	48 ft. min	as required	10 ft. min , 20 ft. max	0 ft. min , 10 ft. max
(g.3) Side Setback	96 ft. min	as required	50 ft. min	0 ft. min , 24 ft. max
(g.4) Rear Setback	96 ft. min	as required	5 ft. min	3 ft. min
Frontage Buildout	n/a	as required	60% min	80% min
5. BUILDING PLACEMENT				
Edgeyard	permitted	permitted	permitted	permitted by review
Sideyard	not permitted	not permitted	permitted	permitted by review
Rearyard	not permitted	not permitted	permitted	permitted by review
Courtyard	not permitted	not permitted	permitted	permitted
6. PRIVATE FRONTAGES				
Common yard	permitted	permitted	not permitted	not permitted
Porch & Fence	permitted	permitted	permitted	permitted
Terrace or Dooryard	not permitted	not permitted	permitted	permitted
Forecourt	not permitted	not permitted	permitted	permitted
Stoop	not permitted	not permitted	permitted	permitted
Shopfront & Awning	not permitted	not permitted	not permitted	permitted
Gallery	not permitted	not permitted	not permitted	permitted
Arcade	not permitted	not permitted	not permitted	permitted



I. BUILDING FUNCTION

k. BUILDING HEIGHT

Principal Building	12-3 Stories max
Accessory Building	11 Stories max

f. LOT OCCUPATION

Lot Width	11,200 ft max
Lot Coverage	170%

i. BUILDING PLACEMENT

Edgeyard	1 Permitted
Sideyard	1 Permitted
Rearyard	1 Permitted
Courtyard	1 Permitted

g. SETBACKS - PRIMARY BUILDING

(g.1) Front Setback Principal	10 ft. min. 20 ft. max.
(g.2) Front Setback Secondary	10 ft. min. 20 ft. max.
(g.3) Side Setback	0 ft. min./5 ft. min.
(g.4) Rear Setback	5 ft. min.
Frontage Buildout	60% min at setback

h. SETBACKS - ACCESSORY BUILDING

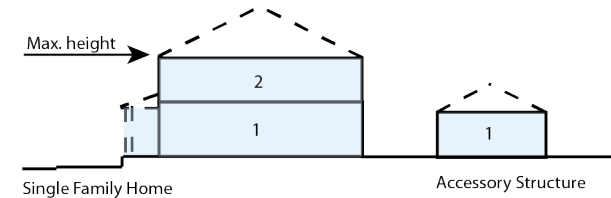
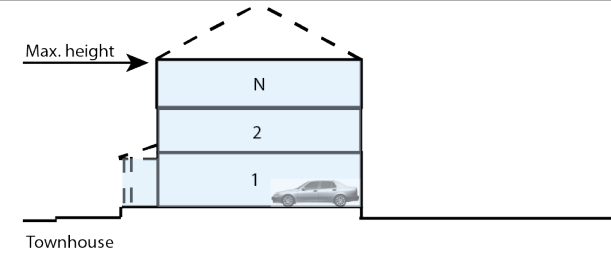
(h.1) Front Setback	20 ft. min. + bldg. setback
(h.2) Side Setback	0 ft. min./5 ft. min.
(h.3) Rear Setback	5 ft. min.

j. PRIVATE FRONTAGES

Common Yard	1 Not Permitted
Porch & Fence	1 Permitted
Terrace or Dooryard	1 Permitted
Forecourt	1 Permitted
Stoop	1 Permitted
Shopfront & Awning	1 Not Permitted
Gallery	1 Not Permitted
Arcade	1 Not Permitted

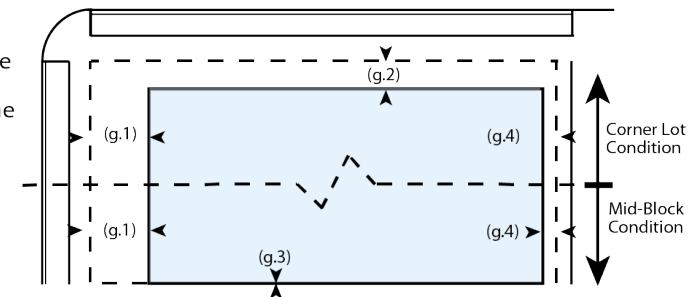
BUILDING CONFIGURATION

1. Building height shall be measured in number of stories, excluding attics and raised basements.
2. Stories may not exceed 14 feet in height from finished floor to finished ceiling, except for a first floor commercial function which must be a minimum of 12 ft. with a maximum of 25 ft.
3. Height shall be measured to the eave or roof deck
4. Height shall be consistent with principal building.



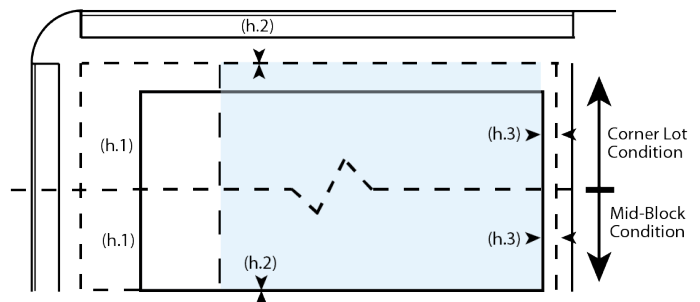
SETBACKS - PRIMARY BLDG

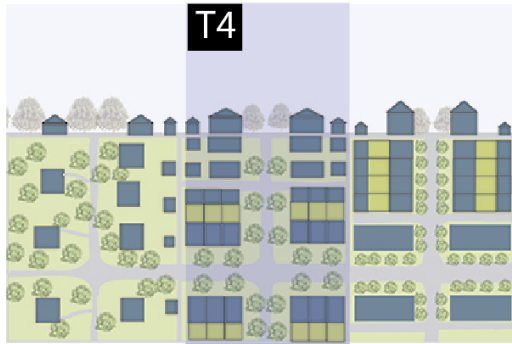
1. The facades and elevations of principal buildings shall be distanced from the Lot lines as shown.
2. Facades shall be built along the principal frontage to the minimum specified width in the table.
3. Side setback (g.3) is 0' min. for townhouses. End units of townhouses abutting another lot have a side setback of 5' min. Detached building types such as houses have a 5' min. side setback.



SETBACKS - ACCESSORY BLDG.

1. The elevations of primary buildings are distanced from the lot lines as shown.
2. Side setback (h.2) is 0' min. for accessory dwelling units of attached building types such as townhouses, if abutting other attached building types such as townhouses or their accessory dwelling units. Side setback is 5 ft. min for outbuildings of detached building types or for outbuildings of townhouses abutting detached building types.





I. BUILDING FUNCTION

k. BUILDING HEIGHT

Principal Building	6 Stories Max, 2 min
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f. LOT OCCUPATION

Lot Width	200 ft min, 600 ft max
Lot Coverage	80%

i. BUILDING DISPOSITION

Edgeyard	Permitted by review
Sideyard	Permitted by review
Rearyard	Permitted by review
Courtyard	Permitted

g. SETBACKS - PRINCIPAL BUILDING

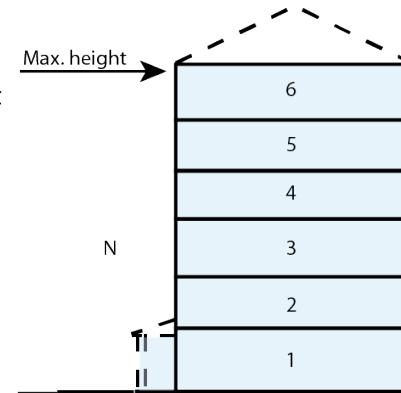
(g.1) Front Setback Principal	0 ft. min. 10 ft. max.
(g.2) Side Setback	0 ft. min.
(g.3) Rear Setback	5 ft. min
(g.4) Rear Setback mid block	10 ft. min
Frontage Buildout	80% min at setback

j. PRIVATE FRONTAGES

Common Yard	Not Permitted
Porch & Fence	Permitted
Terrace or Dooryard	Permitted
Forecourt	Permitted
Stoop	Permitted
Shopfront & Awning	Permitted
Gallery	Permitted
Arcade	Permitted

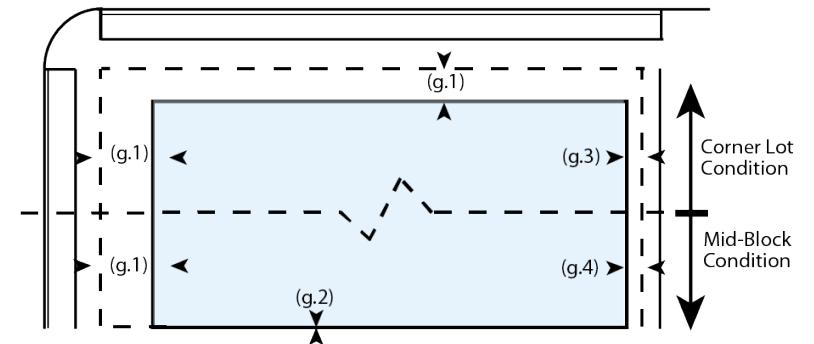
BUILDING CONFIGURATION

1. Building height shall be measured in number of Stories, excluding Attics and raised basements.
2. Stories may not exceed 14 feet in height from finished floor to finished ceiling, except for a first floor Commercial function which must be a minimum of 12 ft. with a maximum of 25 ft.
3. Height shall be measured to the eave or roof deck.
4. Height shall be consistent with principal building.



SETBACKS - PRINCIPAL BLDG

1. The Facades and Elevations of Principal Buildings shall be distanced from the Lot lines as shown.
2. Facades shall be built along the Principal Frontage to the minimum specified width in the table.



PRIVATE FRONTAGES DESCRIPTIONS DIAGRAM

The Private Frontages Diagram describes various common frontages that are appropriate for Transect Zones, with a brief description, section and plan view, as indicated in Table SPECIFIC FUNCTION AND USE.

Common Yard: A planted frontage wherein the facade is set back substantially from the frontage line. The front yard created remains unfenced and is visually continuous with adjacent yards, supporting a common landscape. The deep setback provides a buffer from the higher speed thoroughfares.

Porch & Fence: A planted frontage wherein the facade is set back from the frontage line with an attached porch permitted to encroach. A fence at the frontage line maintains street spatial definition. Porches shall be no less than 8 feet deep.

Terrace or Lightwell: A frontage wherein the facade is set back from the frontage line by an elevated terrace or a sunken lightwell. This type buffers residential use from urban sidewalks and removes the private yard from public encroachment. Terraces are suitable for conversion to outdoor cafes. Syn: dooryard.

Forecourt: A frontage wherein a portion of the facade is close to the frontage line and the central portion is set back. The forecourt created is suitable for vehicular drop-offs and outdoor cafes. This type should be allocated in conjunction with other frontage types. Large trees within the forecourts may overhang the sidewalks.

Stoop: A frontage wherein the facade is aligned close to the frontage line with the first story elevated from the sidewalk sufficiently to secure privacy for the windows. The entrance is usually an exterior stair and landing. This type is recommended for ground-floor residential use.

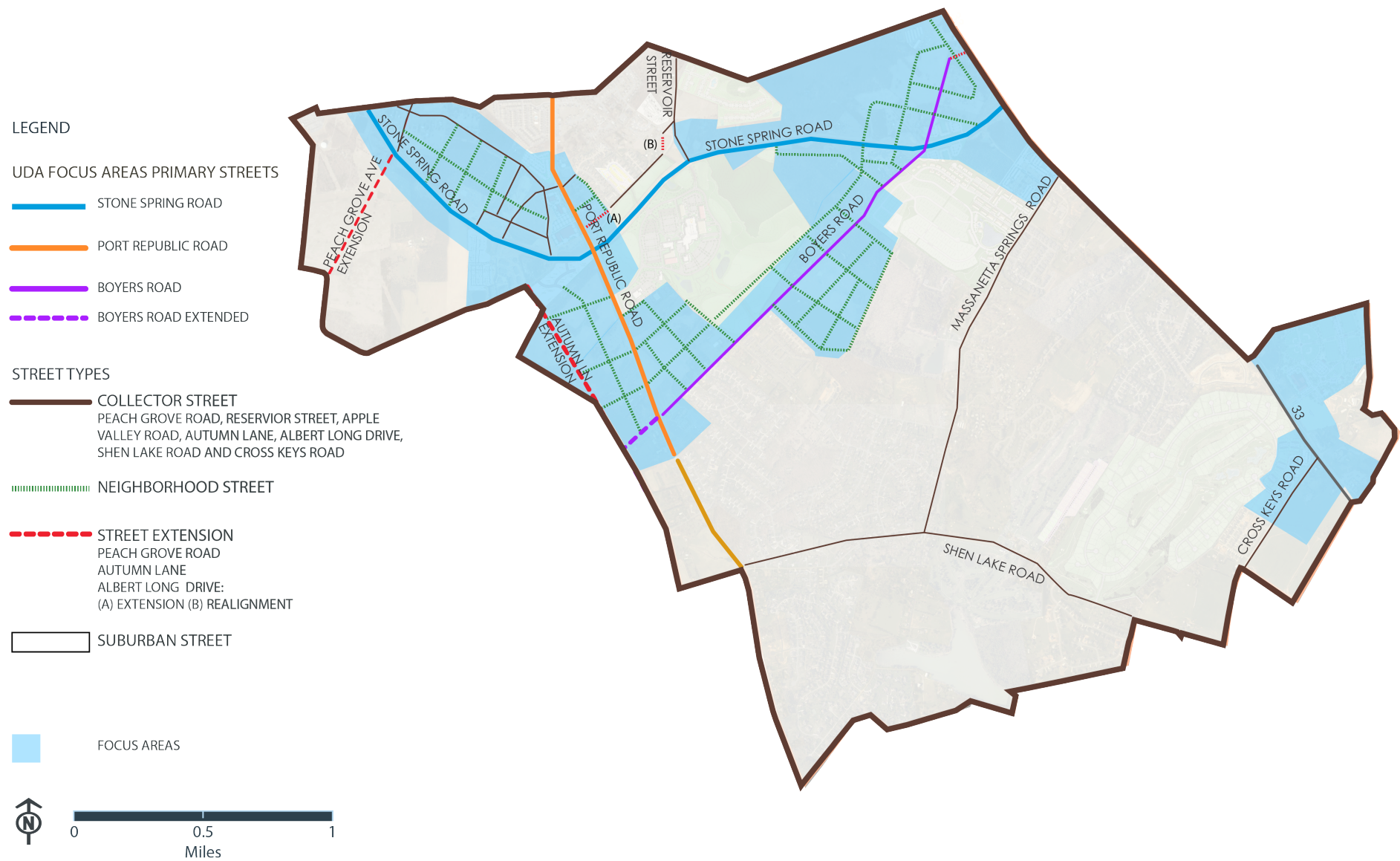
Storefront: A frontage wherein the facade is aligned close to the frontage line with the building entrance at sidewalk grade. This type is conventional for retail use and frontage. It has substantial glazing on the sidewalk level and an awning that should overlap the sidewalk to within 2 feet of the curb.

Gallery: A frontage wherein the facade is aligned close to the frontage line with an attached cantilevered shed or a lightweight colonnade overlapping the sidewalk. This type is conventional for retail use. The gallery shall be no less than 10 feet wide and should overlap the sidewalk to within 2 feet of the curb.

Arcade: A colonnade supporting habitable space that overlaps the sidewalk, while the facade at sidewalk level remains at or behind the frontage line. This type is conventional for retail use. The arcade shall be no less than 12 feet wide and should overlap the sidewalk to within 2 feet of the curb.



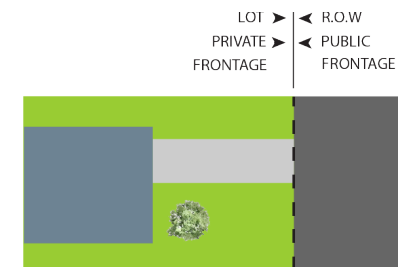
STONE SPRING UDA STREET HEIRACHY PLAN



STREET HIERARCHY PLAN

The Street Hierarchy Plan provides a template to improve connectivity between and within the neighborhoods for safe movement of pedestrians, cyclists and vehicles with specific street descriptions. Each street type indicated on the Street Hierarchy Plan are described below, with a conceptual plan view.

Suburban Street: Allows for circulation within the single-family neighborhoods of Stone spring UDA. This frontage includes deep setbacks that vary between 40 and 60 feet, and private landscaping consists of multiple species arrayed in naturalistic clusters. The rights-of-way are typically 22 feet wide that allows for two lanes of traffic. There are no curb, gutter or sidewalk areas defined. The driveway connects the street with the house. The single-family neighborhoods of the Stone Spring UDA are largely defined and no further changes are envisioned.



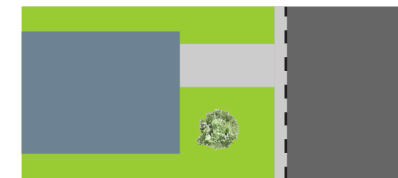
Circulator Street: Allows for the circulation between the focus areas. Circulator Streets include Peach Groove Avenue and its proposed extension, Autumn Lane Extension and Reservoir Street. This frontage has raised curbs and a paved sidewalk. The landscaping consists of street trees of alternating species aligned in a regularly spaced configuration. Since Circulator Streets connect suburban areas with the more dense areas of Stone Port and Stone Ridge neighborhoods, building setbacks are up to 20 feet.



Neighborhood Street: Are new streets to allow for the circulation within the Stone Port and Stone Ridge neighborhoods. This frontage has raised curbs and wide sidewalks separated from the vehicular lanes by a continuous variety of tree species planted in wells, aligned and spaced in a regularly spaced configuration. Building setbacks can vary between 0 to 10 feet. Some neighborhood streets could have parking on both sides.



Primary Street: Allows for circulation between the suburban areas and the more dense focus areas of Stone Port and Stone Ridge. The frontage along Boyers Road is proposed to have multi-use pathway on one side, separated from the vehicular lanes which will require various easements from both sides of the street due the varying right-of-way. The existing building setbacks are up to 50-feet, with 20-feet proposed for new development to ensure more pedestrian friendly frontage. The landscaping consists of a various plant species and are aligned in a regular spacing.



[Continued on next page]

STREET HIERARCHY PLAN(CONTINUED)

Stone Spring Road: Is a major part of the circulation network, providing the main addressing for both Stone Port and Stone Ridge neighborhoods. Stone Spring Road is defined by 4 lanes of travel and a median that varies in width depending on turning moments at intersections. The street should be improved to accommodate pedestrians and cyclists as new development occurs along its frontage with minimized curb cuts, wide sidewalks, street trees and striped bicycle lanes. The building setback should be 5 to 20 feet, depending on site topography constraints and accommodating a 14-foot wide sidewalk. Development should reinforce the important intersections at Port Republic Road, Reservoir Street and U.S Route 33.



Port Republic Road: North-south connector that starts as a primarily commercial road with 4 lanes of traffic and a median that accommodates turning movements at intersections. On the west side of the road is multi-use path with a 5-foot landscape strip and curb adjacent to vehicular traffic. The character of the road changes just south of Boyers Road to accommodate single-family residential neighborhoods with a reduction in right-of-way width and the number of drive lanes. Future development should maintain the multi-use path with building setbacks up to 10-feet from the edge of the path to also accommodate a consistent placement and species of street trees.

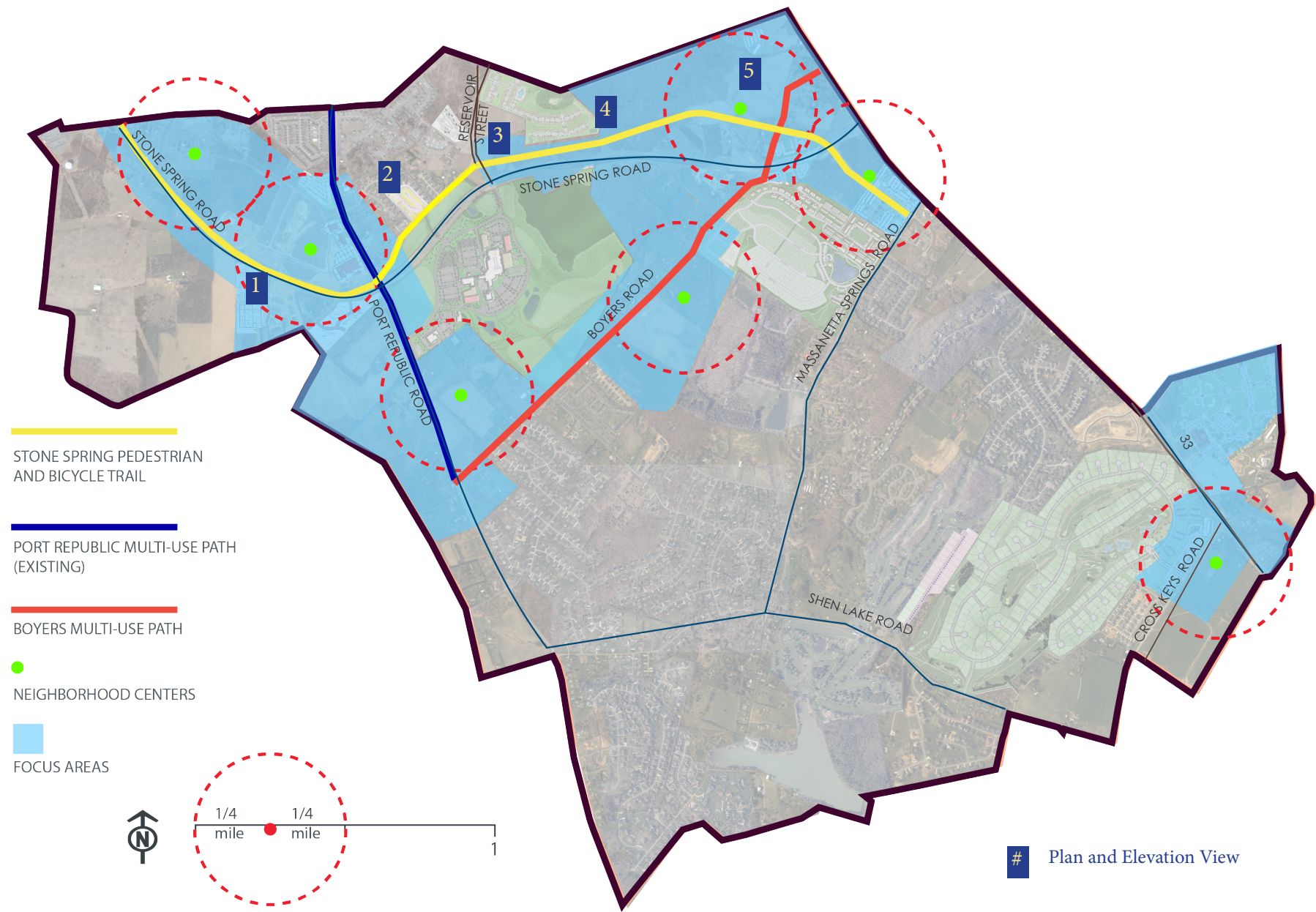


U.S. Route 33 (west side only): Future development along the westside of the 100-foot right-of-way should support a 12-foot multi-use path with a 5-foot landscape strip and curb, adjacent to a frontage access road. Building setback from the edge of the multi-use path should be up to 20 feet to accommodate varying tree species site topography and landscaping.



3. NEIGHBORHOODS CONNECTED BY PEDESTRIAN AND BICYCLE PATHWAYS

PEDESTRIAN AND BICYCLE CONNECTIVITY MAP



Connecting the Neighborhood Focus Areas with 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 big idea of the UDA Plan is that new neighborhoods can be formed around a park or neighborhood center with residential development located within a quarter-mile walking distance. Multi-use paths connect to adjacent neighborhoods that allow for safe movement of pedestrians and cyclists, as indicated in the connectivity map.

The UDA Plan envisions a Stone Spring Pedestrian and Bicycle Trail, based on the concept of Huckleberry Trail in Blacksburg and Christiansburg, as well as other examples throughout the Commonwealth, as a pathway that generates private investment and connects the future neighborhoods of Stone Ridge with Stone Port, is gradually built out as development occurs in these areas. The UDA Plan expands on the MPO's bicycle study network for Boyers Road with a proposed multi-use path that connects Boyers Crossing with Stone Ridge. The Port Republic multi-use path, which has been implemented, connects Stone Port with Boyers Crossing.

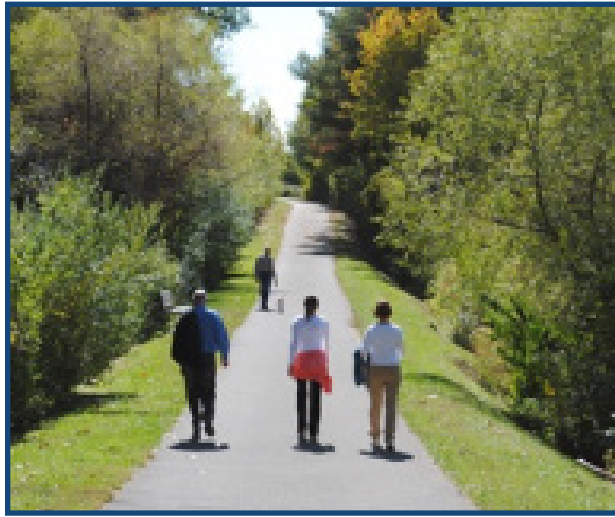


Image 1 - Huckleberry Trail. Blacksburg Va.



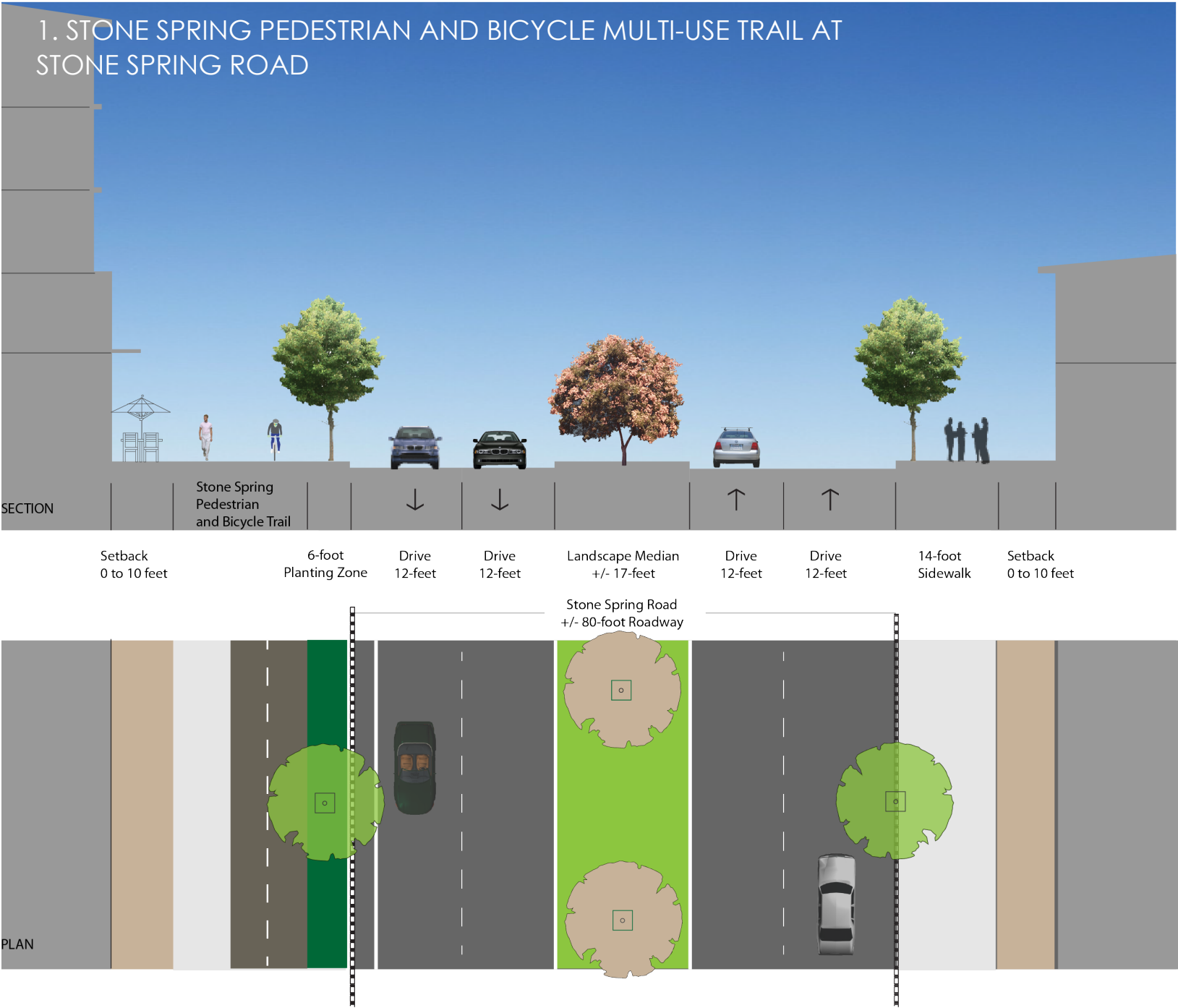
Image 2 - Huckleberry Trail. Blacksburg Va.



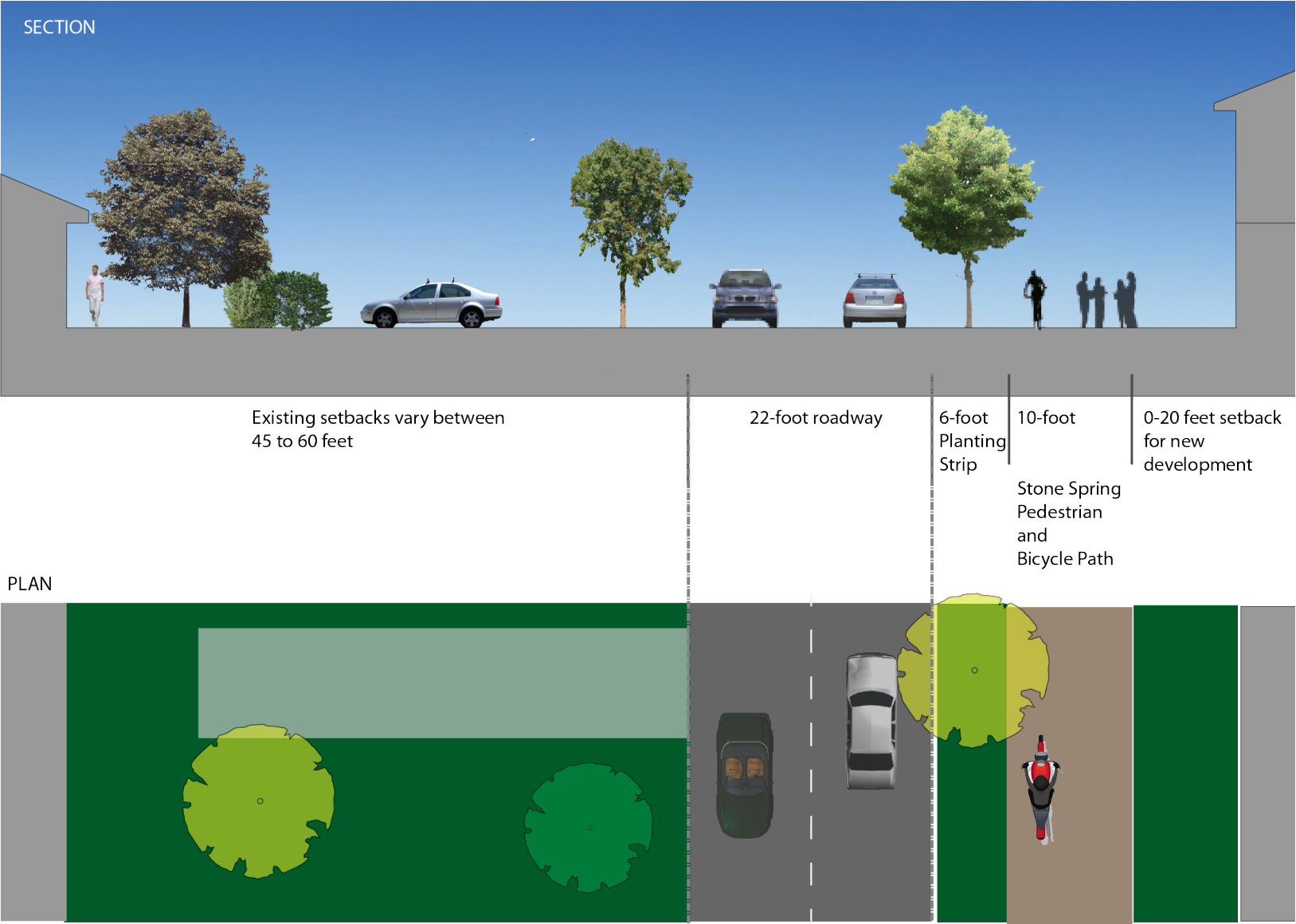
Image 3 - Cultural Trail. Indianapolis, In. Plan View



Image 4 - Cultural Trail. Indianapolis, In. Street View



2. STONE SPRING PEDESTRIAN AND BICYCLE MULTI-USE TRAIL AT ALBERT LONG ROAD



3. STONE SPRING PEDESTRIAN AND BICYCLE TRAIL AT RESERVOIR STREET



KEY

1. Realign Albert Long Road
2. Create new park and transition to the neighborhood
3. Stone Spring Pedestrian and Bicycle Trail
4. Buildings emphasize the intersection
5. Plaza area
6. Townhomes along the park edge
7. Commercial at the ground level
8. Striped bicycle lane
9. Striped crosswalk with pedestrian refuge at median
10. Striped crosswalk
11. Extend sidewalks and striped bicycle lanes to housing beyond
12. New sidewalks will be on both sides of Stone Spring Rd. between Reservoir and Spotswood Trail
13. Potential Alternative Stone Spring Pedestrian and Bicycle Trail Route.
14. Proposed Apartments

The Stone Spring Pedestrian and Bicycle Trail is proposed to extend to Reservoir Street, State Road 895 (Fieldale Pl) and along a realigned Albert Long Road towards Port Republic.

4. STONE SPRING PEDESTRIAN AND BICYCLE MULTI-USE TRAIL
ABOVE STONE SPRING ROAD

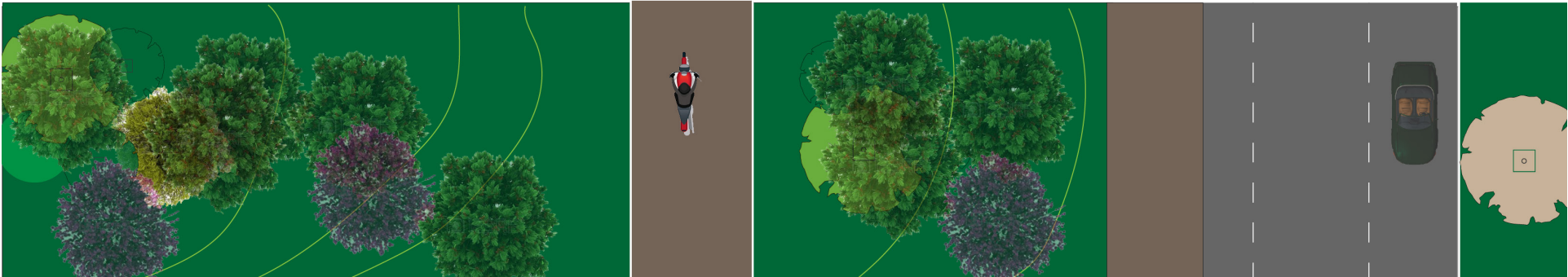


NOT TO SCALE

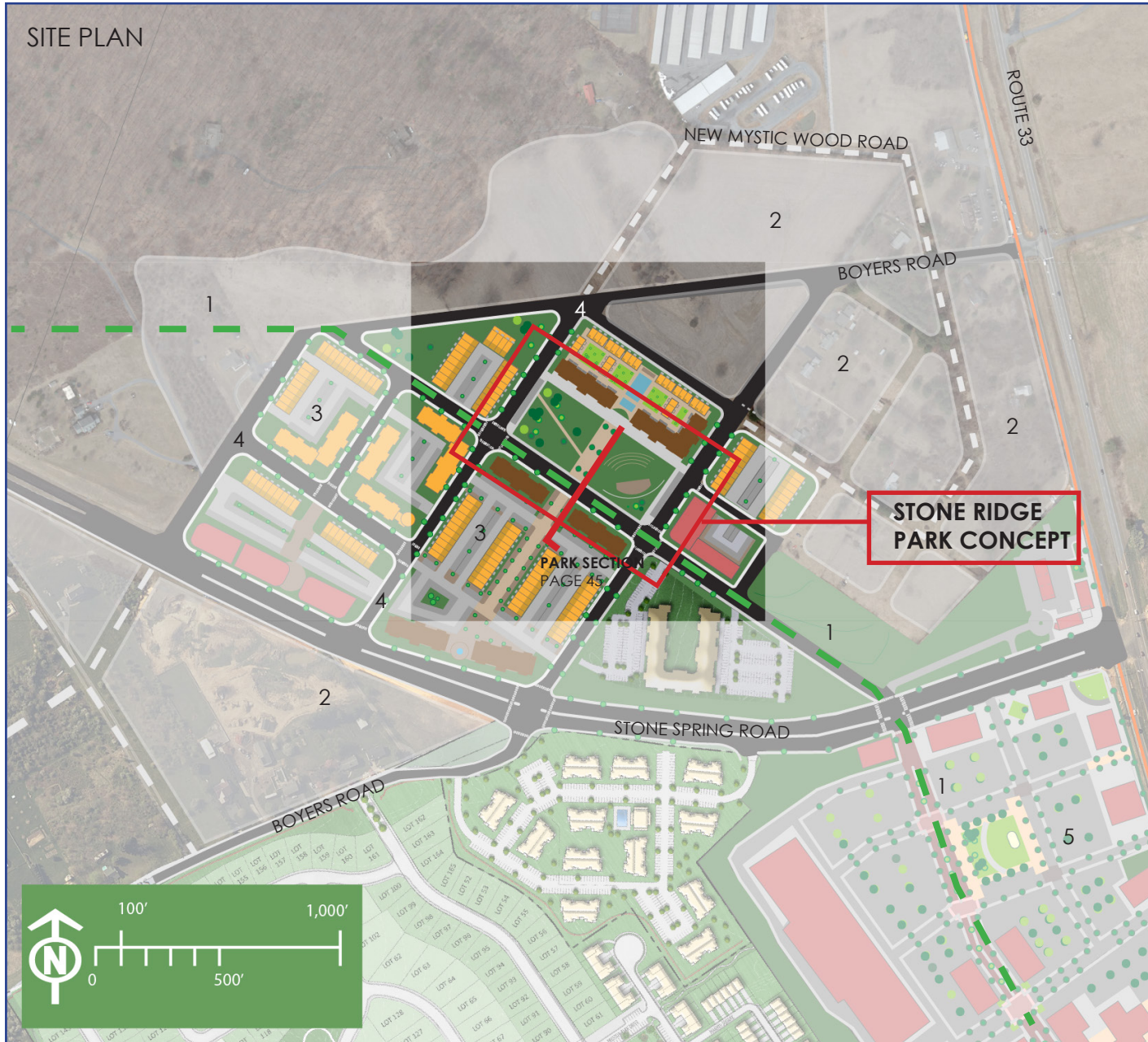
Stone Spring
Pedestrian and
Bicycle Trail

Shoulder Striped
Bicycle Drive Drive
Lane 12-feet 12-feet

Stone Spring Road



5. STONE SPRING PEDESTRIAN AND BICYCLE MULTI-USE TRAIL AT FUTURE STONE RIDGE PARK



SEE STONE RIDGE NEIGHBORHOOD
CONCEPT, PAGE 81

LEGEND

- 1. Stone Spring Pedestrian-
and Bicycle Trail
- 2. Future Development
block
- 3. Mixed-Use Development
Concept
- 4. New Road
- 5. Preston Lake Proposal
- 6. UDA Boundary



PARK EXAMPLES



Hardscaped area with a fountain and elevated stage for neighborhood events



Neighborhood Park with a central pedestrian shade structure

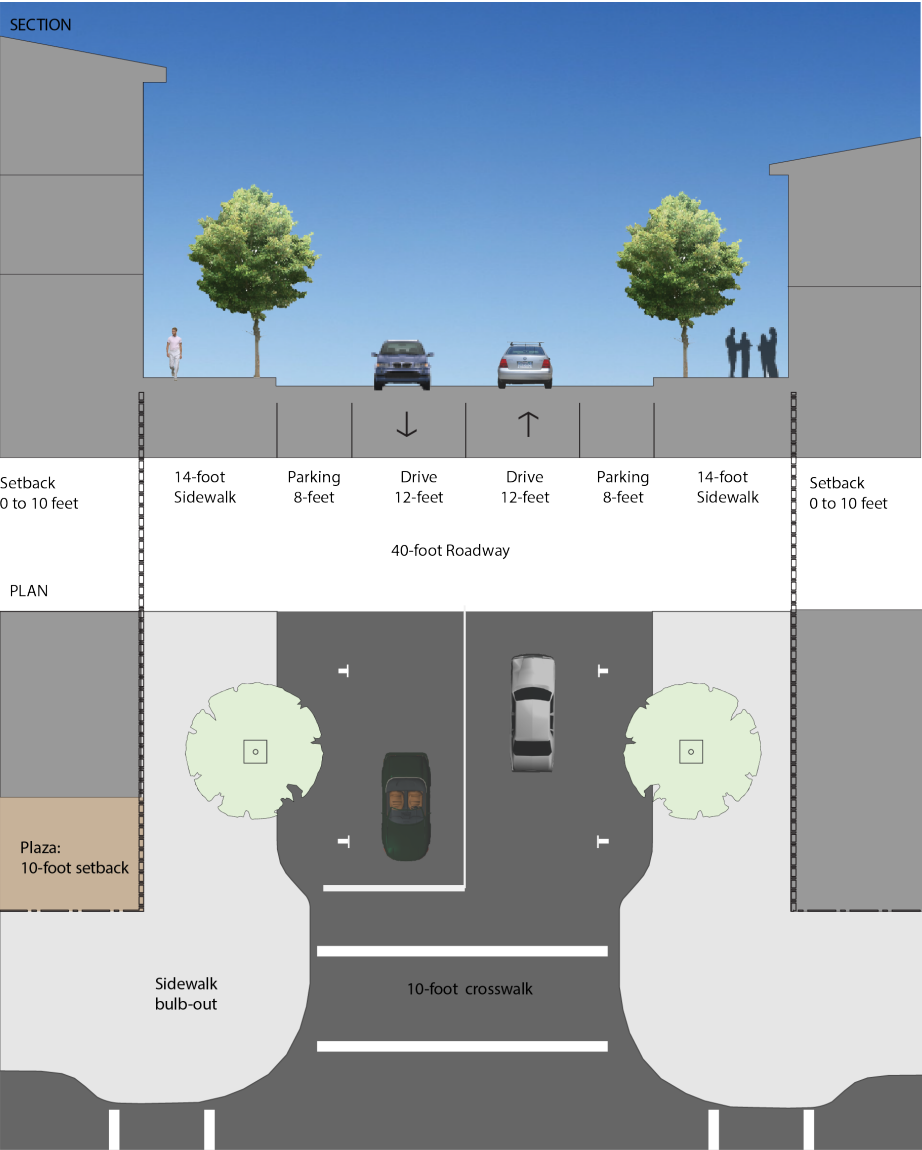


Neighborhood park with central water feature, seating areas and children play areas

NEIGHBORHOOD STREET CONCEPTS

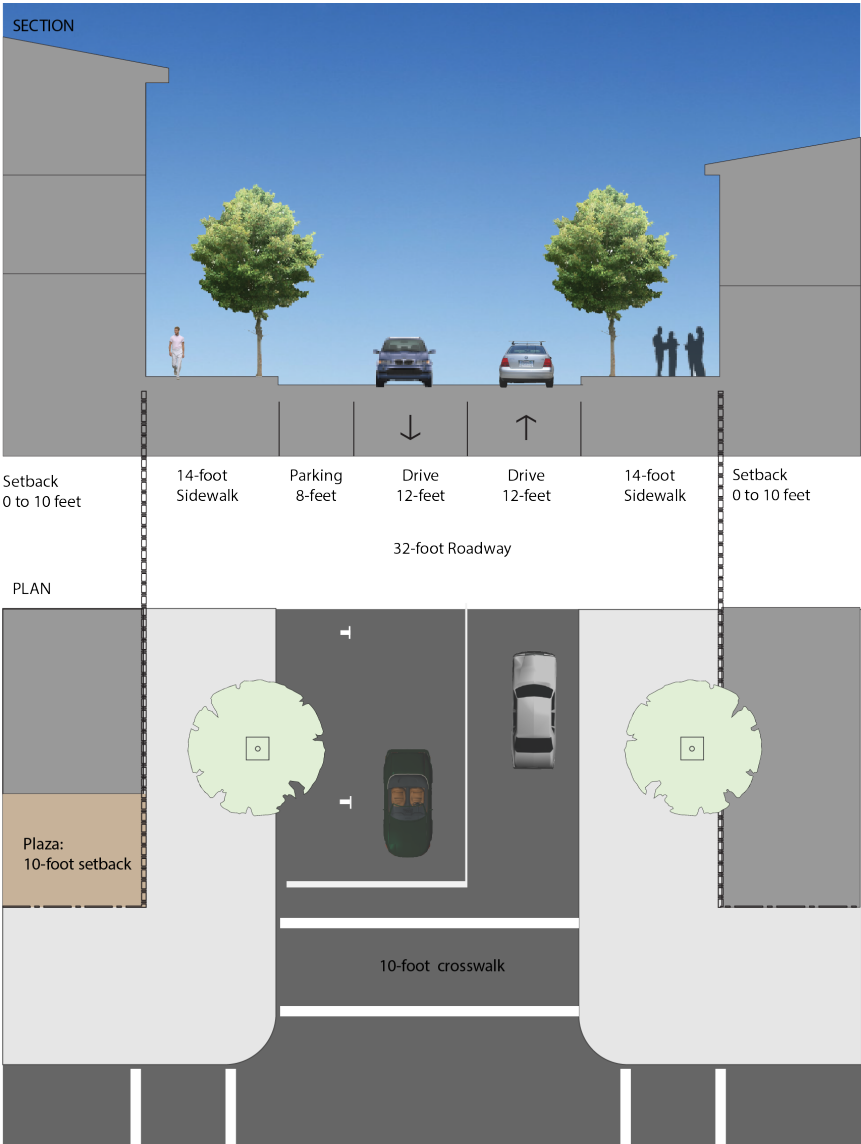
NEIGHBORHOOD STREET 1

2-way traffic with curbside parking on both sides

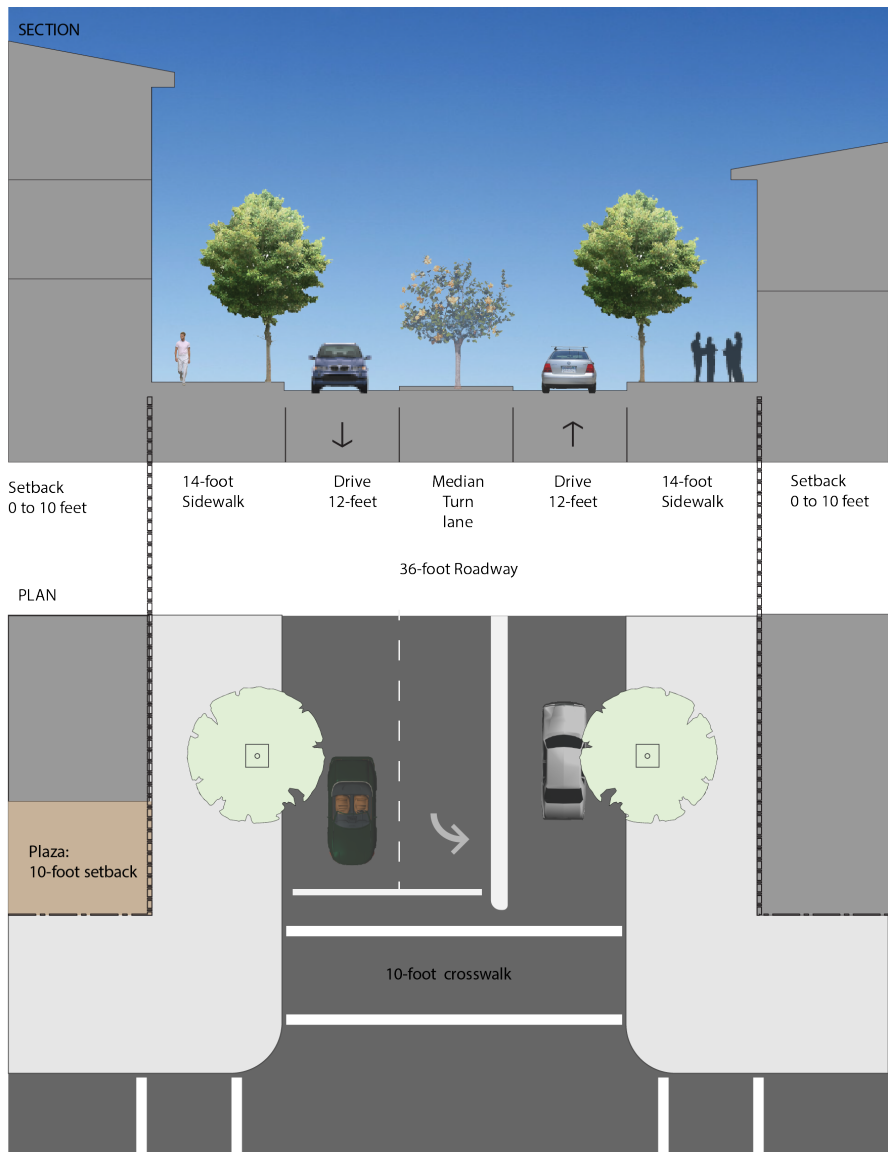


NEIGHBORHOOD STREET 2

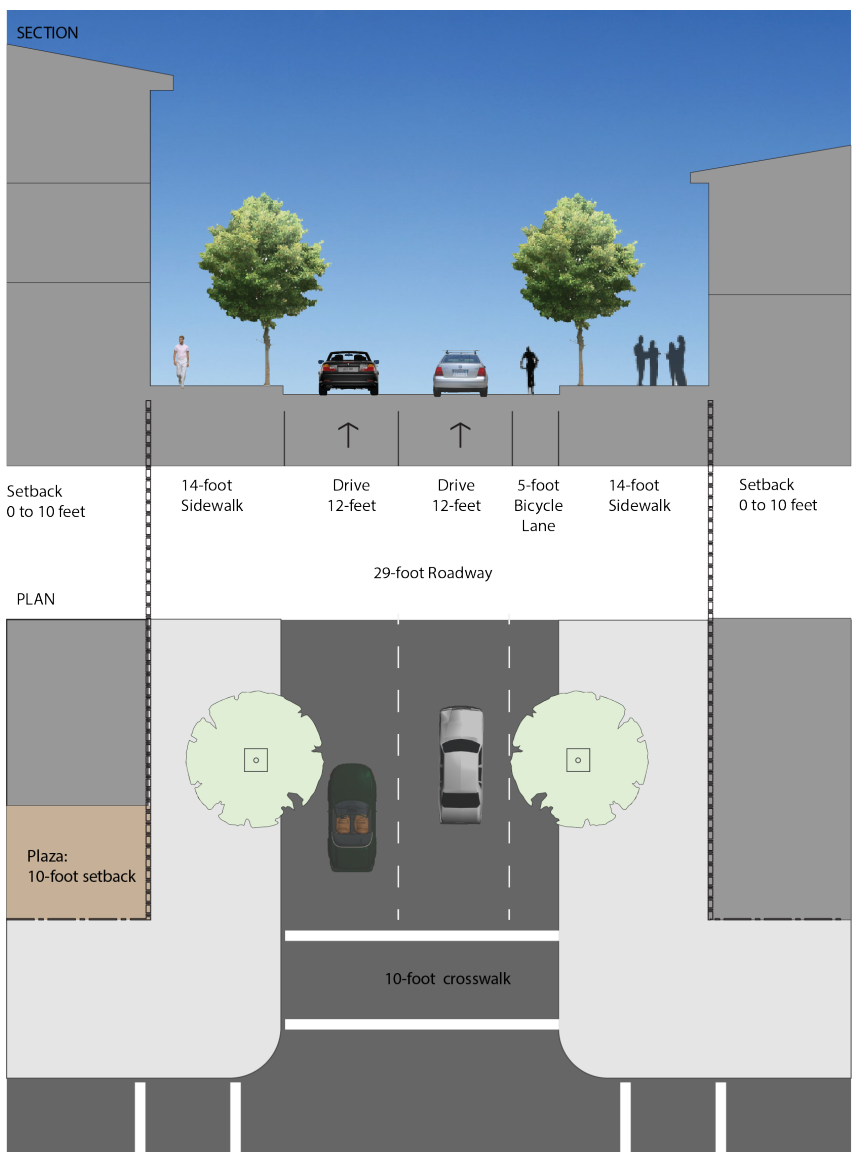
2-way traffic with curbside parking on one side



NEIGHBORHOOD STREET 3
2-way traffic with median and left turn

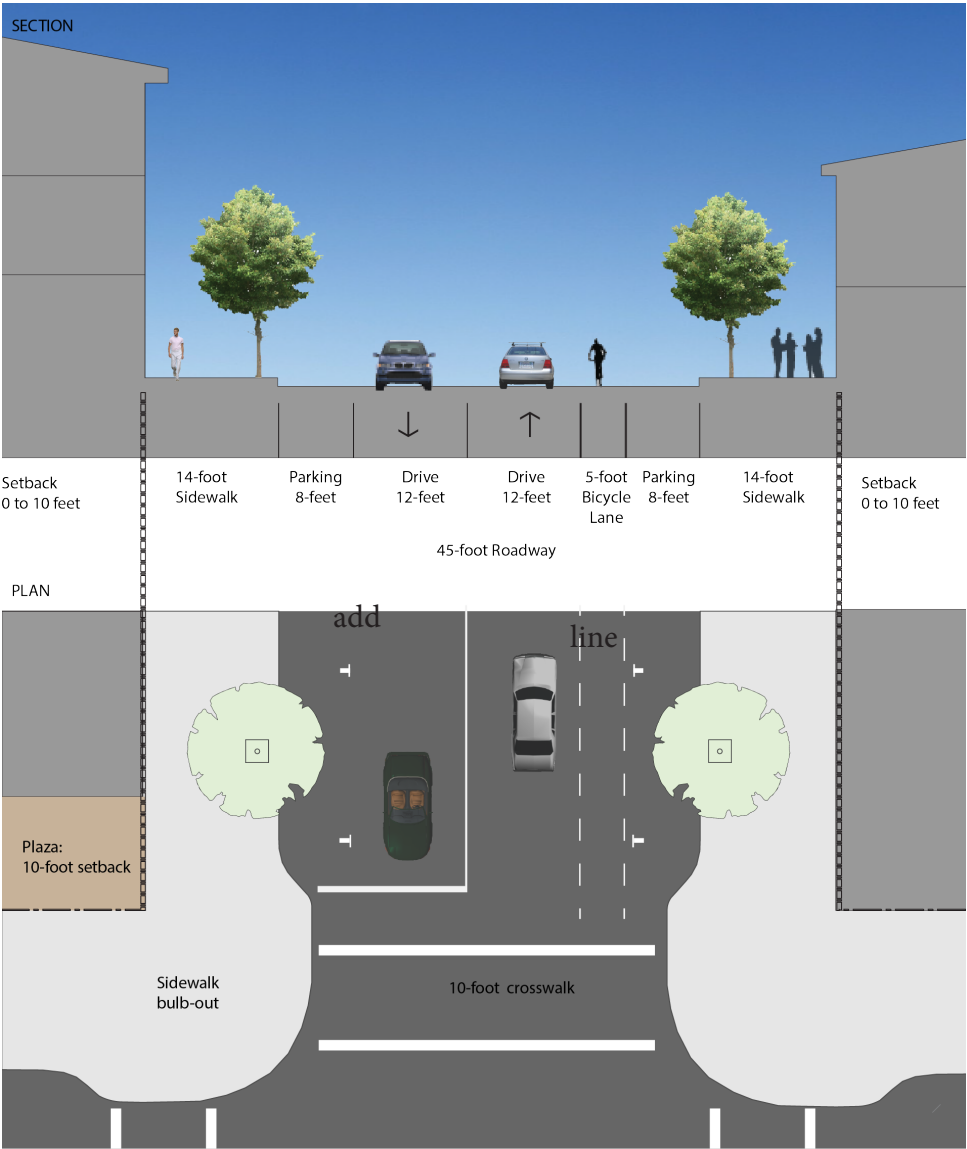


NEIGHBORHOOD STREET 4
2-way traffic with bicycle lane



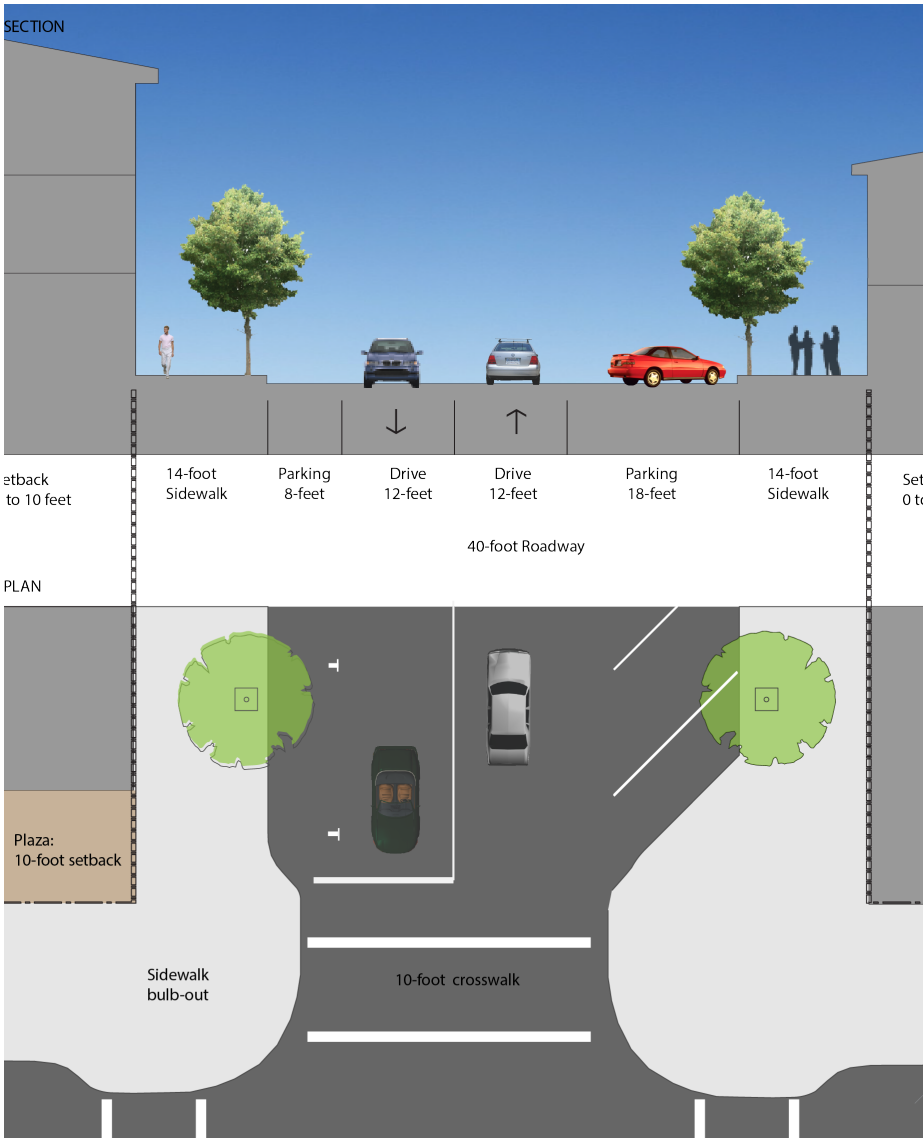
NEIGHBORHOOD STREET 5

2-way traffic with curbside parking on both sides and bicycle lane



NEIGHBORHOOD STREET 6

2-way traffic with curbside parking on one side and diagonal parking on the other side



4. DESIGN AND STREETSCAPE GUIDELINES

DESIGN GUIDELINES

While the transect provides direction for form and land use, qualitative design guidance employs a traditional neighborhood design (TND) approach to the design and placement of individual buildings that addresses street hierarchy as well as the ways a new development can activate the pedestrian realm along streets and public spaces to create memorable neighborhoods with individual character with appropriate modulation and treatment of its exterior surfaces.

A. Building Placement

The arrangement of buildings contributes significantly to the experience of the public realm. Buildings through the appropriate treatment of placement, setback, street wall, massing and ground floor should enhance the character and quality of life, in which form, scale, visual character and experiential quality of the private and public realms can help make a neighborhood memorable. These qualities are desired in new commercial and residential developments to avoid the impression of a single development that is disconnected from the street. Half- or full-block developments in particular can look monolithic in mass and form. It is critical to achieve a fine-grain neighborhood feel in such developments to ensure a pleasant, human-scale experience along the sidewalk.

The design of blocks and buildings should be based in these key guiding principles:

1. Reinforce the framework of the UDA by focusing more density with a mix of uses within the neighborhoods of Stone Port and Stone Ridge.
2. Enhance the public realm with a consistent application of streetscape improvements within these areas.
3. Frame and define the street by placing buildings closer to the property line, with parking located in the rear or side, per What Makes a Neighborhood Guiding Principle #3: Buildings placed close to the street create a sense of place.
4. Express a neighborhood character that is defined by human-scale buildings that offer a variety in texture, form, scale, color and material.
5. Address and activate the street at the ground floor with well-articulated and detailed ground-floor treatment, with frequent entrances and plenty of transparency.



Image 1: Compact street blocks, a mix of uses and linear park space



Image 2: Consistent streetscape finishes



Image 3: Streetscape furniture

B. Lot and Block Standards

Compact and smaller street block sizes facilitates a development form that promotes walkability.

1. Block and lot size diversity. Street layouts provide for development blocks generally in the range of 200-400 feet deep by 300-600 feet long to facilitate greater ease of walkability.
2. A variety of lot sizes should be provided that allow diverse housing choices.
3. Lot widths should create a relatively symmetrical street cross section that reinforces the public space of the street as a simple, unified public space.

C. Block Modulation and Building Massing and Placement

The modulation of a block and the massing of buildings significantly impact how the size of the building is perceived by a person at street level. By breaking up a large building into smaller masses, the building's apparent mass can be reduced, forming a more interesting block. Special attention should be paid to buildings that front onto the public realm, and to relationships between buildings.

1. Full-block developments (or greater than 300 feet in street frontage) should be broken up into distinct volumes that are in proportion to one another, while preserving

the integrity of the building's design, and creating transitions in bulk and scale. Repetitive elements or monolithic treatments that create a half- or full-block massing or appearance should be avoided.

2. To express variety, avoid monotony and distinguish different building volumes, building design should use a variety of color, material and texture.
3. Mixed-use buildings that frame and define the street and express a neighborhood character contribute to the quality of the public realm and the pedestrian experience. Well-articulated and detailed street walls, and building frontage that is directly adjacent to the public realm, are important to the fabric of the city and help to establish a human-scale urban experience.
4. Mixed-use buildings should incorporate a variety of vertical and horizontal modulations to develop distinct architectural volumes, break up monotonous volumes and create a fine-grain character.
5. The scale of building elements (roofs, doors, windows, porches, columns) should be chosen with the pedestrian in mind and should be proportioned to the building's height and volume. Visual order is achieved through a consistent use of these elements in individual buildings. The coordinated repetition and massing of building forms and architectural elements achieves a proper rhythm of neighborhood buildings.



Image 4: Compact street blocks with pedestrian plazas and mid-block paseos



Image 5: Pedestrian plaza

6. The proper placement of buildings and associated open spaces along streets frame the public realm and reinforce the hierarchy and legibility of neighborhoods within each focus area. Buildings should define and frame the public realm. Their placement and massing should create a street wall that holds the street volume and creates a street edge. Buildings should address the street consistent with the urban design
7. The highly visible intersections of Stone Spring and Port Republic, Stone Spring and US-33 and Cross Keys and Route 33 require massing that reinforces and anchors the junction with more vertical architecture, gateway elements that announce the neighborhoods of (Stone Port or Stone Ridge) or even with a building setback to accommodate a pedestrian plaza.

D. Building Design

The UDA ensures that new development is designed with a pedestrian orientation which will foster a vital and active street life while creating an overall positive image for the County. Buildings provide visual interest to pedestrians and serve as attractive backgrounds for public open spaces; and the ground floor designs activate the street and enrich the pedestrian environment.

1. Entries to stores and ground-floor commer-

cial uses should be visually distinct from the rest of the store façade, with creative use of scale, materials, windows, projecting or recessed facades, architectural details, color and/ or awnings. These entries should have direct at-grade access from the sidewalk.

2. All commercial uses located at the street level should provide a direct at-grade entrance from the public right-of-way, with door thresholds flush with the sidewalk level. An entrance should be provided for each tenant street frontage exceeding 50 feet. Where such frontages exceed 100 feet, one entrance should be provided for each 100 feet of frontage or portion thereof. Separate pedestrian entrances for individual tenants should be at least 25 feet apart. Pedestrian ramps within the public right-of-way should be prohibited, except where necessary for required disabled access to existing buildings when no alternative is available.
3. Architectural features such as awnings, canopies and other design features which add human scale to the streetscape are encouraged and should be consistent with the overall design of the building.
4. Between 3 and 12 feet above the sidewalk, a minimum of 60 percent of the façade should contain windows of clear or lightly tinted vision glass that allow views of indoor space. Heavier tinted or mirrored glass should not be permitted.



Image 6: Ground floor commercial with creative use of materials, projecting and recessed facades.



Image 7: Suburban WalMart model adapted to a traditional neighborhood design. Building is brought close to the street.

5. Storefronts should remain unshuttered and minimally lit from within after business hours during active pedestrian times to illuminate adjoining sidewalks.
6. Signage attached to storefront windows should be kept to a minimum.

F. Ground-Floor Residential Use

Ground floor residential units that are designed correctly provide “eyes on the street” and enliven the public realm.

1. The ground floor of residential building facades should be articulated at regular increments to differentiate individual residential units from each other and from the overall massing of the building, to express a rhythm of individual units along the street.
2. Street walls containing groundfloor residential units should be set back up to 10 feet from any property line fronting a public street. Stoops and landscaping should be provided in this setback to provide a buffer between the sidewalk and the units’ living areas.
3. Ground-floor residential units should be raised between 18 to 42 inches minimum above the adjacent sidewalk grade to provide an additional buffer.

4. The area between 3 and 12 feet above the sidewalk of street-facing ground-level residential units should possess clear, non-reflective windows.
5. Fences and gates should be utilized within the setback area only if they demarcate private open space attached to a residential unit. Solid walls or fences should not exceed a height of 42 inches above grade.
6. Each street-facing unit should be identified either on the door or the adjacent wall.

G. Building Entries and Facades

The building facade and entry is a critical component of the public realm.

1. The architectural features, materials, and the articulation of a facade of a building should be continued on all sides visible from a public street or courtyard.
2. The front facade of the principal building on any lot should face onto a public street.
3. The primary entrance to any building should face onto a public street.
4. The front facade should not be oriented to face directly toward a parking lot.



Image 8: Townhomes with entries from the sidewalk



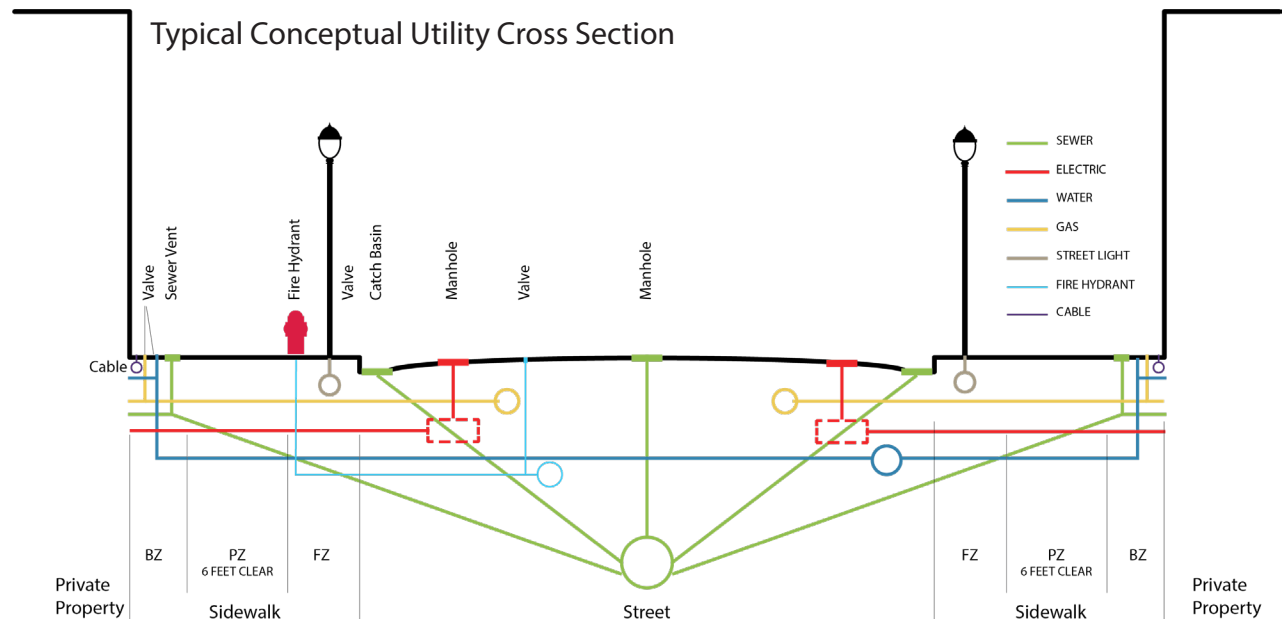
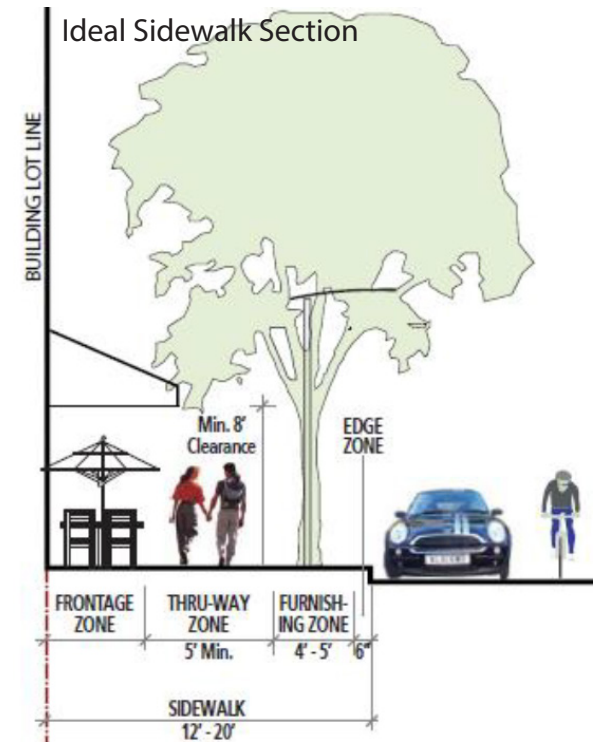
Image 9: Townhomes with entries from the sidewalk

5. Porches, pent roofs, roof overhangs, hooded front doors or other similar architectural elements should define the front entrance to all residences.
6. For commercial buildings, a minimum of 50 percent of the front facade on the ground floor should be transparent, consisting of window or door openings allowing views into and out of the interior.
7. Building entrances and windows are located along street frontages to break up blank walls and improve the pedestrian experience.
8. Building frontages should be set near the sidewalk and building sizes should be consistent, providing a sense of enclosure for the street.
9. Architectural detailing and applied decoration should enliven facades and break down building sizes to human proportions.
10. Blank lengths of wall exceeding 50 linear feet are discouraged.
11. Different elements should imply distinct architectural treatments (materials, fenestration, heights, window types, etc.) to exhibit incremental and diverse street faces.

H. Utilities

All utilities should be considered as part of the overall design early in the process.

1. All utilities, such as backflow prevention devices, groupings of meters, and so on should be located outside the public right-of-way within a building alcove, utility room, or landscaped area and be fully screened from view of the public right-of-way.
2. The utility needs of future commercial tenants (e.g., grease traps, exhaust chutes, air conditioning) should be anticipated in the initial building design to avoid difficulty when retrofitting buildings after construction.



Streetscape Design

All sidewalks within the Neighborhood Center (T4) for the neighborhoods of Stone Ridge and Stone Port should consist of an edge zone, furnishings zone, throughway zone, and, where appropriate, a frontage zone. See diagram Ideal Sidewalk Section and description below:

Edge Zone (6 inch curb)

The edge zone, sometimes referred to as the curb zone, is the interface between the roadway and the sidewalk.

Furnishings Zone (5 foot min.)

The furnishings zone serves as the buffer between the active pedestrian throughway zone and street traffic. The furnishings zone accommodates public amenities such as street trees, street lamps, benches, bike racks, news racks, mailboxes, transit shelters, utility poles and utility boxes. In some cases, the furnishings zone can be used for outdoor seating and dining by shops, cafés and restaurants.

Pedestrian Throughway Zone (6 foot min.)

Located between the furnishings zone and the frontage zone, the throughway zone allows for unimpeded pedestrian circulation. It is free of all obstruction, including utility boxes and railings for outdoor dining.

Frontage Zone (varies)

The frontage zone lies between the throughway zone and adjacent building or property line, assuming the sidewalk dimensions accom-

modate it. Movable outdoor seating and dining may be situated here as appropriate.

A. Sidewalks

Sidewalks should meet all state and local requirements for adoption into the public street system, and should also meet Americans with Disabilities Act (ADA) requirements where applicable.

1. Striped crosswalks should be included and well-marked at all signed or signaled intersections.
2. The throughway zone should be a minimum of five feet wide.
3. Outdoor seating, either general-purpose or restaurant/café seating, is encouraged in the frontage zone, particularly in heavily trafficked pedestrian areas
4. Open seating areas without railings are encouraged wherever possible, but if required, should be as open and unobtrusive as possible.
5. If there is an insufficient frontage zone to accommodate private uses such as cafés, any additional area should be taken from the private realm rather than encroaching on the throughway zone.



Image 10: Sidewalk seating



Image 11: Sidewalk cafe seating

6. If possible, all utility boxes should be placed underground. If placing utility boxes underground is not an option, then all utility boxes should be placed in the furnishings zone.

B. Street Tree and Landscape Design

All plant material should be selected from varieties that are native to the Commonwealth of Virginia, whenever possible.

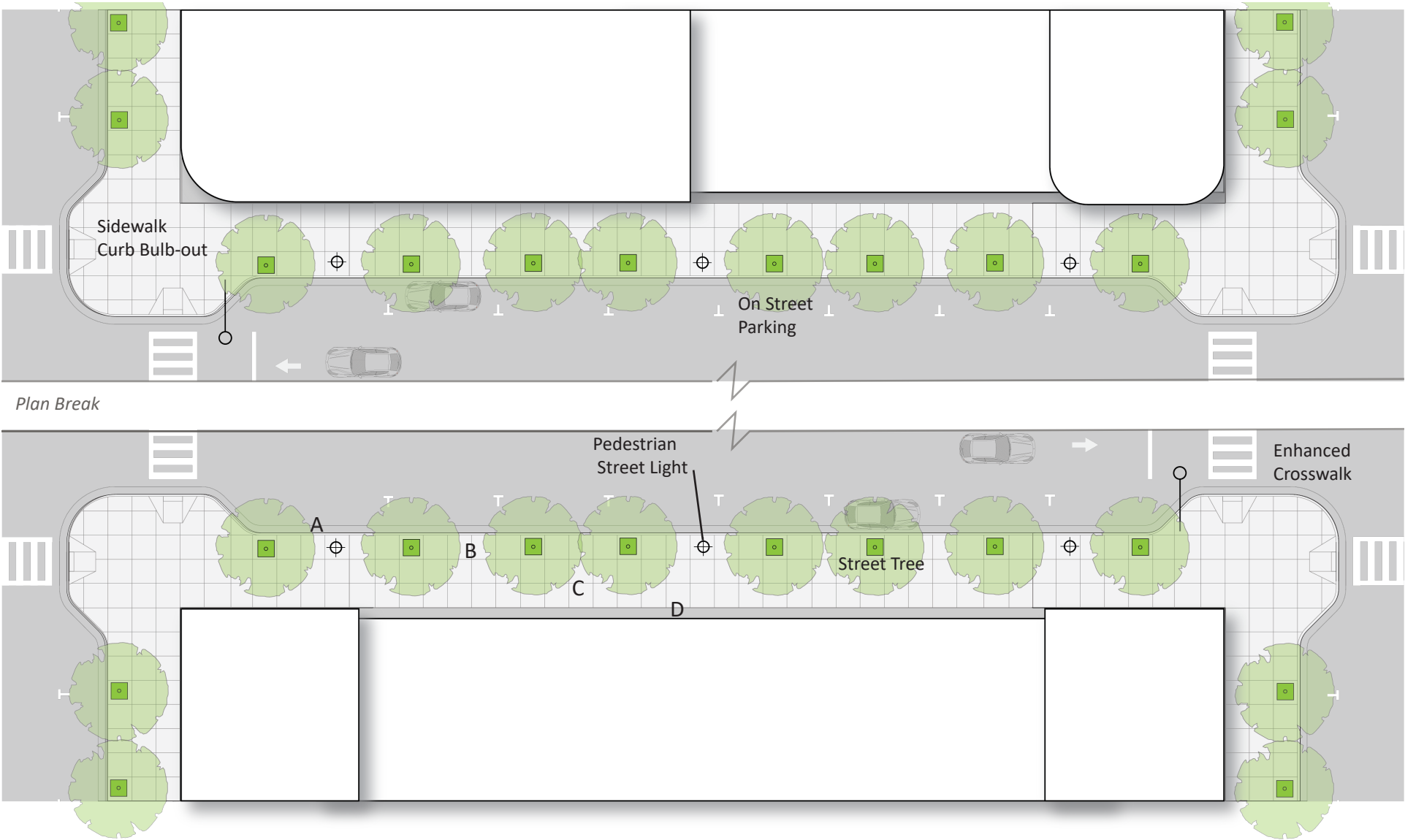
1. All streets should have a regular pattern of street trees for aesthetic value, and to shade sidewalks.
2. Street trees should generally be placed up to 40 feet apart, and planted in the furnishing zone, located between the street curb and pedestrian throughway zone. Street trees may be planted in planting beds, or may be installed in tree grates to create additional sidewalk space
3. Evergreen trees should be used at strategic locations for screening and buffering to parking, trash compartments and other back-of-building features, due to their dense foliage, but also incorporated into landscaping in parks and civic spaces to enhance aesthetics during winter.

4. Deciduous shrubs should be used as accents on private residential lots, as well as in parks, commercial areas, and other community spaces. Particularly evergreen shrubshrubs can be used for visual interest, as well as for screening of items like utility meters and HVAC equipment.

C. Tree location

Street trees should be located at an adequate distance from the street and adjacent buildings to maximize the trees' long-term health.

1. Street trees should be planted a minimum distance of two-and-a-half feet (2.5') from the street curb edge.
2. Street trees should be planted a minimum distance of eight feet (8') from a building face, although a greater distance may be desirable, depending on the tree species.
3. Tree grates or planting strips should be used throughout.
4. Street trees should be planted in adequately sized tree wells to contribute to the long-term health of the trees and to accommodate root balls large enough to replace a dead tree with a relatively mature one.
5. Street grates should cover a minimum area of 24 square feet (e.g., 4' x 6').



TYPICAL STREET BLOCK WITH STREET TREE LAYOUT

- A. Curb Zone (6")
- B. Furnishing Zone
- C. Pedestrian Thoroughway Zone
- D. Frontage Zone

D. Planting Strips

The pedestrian realm may be enhanced through planting strips in a sidewalk's furnishings zone.

1. Planting strips should not be located where pedestrian traffic is high or where the strips would otherwise impede pedestrian flow.
2. Planting strips should be located in the furnishings zone only. Planting strips should be planted with low-growing, native and/or drought tolerant plant materials with low water and maintenance requirements. Planting strips should not be planted with grass or other plant materials requiring heavier water use and maintenance.
3. Planting strips could be slightly raised and bordered with a low protective edge to create separation from foot traffic. To curb dog use, planting strips could be surrounded by a low fence often referred to as an ornamental street tree fence integrated into the planting strip.
4. Planting strips should have a minimum width of three feet, six inches (3'6").

E. Street Corner Radii

1. Corner Radii. The roadway edge at street intersections should be rounded by a tangential arc with a maximum radius of 15 feet for neighborhood streets and 20 feet for intersections at Stone Spring and Port Republic streets.
2. Curb cuts for driveways to individual residential lots should be prohibited along Stone Spring Road and at Stone Port's primary neighborhood street (See Street Hierarchy Map on Page 34) for a continuous and uninterrupted walking experience. Curb cuts should be limited to intersections with other streets or access drives to parking areas for commercial, civic or multifamily residential uses.

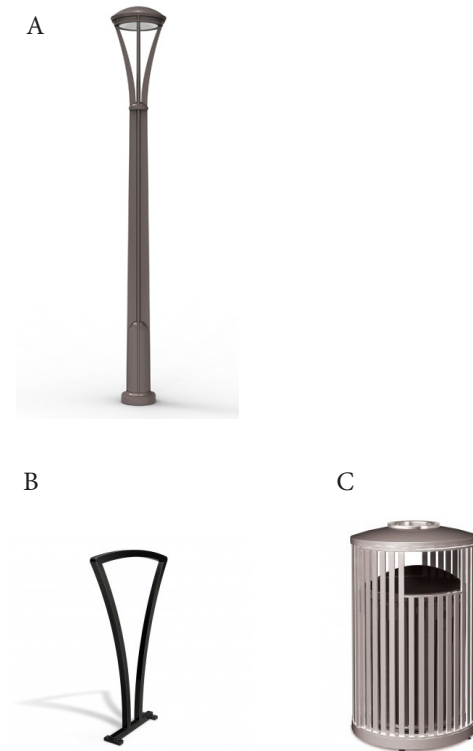
F. Street Furniture

An additional enhancement of streets in Stone Port and Stone Ridge neighborhoods is the inclusion of street furniture when the width of the sidewalk or public or private surface allows for it.

1. Street furnishings should be located in the furnishings zone.
2. Street furniture includes benches, bicycle racks, bollards, planters, and other accessories for the convenience of pedestrians or cyclists.



Image 12: Narrow street corner radii



Street furniture Family: A. Pedestrian Lighting, B. Bicycle Rack and C. Trash Receptacle

3. The careful selection and use of street furnishings enhances the street environment, provides a clean, consistent look and makes ongoing maintenance easier and less expensive. Street furnishings include benches, containers, bike racks and drinking fountains.
4. A family of distinct pedestrian street light fixtures that employ energy efficient luminaries, and are designed to minimize light pollution should be investigated for the Stone Port, Stone Ridge and Boyers Crossing neighborhoods. The pedestrian light fixtures should convey a distinct character in its design and should be complementary to the street furnishings.
5. Furnishings for primary streets (Stone Spring and Port Republic) may be distinct and of higher quality to denote the nature of those streets within the UDA. Other elements could be considered for such streets, such as maps and information kiosks.
6. Utility boxes should be painted with a color consistent with the family of street furnishings to downplay visibility.

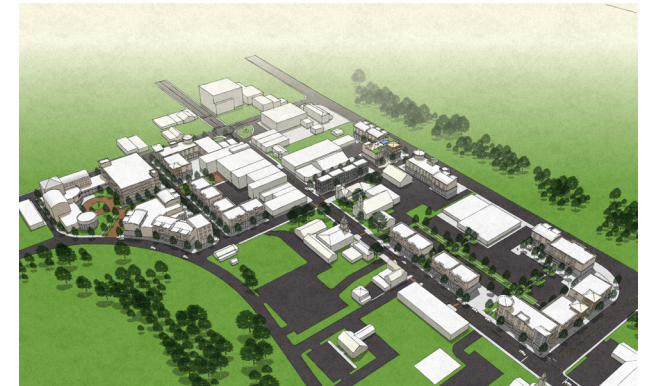
G. On-Street Parking

1. Streets with commercial land uses at the ground floor should have on-street parking directly available, where possible.

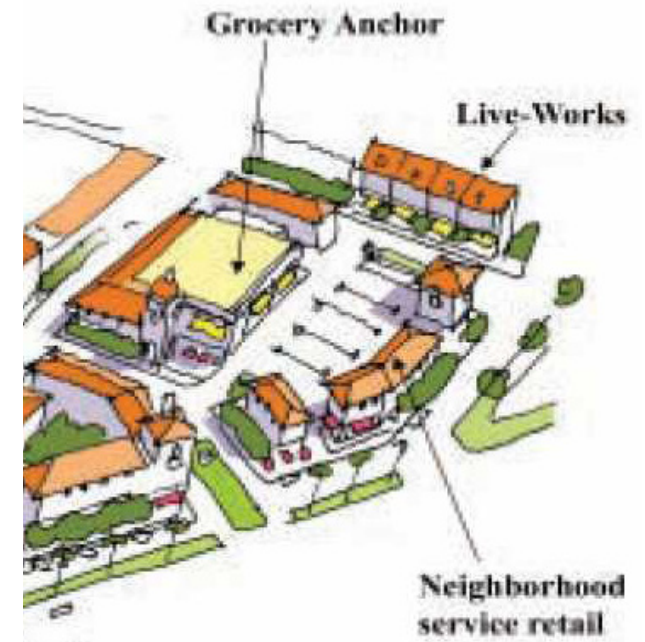
H. Surface Parking

All surface parking lots should be located at the rear (behind) or at the side of a building so that it is not visible from any street frontage.

1. Surface parking areas exposed to view from public streets, sidewalks, and other public spaces shall be screened from the street and sidewalk with a 36" min. and 48" max. height wall or screened with a hedge maintained at 36" min. and 48" max. height and with a shrub spacing of no greater than 24" at time of planting located parallel to the front property line.
2. A parking lot or garage may not be adjacent to or opposite a street intersection.
3. Surface parking lots or garages should provide not less than one bicycle parking space for every 10 motor vehicle parking spaces.
4. Adjacent on-street parking may apply toward the minimum parking requirements.



Christiansburg UDA Plan. Vision for new and infill development with surface parking located in the interior of the block.



Example: Parking located in the interior of the block

I. Interface between Buildings and Stone Spring Neighborhood Parks

Each neighborhood in this plan, Stone Port, Stone Ridge, Boyers Crossing and Crossroads has proposed parks to organize future development around it. Buildings facing these parks, either across the street or on adjacent parcels, can enhance the park experience, serve as an architectural backdrop to parks, frame the outdoor space and provide a greater degree of safety through “eyes on the park.” Designers of park-fronting buildings have a heightened responsibility to the public realm. The park can be activated through ground-floor use, and proper design can minimize impact on solar access.

1. Buildings should engage adjacent parks through active ground floor uses, such as restaurants and cafés, and with transparent storefronts to create visual interest. They should include spill-out space for dining or sitting on the sidewalks facing parks.
2. Building entrances should face parks to encourage building occupants to cross the street to the park and for park visitors to shop and dine in adjacent businesses.
3. Blank walls with few windows and lack of ground-level interest are strongly discouraged.
4. Parks and plazas should be designed to allow for clear views in, out and through them.
5. Publicly accessible open space should include principal access points to the surrounding street network, preferably at street intersections.
6. Principal access points should remain unimpeded by walls, steps, or other barriers; they should act as seamless extensions of the sidewalk.
7. Principal access points should meet the adjoining street line at the elevation of the adjoining sidewalk.
8. Fencing and walls at the edges of parks should be minimized.
9. Due to the topographic issues within the UDA area, steps and ramps will be needed, but should be gradual and generously wide.
10. Major walkways should be of a smooth, durable material, which may include stone, concrete or brick pavers, asphalt unit pavers, decomposed granite paving, and/or wood decking. An additional zone on either side of this walkway may be provided to accommodate trees and seating, which may have textured paving such as cobblestone or crushed stone.
11. Other park amenities may include open-air cafés, kiosks and pushcarts.



Image 13: Neighborhood park with mid-block crossing



Image 14: Neighborhood park with new residential development



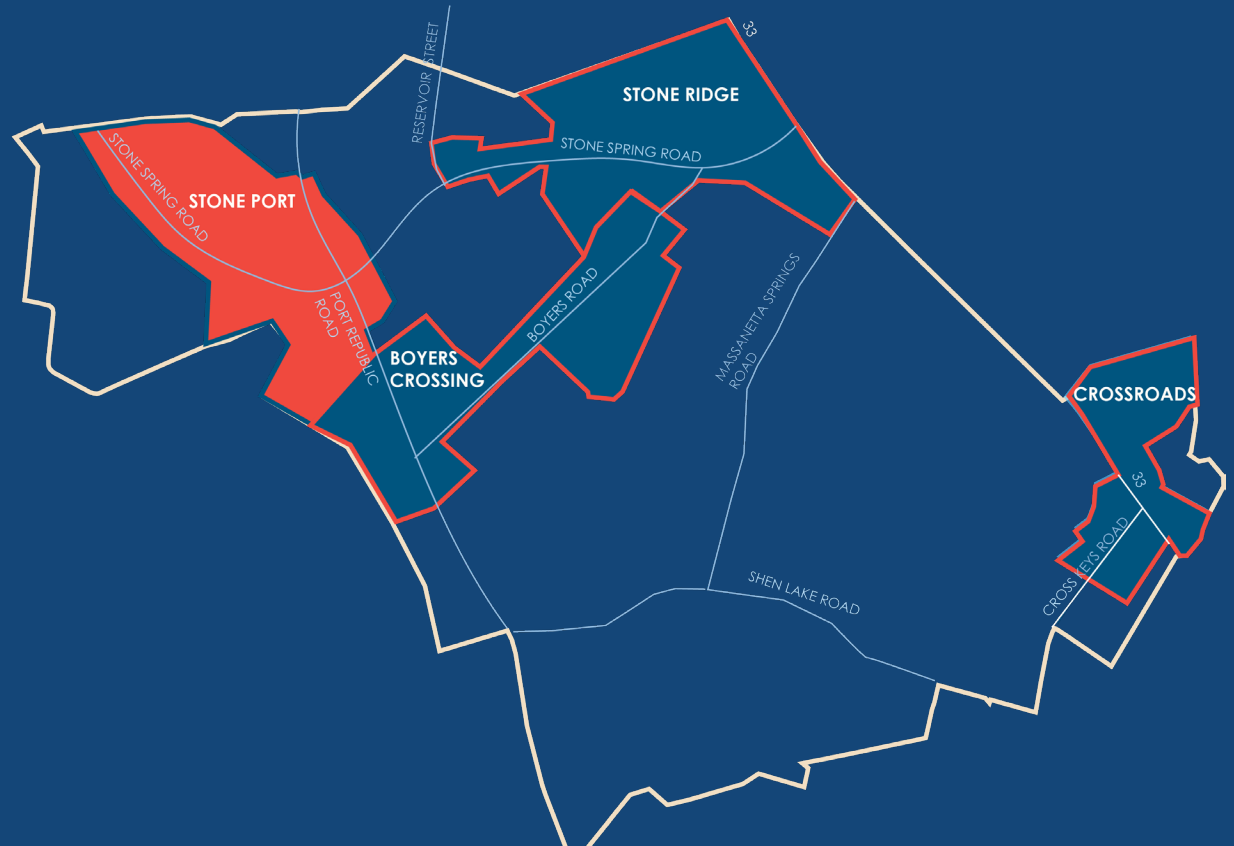
Image 15: Neighborhood park at commercial strip mall. New

5. NEIGHBORHOOD CONCEPTS





STONE PORT NEIGHBORHOOD CONCEPTS





EXISTING

KEY

1. Walmart
2. Wendys
3. Bojangles
4. Altitude (Student Housing)
5. Office building
6. Commercial building
7. Dental office
8. Bank
9. Office



PHASE 1 STREET GRID OPTION - Concept to create more compact street blocks that improves walkability

KEY

1. Primary neighborhood street
2. Park
3. Pedestrian promenade
4. Stone Spring Pedestrian and Bicycle Trail
5. New street

STONE PORT CONCEPT

Stone Port is defined by the intersection of Stone Spring and Port Republic roads, with future development gradually moving west towards Peach Grove Avenue along a new compact street grid. Neighborhood parks are supported by new development and pedestrian promenades that link the major streets of Stone Port to the interior development blocks.

SITE PLAN - FIRST PHASE: WEST OF PORT REPUBLIC ROAD

Objective: Establish Stone Spring Road as the main addressing street and improve overall walkability.

As a possible neighborhood center, locate a library or civic building with a park at the center of the development site. Connect the civic building and park to Stone Spring Road with a pedestrian promenade.

KEY

1. Existing commercial building
2. Civic Building (amenities may be conceptual or built by other private or non-profit entities)
3. Park
4. Pedestrian promenade
5. Architectural emphasis at corner
6. Residential emphasis
7. Pedestrian walkway
8. Striped crosswalks
9. Add sidewalks at all locations where missing as part of the first phase, including, street trees and pedestrian street lights



NEIGHBORHOOD EXAMPLES

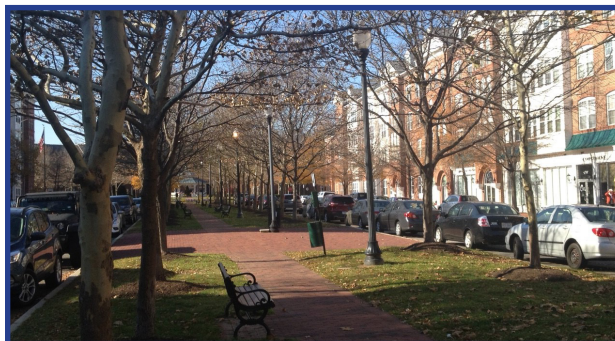


Image 1: Pedestrian promenade



Image 2: Library with outdoor park plaza



STONE PORT - SECOND PHASE - STONE SPRING AND PORT REPUBLIC INTERSECTION CONCEPT

KEY

1. Promote the Stone Spring and Port Republic intersection as a key development opportunity.
2. New development should emphasize the intersection with greater verticality. Parking should be placed behind the building.
3. Implement sidewalks that are currently missing, and add street trees and pedestrian street lights.
4. Improve pedestrian connectivity through developed blocks with pedestrian pathways.
5. New Park
6. New Civic Building
7. Proposed commercial development



STONE PORT - THIRD PHASE - STONE SPRING AND STONE PORT FRONTAGE CONCEPT

KEY

1. Promote the Stone Spring frontage and the gateway into the development site at Stone Spring Road and Stone Port Drive.
2. Complete Stone Spring frontage with parking located behind the buildings.
3. Emphasize the corners into the Stone Port development site with a plazas, enhanced landscape or articulated architecture.
4. Frame the park edges with active development frontage.
5. Connect Stone Spring Road to park areas with pedestrian promenades.
6. Proposed commercial development
7. New park
8. New Civic Building



FUTURE PHASE - EAST OF PORT REPUBLIC ROAD CONCEPT

KEY

1. Provide for mixed-use or commercial with parking behind the building.
2. Provide for townhomes (T3 Transition Zone).
3. Maintain visibility through the site or provide pedestrian pathway.
4. Emphasize the corners at the intersection with future development.
5. Promote development along the south edge of Stone Spring Road.
6. Realign Albert Long Drive for a more feasible development footprint.
7. Create a linear park-like experience to organize development.
8. Create new development opportunities, where feasible, add new sidewalks and street trees where missing.
9. Articulate entries into the Stone Port development site with pedestrian plazas
10. Existing office and health center buildings to remain.



FUTURE PHASE - WEST OF STONE PORT DRIVE CONCEPT

KEY

1. Create a primary neighborhood road with linear park-like experience.
2. Place buildings close to the street with the parking encapsulated.
3. Plan for the future extension of the primary neighborhood street.
4. Place buildings close to Stone Spring Road frontage with the parking placed behind.
5. Create pedestrian plazas or walkways out of space between buildings and align with new/existing roads, plazas or with other green space beyond.
6. Create opportunities for parklets from undeveloped areas.
7. Articulate entries into the Stone Port development site along Stone Spring Road with landscape, public art or pedestrian plazas.

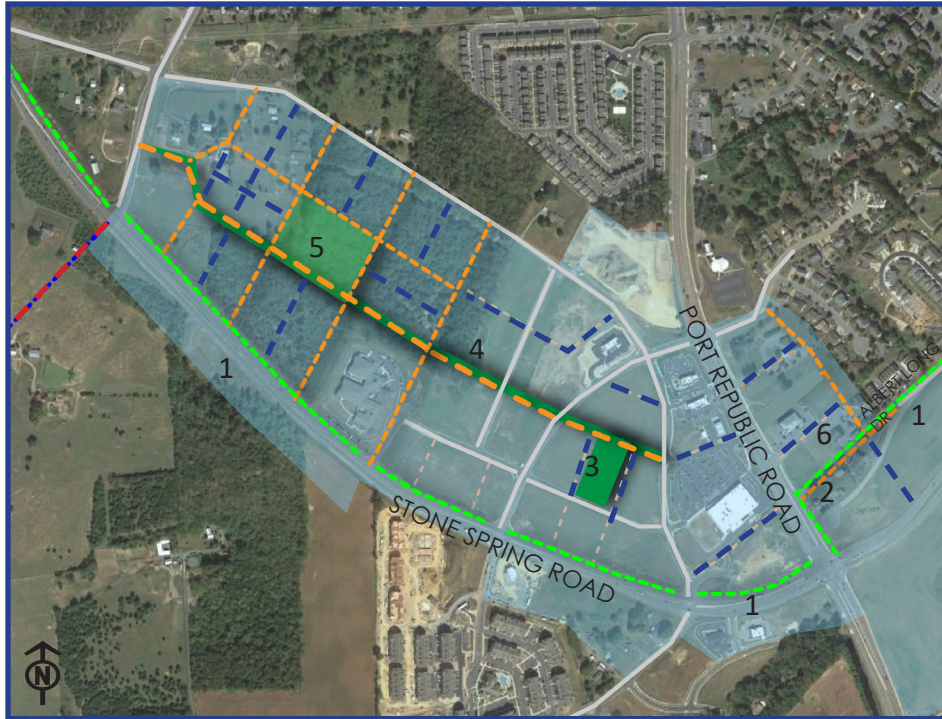


STONE PORT - ALBERT LONG DRIVE ALIGNMENT CONCEPT

Realign Albert Long Drive, connecting State Route 895 to Port Republic Road, integrating the Stone Spring Pedestrian and Bicycle Trail concept, continuous sidewalk with street trees, and a neighborhood park. See Page 40 - Stone Spring Pedestrian and Bicycle Trail at Reservoir Street for enlarged plan and section.

KEY

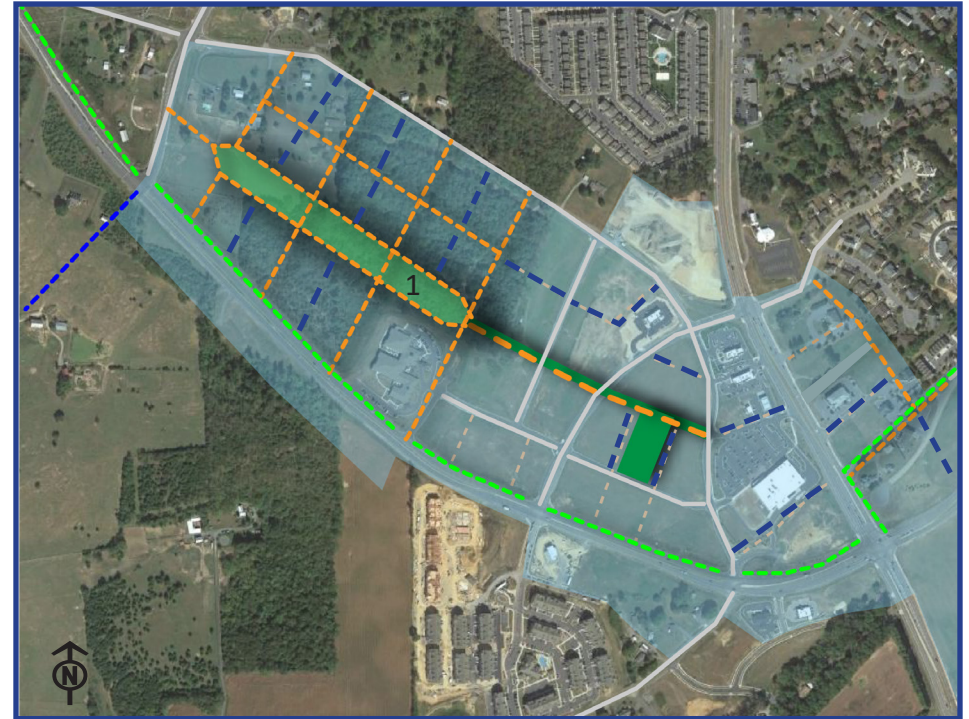
1. Realign Albert Long Drive to connect to Port Republic Road.
2. Existing Albert Long Drive termination.
3. Integrate the Stone Spring Pedestrian and Bicycle Trail Concept with the realigned Albert Long Road.
4. Emphasize the Port Republic and Stone Spring intersection with future development.
5. Provide for enhanced pedestrian crosswalks with sidewalk bulb-outs.
6. New development should be placed close to the property line to frame the intersection. A vertical element (such as a tower), set back to accommodate a plaza or public art should be considered.
7. Provide for through block pedestrian walkways, where possible.
8. Provide for commercial or mixed-use with parking located behind the building.
9. Provide for townhomes (T3 Transition Zone).
10. Design new development to meet the design and streetscape guidelines of the Stone Spring UDA Plan.
11. Provide for a new neighborhood park, based on the realignment of Albert Long Drive.
12. Parking for commercial use.
13. Existing office buildings to remain.



FUTURE STREET GRID EXTENSION - CONCEPT #1

KEY

1. Develop the Stone Spring Pedestrian and Bicycle Trail concept, linking Stone Ridge and Stone Port neighborhoods.
2. Realign Albert Long Drive to connect with Port Republic Road.
3. Create a new neighborhood park as part of the phase 1 development of Stone Port.
4. Extend the primary neighborhood street as a way to organize contiguous development blocks.
5. Create a neighborhood park as part of future grid extension.
6. Create pedestrian promenades or pathways (blue dash) by promoting walkability between development sites and to parks, open space and the Stone Spring Pedestrian and Bicycle Trail concept.



FUTURE STREET GRID EXTENSION - CONCEPT #2

KEY

1. Extend the primary neighborhood street as a couplet with a neighborhood linear park at its center to organize development parcels. Organize pedestrian promenades or pathways to connect back to the neighborhood linear park.

LEGEND

- Primary Neighborhood Street
- Secondary Neighborhood Street
- Pedestrian Promenade
- Collector Street
- Peach Grove Avenue Extension
- Stone Spring Pedestrian and Bicycle Trail



BOYERS CROSSING NEIGHBORHOOD CONCEPTS



BOYERS CROSSING

Boyers Crossing is the transition zone to the more established residential areas to the south. Development should be 1 to 3 levels and the setbacks should be reduced to 20 feet along Boyers Road.

Two primary development zones are defined by the large expanse of undeveloped parcels: Boyers Crossing West and Boyers Crossing East.

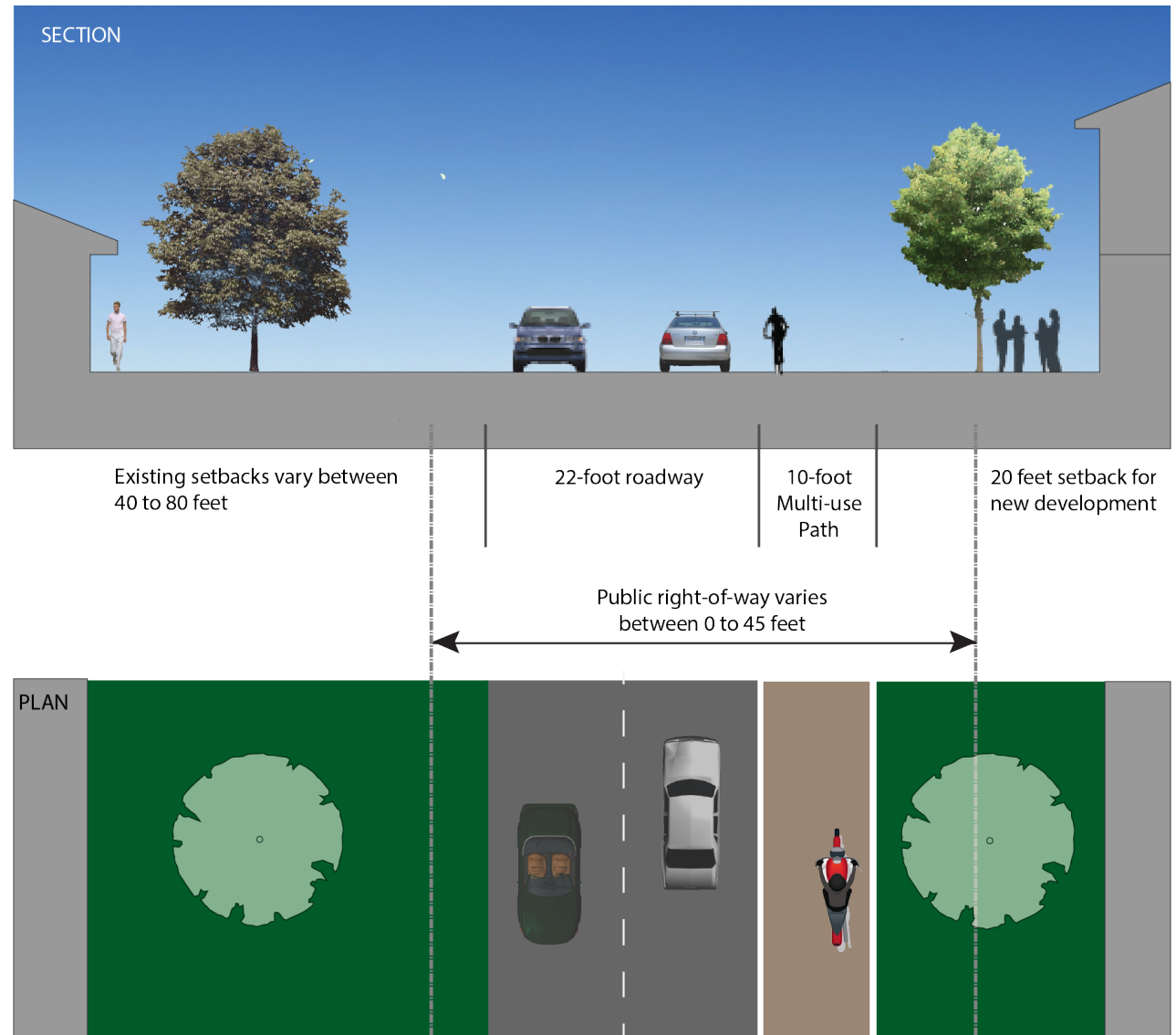
- | LEGEND | |
|--|----------------------------|
| — | BOYERS CROSSING FOCUS AREA |
| — | Collector Street |
| - - - | Neighborhood Street |
| - - - | Pedestrian Pathway |
| — | Multi-use Trail |



CONCEPTUAL BOYERS CROSSING SECTION

Establish a Multi-Use Pathway along Boyers Road that will connect the Stone Spring Pedestrian and Bicycle Trail with the Port Republic Multi-Use Pathway. The path will require easements where the pathway is located within private property. The right-of-way fluctuates between 0 to 45 feet.

Setbacks for new development should be reduced from 45 feet to 20 feet for a more effective transition zone that maintains street character. In addition, new development along the street frontage should face and be accessible from the street.



BOYERS CROSSING WEST NEIGHBORHOOD CENTER

Conceptual development
frontage at Port Republic Road

LEGEND (USE FOR PAGE 72 AND 74)

- Mixed Use Emphasis
- Townhomes
- Civic Emphasis
- Single Family
- Hardscape Plaza
- Road
- Sentara Property Boundary
- Pedestrian Path
- Boyers Shared Use Path
- Port Republic Shared Use Path
- UDA Boundary



CONCEPTUAL BOYERS CROSSING WEST

Located at the intersection of Boyers Road and Port Republic Road, Boyers Crossing West is planned with a neighborhood park with development located within a quarter-mile walking distance. Commercial use line the frontage along Port Republic Road, with residential, single family and rowhomes located within its interior.

KEY

1. Neighborhood Park
2. Boyers Shared Use Path connecting Port Republic Road with Stone Spring Road
3. Pedestrian path to Boyers Shared Use Path and Sentara RMH Medical Center
4. Corner gateway pedestrian plaza to the Boyers Crossing neighborhood. Development should emphasize the intersection of Boyers Road and Port Republic Road
5. Pedestrian plaza
6. Surface parking behind the building
7. Sentara RMH Medical Center offices
8. Sentara RMH Medical Center rowhomes or dorms
9. Rowhomes
10. Single family
11. Commercial emphasis and conceptual form and placement of buildings
12. Fire Department location option
13. New roadway
14. Port Republic Shared Use Path (existing)
15. Traffic calming between residential and commercial
16. Sentara Property Boundary



Image 1: Surface parking located within the block's interior



Image 2: Mix of single-family and townhomes along the street frontage, with reduced setbacks



Image 3: Commercial at the street frontage, parking located behind the building



Image 4: Compact single-family residential development with reduced setbacks between 15 to 20 feet



CONCEPTUAL BOYERS CROSSING EAST

Located at the interior of Boyers Road, Boyers Crossing East is more residential with a concept for school located along the main frontage.

KEY

1. Neighborhood park
2. Linear park connecting Boyers Road to the neighborhood park
3. Pocket park to accommodate topography
4. Boyers Road Shared Use Path linking Port Republic Shared Use Path with the Stone Spring Bicycle and Pedestrian Path. Shared Use Path located on the west side of Boyers Road up until Cullison Creek, and then crosses the road to the east side and continues to Preston Lake Blvd
5. Pedestrian pathway connecting Preston Lake Development with Boyers Shared Use Path and Sentara RMH Medical Center
6. New sidewalk
7. Development block with new sidewalk, curb and gutter (typical)
8. Parking behind the building
9. Rowhomes
10. Linear park between rowhome frontages
11. Single family
12. New roadway
13. Traffic calming device to protect neighborhood
14. Proposed developments approved or in construction
15. Preston Lake Development



Image 1: Townhomes with entries directly from the street



Image 2: Neighborhood Park with residential beyond



Image 3: Compact single-family homes with reduced 10-foot setbacks

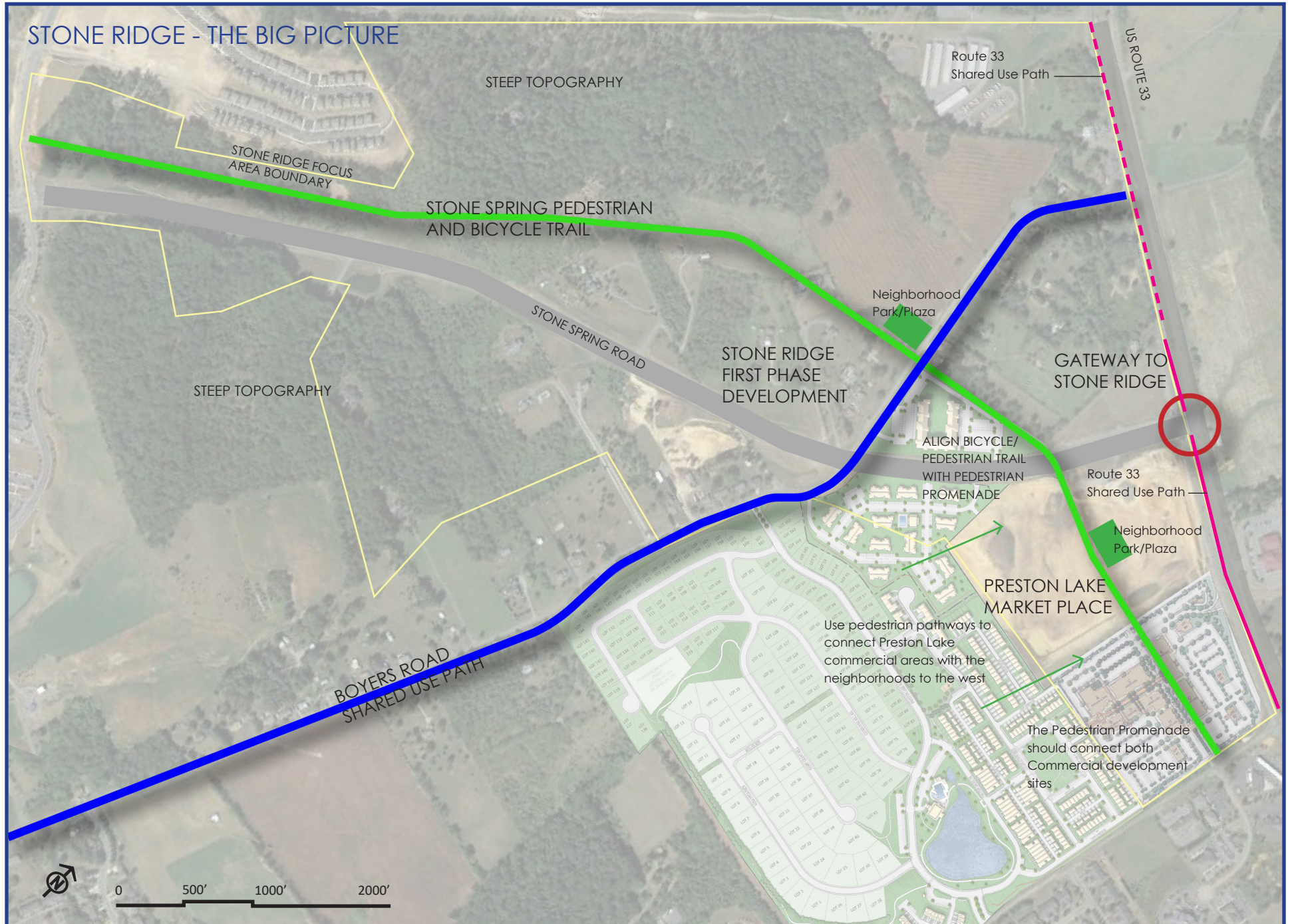


Image 4: Compact single-family residential development with reduced setbacks between 15 to 20 feet



STONE RIDGE NEIGHBORHOOD CONCEPTS





STONE RIDGE - CONCEPTUAL FIRST PHASE

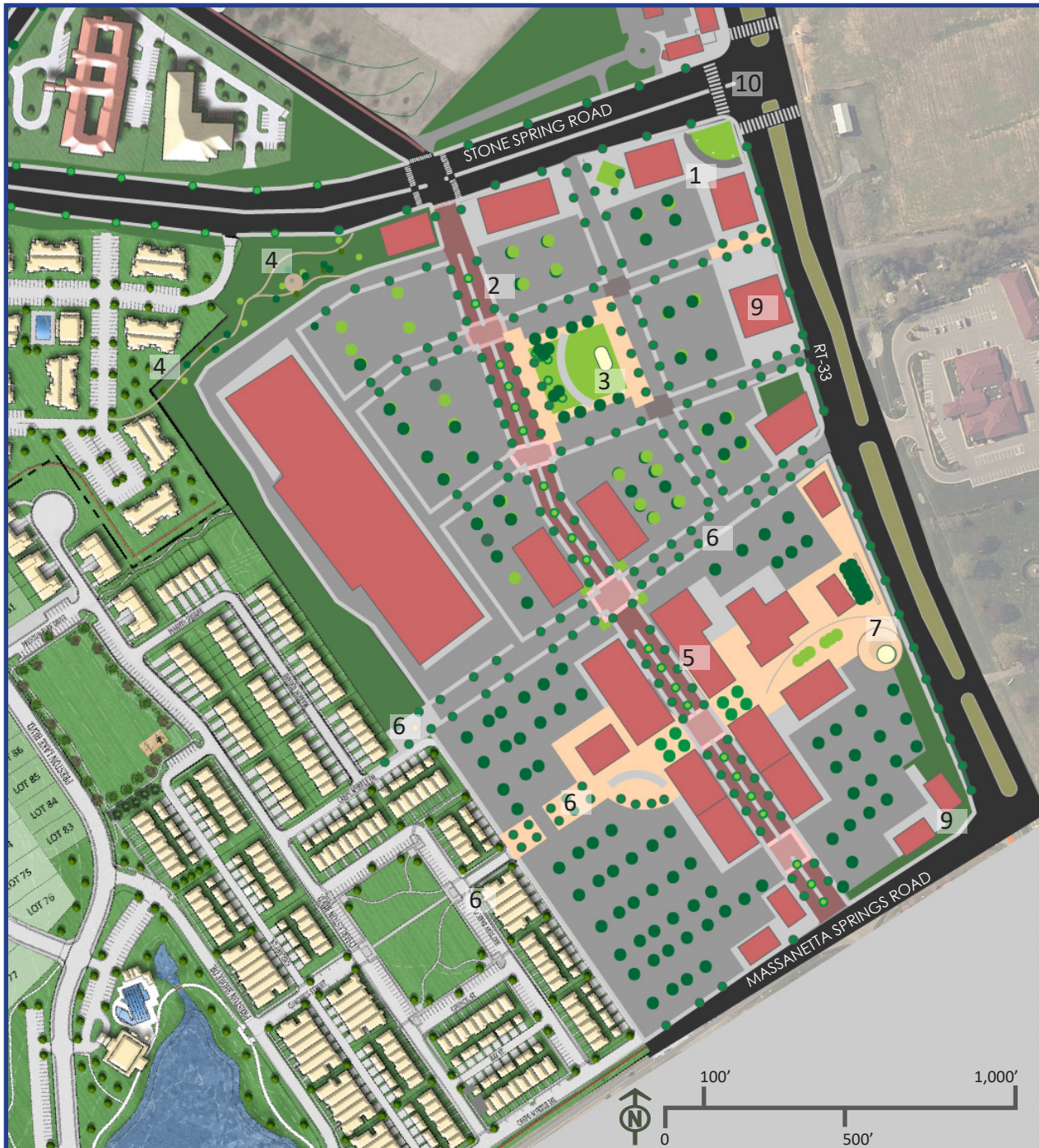
Stone Ridge is the northern gateway into the Stone Spring UDA and is defined by the intersection of US-33 and Stone Spring Road. The primary goals for Stone Ridge is to (1) establish a pedestrian friendly street grid in the undeveloped areas that connect to Stone Spring Road and Route 33, (2) implement a neighborhood park that organizes development around it and facilitates events, and (3) connect new development within Stone Ridge to Preston Lake by implementing the Stone Spring Pedestrian and Bicycle Trail.

KEY

1. Neighborhood Park
2. Stone Spring Pedestrian and Bicycle Trail (Trail)
3. Extend the Trail into Preston Lake and Preston Lake Marketplace as a widened sidewalk with trees
4. Create a neighborhood event area or park along the Trail in Preston Lake
5. Place commercial development with Preston Lake along the Trail
6. Improve Boyers Road ROW with striping and continuous sidewalks and shared use path Route 33.
7. New residential development with structured parkingz
8. Mixed-use development
9. Townhomes
10. Link Stone Spring Road with the neighborhood park via a pedestrian promenade
11. Commercial frontage
12. Striped pedestrian crosswalks
13. Preston Lake Senior Apartments
14. Landscape design with Stone Ridge district signage
15. Emphasize the corner of Route 33 and Stone Spring with buildings that are placed closer to the intersection and are supported with hardscaped plaza, vertical artwork and seating
16. Senior Living Facility

STONE RIDGE SITE PLAN - CONCEPTUAL FIRST PHASE





PRESTON LAKE ENLARGED PLAN - CONCEPTUAL

Improve connectivity between Preston Lake and the adjacent neighborhoods and create a better street frontage along Stone Spring Road that accommodates pedestrians and improves the first impression of the Stone Ridge neighborhood.

The promenade concept that links the two commercial developments should align and connect to Stone Spring as a seamless “main street” pedestrian experience. The promenade should be envisioned as part of the Stone Spring Pedestrian and Bicycle Trail, that at full build out, would connect with the emerging neighborhoods, north of Stone Spring Road. A neighborhood park or plaza should anchor the promenade capable of sustaining a farmers market and events, meeting all parking requirements for the commercial development. Secondary pedestrian walkways or promenades should connect the residential neighborhoods to Preston Lake.

Key

1. Place buildings closer to the intersection, with landscaping and signage that is integrated into the design to reinforce the entry into the UDA. (See Image 1 - low wall gateway element)

2. Link the two commercial development sites with a main street pedestrian promenade that continues the Stone Spring Pedestrian and Bicycle Trail. The promenade should include a

consistent sidewalk experience with enhanced paving and street trees, supported by commercial development with active uses at the ground floor. (See Image 2 Main Street Pedestrian Promenade example)

3. Locate a neighborhood event plaza along the pedestrian promenade. (See Image 4: Multi-use Event Center Plaza)

4. Connect the residential neighborhoods to commercial development with pedestrian paths and trails

5. Align the pedestrian promenade with commercial development with active ground floor uses

6. Align sidewalks connecting the commercial development and parking lot areas with the residential neighborhood towards the south-west

7. Create a prominent east-west pedestrian pathway that connects the US-33 shared use path with the pedestrian promenade and the residential neighborhoods beyond.

8. Create plazas with seating areas, fountains and other pedestrian amenities along pedestrian promenade. (See Image: Pedestrian Plaza 3 and 6)

9. Align development along the US-33 frontage

10. Create a pedestrian crosswalk with refuge island at the intersection of US-33 and Stone



Image 1: Low wall gateway element



Image 4: Multi-use event center plaza



Image 2: Main Street Pedestrian Promenade example



Image 5: Continuous walkway with shade structure and seating



Image 3: Pedestrian Plaza - Water Fountain example



Image 6: Pedestrian Plaza with seating area



FUTURE CONCEPT AT ROUTE 33

Future development along Route 33 should be placed the street frontage, with parking located behind the buildings. Intersections should be emphasized with more vertical elements and hardscaped plazas and pedestrian amenities.

KEY

1. Residential development
2. Commercial development
3. Signalized intersection with striped crosswalks
4. Pedestrian walkway and plaza to coordinate with future build out
5. Building setback and plaza area and Boyers Road focal point
6. Rowhomes
7. Future phase
8. Median with street trees



FUTURE CONCEPT - NORTH OF STONE SPRING

Future development along Stone Spring Road should reinforce the street frontage while creating pedestrian linkages to the interior blocks and neighborhood park. A portion of the Stone Spring Pedestrian and Bicycle Trail should be built as part of this phase.

KEY

1. Neighborhood Park
2. Residential development
3. Rowhomes
4. Commercial development
5. Mixed use development
6. Stone Spring Pedestrian and Bicycle Trail
7. Park or plaza area
8. Pedestrian pathway
9. Signalized striped crosswalks



FUTURE INFILL CONCEPT PHASE

The development of parcels located behind the RT-33 and Stone Spring frontage should continue to build-out of the new compact street grid, with buildings placed towards the street frontage. Development in these areas should act as a transition between dense areas and single family development located towards the interior of Stone Ridge.

KEY

1. Rowhomes
2. Residential apartments
3. Parklets at important street corners
4. Park area buffer between the backside of development at RT-33 and development at the interior blocks
5. Median to provide traffic calming
6. Park area to address change in topography and backside of development from Stone Spring and RT-33



FUTURE CONCEPT - NORTH OF STONE SPRING - SINGLE FAMILY RESIDENTIAL DEVELOPMENT

Single family development could occur towards the interior of Stone Ridge in areas with more steep topography. The blocks would remain compact to facilitate walkability and the edges to this area could be defined with parklets and traffic calming features to define a smooth transition at its eastern edge, adjacent to RT-33 and with direct access to the Stone Spring Pedestrian and Bicycle Trail at its western edge.

KEY

1. Single family
2. Traffic calming circle
3. Parklet
4. Stone Spring Pedestrian and Bicycle Trail



FUTURE CONCEPT SOUTH OF STONE SPRING

Development south of Stone Spring Road would reinforce the commercial and mixed-use corridor but would gradually step down towards Boyers Crossing with compact single-family and townhomes along Boyers Road.

KEY

1. Neighborhood park (See Image 1 - Neighborhood park with residential frontage)
2. Commercial at Stone Spring Road
3. Compact single-family homes, transition to Boyers Crossing (See Image 3 - Compact single family homes)
4. Townhomes
5. Mixed-use residential and townhomes with encapsulated parking deck (See Image 4 - Mixed-use encapsulated parking deck)
6. New road, extends to Boyers Crossing
7. Signalized intersection with striped crosswalks



Image 1: Neighborhood park - with residential frontage



Image 2: Pedestrian Trail with identification signage



Image 3: Compact single family homes - Smaller lots and reduced setbacks



Image 4: Mixed-use encapsulated parking deck example. 4 levels of residential above commercial. Parking is encapsulated in the podium. (40,000 SF grocery store example)



STONE RIDGE FULL BUILD-OUT CONCEPT

1. Neighborhood Park
2. Stone Spring Pedestrian and Bicycle Trail
3. New road extension to Boyers Crossing
4. Potential Fire Department location



CROSSROADS NEIGHBORHOOD CONCEPTS





CROSSROADS - THE BIG IDEAS

Crossroads is defined by the County Park and the undeveloped areas southeast of the intersection of Route 33 and Cross Keys Road. The goals for Crossroads include:

- (1) Create a distinct southern gateway into the Stone Spring UDA by locating new development closer to the intersection of Route 33 at Cross Keys Road, with setbacks to accommodate pedestrian amenities such as plaza with seating and public art that is highly visible
- (2) Create a transition to the single family neighborhoods of Massanetta Springs with development that includes townhomes, single family homes and neighborhood commercial located at Cross Keys Road and Route 33
- (3) Create a safe intersection at Route 33 at Cross Keys Road by installing crosswalks with enhanced treatments that increase visibility
- (4) Create a pedestrian trail that links existing and future residential developments to new neighborhood parks

KEY

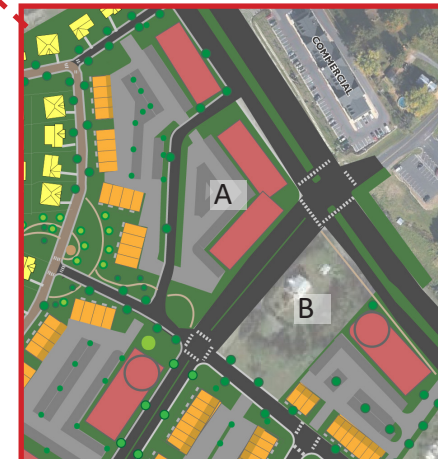
1. Crossroads Pedestrian Trail
2. Pathways to connect the existing neighborhoods to the Cross Keys Pedestrian Trail
3. Neighborhood Park
5. Rowhomes
6. Commercial land use emphasis
7. Buildings placed closer to the street frontage
8. Signal activated striped pedestrian crosswalk concept
9. Single family
10. Enhanced striped crosswalks
11. Pedestrian pathway to connect the existing neighborhoods to the County Park

CONCEPTS AT CROSS KEYS ROAD, SOUTH- WEST OF ROUTE 33



KEY

1. Crossroads Pedestrian Trail
2. Neighborhood pathways to connect to the Crossroads Pedestrian Trail
3. Park areas connected to the trail
4. Neighborhood Park
5. Parklet between townhomes
6. Commercial land use emphasis
7. Route 33 Multi Use Trail to extend to Cross Keys Road
8. Existing commercial development
9. Rowhomes
10. Single family
11. Commercial
12. The historic architectural style of the historic Federalist house at this corner should be reflected in the surrounding commercial architectural design in terms of materials, architectural style and proportional scale. The intersection should include enhanced crosswalk striping with refuge area at median.
13. Right turn in/out



RT-33 AND CROSS KEYS ROAD - ENLARGED PLAN FUTURE CONCEPT AND LATER PHASE

A. Future commercial development (bank is replaced) with intersection emphasis

B. Historic Federalist house maintained - historic architectural style to be reflected in the surrounding commercial design



CONCEPTS AT THE NORTHEAST CORNER OF ROUTE 33 AND CROSS KEYS INTERSECTION

The goals for the northeast area of the Route 33 and Cross Keys intersection are:

(1) Create a distinct gateway into the Stone Spring UDA at the intersection of Route 33 at Cross Keys Road, with development gradually stepping down in scale and character along Indian Trail Road, transitioning from commercial emphasis to compact townhomes and single family homes that are organized by pedestrian pathways leading to parks and open space.

KEY

1. Commercial frontage along Route 33. Reinforce the intersection at Cross Keys Road with buildings placed closer to the street, or with setbacks that have pedestrian amenities (seating, landscaped areas or public artwork). The historic architectural style of the historic Federalist house at this corner should also be reflected in the surrounding commercial architectural design in terms of materials, architectural style and proportional scale. Development in this area could follow as a later phase
2. Rowhomes located behind commercial use, organized by pedestrian pathways and parklets that connect to a larger neighborhood park
3. Single family development future up Indian Trail Road
4. Neighborhood park
5. Traffic calming element
6. Existing and future commercial development
7. Parking located behind the building

CONCEPTS AT COUNTY PARK FRONTAGE

The goals for frontage and entrance to the County park are:

- (1) Create a distinct development frontage along Route 33, that celebrates the entrance into the County Park
- (2) Create safe pedestrian access across and along Route 33 to the County Park

KEY

1. Commercial frontage along Route 33
2. Create a distinguished entrance to the County Park by articulating the corner buildings with greater height, placing it closer to the street and/or by providing a setback to accommodate a paved pedestrian plaza with seating, art or visual elements
3. Implement continuous sidewalks along the street entrance to the County Park
4. Connect Route 33 with the new east-west streets with a pedestrian pathways
5. Create a linear park that organizes the commercial development and connects to the County Park
6. Create new mid-block streets connecting the park entrance with Indian Trail Road
7. Connect the neighborhood with Route 33 and County Park with a pedestrian pathway
8. Parking located behind the building
9. Conceptual signal-activated striped pedestrian crosswalk at Park entrance for future discussion only





6. IMPLEMENTATION AND ACTION PLAN

PROJECT	TEN GUIDING PRINCIPLES	FUNCTIONAL AREA	TIMEFRAME
1. Adopt the Stone Spring UDA as part of the Comprehensive Plan to formalize the vision for the UDA	All	Establishes a comprehensive vision for the Stone Spring UDA	Long term for the full vision to be realized
2. Build civic amenities such as a library or community center, as the center of the focus area	1. A Discernible Center 10. Prominent Civic and Public Buildings	Establishes a community anchor and framework for new private development	Long Term
3. Stone Spring Pedestrian and Bicycle Trail	9. Create neighborhood identity	With each private development, a portion of the Stone Spring Trail will be built	Long Term, built with each new private development
4. Boyers Crossing Multi-Use Trail	9. Create neighborhood identity	With each private development, a portion of the Stone Spring Trail will be built	Long Term, built with each new private development
5. Refine the Form-Based Transect with a focus on the height and setback requirements for each of the zones in subsequent updates. Use as basis for future code amendments	All	Built form and setback requirements	Short to Mid Term
6. Implement design guidelines related building and parking placement on site	3. Building placed close to the street to create a sense of place 4. Parking placed behind buildings and away from street frontages	Built form and parking requirements	Short to Mid Term
7. Implement design guidelines related to building form and street design	5. Complete Streets with a balance between cars, pedestrians and bicyclists 9. Create neighborhood identity	Private development and street design	Short to Mid Term
8. Update the development review process so that development proposals are reviewed for consistency with the Comprehensive Plan and Stone Spring UDA	All	Built form	Short Term
9. Create a park or neighborhood center concept in each of the Focus Areas and prioritize development around these focal points	1. A discernible center 7. Most of the dwelling units are within a 5-minute (1/4 mile) walk to the center	First phase of new development should consider park or green space as part of a first phase	Short Term

REGULATORY	RESPONSIBILITY
Comprehensive Plan Amendment Future amendments described in the Stone Spring UDA Plan	County, VDOT and private sector
Comprehensive Plan Amendment Land Use. Amend Ch. 17, Article VI to allow for civic uses in Stone Spring UDA	County, private sector, non-profit organizations. Public-private partnerships
Amendment to Bicycle & Pedestrian Plan; Amendment to Sec. 17-700.02 & 17-701.04 - 07	Private sector to build and County to promote
Comprehensive Plan Amendment Parks and Open Space	Private sector to build and County to promote
Comprehensive Plan Amendment Community Character Amendment to Ch. 17, Art. VIII "Area, Setback, and Height Standards"	County
Comprehensive Plan Amendment Community Character Amendment to Ch. 17, Art. VII -Sec. 17-702	County
Comprehensive Plan Amendment Community Character Amendment to Sec. 17-701	County (design guidelines) VDOT to approve street designs
Amendments to Ch. 17, Art. VII "Development Standards" and Ch. 17, Art. X "Procedures"; Sec. 17-1005	County - A good development proposal will receive an expeditious approval by meeting the vision of the Stone Spring UDA
Comprehensive Plan Amendment Parks and Open Space	Private to build, County to promote

PROJECT	TEN GUIDING PRINCIPLES	FUNCTIONAL AREA	TIMEFRAME
10. Update Rockingham County's typical sidewalk section Complete Streets Section Diagram	2. Connected sidewalks with a clear pedestrian path, street trees and lighting 5. Complete Streets with a balance between cars, pedestrians and bicyclists	Street and building frontage	Short Term
11. Adopt a new Street Classification Plan based on the Street Hierarchy Plan (Page 34)	6. Create compact street blocks that encourage walking 9. Create neighborhood identity	Improve connectivity between and within the neighborhoods for safe movement of pedestrians, cyclists and vehicles with specific street descriptions	Long Term
12. Realignment of Albert Long Road to create a more development block frontage along Port Republic Road and street grid	9. Create neighborhood identity	With each private development, a portion of the Stone Spring Trail will be built	Long Term, built with each new private development
13. Promote the new fire station in the Boyers Crossing Focus Area along Port Republic Road	10. Prominent civic and public buildings	Public building	Short Term
14. Locate a civic amenity in the Stone Port Focus Area, that is supported by park space and serves as a neighborhood center	10. Prominent civic and public buildings	Public building	Mid Term
15. Allow for a mix of uses and housing types in each of the focus areas, and at greater density in Stone Port and Stone Ridge areas. Revise existing zoning districts	8. Greater density that includes a mix of dwelling units and commercial uses	Private development	Short Term
16. Create new street grids per each Focus Area Neighborhood Concept to create more walkable street blocks with pedestrian scaled development	6. Create compact street blocks that encourage walking	Private development, compact development blocks	Long Term

REGULATORY	RESPONSIBILITY
Comprehensive Plan Amendment Transportation Amendment to Sec. 17-701.06 & .07	County
Comprehensive Plan Amendment Transportation and Bicycle & Pedestrian Plan. Amendment to Sec. 17-701	VDOT
Comprehensive Plan Amendment Transportation and CIP	Private sector and County, VDOT to approve
Comprehensive Plan Amendment Community Facilities and CIP	County
Comprehensive Plan Amendment Community Facilities Amendment and CIP	County
Comprehensive Plan Amendment Land Use Amendment to Ch. 17, Art. VI "Land Use" and Sec. 17-701	County
Comprehensive Plan Amendment Community Character Amendments to Secs. 17-700, 701, & 702	Private, County to promote



7. GLOSSARY

A

B

Building Disposition: There are four broad categories of building types, according to their dispositions on a lot: Edge yard, Side yard, Rear yard, and Courtyard. These dispositions can accommodate all the common residential and commercial programs.

Edge yard: a building that occupies the center of its Lot with set backs on all sides. These are typical of suburban and rural zones.

Side yard: a building that occupies one side of the lot with a Setback on the other side. This type can be freestanding or attached to a common wall.

Rear yard: a building that occupies the full Frontage Line, leaving the rear of the Lot as the sole yard. Variants include rowhouses, townhouses, and apartment buildings.

Courtyard: a building that occupies the boundaries of its lot while internally defining one or more private patios.

Build-To Line: a line appearing graphically on the regulating plan or stated as a setback dimension, along which a facade must be placed, usually a designated minimum of the lot width. A build-to line is a more precise tool than a setback or a frontage line as it permits the definition of variable setback for courts, etc.

Front Setback: the distance between a Frontage Line and a facade. This distance is given as a minimum or as a requirement (a build-to line). Open porches, balconies, stoops, chimneys, and bay windows are permitted to encroach into the front setback.

Side Setback: the distance between the side Lot Line and an exterior wall of the building with the exception of roof over-hangs. This distance is given as a minimum. Open porches are not permitted to encroach into the side setback.

Rear Setback: the distance between the rear lot line and any portion of a principal building. This distance is given as a minimum. A back building and an outbuilding are permitted to encroach the rear setback.

C

Complete Streets is 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.

Compact Development is for land uses and infrastructure to effectively interact with each other and the people, who frequent the Traditional Neighborhood Development (TND) area. The project should be located on a compact street block, defined by approximately 200-400 feet in width and up to 600 feet in length, with development that is dense and at the same time, at a scale that makes a pedestrian feel comfortable.

Courtyard is a building that occupies the boundaries of its lot while internally defining one or more private patios

D

E

Edge yard is a building that occupies the center of its Lot with set backs on all sides. These are typical of suburban and rural zones.

Elevation is an exterior wall of a building not along a Frontage Line.

F

Façade is the exterior wall of a building that is set along a Frontage Line. Facades define the public space and are subject to requirements additional to those other exterior walls such as architectural standards, assigned frontage types and height restrictions.

Fine-grained development promotes compact street blocks in close

proximity, each with many buildings with narrow frontages, frequent storefronts, and minimal setbacks from the street.

Form-based transects defines a series of zones, with height and setback requirements, that transition from suburban areas to more dense urban neighborhood centers.

Frontage is the area between a Building Facade and the vehicular lanes, inclusive of its varying built and planted components. Frontage is divided into Private Frontage and Public Frontage.

Frontage Line is the Lot line bordering a Public Frontage. Facades facing Frontage Lines define the public realm and are therefore more regulated than the Elevations facing other Lot Lines.

Furnishing Zone is the area adjacent to the curb that includes street trees and sidewalk furnishings slow traffic, provide a buffer between cars and people, shade for pedestrians, and improve aesthetics of the street.

G

Gateways can be buildings and physical elements, such as landscaping or natural vegetation, that serve as the entry point to an area by being the primary arrival and departure point.

Greenfield relates to or denotes previously undeveloped sites for future commercial or residential development.

Gathering Point is a feature such as a green, park, corner store, post office, library, town hall, community center, train station, theatre, or other civic use; typically located along a “main street” or in a neighborhood or town center. It often provides a place for special events

H

I

Interconnected Streets is the organization of streets and blocks that integrates boulevards, avenues, neighborhood streets, and alleys into

an interconnected grid, and links to pedestrian and other motorized and non-motorized transportation systems; building frontages defining street walls that help to create outdoor rooms in the streetscape; street vistas that terminate with public space, landmark structures or civic buildings.

J

K

L

A **Lot** is a separately platted subdivision of land held privately, usually intended for the purposes of building.

Lot Coverage is the maximum area of a lot that may be occupied by a structure. Lot coverage is expressed as a ratio. Arcades, open porches, decks, terraces, and stoops are excluded from the calculation.

Lot Line is the boundary that legally and geometrically demarcates the edges of parcels held in private ownership and is intended primarily for the construction of buildings.

M

Mixed of Uses combines residential, commercial, civic, recreational and open space uses in a diversified but seamless arrangement; also combines first floor retail with second floor apartments and/or offices.

N

Neighborhoods are urbanized sectors that are compact, diverse, and walkable. Neighborhoods provide for a balanced set of activities: shopping, work, schooling, recreation, and dwelling. The neighborhood provides for a variety of housing, such as single family, apartments above shops, and apartment buildings adjacent to workplaces, in addition to rowhouses and regular houses. A variety of business types are also accommodated, from retail and professional offices to live-work units and accessory buildings for business incubation. All neighborhoods should have a center. The center is a public space, which may be a plaza, square, green, or an important street intersection and is located near

the physical center of the urbanized area. The neighborhood's center is where its civic buildings are located. With the addition of a transit stop within walking distance of most homes, the neighborhood's center bolsters its economic viability.

Neighborhood Identity is promoted by a consistent hierarchy of style of materials, finish and identification that includes gateway signs, monuments, gazebos, pavilions, pergolas, as well as street lamps, benches, or similar features.

New Development is any development within an UDA should function as a pedestrian-friendly environment favoring Traditional Neighborhood Design principles in which residents have convenient walking access within the development, as well as access to amenities, goods, and services in other parts of the community. Any development proposal should include the location and design of all sidewalks and trails necessary for complete pedestrian accessibility throughout the community

O

On-Street/Parallel Parking: this parking supports local businesses and provides separation between moving traffic and pedestrians, and promotes effective traffic calming by slowing down the speed of vehicles.

P

Parks and Open Space creates the green, square or park to enhance and beautify the Town/Neighborhood Center and neighborhood; a system of "green spaces" ecologically balanced with the built environment and distributed within the community; includes a "green edge" of open space to help shape neighborhoods and towns; forms the countryside between towns, villages, and other places.

Parking Deck is a specialized building type dedicated to the accommodation of parking in quantity by vertical stacking.

Pedestrian Environment is enhanced by the design of buildings which provide windows and entrances to reduce the amount of blank walls and street-level uses. Sidewalks include pedestrian amenities such as

shade trees and street furniture.

Plaza is a public square, open marketplace, or similar open space in a built-up area.

Placemaking is a multi-faceted approach to the planning, design and management of public spaces. Placemaking capitalizes on a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness and well-being.

A Promenade is a paved public walkway that may include landscaping, trees, seating and lighting, and could connect to parks, open space and neighborhood centers.

A Porch/Portico/Colonnade serves as a transition element from the private realm of the building to the public realm of the sidewalk and street; provides shade; promotes a finer, more ornamental texture to the building; creates a cozy space to sit, walk, relax; provides the outdoor room for greeting and socializing with neighbors and friends.

Q

R

Rear yard: a building that occupies the full Frontage Line, leaving the rear of the Lot as the sole yard. Variants include rowhouses, townhouses, and apartment buildings.

S

Side yard: a building that occupies one side of the lot with a Setback on the other side. This type can be freestanding or attached to a common wall.

Sidewalks serve to link uses, buildings, lots and streets together; accommodates a healthy pedestrian circulation network; provides close to home opportunities for exercise; enhances wayfinding and an appreciation of the neighborhood/place.

Setback is the area of a Lot measured from the Lot line to a building Facade or Elevation that is maintained clear of permanent structures, except for encroachments such as open porches, balconies and bay windows.

Street wall: the front façade of a building where it is built on or close to the street. It is an important urban design element because it defines the public realm.

Streetscape: the assemblage of landscape, sidewalks, street trees street lights and curbs between the Lot Line and the vehicular lanes. The streetscape, in combination with the building frontage and the vehicular way comprises the urban public realm, which may include both public and private realms.

Sustainability: the principles of smart growth and TND as based on a sustainable development plan that includes environmental, land use and market support for the long-term viability of the plan.

T

Traditional Neighborhood Design (TND): a development 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, and schools within walking distance of residences.

Traffic Calming is a set of techniques that serves to reduce the speed of traffic. Such strategies include lane narrowing, on-street parking, chicanes, yield points, sidewalk bump-outs, speed bumps, surface variations, midblock de-flections, and visual clues. Traffic calming is a retrofit technique unnecessary when thoroughfares are correctly de-signed for the appropriate speed at initial construction.

U

V

W

Walkable Service Area: features a ¼ to ½ mile (5 to 10-minute walk)

radius from any point in the neighborhood to goods and services.

Walkway: a passage or path for walking along, especially a raised passageway connecting different sections of a building or a wide path in a park or garden.

X

Y

Yard: the portions of a lot which, following the prescriptions of the urban regulations, remain free of structures, except that streetwalls, porches, terraces, and decks may be specifically permitted to encroach upon them.

Z

