



WE



**ARE
STOCKTON.**



The General Plan of the Town of Stockton, Utah. 2020.



ACKNOWLEDGEMENTS

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INTRODUCTION



Students from the University of Utah gather in front of the Stockton Jail on a cold winter day.

Why Plan?

There are many reasons to plan. Overall, planning helps a community thrive as the community it wants to be. Five more specific reasons include:

1. Planning helps communities choose their desired futures; in that sense, planning helps communities avoid change “just happening” to communities.
2. By linking data, local knowledge, and on-the-ground conditions, planning clarifies specific issues and identifies potential solutions.

3. Planning helps preserve strengths, mitigate problems, avoid threats, and achieve goals.
4. The planning process brings together community members through a common goal: bettering a community for the long-term.
5. Utah State Code 10-9a-4 requires each municipality in Utah to prepare a General Plan.

Plan Background

As Stockton’s previous General Plan was written by Tooele County staff in 2002, Mayor Thomas Karjola, Stockton Town Council members, and the Planning Commissioners recognized the need for a new General Plan. They coordinated with professor Bruce Parker, University of Utah, and City and Metropolitan Planning Department’s “Resort and Small Town Planning” Master’s-level class took on the General Plan as their semester-long project.

The graduate student team undertook this planning process with six purposes.

They wanted to ensure this draft plan was:

1. data-based,
2. informed by local knowledge,
3. directed by community input,
4. comprehensive,
5. accessible to understand, and
6. actionable.



Stockton's General Plan:

- is a guiding document for how the community makes development decisions.
- looks toward the long-term. It addresses: What is the community's vision for itself in the next 5, 10, or even 20 years? How can the community achieve that vision?
- communicates the community's wants and needs regarding housing, transportation, land use, and other topics to elected officials.
- must include a transportation element and a land use element, per Utah State Code 10-9a-401.
- is a "living document," intended to be amended and updated as necessary.

MAKING THE GENERAL PLAN

Local Knowledge and Community Input

On Wednesday, January 22, 2020, Mayor Karjola spoke with the class at the University of Utah for over an hour. On Saturday, February 8, 2020, the class traveled to Stockton. Students spoke with Mayor Karjola and Planning Chair Don Hill for three hours and toured the town. Throughout the semester, students coordinated with Mayor Karjola and with the Planning Commission via email.

In February, students began public outreach. Hearing from Mayor Karjola that Facebook is a popular platform for Stockton residents, students crafted a Visioning Survey that was posted on Stockton's Facebook page. Additionally, to reach as many Stockton residents as possible, the survey was attached to March's utility bill.

A second survey, The Development and Opportunities Survey, was created to understand the community's feeling towards different types of development. The intent of the survey was to assess the future needs and desires of residents while identifying which existing elements should be preserved to uphold the small-town charm of Stockton.

Due to the COVID-19 global pandemic, the public outreach process of this plan was greatly hindered. Our interactions with community members were limited to online and paper correspondence. Government restrictions on social gatherings eliminated the ability of the University of Utah team to hold public meetings or workshops with the community.

Data-Based

Since getting where you want to go without knowing where you are is impossible, compiling accurate and reliable information is crucial for good planning. Students gathered information from various credible sources. The Brief History of Stockton, Utah (Stockton Bicentennial History Committee 1976) provided great insight and facts about Stockton's rich history. The United States Census Bureau's American Community Survey proved especially useful for gathering statistics. Whenever possible, data from the most recent survey, 2018, was used. In some cases, data from 2017 had to be used. The United States Census Bureau's Decennial Census was also used for its accuracy, although 2010 data is a bit outdated for 2020. Affordable housing statistics and projections were obtained from the Utah Department of Workforce Housing, Division of Housing and Community Development.

Reading the Plan

This plan contains six major sections: who we are, land use, connectivity, housing, economic development/recreation, and the annexation policy plan. "Who we are" presents information regarding Stockton's history, current demographics, housing conditions, and the economy. Understanding Stockton's current conditions ensures that the plan is well-informed and data-driven. The five topic-based sections share a template. Each has:

- An analysis of the topic.
- A description of Stockton's desired future for that topic, including goals.
- A quote from a Stockton resident or a summary of survey results, showing how public feedback informed the analysis and description.
- An explanation of underlying planning concepts.
- An implementation plan, outlining the specific actions to take, a timeline for completion, the

relative cost, the responsible party(ies), and the goal(s) that each action supports.

At the plan's end are appendices with additional, helpful maps and images as well as a list of resources.

USING THIS DOCUMENT

This plan can be useful for elected officials, town staff, and residents alike. All can use the plan as a tool for generating dialogue about Stockton and authenticating that proposed town projects align with Stockton's goals. Uses specific to your role arise as well.

- If you are a **RESIDENT**: you can use the plan to understand Stockton's goals and trajectory, develop or expand a business, and inform your real estate decisions.
- If you are an **ELECTED OFFICIAL**: you can use the plan to understand your constituents' long-term goals, coordinate the budget with the community's goals, and guide your decision-making.
- If you are a **TOWN EMPLOYEE**: you can use the plan to direct applications for grants, identify what kind of development is appropriate and where, guide capital improvements, coordinate ordinances and regulations with the community's goals, and protect the town's character.
- If you are an **ARCHITECT, BUILDER, or DEVELOPER**: you can use the plan to understand the community's character and design projects accordingly, learn the town's development priorities, and identify what kind of development is appropriate and where.

Throughout the plan, look to this speech bubble for quotes from residents and information about how community feedback guided the document formulation.



WHO WE ARE



In 2010, 540 people lived in Stockton, and Tooele County hosted a population of 58,218 (2010 Census). By 2018, the U.S. Census Bureau estimated that Stockton's population had increased to 722 while Tooele County's population jumped to 69,907 (USCB 2018). Due to Tooele County's available land for development, its location, and its access to the opportunities offered in the Salt Lake Valley, Tooele County is expecting continued high growth.

What Tooele County's growth means for Stockton is uncertain. A likely scenario is continuous growth that spills over from Tooele City as Tooele's land develops. Utah's Department of Workforce Services projects that Stockton's 2025 population will be 945 (DWS Affordable Housing Calculator). A 2025 population of 945 would mark significant growth for Stockton. However,

this projection takes the growth rate of previous years and applies that to the future, and it does not take into account growth from annexation.

Planning ahead will allow Stockton to maintain its identity and values in the face of different scenarios regarding population change. The first step is understanding existing demographic, economic, and housing conditions. Knowing the existing conditions orients you; if you know where you are, it's a whole lot easier to direct yourself to your destination. To that end, the next pages provide a summary profile of the Stockton community.

Vision: Stockton will embrace its history, continue to build on shared values, and be recognized as a close-knit community that lifts up all of its neighbors.



2018 DEMOGRAPHICS

 **61** People identify as Hispanic or Latino


 **68** Veterans

 **74** People have disability status.

87.9% High School Graduate or higher



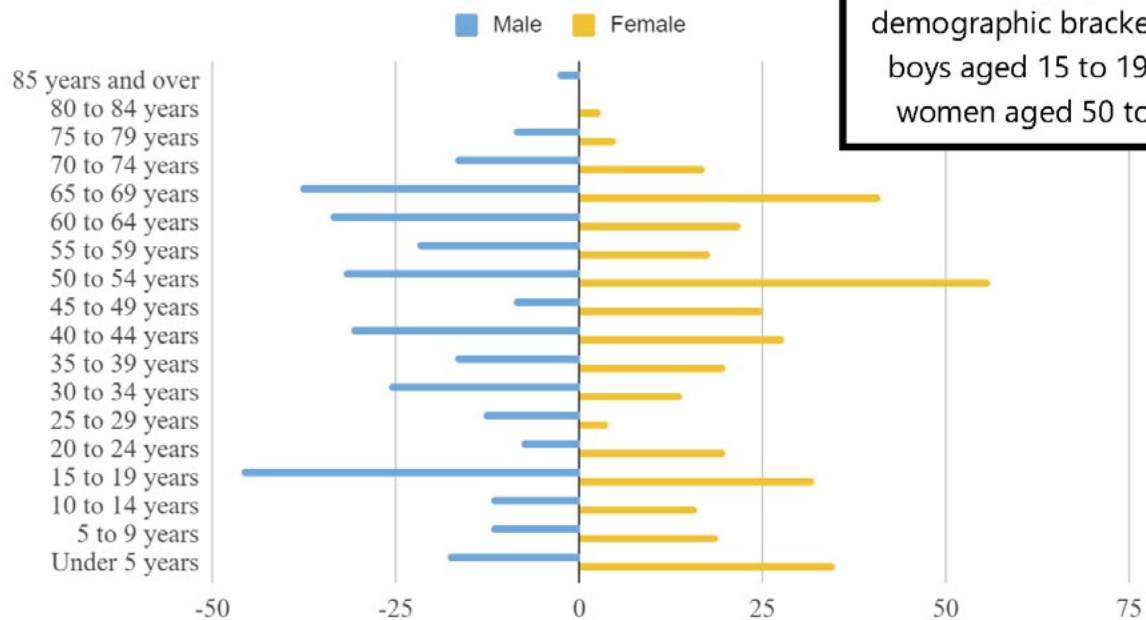
258 Households

 Average Household Size = **2.8** people

70 Currently Enrolled High Schoolers

 Median Age = **44.4** years

Stockton's Population Breakdown in 2018




The most populated demographic brackets are boys aged 15 to 19 and women aged 50 to 54.


2018 ECONOMICS


332 People in the Workforce
=
56.7% Labor Force Participation Rate

Employment by Industry: # Employed

Construction:	53
Educational services; health care; social assistance:	52
Retail trade:	44
Manufacturing:	36
Arts; entertainment; recreation; accommodation; food services:	29
Public administration:	27
Finance; insurance; real estate; rental; leasing:	23
Transportation; warehousing; utilities:	23
Professional; scientific; management; administrative; waste management services:	22
Other services, except public administration:	11
Wholesale trade:	9
Agriculture; forestry; fishing; hunting; mining:	5
Information:	1

\$15,417  M E D I A N I N C O M E

\$38,882  I N C O M E

\$61,875  Median Household Income

7.8% People in Poverty



29-minute Average Commute to work

2.0% 



What do residents say about their community?

Students began the public outreach process in February. Hearing from Mayor Karjola that Facebook is a popular platform for Stockton residents, the team crafted a Visioning Survey that was posted on Stockton’s Facebook page on March 5. The survey was also attached to the town’s March utility bill to maximize its reach. This 5-question survey asked broad questions about what respondents like about Stockton now, what values are important to them, and what changes they would like to see over the next 10 years. The team received 31 complete or partial responses, for an overall response rate of about 4% for the town. The themes that emerged from the results were a desire to preserve the town’s rural character and small-town feel, improve the town’s roads and services, and provide a safe community for residents.

The team used the results of the Visioning Survey to inform a second survey, called the Development and Opportunities Survey. This survey was attached to the town’s April utility bill and garnered 18 complete or partial responses for a response rate of about 2.5%. This 7-question survey asked residents to state their preferences from among various growth and development scenarios, identify which elements of Stockton’s character should be preserved or expanded, and select which (if any) public transit options they would utilize. Themes that arose from the results are a strong aversion to medium- or high-density housing options, and a slight preference for new local retail and service businesses, particularly a cafe.

In summary, the residents of Stockton on the whole like the town just the way it is, but they could probably abide having a few services in town that don’t require a trip to Tooele.

OUR COMMUNITY

Stockton is unlike anywhere else in Utah. While residents praise its rural, small-town feel, the Town is just a short drive from Tooele, Salt Lake City, and even Lehi. This means residents have access to the growing economic activities in the surrounding metro areas. This is all while enjoying unparalleled views of the Oquirrh Mountains and immediate access to public lands for off-roading, hunting, fishing, and hiking. But what really stands out about our community is the people.

We are the Town that streams our commission and council meetings over Facebook Live so that all our residents can get involved in community happenings, regardless of their work schedules or parental obligations. We are the Town that recorded the lineage and personal histories of every resident in 1976 in order to produce a comprehensive book on our history. We are the Town, that during the COVID-19 pandemic, drove the Easter Bunny around in the back of a pick-up truck to waive and pass out candy to all of our children, so that their holiday may be special even during a mandated quarantine. We are the Town that will continue to care for our home and for each other.

We are Stockton.

Demographics

Compared to the state of Utah, Stockton has a much higher median age and a smaller household size. If future households in Stockton look like the average household in Stockton today, then housing needs in Stockton may be different than what the zoning code currently plans for. For example, there may be a strong need for cozy, 2- or 3-bedroom homes rather than expansive 5- or 6-bedroom homes. This ties into Stockton’s water concerns as well: the kinds of homes that are built influences how much water and other utilities will

be needed.

The population pyramid shows a declining male population over time, besides the 15 to 19-year-old bracket exception. The female population, on the other hand, is oscillating.

Subsets of Stockton’s population may require different services than the population at large. Stockton’s veterans may need transportation services to the nearest Veteran’s Association; Stockton’s Hispanic and Latino residents might visit other places to fulfill cultural desires; residents with a disability status may benefit from better access to health care services.

Economics


There is a large discrepancy between male and female median income. What is causing this discrepancy? Are more women choosing not to work? Are women employed in lower-paying jobs? Is a lack of transportation options limiting what jobs Stockton women can access? Is a lack of convenient or affordable daycare options another limiting factor? Depending upon these answers, different strategies can be undertaken to improve the economic condition of Stockton women. For example, is there opportunity to provide job trainings, inform the community of job fairs, or hold monthly workshops on resume-building and cover-letter writing? Is there opportunity for home businesses? Can a car-pool system be set up?





Stockton wide-open spaces. Photo credit: Kayla Mauldin 2020.


Values

Community feedback revealed four central values which guided the creation of this document:

 Stockton residents value a rural lifestyle that is quiet, slow-paced, and rooted in wide-open spaces.

 Stockton residents value immediate access to recreational amenities including viewsheds, areas for hunting and fishing, and hiking and off-roading trails.

 Stockton residents value their past, most significantly, their early mining and ranching culture.

 Stockton residents value relationships with one another, strong community bonds, and altruistic attitudes. The community’s culture is based on helping neighbors and working collectively toward common goals.

“We have quality residents who really step up when a community neighbor is in need.”

-Response from the Stockton Visioning Survey 2020.



Why Embrace Our History?

The history of Stockton is held dear by residents of the Town. Many of the men and women who live in the area today descended from the early miners and farmers who were instrumental in Stockton's founding. Remembering our past helps us better understand the traditions, way of life, and culture that we value as a community.

The past can also inspire the future. Stockton once held regional amenities such as the Train Depot, I.O.O.F. Dance Hall, and the state's first electric light. This history, combined with the small-town lifestyle and connection to the outdoors, is part of what makes Stockton stand out from other rural towns in Utah. This is a unique place that should be celebrated, preserved, and nurtured for years to come.

"Precious also is the memory of my parents and of being awakened by my mother early in the Spring as she nudged us saying, 'Wake up, listen to the Meadowlarks singing; they are singing Stockton's a Pretty Little Place!' As we listened then; and even now the Meadowlark seems to be singing, 'Stockton's a Pretty Little Place.'"
- Katie Painter Kading Ross 1976

A BRIEF HISTORY OF STOCKTON

The area that later became known as Stockton was first inhabited by Native Americans with Goshute and Piute ancestry. The earliest peoples referred to this area as Shambip, believed to translate to 'Rush' in English. This is where Rush Lake (previously Lake Shambip), which touches the southwest border of Stockton, derived its name.

In 1854, Colonel Steptoe and the Second Detachment Company of Artillery of the United States Army arrived in the area and set up camp along Lake Shambip. The purpose of the detachment was to monitor Mormon pioneers in the area and preserve the peace. Soldiers at Camp Relief traded with the native peoples of Shambip for trinkets and jewelry, likely made from the precious metals buried in the hills and mountains surrounding Stockton. Over time,



Camp Relief (Utah State Historical Society, digitized in 2008).

native peoples were pushed out of the area by the white settlers, and little is known about the history or culture of those early inhabitants of Shambip.

Eventually Colonel Steptoe and his Company departed for California, but a few soldiers stayed behind to make their home in the area. In 1862, another Company arrived out of California, this time led by General Patrick Connor. The General was interested in the area's metals and sent his soldiers searching the hills. In 1864, those soldiers located lead and oxide ore. General Connor commissioned his men to survey the town and lay out a street system. The area known as Shambip, which became Camp Relief, was renamed Stockton by the General. It is believed that General Connor named the town after Stockton, California, a place that had experienced its own gold rush in 1849. The Town's main street was named Connor Avenue after the General.

Extraction began quickly after the discovery of silver, gold, copper, and lead in the hills. The population of Stockton soared to over 4,000 people during the peak of the mining days. Homes were built along with saloons, boarding houses, and shops (including the town blacksmith). Mining operations in Stockton became very important to the state and nation's economy. Stockton was the first town in Utah to use electric lights, and the first telephone in Tooele County was installed in 1890 at Stockton's Honerine Mine. The area was home to the first smelter west of the Mississippi. Stockton officially incorporated in 1901.

This bustling mining town was even home to a jail and a train depot. The Stockton Jail was built in 1902 and is nestled at the base of Tabernacle Hill on Clark Street. Although it was designed to contain even the toughest of men, the jail was never used for much more than an overnight holding cell for drunks or those who had

hitchhiked a ride on the train. The jail remains today, although it has not been in use for some time. The train depot was built along the Union Pacific tracks in 1904-05. The depot served both freight and passengers. Soldiers coming home after the end of World War I stuck their heads out of the train windows and waved joyously as they passed through Stockton on their way to California. Unfortunately, the depot was later demolished.



Stockton miners pose outside of mine entrance (Utah State Historical Society, digitized in 2012).

Culture and Traditions

During this time, the town of Stockton maintained many rich cultural traditions. One of these was baseball. Baseball fields existed within Stockton's town limits even in the early 20th Century. Team photographs date back to at least 1910, and likely even before.



OTHER TRADITIONS



Stockton baseball team poses by Rush Lake (contributed by George Millward, digitized by Utah State History).



Stockton baseball uniform (contributed by George Millward, digitized by Utah State History).

- "Pay-day candy" at the town General Store, whereby every payday, miners would come pay their debt at the store. In return, for the payoff, the store-keeper would give the miner a sack of candy to enjoy.
- Christmas Eve Program and "sock tradition," where Stockton residents would gather at the church to watch children perform in dances and a program on Christmas Eve. Santa would appear during the night and hand out a large sock full of candy, nuts, and an orange to each child. This tradition was started by the miners of the town, who would pool their money every holiday season to ensure that each child woke up to a full stocking from Santa on Christmas morning.
- "May-pole Dance," a spring celebration which featured school children dressed in all white, putting on a performance with colorful streamers. The day was complete with picnics and walks into the hills above Stockton.
- "Rail-walking" on the tracks by the train depot was a common recreational activity on Sunday afternoons after church.
- The "I.O.O.F. Hall" (Independent Order of Odd Fellows) served as the gathering place for much of the community. Built in 1902, the hall was used for meetings of lodge members and for recreational purposes. It hosted every public dance, card party, and many Christmas programs and school functions. The dance floor featured in the I.O.O.F. Hall was well known and highly regarded in the county, and many aspiring local musicians played there.

Present Day Stockton

Although extractive industries still impact the town, Stockton's employment in mining has dwindled. With the loss of mining, the Town has seen a great decrease to its population, dropping from over 4,000 residents to under 800. The population that remains includes descendants of early Stockton miners and ranchers, as well as households that have sought to escape the surrounding bustle of the Wasatch Front for a quieter, country lifestyle. Residents still enjoy baseball tournaments and the sound of the meadowlark. And hunting and off-roading through the surrounding hills and mountains are popular pastimes. The town has beautiful views and proximity to recreational opportunities to offer current and future generations.

Many of the historic sites and buildings have been lost over the decades, but Stockton residents hold on to the stories of their ancestors. A few nods to Stockton's past remain:

- **The Stockton Jail:** a single-cell jail built in 1902 to house criminals during the heyday of Stockton's mining operations. The jail is no longer in service but remains standing at the base of Tabernacle Hill. A chain-link fence keeps people away from the structure.
- **Stockton Daughters of Utah Pioneers Museum:** located in Town Hall, this collection of artifacts and news clippings tells the story of Stockton's past. It features photographs, machinery, and even early baseball uniforms. The museum does not have regular hours of operation but is open to the public upon request.
- **Stockton Town Hall:** Town Hall, erected in 1929, was originally used as a schoolhouse. Today it hosts town staff and serves as the location of community meetings.

- **Steptoe Historical Marker:** Located along Rush Lake, just outside of Stockton's borders, this site marks the place where Colonel Steptoe and his troops set up Camp Relief.

Other historical markers in Stockton symbolize important people and events (such as the first electric light in Tooele County).



A horse tied up in front of the old I.O.O.F. Hall (contributed by George Millward, digitized by Utah State History).



The Stockton Jail (Kayla Mauldin 2020).



Case Study: Coalville, UT

Coalville, Utah, in northeastern Summit County, has many similarities to Stockton. A coal vein was discovered in 1854 in the Chalk Creek area, launching a mining boom. A railroad spur was built in 1872 to take coal from Coalville to the Union Pacific main line in Echo, Utah.

Coalville has successfully retained its mining heritage through the addition of several small parks and monuments in the community. In front of Town Hall (pictured) there is a scene of an underground mine, created with donated materials and volunteer labor. At the County Courthouse, an old mining cart stands as a symbol of the past. In 2005, Coalville was awarded a grant from UDOT to revitalize its Main Street. Part of this project included the construction of a pocket park, which features an old Ford truck salvaged from one of the area's abandoned mines. The town's residents have been very supportive of historic preservation efforts, even showcasing old mining carts in their own front yards. Shortly after the Main Street Revitalization Project, an abandoned motel was torn down and replaced with a replica of the original Coalville Schoolhouse that had stood on the site (although the replicated schoolhouse now serves a modern function as a car wash). Because of volunteer support and available grant funding, many of the improvements made in Coalville were done with little cost to the Town. Stockton can learn lessons from Coalville's approach and use those lessons to launch its own historic preservation campaign.

History of Coalville taken from Summit County Historical Society 2020.

MOVING FORWARD

It is obvious that Stockton is a community that knows what it stands for, values, and desires. Stockton residents know each other and care about their neighbors' welfare. In terms of internal communication and collaboration, Stockton sets an example for other small towns in Utah. The use of Facebook Live for public meetings in addition to the opportunity to participate in public meetings in-person is innovative, and the result of having two methods for participation is more widespread community engagement. This practice should be continued. Town celebrations are another great way to foster community engagement. Bringing back Stockton Days is an opportunity to celebrate Stockton's history while cultivating a sense of community.

Stockton can also leverage collaborations with other municipalities, agencies, and entities to accomplish quality of life improvements for residents. Regular meetings among Stockton representatives and representatives of other entities can lead to mutually beneficial relationships. From information-sharing to resource sharing to event sponsorship to capital improvement funding, many opportunities arise from partnerships across boundaries.



Coalville Town Hall (contributed by Teresa Mikesell 2020).

Goal: Continue growing strong, mutually-beneficial relationships between Stockton and other municipalities, agencies, and entities, as well as among Stockton residents and elected officials.

Objective 1: Enable the success of Stockton through collaboration and coordination with others on projects that transcend boundaries and/or would benefit from engaging all stakeholders.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Host a quarterly meeting in Stockton with representatives from Tooele County, Tooele City, UTA, UDOT, the WFRC, and the Governor's Office of Economic Development.	Town of Stockton	Two months preparation; Held quarterly	\$ (reserve room in Town Hall)	Are meetings happening? Do closer relationships result in the amplification of Stockton's voice?	Harvard Business Review: Collaboration & Conflict
Attend WFRC meetings.	Stockton Mayor	Quarterly	\$ (gas to drive to meeting)	# of meetings attended	Wasatch Front Regional Council
Accomplish larger capital improvements through collaborative efforts.	Town of Stockton; partners	Two years	\$\$\$	# of projects accomplished	Harvard Business Review: Building Collaborative Teams
Use social media to share problems and innovative solution strategies.	Town of Stockton; partners	Immediate	None	# of policy/program ideas shared between entities	Social Media as a Tool for Planning

Objective 2: Maintain open communication among residents and build on shared values/history.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Continue to use Facebook Live at town meetings and other events.	Town of Stockton	Immediate	None	Average # of views per meeting/event	Livestreaming for Governments
Bring back Stockton Days.	Town of Stockton; Residents	Annually	\$\$	Is event happening? # of people attending	Why Cities Should Invest in Festivals
Have an ongoing, interactive feedback board in town for residents to feel engaged, excited, and informed about town events and plans.	Town of Stockton;	1 month preparation, ongoing with monthly update	\$	Is board installed? # of comments left	Online Public Engagement Resources (Inspired by COVID)
Obtain state and federal funding to restore Main Street and historical features in Town.	Town of Stockton; UDOT; Volunteers	3 Years	SS (Grants available)	Addition of historic markers, infrastructure, or design elements that honor Stockton's history. Increase in local resident interest in Town history.	Historic Preservation Utah Financial Resources



LAND USE



Utah Code §10-9a-403 requires every municipality in the state to include a land use element in its general plan. That land use element shall designate the long-term goals and the proposed extent, general distribution, and location of land for the following uses: housing for residents of various income levels, business, industry, agriculture, recreation, education, public buildings and grounds, open space, and other categories of public and private uses of land, as appropriate. This section of the Stockton general plan fulfills this requirement.

This section of the general plan will discuss the land on which the town sits, how it is currently being used, and how it may be used in the future. These uses are determined by the town's zoning ordinances, laid out in the Town Code. These ordinances establish different zoning districts. All land within the jurisdiction of the Town of Stockton falls into one of these districts. Each district has different rules for what activities can and cannot be conducted on the land within it. The following pages provide a map of Stockton's current land use and a brief description of each of Stockton's seven (7) zoning districts.

Vision: Stockton will preserve its rural character and small-town feel by concentrating expected residential growth and commercial development over the next 10 years along Highway 36, leaving the rest of the town with its current look and feel.



The Role of Land Use and Zoning:

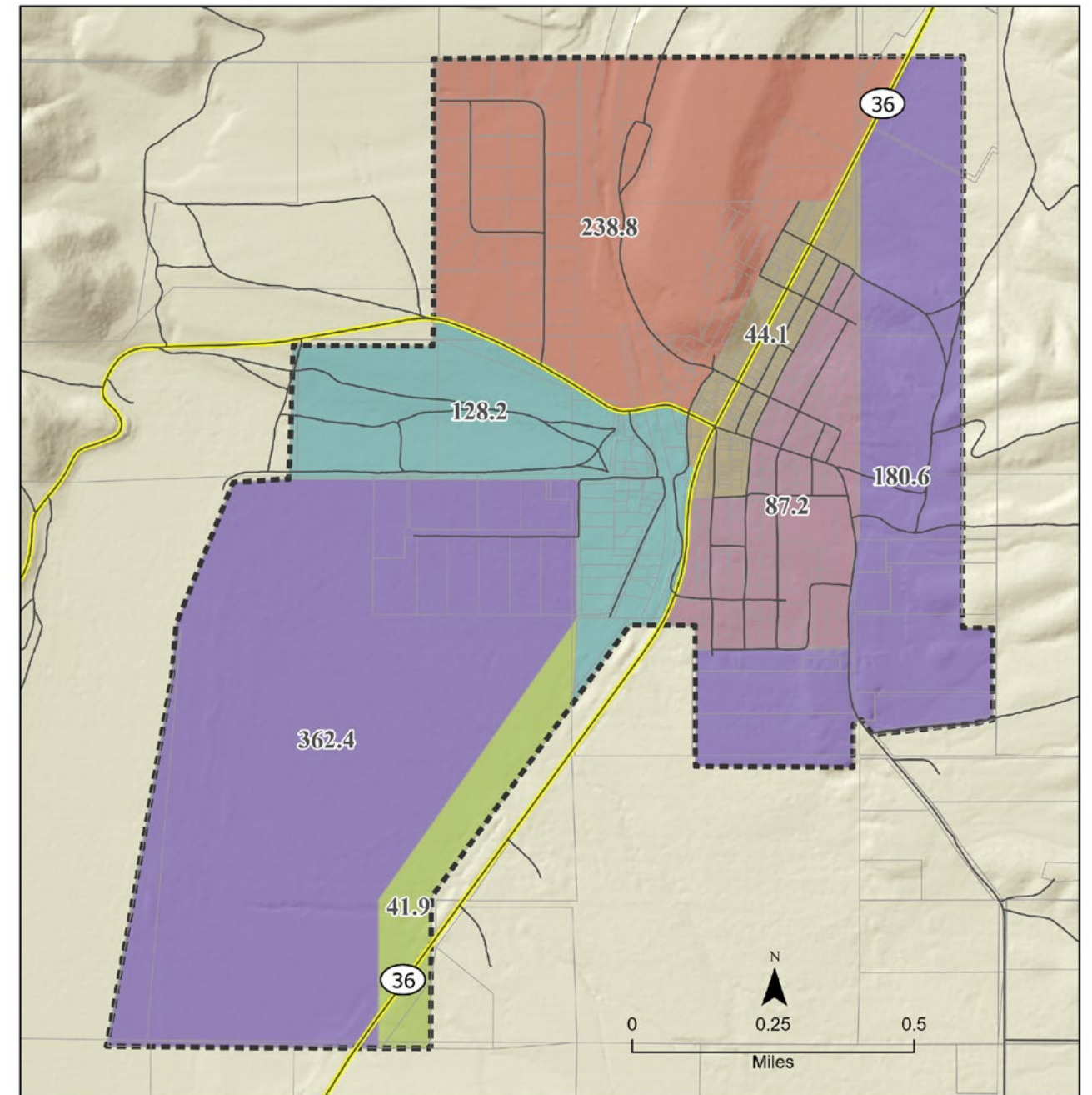
In the field of planning, land use is the concept of how the land in a given area is developed and utilized. Will it be left undisturbed for conservation? Used for farming or livestock grazing? Split into parcels and developed for houses or businesses? Designated for a new road or railroad?

Land use is the single most influential decision for how a town or city will grow, shrink, or remain the same. It determines where people can live, where they can work, where they can shop, and how close these different uses can be to each other. The organization of these land uses determines the layout of transportation, sewer, power, and water networks, and thus, determines the fabric of the community.

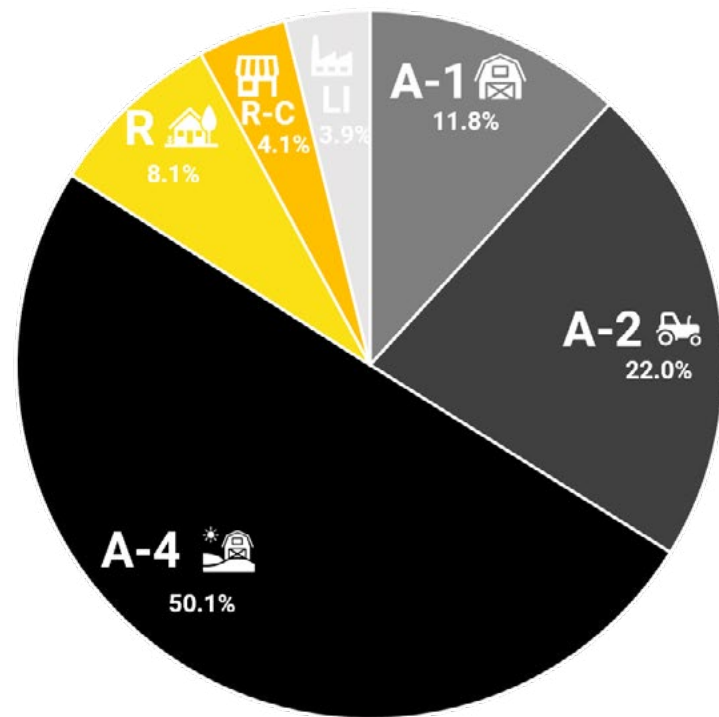
EXISTING CONDITIONS

The Town of Stockton encompasses 1.69mi² (or 1,083 acres) of land in Tooele County, Utah. The town's residents cherish its small-town feel and rural character. With an estimated 2018 population of 722, the town as a whole has a population density of approximately 427 people/mi². By way of comparison, Salt Lake City's estimated 2018 population density was 1,805 people/mi², and that of Tooele City was 1,643 people/mi². Just under 84% of the town's land is currently in one of the three agricultural zones. The remaining 16% is split between Residential (8%), Residential-Commercial (4.1%), and Light Industrial (3.9%). Although there is an existing Multiple Residential (R-4) Zoning District in the Town Code, no land is currently zoned for that district.

TOWN OF STOCKTON - ZONING ACREAGE -



Zoning Districts by Percent of Total Acreage



Zoning Districts	— Roads	Lakes/Reservoirs
A-1	— Major Road/ Highway	
A-2	▭ Parcel Boundary	
A-4	▭ Buildings	
LI	▭ Town of Stockton	





Current Zoning Districts Defined:

- A-4 Agricultural (not less than 4 acres):**
Land in this zone is primarily devoted to raising livestock and/or growing crops on parcels no less than 4 acres in size. Permitted uses include gardens, orchards, field crops, livestock grazing, farming equipment and facilities, and structures for the maintenance of livestock. Though it is named agricultural, this zoning district also allows for one-family dwellings, as well as churches and schools (on a minimum of 5-acre parcels) and home occupations subject to other Town Code regulations.
- A-2 Agricultural (not less than 2 acres):**
Land in this zone is primarily devoted to raising livestock and/or growing crops on parcels no less than 2 acres in size. Permitted uses include churches, gardens, orchards, field crops, livestock grazing, structures for the maintenance of livestock, minor utility transmission projects, public parks and playgrounds, and foster care homes. Though it is named agricultural, this zoning district also allows for one-family dwellings and earth shelter home projects, as well as public schools and buildings, home occupations, and residential facilities for disabled people subject to other Town Code regulations.
- A-1 Agricultural (not less than 1 acre):**
Land in this zone is devoted to creating a combined residential and agricultural environment. It has the same permitted uses as the A-2 zone, but a minimum parcel size of 1 acre.
- R Residential (not less than 12,000ft²):**
Land in this zone is primarily devoted to one- and two-family dwellings. In the early days of the town, lots were 40ft x 100ft for a total area of 4,000ft². In 1994, ordinances were passed mandating that building parcels be made up of 2 contiguous lots, thereby doubling the minimum parcel size. In 2006, this minimum was increased to 3 contiguous lots, or 12,000ft², which is the current minimum. Parcels smaller than this minimum may be built on, pending strict conditions. This zone also allows for the conditional use of planned unit developments and condominiums. A planned unit development (PUD) is a large-scale development, frequently with multiple uses (residential, commercial, industrial, and/or open space) completed as a single project.
- R-4 Multiple Residential:**
Land in this zone is primarily devoted to one-, two-, and multiple-family dwellings, up to 4 dwelling units per structure. Buildings with more than 2 dwellings must receive site plan approval from the Planning Commission. Development in this zone is denser than the R residential zone, with a variety of dwelling types. This zone also conditionally allows planned unit developments and condominiums.
- R-C R-C Residential-Commercial:**
Land in this zone is primarily devoted to providing attractive entrances to the town and to reduce residential-commercial land use conflicts along the town's main road UT-36. This zone is envisioned to facilitate the creation of a commercial core for the town and expand its tax base. Permitted uses include entertainment businesses, financial services, hotels and motels, motor vehicle sales and services, restaurants, retail stores, and offices, among others.
- LI Light Industrial:**
Land in this zone is primarily devoted to businesses engaged in light manufacturing, processing, warehousing, and fabrication of goods and materials, in order to avoid encroachment on or by other residential or commercial uses. Permitted uses in this zone include animal hospitals, storage of agricultural products and machinery, nurseries and greenhouses, livestock and commodity auctions, manufacturing and warehousing of goods, food processing, and truck terminals.

BUILD-OUT ANALYSIS

We estimate that there are approximately 344 acres of land available for development in Stockton, leaving 258 acres once area for roads and utilities is subtracted. Based on the current zoning of this land, a maximum of 141 single-family homes could be supported. There are 167 children under the age of 18 living in Town (ACS 2018 Estimates), meaning that not all of the current generation of children will have the ability to move into their own house in Town (if they desired to do so). Additionally, the town's population is predicted to grow by 223 people by 2025. With expected internal and external growth, competition for housing will increase and likely drive prices up

The build-out analysis considers only residential uses. Commercial uses are also important to the vitality of Stockton. What businesses does the

Town need to support its current and projected population? With current zoning, is there room for those businesses to grow and prosper? The R-C zone is the only existing zone that allows for commercial businesses, such as retail and food services. One parcel appears to be vacant in this zone, providing 0.53 acres of space for new commercial development.

This was a simple study analyzing the capacity of Stockton's current zoning patterns to accommodate new development. Overall, the zoning does not appear adequate to meet future needs for housing and commercial development. However, re-zoning is not the only solution. Other remedies include infill development, a lowering of minimum lot sizes, or even an ordinance that allows for accessory dwelling units on single-family lots.

Build Out Analysis for Stockton, Utah (2020)			
Zones with Vacant Land	Available Vacant Acres*	Housing Units Allowed Per Acre**	Max Housing Unit Capacity
A-1	58.28	1.00	58.28
A-2	119.39	0.50	59.69
A-4	79.59	0.25	19.90
R-C	0.53	3.63	1.93
R	0.41	3.63	1.50
Total	258.20	Estimated Capacity for Additional Housing Units	141.30

* Vacant acreage was calculated at the parcel level and estimated using aerial searches for building and structure footprints. For the purposes of this analysis, vacant land includes land currently used solely for grazing or crop production, as this land could easily be developed at a later date for residential use. The available vacant acres represent 75% of the total vacant land in each zone, recognizing that approximately 25% of the land will be given over to streets and utilities should development occur.

** Housing Units Allowed Per Acre is based on Stockton's current zoning standards and makes estimates based on the single-family home. The R and R-C Zones do allow for multi-family dwellings as conditional uses, but very little vacant land is zoned in this way.



Land Use Transitions

One of the hallmarks of a rural town is low density - the number of people or buildings per square mile. People enjoy having "room to stretch their legs." This allows residents plenty of space to play in the back yard, maintain a garden, or build a garage or workshop. For many people, it is the ideal way to live.

However, businesses like grocery stores, barbershops, restaurants, and clothing stores prefer to locate in denser areas where more people are walking and driving past. For them, higher density means more customers.

Luckily, the Town of Stockton can have both without sacrificing either. By assigning the town's land into different zoning districts with different rules for density, the town can ensure that some parts of town maintain a rural, 'open space' feel, while others are allowed to grow. The land along Highway 36 can be allowed to develop with a higher density that is more friendly for business, while neighborhoods and outlying areas can maintain their current spacious character (all the while benefiting from the businesses that locate within close proximity).

When asked, "What do you love about Stockton?", one resident responded, "open spaces!". Six respondents said they would encourage agricultural land use, and five respondents identified agricultural land as very important to Stockton's future development.

- Stockton Development and Opportunities Survey (2020).

MOVING FORWARD

Stockton residents prize their town's rural nature and small-town feel, but that character should not be taken for granted. As Utah's population continues to grow, particularly in the Salt Lake and Utah Valleys, that growth may very well make its way west to Tooele County and the Town of Stockton. There are two key actions the town can take now to help prepare it to deal with this anticipated growth: create an open space or conservation zoning district to protect currently undeveloped lands, and encourage new development to fill out the existing R-C zoning district before expanding the district's boundaries.

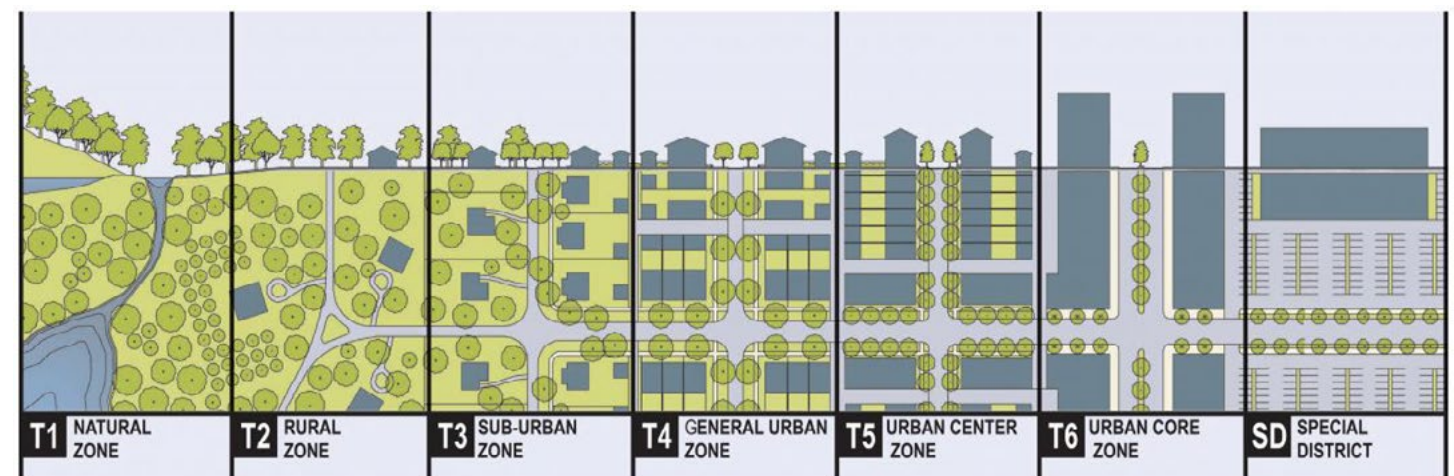
An open space or conservation zoning district is a zoning district dedicated to preserving currently undeveloped land. The town currently has many acres of vacant land in the A-1, A-2, and A-4 zoning districts. Designating some of that land as open space within a new zoning district will help protect it from the threat of development.

The second action that the Town of Stockton can take to preserve its current small-town character is to focus any new commercial growth into the existing R-C zoning district along Highway 36. When someone decides to open up a grocery store, hardware store, or restaurant in town, that business should be strongly encouraged to locate along the town's main street. Concentrating this development in one location will serve two purposes. First, it will help create a sense of place along the town's main street, a benefit that will be further discussed in the Economic Development section of the plan. And second, it will prevent new businesses from spreading out across town, which could compromise Stockton's small-town feel. This strategy will help develop a "downtown" of sorts where people can run errands in one centralized location while leaving their existing neighborhoods unchanged.

Goal: Preserve Stockton's agricultural lands and open space in order to maintain the town's rural character.

Objective 1: Concentrate new development and growth along Highway 36 "Main Street" corridor.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Create a new zoning district dedicated to the preservation of open space and provision of recreational space.	Stockton Planning Commission; Stockton Town Council	3 months	\$ (lawyer fees)	Creation of new zoning ordinances.	Park City Municipal Code, Ch. 15 Kamas Municipal Code, Ch. 15
Encourage new developments and businesses to locate in the existing R-C zoning district before rezoning other land to R-C.	Town of Stockton	Ongoing	\$ (staff time)	Expansion (or lack thereof) of R-C zoning district.	Downtown Revitalization: USDA Rural Information Center; Main Street America: Resource Center



The rural-urban transect shows how zones can be organized to ease the transition between land uses of different intensities. Stockton is unlikely to see land use in the T5 or T6 Zone, but small commercial businesses along Highway 36 could follow the patterns of the T4 (General Urban Zone). These more developed zones should be buffered by zones with lower-intensity uses. Photo credit: Congress for the New Urbanism 2017.



CONNECTIVITY



Utah Code §10-9a-403 requires that every general plan includes a transportation and circulation element. The element must address the location and condition of existing street typologies, active transportation infrastructure, and transit options. It must also correlate with population and economic projections and relate to the land use element of the general plan. Although this section of the plan satisfies the requirements of the Utah Code for the transportation and circulation element, we have instead referred to this chapter as 'Connectivity.'

The Connectivity Chapter focuses on *connecting* residents with the places and amenities needed to satisfy their daily needs. It considers not only vehicular travel, but also walking, biking, and other modes of transportation. We expect that Stockton's population will continue to grow in the next few years, with some projections estimating a 2025 population of 945 residents (DWS Affordable Housing Calculator). It is critical that the town finds strategies for accommodating this growth while preserving the 'small town, rural feel' that residents most love about Stockton.

Vision: Stockton will increase the number of daily needs that residents can meet without having to travel out of town. Stockton will maintain its small-town charm and spare itself from noisy and unsightly traffic by providing opportunities for people to travel by walking, bicycling, transit, or other modes of transportation beyond the private automobile.



What Is Planning for 'Connectivity'?

Transportation is a means to an end. And in Stockton, the end that we envision is a community where people, regardless of age, income, or ability, can access their daily needs and participate fully in civic life. Planning for connectivity means providing all residents with the infrastructure or programs they need in order to:

-  Go Vote
-  Shop for Goods
-  Attend School
-  Access Healthcare
-  Attend Church
-  Enjoy Recreation
-  Be Social
-  And So Much More

This section considers all forms of transportation networks, recognizing that many of Stockton's residents do not have access to a personal vehicle or the ability to drive.

More than any other item, survey respondents claimed that 'roads and services' in Stockton were in most need of improvement. Eight survey respondents (44%) marked that they strongly desire the addition of sidewalks or a multi-use path in town.

- From the Stockton Development and Opportunities Survey 2020.

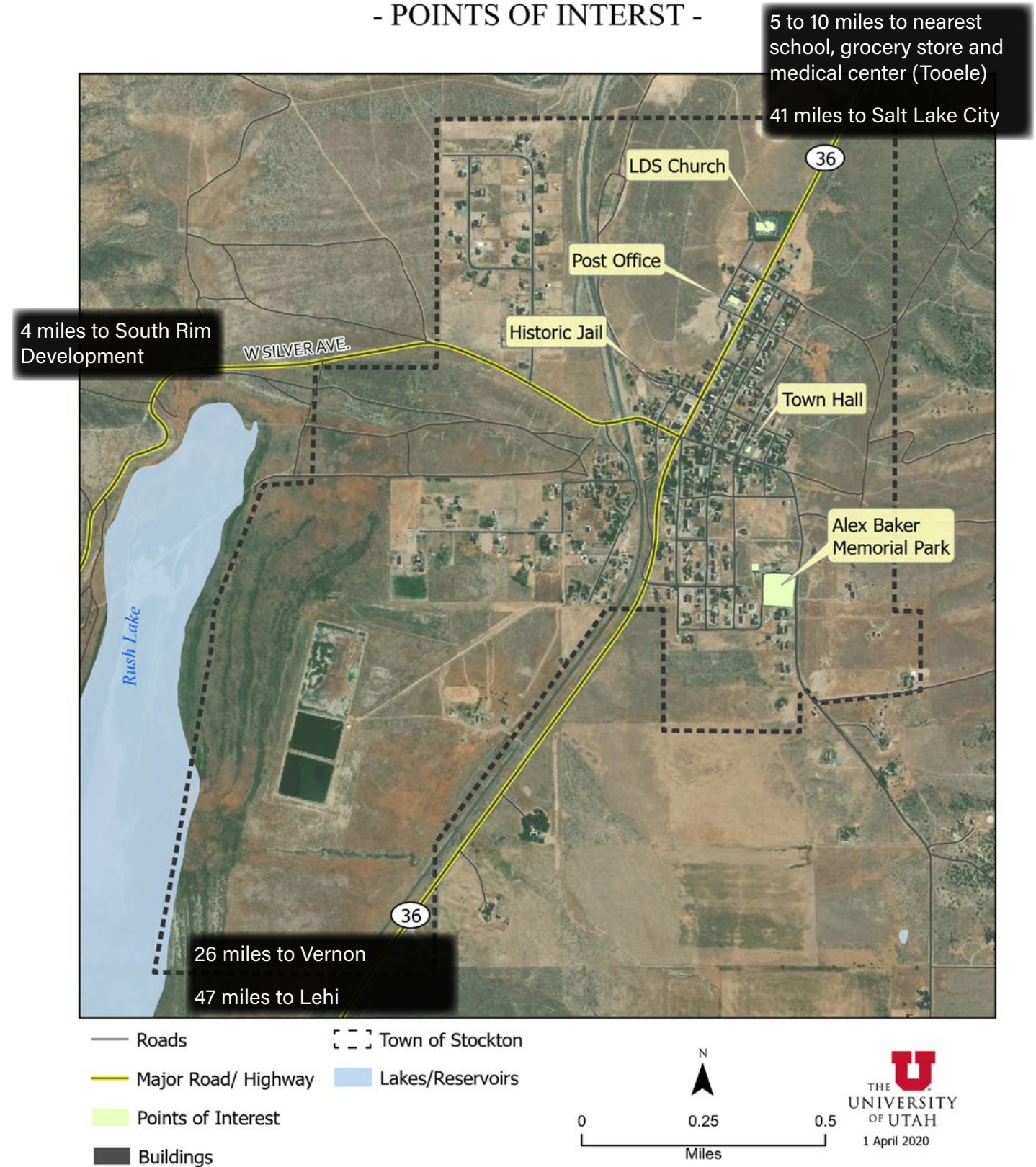
EXISTING CONDITIONS

Most of the places that Stockton residents frequent on a daily basis (schools, medical facilities, grocery stores. . .) are accessible only by car. The nearest grocery store is almost 8 miles from Stockton's Town Hall, and the nearest elementary school is nearly 6 miles away. Both of these destinations are located within the City of Tooele. Within Stockton's town limits, residents visit the Post Office daily to pick-up their mail. They also take advantage of Stockton's recreational assets, including the newly improved Alex Baker Memorial Park.

The main corridor through town is State Highway 36, also called Connor Avenue (Stockton's Main Street). The highway receives an annual average daily traffic (AADT) load of 5,600 vehicles (UDOT 2016). It acts as a barrier to walking and biking activity between the east and west sides of town. Not a single pedestrian crossing existed on the highway as it passed through Stockton at the time of this plan's development. Silver Avenue, which connects Stockton with the South Rim Development to the west, receives an AADT of 1,000 vehicles per day (UDOT 2016). This number is likely to increase as more housing is developed in South Rim.

Sidewalks line both sides of Highway 36 through Stockton from Kings Ave (north) to Silver Ave (south). In other areas of town, the availability of sidewalk is sporadic, and where it is available, it has often not been maintained. Currently, no bike lanes exist through Stockton. But several of the roads could become bicycle-friendly with minor improvements. There are no fixed bus routes through town, but demand-response bus services are provided on a limited basis through Tooele County. The majority of these services are only available to seniors and persons with disabilities (Tooele County Transportation 2020).

TOWN OF STOCKTON - POINTS OF INTEREST -



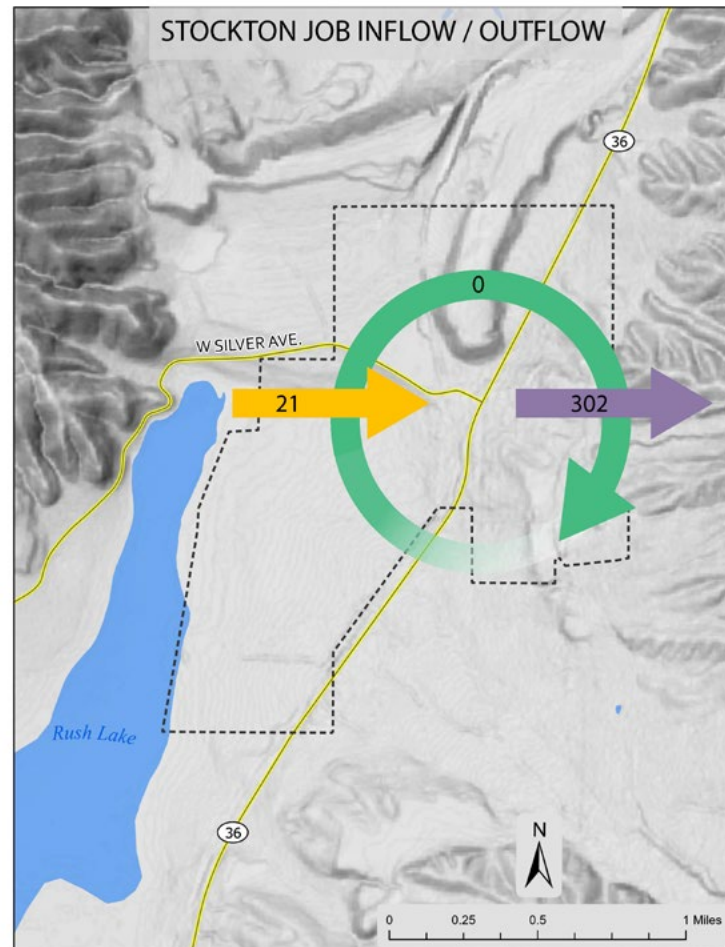


TRAVEL PATTERNS

According to OntheMap Data, in 2017, none of the jobs available in Stockton were actually filled by Stockton residents. Of Stockton's 302 workers in 2017, 100% were shown to be employed outside of town. The greatest employment destination for Stockton workers was Salt Lake City, which employed almost 20% of workers. Tooele City followed close behind. Grantsville employed the third most Stockton residents (approximately 6 percent). Some of this has changed since 2017, and now a few residents work from home.

The majority of Stockton workers drive alone to work (73.8%). However, carpooling is also a popular choice, with 17.8% of the population driving to work with at least one other person. A small proportion of Stockton's population also reported walking to work, taking a taxi, or working from home. On average, the commute time for Stockton workers is 28.9 minutes.

Although driving is the most popular transportation option in Stockton, it should be noted that there is a small proportion of the population that does not have access to a car (1.8%). Even among those who have access to a car, there is no guarantee that all of Stockton's residents aged 16 years and over have the ability to drive. Old age, illnesses or disabilities, and other factors can contribute to a person's unwillingness or inability to get a license or operate a vehicle. Planning for connectivity means considering the needs of the entire population and not just those who have access to a personal automobile.



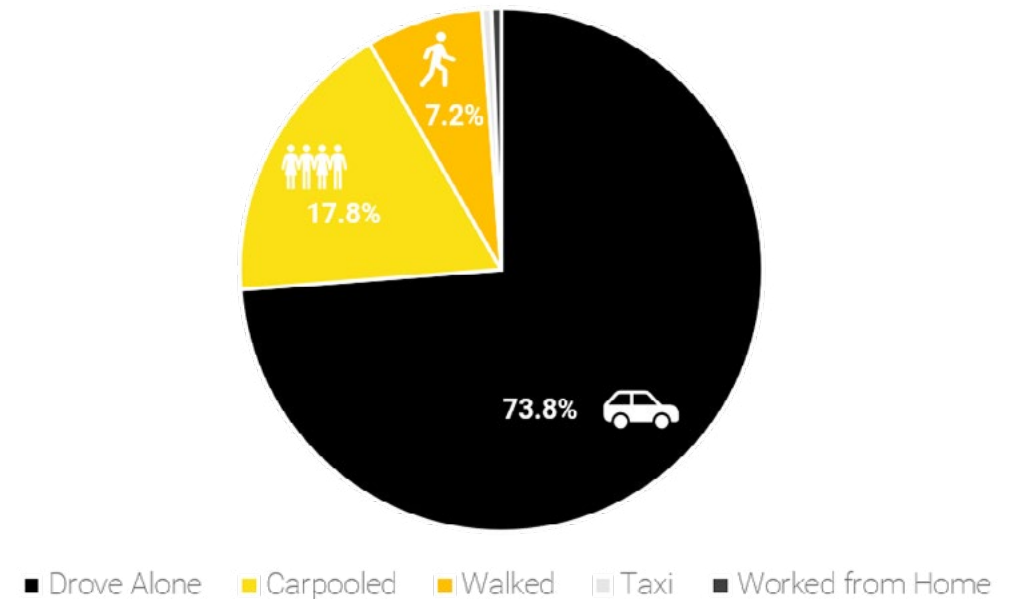
Source: Census OntheMap Inflow/Outflow Job Counts (All Jobs) in Stockton, UT in 2017. Note that since 2017, more residents choose to work at home.

Where Do Stockton Residents Travel for Work?

Location	Number of Residents Commuting	Distance from Town Hall
Salt Lake City	59	41.4 miles (50-minute drive)
Tooele City	51	6.7 miles (9-minute drive)
Grantsville City	19	16.4 miles (24-minute drive)

Source: Census OntheMap Job Counts by Work Places (All Stockton, UT Workers) 2017.

How Do Residents Get to Work?



Source: ACS 5-Year Estimates for Stockton, UT 2018 (S0801).

How Many Cars Do Stockton Workers Have Access To?

Vehicles Available	Percentage of Population
0	1.8%
1	11.4%
2	24.7%
3+	62.0%

Source: ACS 5-Year Estimates for Stockton, UT 2018 (S0802).



The Average Commute Time for Workers from Stockton is 28.9 minutes.

Source: ACS 5-Year Estimates for Stockton, UT 2018.



Low-Cost Solutions for Improving Walking and Biking Conditions

Improving conditions for walking and biking brings big benefits to small towns. Active transportation networks:

- Allow people to travel freely throughout town even without a car.
- Improve mental and cardiovascular health.
- Reduce traffic congestion and air pollution.
- Create a desirable atmosphere for residents, visitors, and businesses.

For the many benefits it provides, the cost of implementing better active transportation infrastructure is not insurmountable. Planting trees and flowers between the road and sidewalk can make people feel more comfortable walking. Extra space for walkers and bikers can be created in some instances simply by repainting lines. One strategy that is experiencing success in rural towns is the implementation of advisory shoulders on local, low-traffic roads. These work well along streets that have no sidewalk but can offer shared space for walkers and bikers. More information is available in the *Small Town and Rural Multimodal Networks Guide* referenced in the Appendix.

"I always like the fact that kids and adults could ride their bikes, motorcycles, and 4-wheelers within the town. . ."

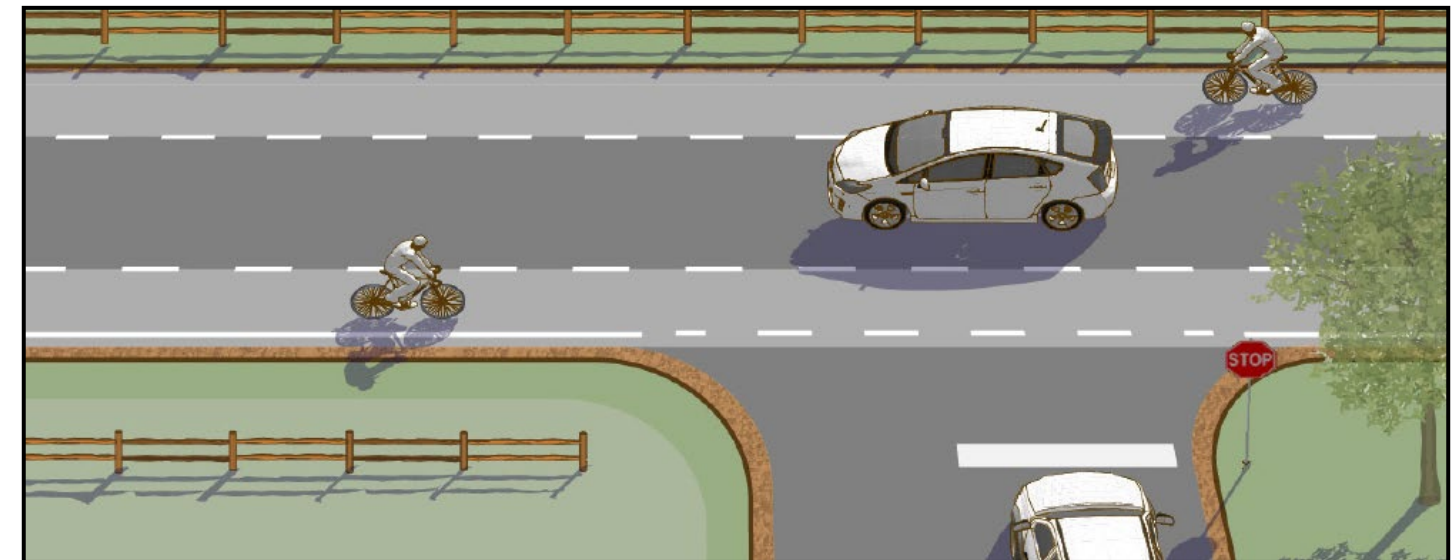
- Response from Stockton Visioning Survey 2020

MOVING FORWARD

Stockton faces great challenges when it comes to connecting residents with their daily needs. Most residents must leave town to access groceries, employment opportunities, education, and healthcare. This makes it very difficult for those who cannot drive or do not have access to a personal vehicle. Stockton can improve its connectivity by offering a wider array of services within its limits. The Town can provide resources and encourage residents to grow edible vegetation on their properties, as well as on Town-owned lands. Stockton may proactively seek out tenants for its underutilized spaces if those tenants can provide essential services, such as healthcare, food production or educational enrichment.

But there are also strategies Stockton can employ to improve access to the amenities already offered within Town, such as Town Hall, the Post Office, and recreational sites. Priority should be given to increasing opportunities for those who cannot drive (i.e. children, the elderly, and persons with disabilities). Existing transit service from Tooele County does not currently meet all of the needs of Stockton residents, but gaps in service could be filled through strategic partnerships with local churches and senior centers. Low-cost infrastructure improvements can be explored to improve conditions for walking and biking. And the Town can create opportunities for residents to use other modes of transportation, such as golf carts, by writing provisions for such use into Town Code. Maintaining Stockton's small-town charm, including sparing Stockton from the traffic conditions faced by its surrounding larger cities, requires planning for a town that is not reliant solely on automobiles.

Goal: Improve conditions for walking and biking in Stockton and minimize the threat of increased traffic congestion.					
Objective 1: Provide opportunities for Stockton residents to meet daily needs without having to travel out of town.					
Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Launch a program encouraging residents to plant climate-appropriate, edible vegetation in places accessible to the community.	Town of Stockton; Volunteers	Ongoing	None	# of Residents participating in the program (or offering edible vegetation for community consumption).	USDA: Urban Fruit for Urban Communities
Allow essential-services to lease underutilized town-owned spaces at low or no-cost.	Town of Stockton	Ongoing	None	# of new businesses or service providers choosing Stockton because of space availability.	Flagler, CO Example



Advisory Shoulder along a local rural road. Vehicles yield to bikers and pedestrians and may only move into the advisory shoulder to pass when it is clear of people walking and biking. The painted lines of the advisory shoulder continue through the intersection, indicating that vehicles should yield. Photo credit: Federal Highway Administration 2016.



Goal: Improve conditions for walking and biking in Stockton and minimize the threat of increased traffic congestion.

Objective 2: Pursue creative transit opportunities to connect residents to the broader region.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Partner with churches and senior centers to extend transit and fill gaps in service.	Town of Stockton; Tooele County; Local Churches; Local Senior Centers	Ongoing	\$\$	# Residents utilizing transit services.	UDOT; Rural Transportation Toolkit
Perform a study to determine which town roads may benefit from an advisory shoulder (or other low-cost infrastructure solution) for non-motorized transportation.	Town of Stockton; Consultant	6 months	\$\$	Development of a plan for infrastructure improvements to town roads.	Small Town and Rural Design Guide; Move Utah
Write an ordinance to regulate golf cart travel on local roads.	Town of Stockton; UDOT	2-3 months	None	Creation of new ordinance.	Utah Code
Work with UDOT to design pedestrian crossings across Highway 36, particularly at Clark Street, Dutch Ave, and Kings Ave.	Town of Stockton; UDOT	1 year	\$\$-\$\$\$ (Grants Available)	Addition of pedestrian crossings on Highway 36 through Stockton.	Move Utah; NACTO Crosswalks and Crossings



Crosswalks do not have to be standard white bars. Unique designs can contribute to the community's character and bring people together. Stockton should consider involving volunteers in the design of pedestrian crossings and work to incorporate symbols (mining culture, wildlife, mountains, meadowlarks) through this form of "street art." Top photo credit: Zest Events International 2017. Bottom photo credit: 9News 2018.

HOUSING



Storm rolls in over housing in Stockton, UT. Photo contributed by Jerry Jobe 2020.

Why would a General Plan consider something as personal as housing - the places where we barbecue chicken with our families, tuck our toddlers into bed, line the walls with photographs? Precisely because housing is such a crucial part of everyone's daily lives, communities can use General Plans to explore housing problems and potential solutions. Commonly, housing issues arise from population change (growth that exceeds housing supply or decline that leaves behind vacant lots). Housing design, affordability, density, safety, and location are all qualities that communities can consider in their General Plans to address housing problems. Utah as a whole has experienced rapid population growth in recent years. The growing population has

spurred lots of development, yet the housing supply is generally not keeping up with demand. Tooele County is experiencing rapid growth as the cost of living in Salt Lake County has become increasingly cost-prohibitive. If the cost of living in Tooele City becomes too expensive, what could this mean for Stockton?

This section explores some important "what if" questions about housing in Stockton. Proactive planning regarding housing will be crucial to preserving Stockton's rural character in the face of potentially substantial population changes in nearby areas.

Vision: Stockton will remain a family-focused community with a rural lifestyle while enabling housing opportunities needed to support residents of various life stages.



What is Multigenerational Housing?

Multigenerational Housing provides an opportunity for at least two generations of family members to live together under one roof. One example is a single-family home occupied by parents and their young children, with an attached 'mother-in-law' apartment above the garage for aging grandparents. Multigenerational housing provides numerous benefits, including:

- Improving affordability by allowing more family members to live together and contribute to rent or mortgage costs.
- Strengthening family relationships and decreasing loneliness among socially vulnerable groups.
- Allowing children to care for elderly parents without sacrificing their own living space.
- Reducing childcare costs by making it easier for older family members to watch over young children.

For more information, visit the [HUD page](#) on expanding multigenerational housing options.

Residents felt that housing strongly influenced the ability of Stockton to retain its small-town atmosphere. One-third of *Development and Opportunities Survey* respondents (n=6) saw housing density as a main contributor to the town's rural feel. Four respondents (22 percent) said they valued affordable living opportunities in Stockton. Affordable living is at risk as growth continues without the addition of new housing units.

EXISTING CONDITIONS

- 1/5 of renters and 1/5 of homeowners are cost-burdened with their housing, meaning they spend more than 30% of their income on rent or mortgage payments. Determining what aspects of housing costs are most difficult to manage for these populations is the next step. From there, residents can be linked to appropriate resources, such as non-profits that repair, weatherize, or increase the energy efficiency of, houses.
- Almost 2x as many households have moved into Stockton since 2000 as before 2000. New growth may exacerbate that statistic, and sometimes communities experience conflict between new and old households. Respect and communication can turn differences into strengths.
- Affordable housing is an issue, as there is a high rate of cost-burdened housing and a current housing deficit of 4 units in Stockton. Housing affordability will likely become more of a challenge as Tooele County develops. Developing strategies now can improve this situation and prevent it from worsening.
 - Unaffordable housing can push out long-term residents on fixed-incomes, such as retired people or people with disabilities.
 - High housing costs can make it impossible for the community's young adults to stay in Stockton and invest in the community.

2018 HOUSING CONDITIONS



In 2017, 19% of renters & 22% of homeowners were **COST-BURDENED**, meaning they spent more than 30% of their **INCOME** on housing expenses.

244 units are detached, single-family homes.

In 2017, there was an **affordable housing deficit** of 4 units.

236 units are heated by **utility gas**; 12 are heated by **electricity**; 5 are heated by **wood**; and 5 are heated by **bottled, tank, or LP gas**.

30 structures were built since 2014; 59 were built between 2000 & 2009; 56 were built between 1990 and 1999; and 135 were built before 1990.

175 households moved in since 2000 while 83 households moved in before 2000.

What is a Conservation Subdivision?

A Conservation Subdivision, also known as a Cluster Subdivision, is a residential development pattern that allows open-space to be preserved in a community. The units are clustered on the development site, and a significant amount of space is left open and undeveloped. It is an especially useful tool for communities that value their open, natural landscape but experience increasing development pressure that threatens the existence of any open space.

Benefits:

- Maintains natural landscape.
- Minimizes maintenance and operation costs. Clustered houses mean there is:
 - less roadway to pave and plow,
 - shorter utility lines to install and maintain, and
 - shorter bus and waste removal routes.
- Reduces cost of site development, creating the opportunity for the inclusion of affordable units.
- Promotes walkability.
- Still allows for large, private lots while additionally creating outdoor recreation opportunities.

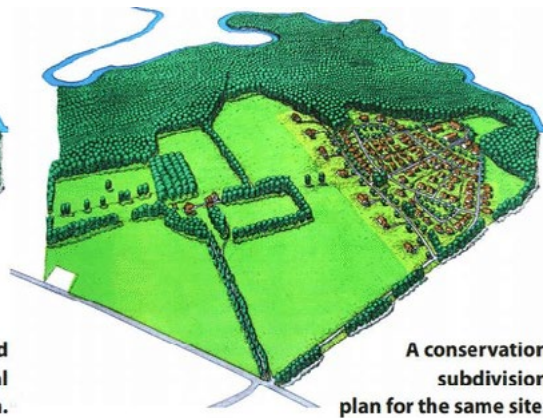
MOVING FORWARD

Residents indicated strong preferences for limited additional residential development and for maintenance of Stockton's rural, small-town feel. Because outside growth pressures are creeping toward Stockton, acting now will enable Stockton to preserve its much-valued character in the face of Tooele, Salt Lake, and Utah Counties' high growth rates and expanding urban footprints. When it comes to upholding community character, design has a far greater impact than density. Which feels less rural: poorly designed McMansions packed in rows with no character, no lawns, and no open space? Or, well-designed craftsman homes and duplexes on decently-sized lots, in a conservation subdivision with dozens of acres of open space for ATVing and hiking? Additionally, rapid nearby growth will likely impact the real estate market in Stockton. Housing affordability should be addressed before costs rise to unsustainable levels for Stockton residents: retaining young people is important for Stockton's long-term sustainability, and having great aging-in-place resources can incentivize middle-age adults to choose to retire in Stockton. Because of these factors, creating a conservation subdivision ordinance and providing resources to enable successful aging-in-place are key strategies for maintaining high quality, affordable housing that upholds Stockton's rural character.



Images courtesy of Randall Arendt

A proposed conventional site plan in New Bern.



A conservation subdivision plan for the same site.

Goal: Housing development will reflect Stockton's rural character while honoring the surrounding natural landscape.

Objective 1: New developments will facilitate rather than encumber residents' access to open space and outdoor recreation opportunities.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Adopt a Conservation (Cluster) Subdivision ordinance.	Town of Stockton	4 months	\$\$ (planner/ lawyer fees)	Is ordinance adopted? Does new development reflect Stockton's character?	Conservation Subdivisions: Explanation & Example Ordinances from New Hampshire
Adopt a Community Connectivity ordinance.	Town of Stockton	4 months	\$\$ (planner/ lawyer fees)	Is ordinance adopted? Do new roads and paths connect the community?	Street Connectivity Zoning and Subdivision Model Ordinance

Objective 2: New development, including renovations to existing structures, will look and feel authentic to Stockton.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Adopt a form-based code regarding residential design.	Town of Stockton	6 months - 1 year	\$ (planner/ lawyer fees)	Does new development reflect Stockton's character?	Form-Based Codes: A Step-by-Step Guide for Communities

Goal: Housing options will be age and income-friendly.

Objective 1: Housing will allow long-term residents to age-in-place. Housing will be safe, comfortable, and easy to maintain for residents as they age.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Provide a packet of housing resources (including low-income housing options, senior housing options, home repair grants, etc.) to residents.	Town of Stockton, Tooele County Housing Authority	Created for January 2021. Updated September of each year annually.	\$ (time, printing fees)	Are residents with expressed needs getting their needs met?	Tooele County Housing Authority
Create a partnership program between teens and older residents, whereby teens earn volunteer hours and learn from older residents while they complete needed lawn and home maintenance for the older residents.	Town of Stockton; Residents	2 months	None	Does program exist? Are high schoolers utilizing it?	Intergenerational program engages whole community with senior citizens



ECONOMIC DEVELOPMENT & RECREATION

The economy is a crucial component of any community. Economic conditions both reflect a community's quality of life and impact that quality of life. Many economic conditions are worth considering in a General Plan. The first part of this section presents an analysis of Stockton's job market. The second part of the section links economic conditions to other topical areas, such as transportation and demographics.

An analysis of the jobs and industries present in Stockton communicates what opportunities exist for employment here. Stockton will attract new residents who want opportunities in those jobs and will detract those with skill sets not aligned with the available job opportunities. Additionally, a jobs and industry analysis can reveal options for economic diversification, perhaps leading to

better employment opportunities as well as a stronger, more robust local economy. Identifying gaps in the market also provides insight into what kinds of local businesses might flourish in Stockton.

To best understand economic development options, transportation, land use, housing, and demographic patterns must all be taken into account. Why? Most businesses need physical space to operate in (land use). Most businesses want on-site employees (demographics), and those employees have to transport themselves between their homes and their jobs (housing and transportation). The second section explores some of these connections and what they may mean for Stockton's economy.

Vision: Stockton will be a thriving small town with pride in its history, culture, and community, as shown through a healthy Main Street with several successful local businesses that bring revenue to the town and provide convenient, essential services to residents.

Vision: Stockton will preserve the natural beauty of the town by promoting environmentally conscious practices while creating opportunities for residents and visitors alike to immerse themselves in the community's scenic landscape.



Economic Analysis Tools in Planning

Good planning requires good data. But how do we analyze economic trends? In this chapter, we use location quotient and shift-share as two tools capable of telling us about opportunities and patterns in Stockton's economy. Much of this data is not available at the town level, so we looked to county data to help us.

Location Quotient shows how concentrated an industry or occupation is in the region (Tooele County) compared to the United States as a whole. This comparison is useful because it reveals which industries a region has a competitive advantage in. What industries are uniquely concentrated near Stockton? And how do we benefit from that?

Shift Share Analysis determines how much of regional job change is because of national trends or regional (local) factors. Using location quotient and shift-share together allows us to determine whether an industry is growing, emerging, transforming, or declining in an area.

Although residents want to maintain the rural, small-town feel of Stockton, there is a strong desire for more businesses in town. Residents do not envision one large factory or department store, but express interest in several small grocers, retailers, and service offerings providing diverse products to fill the daily needs of the population (2020 Stockton Visioning Survey Results).

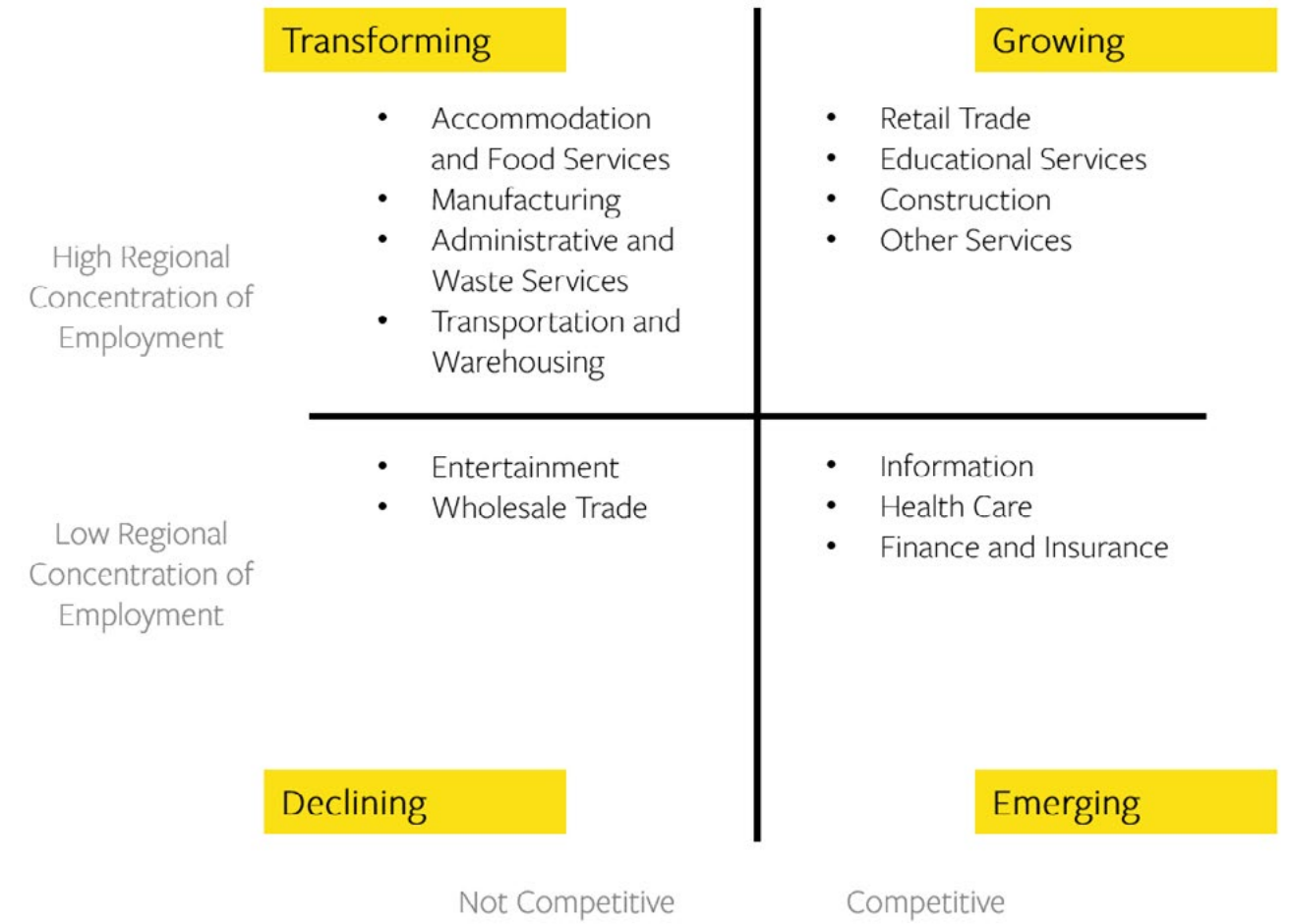
ROOM FOR BUSINESS?

Economic patterns can reveal gaps in the market. Such gaps are where there is unmet demand for services. New businesses that fill these gaps are more likely to succeed than new businesses that occupy the same niche as existing ones. Stockton residents have expressed the desire for some small businesses to be located in town, both as a means of local employment and of convenience – no more driving to Tooele for the brown sugar to bake Grandma's famous chocolate chip cookies.

As the largest city in Tooele County, Tooele City hosts many of the areas' businesses. For a business to succeed in Stockton, it needs to offer goods or services dependably and at a price, quality, and/or variety that outcompetes the larger options in Tooele, or it needs to fill a niche in the market that is missing throughout Tooele County.

An economic analysis was conducted for Tooele County to identify industry sectors with the most potential for growth. First, the 2019 Location Quotient (LQ) was calculated as (local industry employment / total local employment) / (national industry employment / total national employment). Then a Shift Share Analysis (SS) was conducted. Using the combined LQ and SS scores, each industry was placed into one of four quadrants: *declining* (not competitive and LQ < 1), *transforming* (not competitive and LQ > 1), *growing* (competitive and LQ > 1), and *emerging* industries (competitive and LQ < 1).

While Stockton may wish to target a mix of growing and emerging industries, strategies focused on attracting and retaining emerging industries are likely to be most successful. Emerging industries represent those that are expected to continue growing nationally but have not yet developed a local concentration.



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages (2018-2019), Tooele County, UT.

Stockton should cultivate growth in the emerging industries.

Emerging industries are competitive and have a growing local effect (although current employment concentration may not be high). The low local concentration of employment for emerging industries indicates potential for growth of these industries in Tooele County. Stockton should be prepared for increasing opportunities to welcome employers in information, health care, and finance and insurance into town.

The needs of these industries may include increased supply of office spaces. This could take the shape of a rural office park or even small offices tucked into already existing buildings (or buildings also housing retail). Telecommuting infrastructure could also be expanded to give residents the opportunity to work from home in industries that allow them to do so.



What Business Opportunities do Residents Desire?

Eight (44%) of the *Development and Opportunities Survey* respondents listed 'economic development and new businesses' within their top two items in most need of improvement in Stockton. The new businesses that residents most desire have a lot of overlap with recreational amenities. If Stockton attracts these businesses, the Town can expect to see not only economic growth but also an improvement in recreational opportunities. The following business-related features are listed in order of their desirability by survey respondents:

1. Cafe (n=12)
2. Broadband Internet/Google Fiber (n=6)
3. Senior Center (n=4)
4. Horse Stables/Riding Arena (n=4)
5. Elementary School (n=3)
6. Shooting Range (n=2)
7. Gym (n=2)

There was also resident support for new baseball and softball fields. This recreational amenity could be turned into a business opportunity if complexes are large enough to host tournaments and if the Town seeks out sponsorships or sells concessions for revenue generation.

STOCKTON'S WORKFORCE

Who, What, When, and Where?

In 2018, 335 Stockton civilians were employed. The most popular occupations and the number of employed civilians are:

SALES AND OFFICE 79 →
47 in office and administrative support + 32 in sales

SERVICE 76 →
44 in food preparation/serving + 16 in protective services + 9 in personal care + 7 in building/grounds maintenance

PRODUCTION, TRANSPORTATION, AND MATERIAL MOVING 71 →
30 in production + 21 in material moving + 20 in transportation

NATURAL RESOURCES, CONSTRUCTION, AND MAINTENANCE 44 →
30 in construction and extraction + 14 in installation, maintenance, and repair



Historic Town Storefront. Contributed by Megan Mendoza 2020.

Currently, the following employers and businesses are present in Stockton:

-  HUNSAKER'S SPECIALTY CHEESE - CHEESE STORE
-  JACK B PARON CO. - CONCRETE CONTRACTOR
-  STOCKTON STATION - CONVENIENCE STORE
-  TOWN OF STOCKTON - MUNICIPAL SERVICES
-  THOMAS TAX - TAX PREPARATION SERVICES
-  UNITED STATES POSTAL SERVICE - POST OFFICE

Characteristics of the Labor Force.

Among Stockton's **170 MARRIED-COUPLE HOUSEHOLDS**, 65 households report both partners working and 34 households report that neither partner works. For 37 households, only the husband works, while for 34 households, only the wife works. For all families in which only one parent is present, that parent is currently in the labor force.

Half of Stockton's workforce leaves home for work at traditional hours. However, a full 8% leave Stockton between 12:00 am and 5:00 am. About 25% leave between 5:30 to 6:30 am, and about 29% leave between 6:30 to 8:00 am. Additionally, there is a difference in commute times according to gender: 44% of male workers leave by 6:30 am while only 27% of female workers do. Vice-versa, 30% of female workers leave a bit later, between 7:00 and 8:00 am, while only 20% of male workers leave then.

WHAT DOES IT MEAN FOR STOCKTON?

1. **DAYCARE SERVICES MAY BE IN DEMAND.** In 136 households, all parents/the only parent present works. What opportunities exist for childcare while parent(s) work(s)?
2. **PUBLIC TRANSIT MAY BE MOST SUCCESSFUL IF OFFERED AT TIMES THAT WOMEN COMMUTE.** Why? Because women ride public transportation more than men (Sarah Goodyear, CITY LAB, 2015).
3. **CONSTRUCTION PROJECTS** occurring in and around Stockton may be able to employ Stockton residents, as a full 30 people are employed in construction and extraction occupations. Additionally, the town can utilize the skill sets of its residents to build community projects.
4. **THE LABOR POOL NECESSARY** for successful local businesses such as cafes, restaurants, or home repair is present. This means that for a local business to be successful, the focus shifts to generating enough demand.



The Benefits of a Strong Main Street

Why are so many communities turning focus back to their Main Streets and downtown corridors? More and more, economists, local elected officials, planners, and residents alike are recognizing the economic and social benefits of a healthy Main Street. A strong Main Street reflects that a community is hopeful, proud, and has a high level of investment in its wellbeing. A well-maintained, healthy central core thus communicates to residents not only that the town is worthy of their investment but also that they, the residents, deserve to live in a great place.

The word cloud below summarizes these and other benefits:



MOVING FORWARD

From the data and the survey responses, it is clear that Stockton needs economic development strategies tailored to its small-town culture. The addition of several local, small businesses to Stockton's Main Street would accomplish several things: provide convenient access to goods and services, increase local employment opportunities, increase town revenue through sales tax (enabling desired community improvement like road maintenance), strengthen the town's sense of place, showcase the town's historic and cultural roots, serve as a gathering place for the community, and promote walking and biking. Ordinances regarding the style, design, and density of the commercial area can ensure that all new businesses reflect Stockton's character. A collaborative marketing campaign among business owners could be an affordable way to help promote these new businesses. Because market analyses show that information, health care, and finance and insurance are industries likely to be successful in Stockton and Tooele County, local entrepreneurs may want to consider opportunities in those industries. Providing high speed, reliable internet can enable residents to successfully work from home and will support in-home businesses.

Goal: Strengthen Stockton's in-town economic conditions with development that supports and reflects Stockton's rural, small-town atmosphere.

Objective 1: Enable the success of existing and new local businesses, whose presence in Stockton improves Stockton residents' quality of life.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Host an economic development training session.	Town of Stockton; Local Business Experts	Two months preparation; Held quarterly	\$ (reserve room in Town Hall)	# of Residents that attend; Exit survey responses	EDCUtah ; Utah Governor's Office of Economic Development
Pool resources to launch a cooperative marketing campaign.	Stockton Business Owners	Six months preparation; Produced annually	\$\$-\$\$\$ (depends on # involved & breadth of campaign)	# of Customers at involved businesses before & after campaign; # of Customers at involved businesses vs. non-involved businesses	Small Town Business Marketing Ideas ; 22 Low-Budget Marketing Ideas
Beautify streetscape in and around the commercial core, to attract more customers.	Town of Stockton; Volunteers	Two years	\$\$\$	Length of sidewalks; # of street trees; # of street furniture	Downtown Revitalization: USDA Rural Information Center ; Main Street America: Resource Center
Use social media to promote local businesses.	Town of Stockton	Immediate	None	# of Residents that attend promotional events; # of Customers at businesses	21 Social Media Marketing Tips From the Pros

Objective 2: Concentrate growth in Stockton's emerging industries.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Market Stockton as an ideal place to live for the working-from-home professional who's seeking a quiet, rural atmosphere.	Town of Stockton	Six months marketing preparation	\$\$-\$\$\$	New residents' reasons for moving to Stockton	E-connectivity Toolkit
Provide high speed, reliable internet that supports from-home businesses.	Town of Stockton; Utility companies	Six months - 1 year	\$\$	Is Broadband installed?	Utah Regional Broadband Access Plans
Partner with EDCUtah to explore if any small information, health care, or finance and insurance companies are looking for an affordable place to locate near the Salt Lake Valley.	Town of Stockton; EDCUtah; Local Business Experts	Four months to partner with EDCUtah; 1-2 years to recruit business	\$	Is a partnership created? Is a good fitting, small business welcomed into Stockton?	EDCUtah





What Is the Value of Access to Parks and Open Spaces?

Parks enhance the quality of life while elevating the environmental and economic vitality of the community. They contribute to the health of residents by providing a place for fitness and recreation programs. Numerous studies have shown a link between access to recreation and physical and mental health. Parks can also serve as a community gathering place where social connections can be made. In addition, they increase land value and can act as a catalyst for businesses to locate nearby.

Open Space preservation protects and showcases the beauty of the natural habitats of an area. This encourages sustainable development and reinforces the nature-oriented culture of Stockton. Safeguarding rustic charm is a value of this community and is sure to attract valuable investments as well as enhance overall quality of life.

"We know who we are. We are rural folk who like playing outside - hunting and fishing, off-roading, and playing baseball."

- Mayor Karjola, to students from the University of Utah (February 2020).

RECREATION

The natural landscape of Stockton provides a unique opportunity. Recreation is one of Stockton's biggest assets. Preserving the scenic landscapes while maintaining small-town charm is one reason why people are drawn to the area. Stockton's location offers abounding views of the surrounding mountain ranges and offers a peaceful setting to live, work, and play.

The town of Stockton has one official city park, Alex Baker Memorial Park. The park is located along Copper and Roger Streets, on the eastern side of the town. It features a baseball diamond, playground, picnic areas, and supporting facilities. Additionally, the Stockton Veterans Memorial is located near the northern entrance to town, at the northwest corner of State Route 36 and Kings Avenue. The memorial honors the men and women who fought for this country as well as those who were prisoners of war or missing in action. There are flags to represent each branch of the U.S. Military.

Although hosting only one park, Stockton's proximity to the Oquirrh Mountains broadens recreational opportunities for residents. The Jacob City Loop and South Mountain Loop trails provide hiking, mountain-bike, horseback, and ATV/OHV trails. They are maintained by the Tooele County Department of Parks and Recreation and the Tooele County Trails Commission. While these trails are not owned or operated by the Town of Stockton, they are truly assets to the community. Additional trails in the Oquirrh Mountains are available to residents within a short 15-minute drive.

Opportunities for recreation also exist in the City of Tooele, approximately a 10 to 15-minute drive from the town. The Great Salt Lake, Wasatch Mountains, and Salt Lake City Metropolitan Area further expand recreational opportunities for the residents of Stockton within reasonable travel distances.



When the weather is nice, the playground equipment at Alex Baker Memorial Park receives a lot of use from children in the community. Little ones can climb and slide while their older siblings enjoy a game of basketball on the nearby court, or baseball on the adjacent diamond. The park sits high on a hill overlooking the Town of Stockton.

Photo contributed by Kristy Ratliff 2020.



The baseball diamond at Alex Baker Memorial Park is Stockton's latest asset. The field symbolizes the Town's enduring love for the sport. Mayor Karjola took lessons from the Salt Lake Bees' groundskeeper in order to provide Stockton with a quality field for hosting games.

Photo contributed by Kayla Mauldin 2020.



Residents gather at the Stockton Veterans Memorial. The memorial features a flag for every branch of the military, as well as the national flag and flag representing Prisoners of War (P.O.W.). The space pays tribute to men and women who have served in America's military and is one of the first things that people see as they enter Stockton from the north.

Photo contributed by Cheryl Case Shutts 2020.



Regional Opportunities

While Stockton may be a small community, there are huge opportunities to connect the Town to nearby amenities. Partnering with Tooele County and other entities could bring new ATV/OHV trail connections, linking the community with existing trails in the area. While ATV/OHV use is prevalent in Stockton, these trails could also be used for walking and running. The town's location between the City of Tooele and additional county maintained trails makes Stockton an ideal link in the future recreation network within Tooele County.

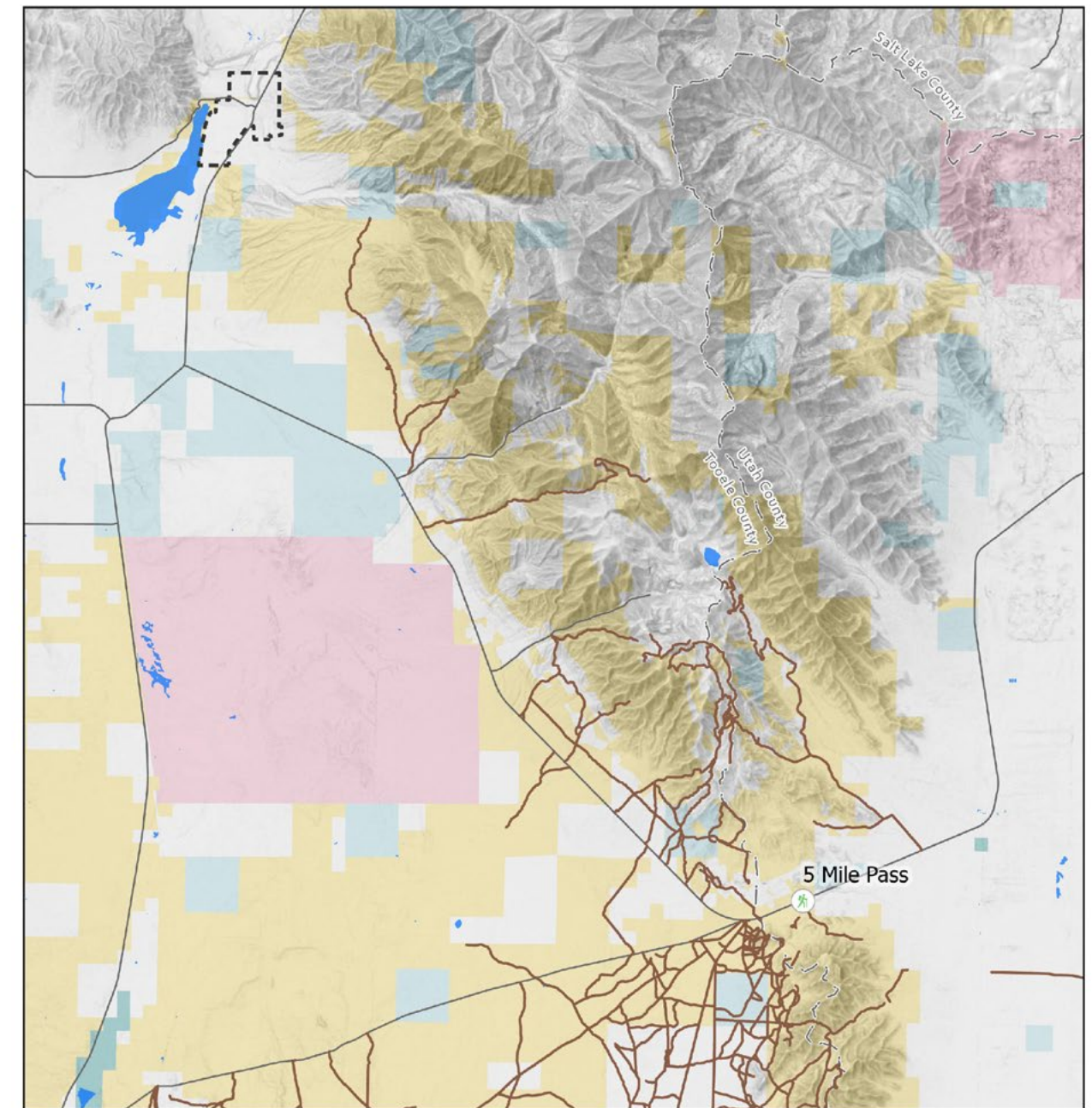
The map to the right shows Stockton's proximity to large swaths of BLM, Forest Service, and State Trust Land. It also shows an abundance of off-roading trails weaving through the mountains. Stockton would benefit from engaging in regional planning efforts to connect trails and provide access to residents.



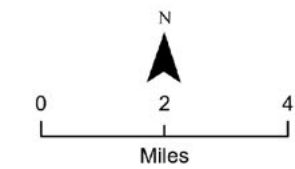
One thing Stockton values is its proximity to the Great Outdoors. Residents and visitors alike love taking advantage of the town's mountainous location. Off-roading is particularly popular. Photo contributed by Tyler Bowden 2020.

Recreation is extremely important to Stockton residents. Seven (39%) of *Development and Opportunities Survey* respondents were most excited about the opportunity for new parks and trails in town. Similarly, nine respondents (50%) thought the location and size of open space and natural areas was one of the key considerations for maintaining Stockton's rural atmosphere.

TOWN OF STOCKTON - OUTDOOR RECREATION -



- Trailhead
- Dirt Road
- Major Road
- BLM
- DOD
- State Trust Land
- USFS
- Private
- Stockton Boundary
- County Boundary
- Water Body





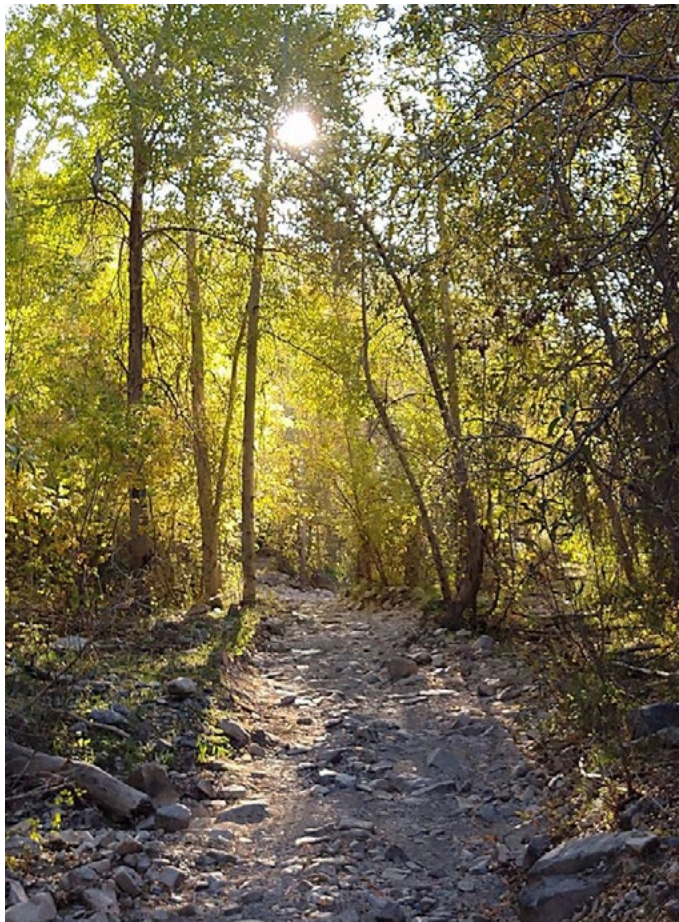
What does it mean to be “water-wise”?

“Water-wise” plants have lower water needs and are better suited to Utah’s dry climate. These plants require less water during the growing season than typical plants commonly found in residential and business landscapes. Utilizing “water-wise” plants will help conserve water, lower utility costs, and improve sense-of-place, all while maintaining a beautiful landscape.

MOVING FORWARD

Residents of Stockton value the mountainous countryside they call home. Scenic charm is an asset for the community and is something to be preserved even as the town experiences the pressures of growth. Stockton has a unique opportunity to capitalize and enhance upon the natural features of the area. Implementing an open space or conservation ordinance can help ensure that the town’s most unique landmarks and valuable viewsheds are preserved. Prioritizing trail development will increase recreational opportunity while connecting residents to essential services within the town. Volunteers can also help the town reduce maintenance costs while building character and community.

Stockton recognizes its place within the Great Basin Desert. Like many arid communities, water conservation becomes increasingly important as new residents and businesses locate in the area. Town efforts to encourage sustainable water use will help Stockton preserve vital resources. Landscaping requirements and a focus on drought-resistant plants reduces water usage, may lower utility costs, and leads to beautiful and unique landscapes. With residents placing high value on affordable living and Town aesthetics, these small changes will have lasting impacts on Stockton’s future.



A hiking trail favored by Stockton residents. Photo credit: Emily Grace Jobe 2020.

Goal: Protect the natural beauty of Stockton by conserving open space and enhancing recreational amenities.

Objective 1: Stockton will develop strategies to fund the addition and enhancement of recreational amenities.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Create a parks and recreation impact fee to keep providing recreational amenities as the Town develops.	Town of Stockton	6 months	\$ (planner/lawyer fees)	Creation of a new ordinance.	Utah Code Chapter 36a, Impact Fees Act
Bring resident-desired recreational amenities, like an archery/shooting range, into Town.	Town of Stockton; Utah Department of Natural Resources	1 year	\$\$ (staff/planner and state agencies) / grants available	Addition of an Archery / Shooting Range or other recreational amenity in Town.	Guidelines for the Shooting Range Development Grant Program
Actively search for sponsorships to help pay for parks maintenance.	Town of Stockton; Private Businesses	Ongoing	None	Funding generated through sale of sponsorships.	Stretching Small Town Budgets (Illinois)

See the Land Use Section for more recommendations relating to the preservation of open space and view sheds.

Objective 2: Expand quality of and access to trails.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Identify gaps in the trail network or places where existing parks could be connected. Prioritize these areas for future projects.	Town of Stockton; Residents	Immediate	None	A map of potential future trail linkages.	Google Earth, Site Audits, Resident Feedback, and Future Regional Recreation Plans
Pursue grants for trail maintenance and expansion.	Town of Stockton; Area Non-Profits	As Needed	\$\$-\$\$\$	# of grants applied for / # of grants received, over 5 years. # miles of trail maintenance or expansion.	Utah Outdoor Recreation Grant
Reach out to local volunteer organizations for help with trail blazing and upkeep (Scout Troops, Student Volunteer Hours, Religious Organizations).	Town of Stockton; Volunteers	Ongoing	None	# of groups participating; # of person-hours of service completed.	Project for Public Spaces: Increasing Volunteerism in Parks





Goal: Enhance sense of place by promoting Stockton’s native, climate-appropriate landscaping.

Objective 1: Encourage the use of native plants, suitable to the arid climate.

Proposed Action(s):	Lead(s):	Timeline:	Estimated Cost:	Metric:	Resources/Tools:
Develop a list of “water-wise” plants native to the Northern Utah area to be used for landscaping on all Town-owned properties.	Town of Stockton; Students and Volunteers	Immediately	None	Document outlining water-wise plants appropriate for Stockton with available data.	Utah Water Wise Plants; Localscapes
Use grants or other incentives to help local businesses and developers install native and “water-wise” landscapes.	Town of Stockton; Area Non-Profits; Local Businesses	Ongoing	\$	# of businesses/developments opting-in to this program.	Utah State University Extension – Center for Water Efficient Landscaping
Work with the culinary water authority to establish a fee structure which is dependent on a household’s usage (incentivizing landscaping that requires less irrigation).	Culinary Water Authority; Town of Stockton	6 months - 1 year	None	Establishment of differential fee structure.	University of North Carolina – Environmental Finance Center
Consider pursuing grants for the expansion, repair, and improvement of water and waste collection systems.	Town of Stockton / USDA Rural Development	Ongoing	\$-\$\$\$ (Grants Available)	\$ received in grants; Improvements made to systems.	USDA Rural Development – Water & Waste Disposal Loan & Grant Program



Examples of water-wise vegetation and Northern Utah “local-scapes”. Photo credit: Localscapes.com 2016.



ANNEXATION POLICY PLAN

Stockton must go through a special process to adopt an Annexation Policy Plan, in accordance with §10-2-Part 4 of Utah Code. The materials drafted in this section are meant to help the Town along in this process. Before a policy plan is adopted and implemented, it must be brought before all affected entities, as defined by Utah Code. These affected entities may include Tooele County, the Tooele School District, the Utah Department of Transportation, the Police, Fire, and Culinary Water Authorities, and the residents of Stockton and the proposed expansion areas as defined in the plan.

An annexation policy plan is subject to a public hearing first by the planning commission, and then by the town council after the commission has given its recommendation. Once adopted, this plan will guide Stockton's decision-making process for any annexation petitions that are submitted to the Town. The Town may not annex any land that is not included within one of the proposed expansion areas defined in the adopted policy plan.

Vision: Stockton will wisely manage growth, only annexing lands when doing so benefits both the Town and the residents living in the area to be annexed, and when Stockton has the capacity to adequately provide services to all impacted areas.



What is an Annexation Policy Plan?

Annexation is the process by which “land is transferred from one unit of government to another” (American Planning Association 2017). In Stockton, this would mean expanding boundaries to include parts of currently unincorporated Tooele County. As determined by Utah Code §10-2-401.5, a municipality may not annex any unincorporated area without first formulating and adopting an annexation policy plan. Stockton’s adoption of an annexation policy plan does not result in any land being annexed but lays out the guidelines under which annexation could occur in the future.

Government bodies typically choose to annex to increase the local tax base and expand the local authority over planning and zoning. The adoption of an annexation policy plan gives Stockton a voice in any development that occurs within the proposed expansion areas (defined in the plan). Tooele County must notify Stockton before approving any development in these proposed expansion areas and must respond to any objection Stockton expresses. Such a policy plan weighs the costs and benefits of possible annexation and establishes guidelines for determining whether or not to grant future annexation petitions. While benefits may include an increased tax base and more local control over development patterns, Stockton must consider the potential costs of expanding city services.

PROPOSED EXPANSION AREAS

Stockton occupies only 1.69 square miles of land and water. Most incorporated parcels suitable to residential, commercial, or industrial uses have already been developed. Thus, annexation provides an opportunity for Stockton to acquire room to grow. However, the town faces constraints even outside of its boundaries. To the north of town, much of the land is used for extraction, with Peak Management LLC owning nearly 140 acres. To the east, land is owned by Kennecott, the State of Utah, and the Bureau of Land Management (representing a mix of extractive and recreational uses). The region to the south of Stockton is primarily owned by independent households, with the exception of the water conservancy area surrounding Rush Lake. The most developed area surrounding Stockton lies to the west of town, at South Rim. This subdivision currently occupies 975 acres (development agreement with Tooele County). But South Rim additionally owns nearly 3,500 acres surrounding the current subdivision; it is unclear whether or not South Rim has intentions to eventually develop this land.

The map on pages 64-65 defines Stockton’s potential expansion areas.

Proposed Expansion Area #1: South Rim

Proposed Expansion Area #1 is the most heavily developed area immediately outside of Stockton. It consists of approximately 1613 acres, connected to the western portion of town by Silver Avenue. Much of the land in this area is owned by South Rim, and it is expected that future development

will be primarily residential. If all of Proposed Expansion Area #1 was annexed today, it would exceed to Stockton’s projected 2025 population.

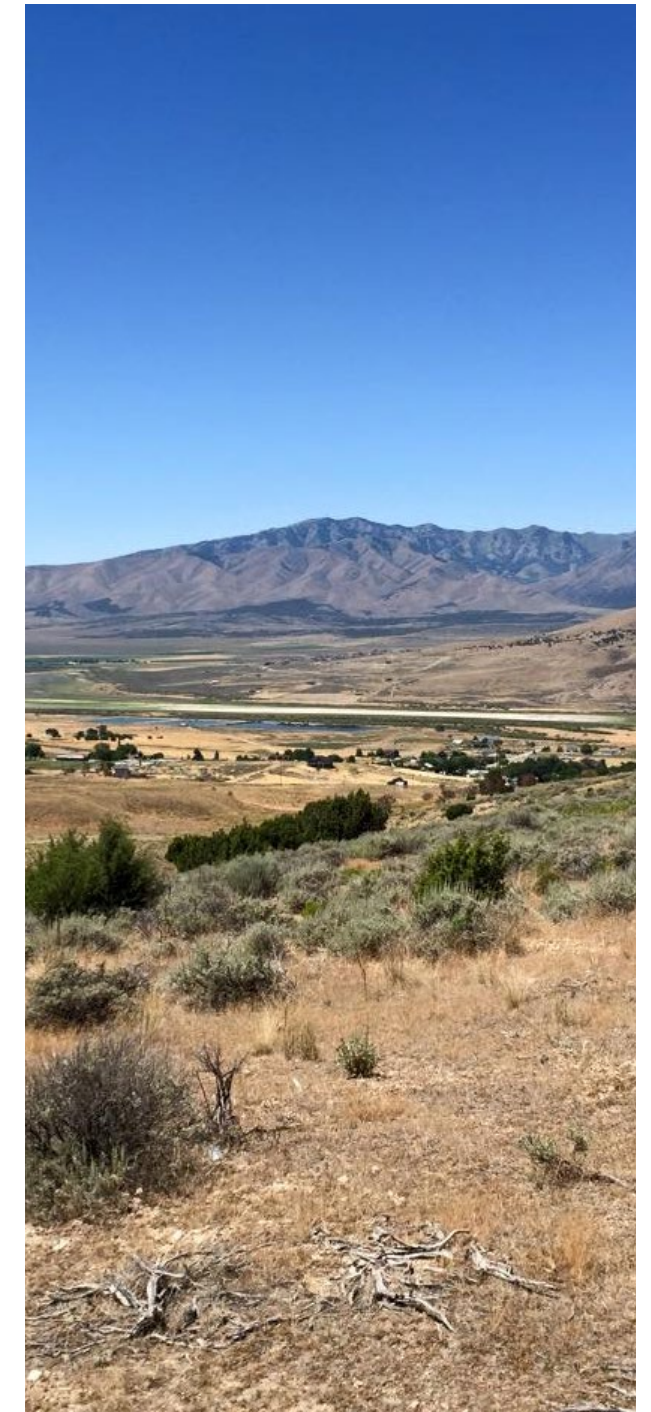
The South Rim Special Services District is responsible for providing most utilities to the subdivision. Stockton’s water and sewer lines stop short of the western boundary along Silver Avenue. Significant expansion would be required to make connections to Proposed Expansion Area #1, but the area could provide Stockton with additional opportunities for residential development.

It should be noted that a few parcels owned by the Bureau of Land Management are included in the expansion area as defined. It is not Stockton’s intention to allow development on this land. The parcels are included because Silver Avenue, the street connecting the Town of Stockton to the South Rim development, runs through them.

Proposed Expansion Area #2: Southern Corridor

Proposed Expansion Area #2 encompasses 417 acres along Highway 36 on Stockton’s southern border. This area currently features low-density residential and agricultural land uses. It offers opportunities for future residential development for the Town of Stockton. In addition, annexing land along this stretch of Highway 36 may provide space for commercial growth. The Highway connects Stockton residents to Vernal and Lehi, and is the main route through town for outdoor recreation-enthusiasts.

The Town’s sewer and water mains reach considerably closer to Proposed Expansion Area #2 than to Proposed Expansion Area #1. Extensions to current services could possibly be provided from the west (across Highway 36) or from the east, along Copper Street.



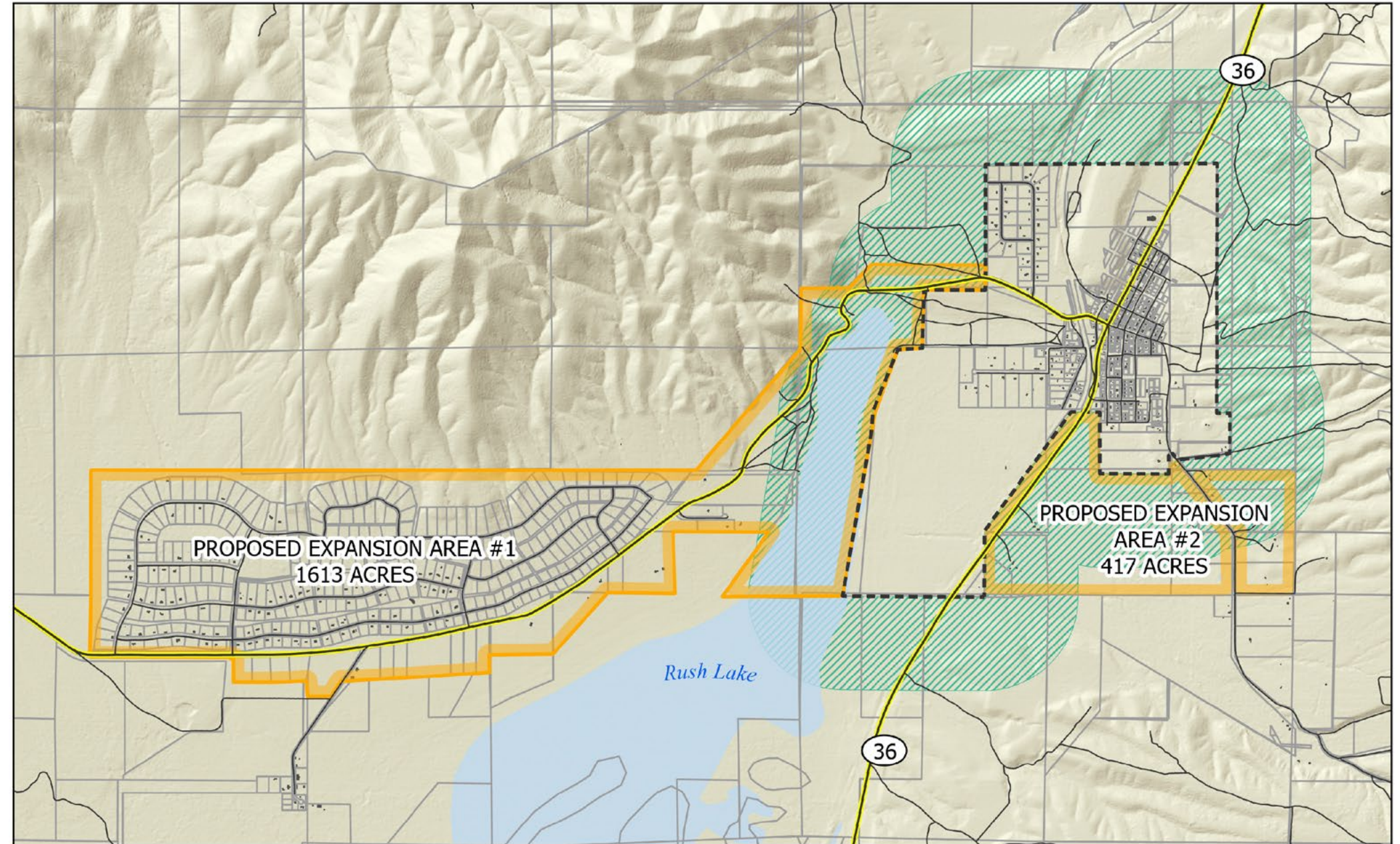
Looking out over the Town of Stockton. Contributed by Alissa Perez 2020.



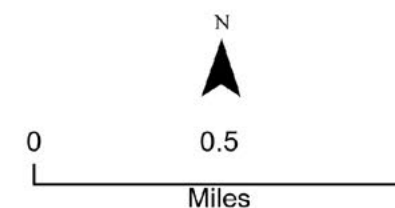
TOWN OF STOCKTON - PROPOSED EXPANSION AREA -

The Annexation Process

- 1** An area may petition to be annexed into Stockton if it is a contiguous, unincorporated area of Tooele County that is also contiguous to the boundaries of Stockton and is included in Stockton's potential expansion areas as defined in the Annexation Policy Plan.
- 2** Before filing a petition, the applicant must send a notice of intent to file a petition to the Town of Stockton and to all affected entities, as defined in Utah Code. Notice shall include an accurate map of the area proposed to be annexed.
- 3** In keeping with Utah State Code §10-2-403, the Town will not provide an applicant with the official annexation petition until the county has filed notice as required by Utah State Code §10-2-403(2b).
- 4** Once the official annexation petition form has been provided to the applicant, the applicant shall obtain all the signatures required by Utah State Code §10-9-403(3). The applicant shall file the petition with the Town Clerk and mail a copy to the County Clerk.
- 5** The petition will be reviewed at the next scheduled meeting of the Stockton Town Council, at least 14 days after the petition has been submitted. The Council may deny the petition, providing the applicant with a written statement. Or the Council can approve the petition for further consideration under Utah Code §10-9a-Part4.



- Roads
- Major Road/ Highway
- Buildings
- Parcel Boundary
- ▨ Stockton Boundary 0.5 Mile Buffer
- ▭ Proposed Expansion Area
- ⌈ Town of Stockton
- Lakes/Reservoirs





Annexation Limitations

Utah Code §10-2-402 places limitations on a municipality's authority to annex. In compliance with state code, Stockton must follow these policies.

1. The town shall not annex an area that is not contiguous to the current boundaries at the time of annexation.
2. The town shall not annex an area if annexation results in an unincorporated island or unincorporated peninsula (with exception as provided by §10-2-402).
3. The town shall not annex any area which is not included in a potential expansion zone as described in the adopted annexation policy plan.
4. The town shall not annex an unincorporated area for the sole purpose of expanding the tax base (acquiring municipal revenue) or to prevent another municipality from annexing the same area or a related area, unless the town can and intends to benefit the annexed area through the provision of services.
5. The town shall always annex the entirety of a parcel (not a partial part) unless the owner of parcel has signed an annexation petition in accordance with Utah State Code §10-2-403.

INFORMING THE POLICY

Community Character

When deciding on a petition for annexation, the Town Council shall consider the character and needs of the existing community and the expected impact of annexation. Stockton prides itself on its small-town feel, but that does not mean that no growth should occur. In fact, to provide housing to the next generation of children and to provide room for the small businesses that residents desire, it may be beneficial to annex land in specific areas.

By 2025, the population of Stockton is expected to grow to 945. Current zoning patterns would not allow the Town to develop the housing, amenities, and services necessary to accommodate this increased population. Stockton may at times consider annexation a favorable alternative to re-zoning. An annexation petition may be denied when such annexation would lead to negative consequences for Stockton's character.

Impact on Municipal Services and Taxes

Stockton residents currently receive fire and police protection, planning and zoning services, snow removal and street maintenance (on paved roads), curbside garbage collection, and culinary water and wastewater services. Residents also have access to the Town's cultural and recreational amenities. No annexation shall be granted if the annexation results in the loss of those services for current Stockton residents, or in the inability for Stockton to provide those services to annexed residents.

Services are primarily payed for through property taxes and usage fees. Garbage pick-up costs a base fee of \$25.00 per can, with an additional monthly fee of \$12.00 per can. Sewer service causes \$43.50 per month. Additionally, water

costs \$25.00 per month, with an added fee based on water usage (costs current as of April 2020, according to Stockton Utilities Webpage).

Taxes and utility costs for Stockton are already high relative to the income of current residents. The anticipated financial outcomes for both current and future residents will strongly guide annexation decisions.

The Interests of Affected Entities

The interests of the affected entities are not yet known. Feedback from these entities must be gathered prior to the first public hearing on the draft annexation policy plan. Affected entities are defined in Utah Code. Stockton will address all the concerns of these affected entities within this policy plan.

Regional Considerations

The proposed expansion areas included in Stockton's annexation policy plan do not overlap with the potential expansion areas of any other municipality. Tooele City shows potential expansion to the north of Stockton. Lands currently used for extraction separate Tooele's expansion areas from the Town boundary. Stockton is not interested in annexing this land to the north.

No annexation policy plan is available for Rush Valley Town. Rush Valley may have an interest in annexing the South Rim Development at a later date, but that interest has not been expressed. Silver Avenue, running through Stockton, is the subdivision's current route to major destinations. This means Stockton is the most prepared of any other nearby municipality to provide services to these residents in the event of a future annexation.

Exclusions

The proposed expansion areas do not exclude any developed land, as defined by Utah State Code, within 1/2 mile of the Town boundary. As development continues to occur in the unincorporated areas of the county, Stockton will re-evaluate its proposed expansion areas.

POLICIES

1. Stockton may consider the goals of the general plan and the expected impact an annexation will have on community character in its decision on an annexation petition.
2. Upon annexation, any new land will automatically be zoned as A-2 until the Commission and Council approve a new zoning designation for the annexed area.
3. As a part of the annexation petition, an Applicant must submit a study of the impacts of annexation on the Town's: cost of providing services, tax revenue, infrastructure capacity, community character, and any other consideration(s) deemed necessary by the Commission or Council.
4. The Applicant may be asked to mitigate any negative impacts of annexation on the Town's character or resources prior to approval of the annexation. Such mitigation strategies may include payment for utility extensions, dedication of water shares, payment of impact fees, or any other action deemed necessary by the Commission or Council to minimize negative impacts of annexation.
5. Newly annexed areas shall immediately receive the following Town Services: police and fire protection, culinary water and wastewater service, planning and zoning service, snow removal and street maintenance (on paved roads), and garbage collection. No annexation shall be approved if Stockton is unable to provide the above services to existing and new residents. The Town may deny an annexation if the cost of providing these services places too heavy a burden on existing or future residents.
6. Stockton will not annex any land that is not located within its proposed expansion areas, that is not contiguous to Town boundaries at the time of annexation, or that results in unincorporated islands or peninsulas.



The Role of Water:

Water has consistently been one of the most unreliable Town services. Stockton's supply of culinary water depends largely on the rain fall that accumulates in the surrounding mountains each year. In 2018, supply was so limited that a watering schedule had to be imposed on residents. Any annexation petition must consider water supply in its analysis. Where an annexed area is expected to use significant amounts of culinary water, the Commission and Council may ask that the Applicant addresses mitigation efforts.





APPENDIX

RESOURCES

- American Planning Association. (2017). Annexation. *PAS Quick Notes*.
- HUD User. (2020). Expanding Multigenerational Housing Options. From <https://www.huduser.gov/portal/pdredge/pdr-edge-featd-article-061019.html>
- Stockton Bicentennial History Committee. (1976). *Brief History of Stockton, Utah*. Tooele, Utah.
- Summit County Historical Society. (2020). Coalville City. Utah. From <https://www.summitcounty.org/133/Coalville-City>
- Tooele County Health Department. (2020). Tooele County Transportation. Tooele, Utah. From <https://tooelehealth.org/tooele-county-transportation/>
- Utah Department of Transportation. (2016). Traffic Maps - AADT. Utah. From <https://www.udot.utah.gov/main/f?p=100:pg:0:::V,T:528>
- Utah Department of Workforce Services. (2020). Planning Moderate-Income Housing and Annual Reporting. Utah. From <https://jobs.utah.gov/housing/affordable/moderate/>

URLs FROM GOAL TABLES

Who We Are

- <https://hbr.org/2005/03/want-collaboration-accept-and-actively-manage-conflict>
- <https://wfr.org/committees/wasatch-front-regional-council/>
- <https://hbr.org/2007/11/eight-ways-to-build-collaborative-teams>
- <https://www.forbes.com/sites/andrewarnold/2018/06/19/how-social-media-can-be-a-tool-to-impact-urban-planning/#53e67a8936d9>
- <https://livestream.com/blog/streaming-city-council-meetings-government>
- <https://www.efficientgov.com/economic-development/articles/why-cities-should-invest-in-festivals-l8ByucaGALNsjaK/>
- <https://www.planning.org/apanews/9198750/new-online-public-engagement-resources/>
- <https://www.planning.org/apanews/9198750/new-online-public-engagement-resources/>

Land Use

- https://parkcity.municipalcodeonline.com/book?type=ordinances#name=15_Land_Management_Code
- https://kamas.municipalcodeonline.com/book?type=ordinances#name=15_Land_Use_And_Development
- <https://www.nal.usda.gov/ric/downtown-revitalization>
- <https://www.mainstreet.org/howwecanhelp/resourcecenter>

Connectivity

- <https://www.usda.gov/media/blog/2011/12/16/urban-fruit-urban-communities>
- <http://flaglercolorado.com/free-land-incentive-program/>
- <https://www.udot.utah.gov/main/f?p=100:pg:0:::1:T,V:3198>,
- <https://www.ruralhealthinfo.org/toolkits/transportation>
- <https://ruralsdesignguide.com/mixed-traffic/advisory-shoulder>

- <https://move.utah.gov/getting-started/>
- <https://le.utah.gov/xcode/Title41/Chapter6A/41-6a.html>
- <https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/>

Economic Development

- <https://edcutah.org/>
- <https://business.utah.gov/>
- <https://thrivehive.com/small-town-business-marketing-ideas/>
- <https://www.wordstream.com/blog/ws/2014/10/01/marketing-ideas-for-small-businesses>
- <https://www.nal.usda.gov/ric/downtown-revitalization>
- <https://www.mainstreet.org/howwecanhelp/resourcecenter>
- <https://www.socialmediaexaminer.com/21-social-media-marketing-tips-from-the-pros/>
- https://www.rd.usda.gov/files/508_RDeConnectivityToolkit121918.pdf
- <https://broadband.utah.gov/wp-content/uploads/2013/02/Statewide-Summary-FINAL.pdf>

Recreation

- <https://le.utah.gov/xcode/Title11/Chapter36A/11-36a.html>
- <https://wildlife.utah.gov/range-development-grants.html>
- <https://www.lib.niu.edu/2004/ip040923.html>
- <https://business.utah.gov/outdoor/uorg/>
- <https://www.pps.org/article/increasingvolunteerism>
- <https://waterwiseplants.utah.gov/>
- <https://localscapes.com/>
- <http://www.cwel.usu.edu/>
- <http://efc.web.unc.edu/2014/07/31/base-charges-customized-based-customer-water-use/>
- <https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program>



USEFUL FUNDING SOURCES

Utah Governor's Office of Economic Development: Office of Outdoor Recreation Grant Programs

- Provides grants for recreational infrastructure, new trails, and other outdoor opportunities; aid in economic development. (<https://business.utah.gov/outdoor/uorg/>)
- Summary of Three Grants Program (<https://business.utah.gov/wp-content/uploads/2019/10/Office-of-Outdoor-Recreation-Three-Grant-Programs.pdf>)
- Utah Outdoor Recreation Program Guide 2020 (<https://business.utah.gov/wp-content/uploads/2019/11/UORG-Program-Guide-pages.pdf>)
- Other Helpful information may be found regarding the benefits of outdoor recreation in The State of Utah Outdoor Recreation Vision (January 2013) with a section on the "Benefits of Outdoor Recreation" starting on page 29. Links for Economic Development information and a good source for measuring trail benefits can also be found here: (<http://bit.ly/2IYGB6>).

Utah Department of Transportation

- Federal funds are allocated to Utah each year by congress for use on transportation facilities in rural and small urban areas of the state. The Joint Highway Committee provides coordination and yearly project recommendations to the Utah Transportation Commission for use of these funds. (<https://www.udot.utah.gov/main/f?p=100;pg:0:::1:T,V:1395>.)

U.S. Department of Agriculture / Rural Development

- Water and waste disposal loan and grant programs provided in the State of Utah for rural areas and towns with less than 10,000 people. (<https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program>)

Utah Department of Environmental Quality

- Water quality improvements – loan and grant programs found here: (<https://deq.utah.gov/category/grants>).

HOUSING RESOURCES

Data:

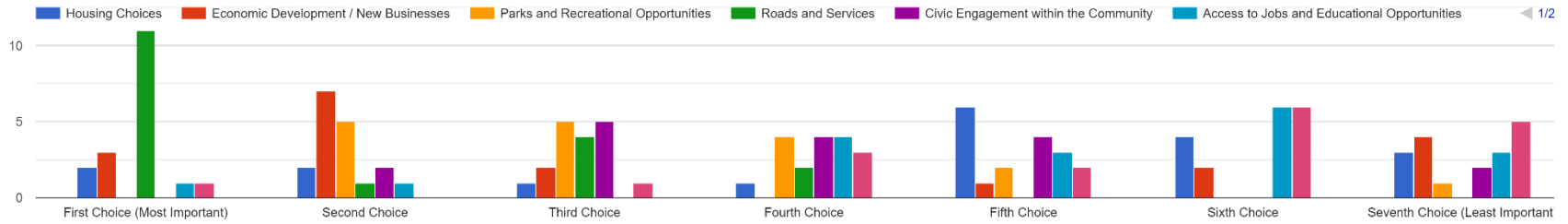
- U.S. Census Bureau: (https://data.census.gov/cedsci/all?g=8610000US84071_860000US84071_1600000US4973050&hidePreview=false&tid=ACSST5Y2018.S2504&vintage=2018&cid=S2504_C01_001E&t=Housing)
- Utah Department of Workforce Housing (HUD): (<https://jobs.utah.gov/housing/affordable/index.html>)

Community Assistance:

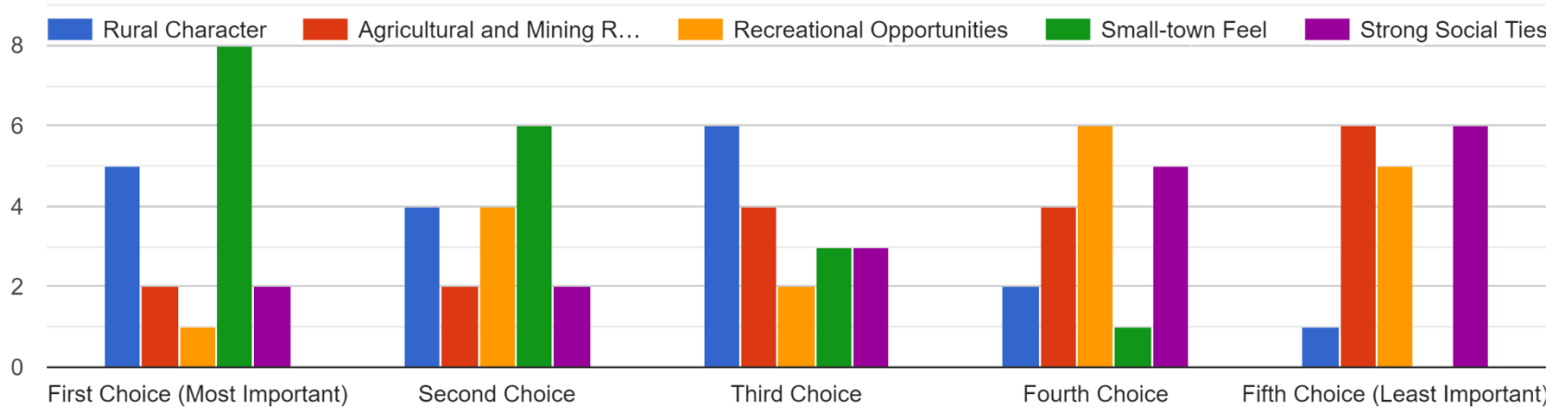
- Tooele County Housing Authority: (<http://www.co.tooele.ut.us/housing.htm>)
- CROWN Rent-to-Own (through Tooele Co HA)
- Home Energy Assistance Target Program (through Tooele Co HA)
- Weatherization Assistance Program (through Tooele Co HA)
- Habitat for Humanity
- United Way 2-1-1 for Tooele County: (<https://211utah.org/index.php/housing-and-utilities>)
- Pathways Domestic Violence Shelter of Valley Victim Services: (<https://www.valleycares.com/victimservices/>)

STOCKTON VISIONING SURVEY RESPONSES (2020)

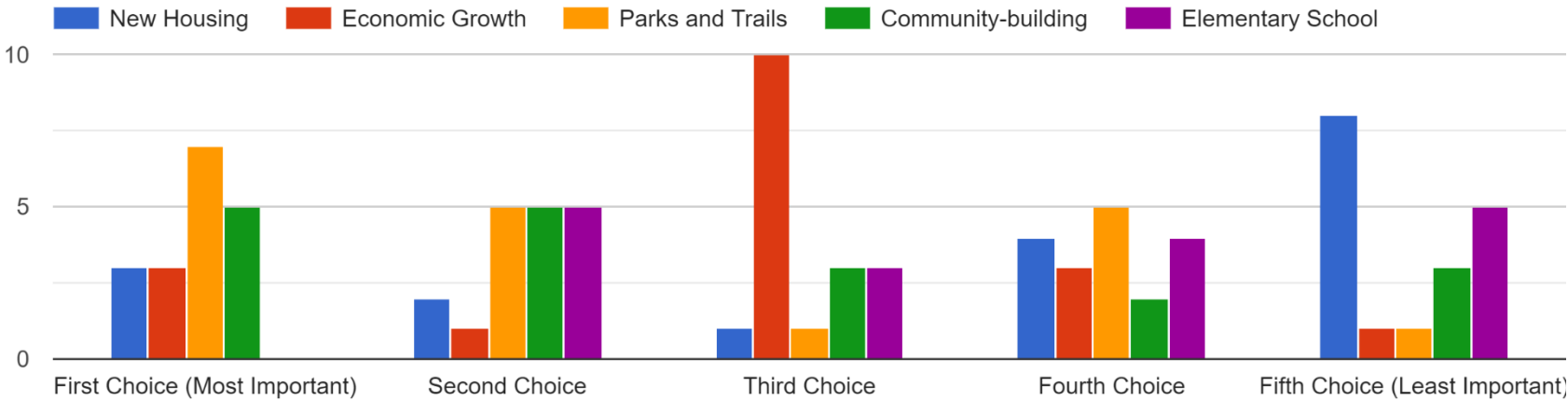
What do you think needs to be improved in Stockton? Rank in order of importance.



What of Stockton's assets should be preserved? Rank in order of importance.

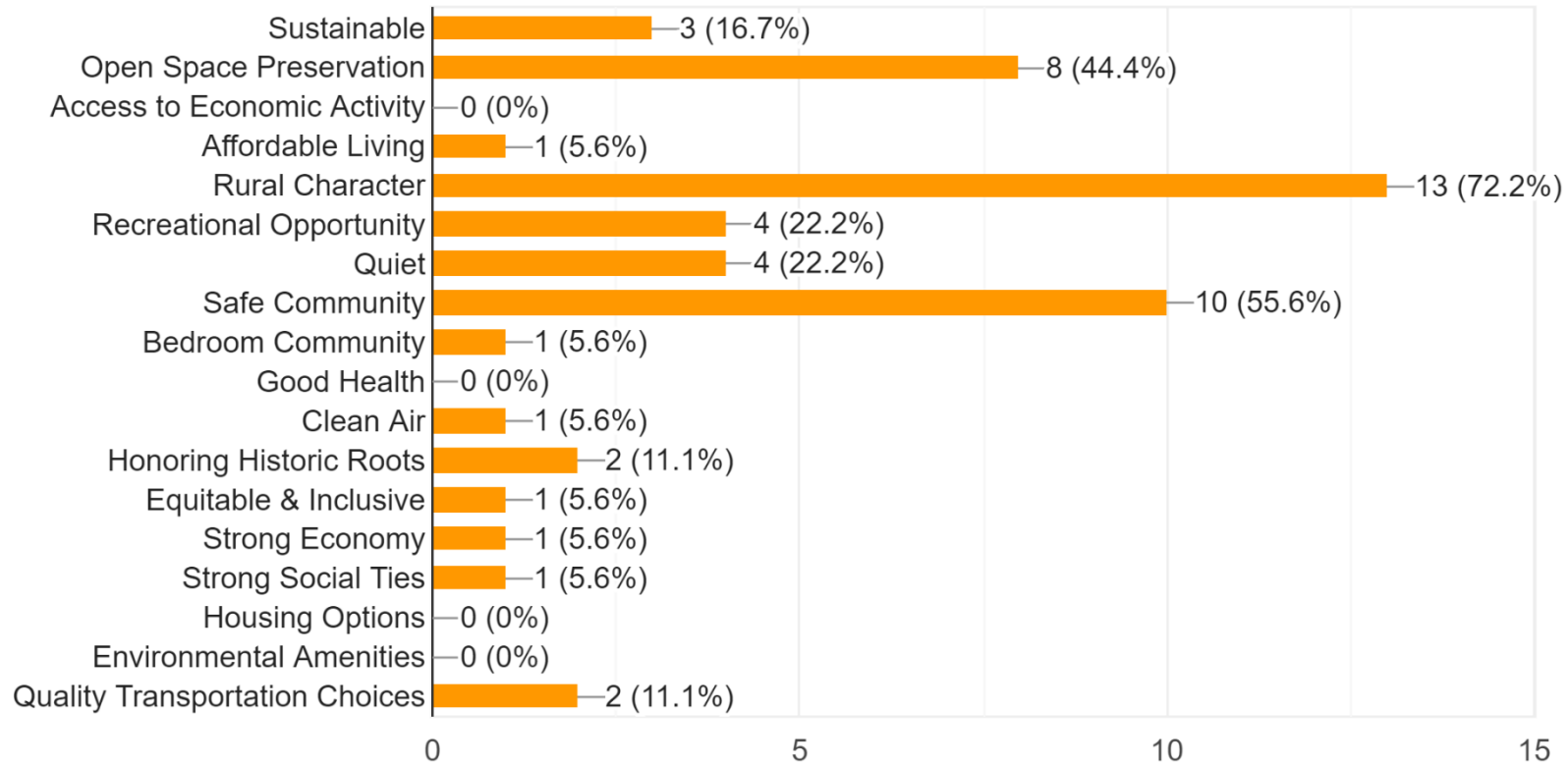


What opportunities for Stockton are you most excited about? Rank in order of importance.



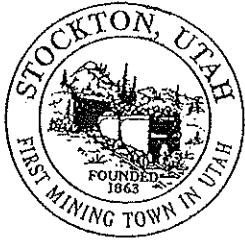
As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent t...nd the direction in which the town should develop.

18 responses



Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

- A store
- Restaurant, Fast food place, Business park, Community rec center, road with no pot holes!
- Still a small town. Large lots.
- Still a quaint small town without all the big city encroachment that is occurring now. Traffic on silver avenue is crazy at all hours of the day coming from South Rim.
- Not much growth and still have the small town vibe with a few more buisness
- Small town feeling, ATV community, some small businesses grocery store.
- I would like to see that Stockton has still maintained it's rural feel and charm.
- A Maverick
- Cleaned up yards, no growth, just maintenance
- Not much in change landscape.
- A couple of new thriving businesses
- Still a small town, no big business.
- Its a bigger city. A Couple of stop lights and a Grocery Store more homes.



TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

We are asking all residents to fill out this Stockton Visioning survey and return it to Town Hall. Responses can be dropped in the mail or the drop slot in the front door of Town Hall. We will not be taking any surveys in person. This survey is to help with the Stockton General Plan that is being worked on right now. We appreciate your help with this.

Thomas Karjola

Stockton Town Mayor

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

more internet/communication options.

What do you think needs to be improved in Stockton? Rank in order of importance.

- 7 Housing choices
- 2 Economic development / new businesses
- 3 Parks and recreational opportunities
- 1 Roads and services
- 4 Civic engagement within the community
- 5 Access to jobs and educational opportunities
- 6 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 1 Rural character
- 4 Agricultural and mining roots
- 3 Recreational opportunities
- 2 Small-town feel
- 5 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 4 New housing
- 3 Economic growth
- 1 Parks and trails
- 2 Community-building
- 5 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	✓ Open Space Preservation	Access to Economic Activity
Affordable Living	✓ Rural Character	Recreational Opportunity
✓ Quiet	Safe Community	Bedroom Community
Good Health	Clean Air	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Single-family homes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Light industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Housing affordability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cultural activities	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose

up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other:

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other:

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

.....

7. What do you love about Stockton? *

The Small town Feel & open spaces!



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March 30, 2020

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Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- 5 Housing choices
- 4 Economic development / new businesses
- 2 Parks and recreational opportunities
- 1 Roads and services
- 6 Civic engagement within the community
- 7 Access to jobs and educational opportunities
- 3 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 2 Rural character
- 2 Agricultural and mining roots
- 4 Recreational opportunities
- 1 Small-town feel
- 5 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 3 New housing
- 1 Economic growth
- 7 Parks and trails
- 4 Community-building
- 5 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
<u>Affordable Living</u>	<u>Rural Character</u>	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
Good Health	Clean Air	<u>Honoring Historic Roots</u>
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

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Mark only one oval per row.

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- Art studio
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- None of the above

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Other: _____

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- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

I always like the fact that kids ^{& adults} could ride their bikes, motorcycles and 4-wheeler within in the town, as long as they did not ride on the highway, but be able to cross it, and not destroy anything.

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

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Housing affordability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighborhood character	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose

up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other:

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

.....

7. What do you love about Stockton? *

That it is a small, family oriented town.

.....

.....

.....



TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

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Thomas Karjola

Stockton Town Mayor

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- Housing choices
- Economic development / new businesses
- Parks and recreational opportunities
- Roads and services
- Civic engagement within the community
- Access to jobs and educational opportunities
- Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 4 Rural character
- 1 Agricultural and mining roots
- 2 Recreational opportunities
- 3 Small-town feel
- 5 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- New housing
- Economic growth
- Parks and trails
- 1 Community-building
- 2 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	Rural Character	Recreational Opportunity <input checked="" type="checkbox"/>
Quiet <input checked="" type="checkbox"/>	Safe Community	Bedroom Community
Good Health	Clean Air <input checked="" type="checkbox"/>	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Single-family homes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Retail - restaurants, cafes, convenience stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Office	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Light industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Housing affordability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The transportation network	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Cultural activities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Housing options	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Neighborhood character	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Agricultural land	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Mix of businesses	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: No more house built

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other:

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

The small town not too many people
 Not too much crime A close knit
 community



TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

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Thomas Karjola

Stockton Town Mayor

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- 7 Housing choices
- 4 Economic development / new businesses
- 2 Parks and recreational opportunities
- 1 Roads and services
- 3 Civic engagement within the community
- 5 Access to jobs and educational opportunities
- 6 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 4 Rural character
- 1 Agricultural and mining roots
- 2 Recreational opportunities
- 3 Small-town feel
- 5 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 4 New housing
- 3 Economic growth
- 1 Parks and trails
- 2 Community-building
- 5 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	Rural Character	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
Good Health	Clean Air	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Single-family homes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Civic and institutional - community center, academic building	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Light industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Housing affordability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The transportation network	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Cultural activities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Walkability	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Neighborhood character	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

3. Feedback so far indicates that residents value Stockton’s small-town atmosphere. Which of the following features have the strongest impact on the town’s ability to preserve Stockton’s small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose

up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

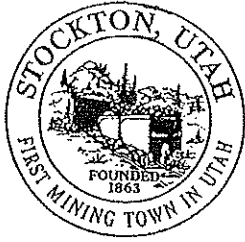
Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *



TOWN OF STOCKTON
18 North Johnson Street
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RE: Stockton Visioning Survey

March 30, 2020

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Thomas Karjola

Stockton Town Mayor

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

Same as when I left

What do you think needs to be improved in Stockton? Rank in order of importance.

- 6 Housing choices
- 7 Economic development / new businesses
- 2 Parks and recreational opportunities
- 1 Roads and services
- 3 Civic engagement within the community
- 4 Access to jobs and educational opportunities
- 5 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 1 Rural character
- 3 Agricultural and mining roots
- 4 Recreational opportunities
- 2 Small-town feel
- 5 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 5 New housing
- 4 Economic growth
- 1 Parks and trails
- 3 Community-building
- 2 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	Rural Character	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
Good Health	Clean Air	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Single-family homes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Light industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing affordability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighborhood character	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. What parts of Stockton's history and character would you want to be commemorated in

Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
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- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

Being a small community

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

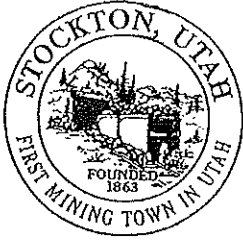
4. What community amenities are most important for Stockton to obtain? Choose

up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
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Other: _____



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Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- Housing choices
- Economic development / new businesses
- Parks and recreational opportunities
- Roads and services
- Civic engagement within the community
- Access to jobs and educational opportunities
- Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 3 Rural character
- 2 Agricultural and mining roots
- Recreational opportunities
- 1 Small-town feel
- Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- New housing
- Economic growth
- Parks and trails
- 1 Community-building
- Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

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Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail - department stores, bigbox stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail - restaurants, cafes, convenience stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Light industrial	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing affordability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agricultural land	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other:

*Remove all unused vehicles
stop speeding & noisy vehicles*

4. What community amenities are most important for Stockton to obtain? Choose

up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other:

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

.....

7. What do you love about Stockton? *

*not much anymore too noisy, traffic
constant eno*

.....
.....



TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

We are asking all residents to fill out this Stockton Visioning survey and return it to Town Hall. Responses can be dropped in the mail or the drop slot in the front door of Town Hall. We will not be taking any surveys in person. This survey is to help with the Stockton General Plan that is being worked on right now. We appreciate your help with this.

Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- 3 Housing choices
- 7 Economic development / new businesses
- 4 Parks and recreational opportunities
- 1 Roads and services
- 6 Civic engagement within the community
- 2 Access to jobs and educational opportunities
- 5 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 1 Rural character
- 2 Agricultural and mining roots
- 4 Recreational opportunities
- 3 Small-town feel
- 5 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- New housing
- Economic growth
- 1 Parks and trails
- Community-building
- Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	<u>Rural Character</u>	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
Good Health	<u>Clean Air</u>	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	<u>Strong Social Ties</u>
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Office	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Light industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Housing affordability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The transportation network	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Cultural activities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighborhood character	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

Just way it is

Good people

~~Rural~~ RURAL Character



TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

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Thomas Karjola

Stockton Town Mayor

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- Housing choices
- Economic development / new businesses
- Parks and recreational opportunities
- Roads and services
- Civic engagement within the community
- Access to jobs and educational opportunities
- Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- Rural character
- Agricultural and mining roots
- Recreational opportunities
- Small-town feel
- Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- New housing
- Economic growth
- Parks and trails
- Community-building
- Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living ✓	Rural Character	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
Good Health ✓	Clean Air ✓	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

3/31/2020

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Retail - department stores, bigbox stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail - restaurants, cafes, convenience stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Civic and institutional - community center, academic building	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Light industrial	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heavy industrial	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

2. How important are the following items in terms of Stockton's future development? *
Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing affordability	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The transportation network	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural activities	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Walkability	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agricultural land	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

3/31/2020

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above
- Other: _____

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
 - Agriculture
 - Swing dancing
 - Outdoor recreation
 - Local heroes/influencers (please name them under 'other')
 - None of the above
- Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

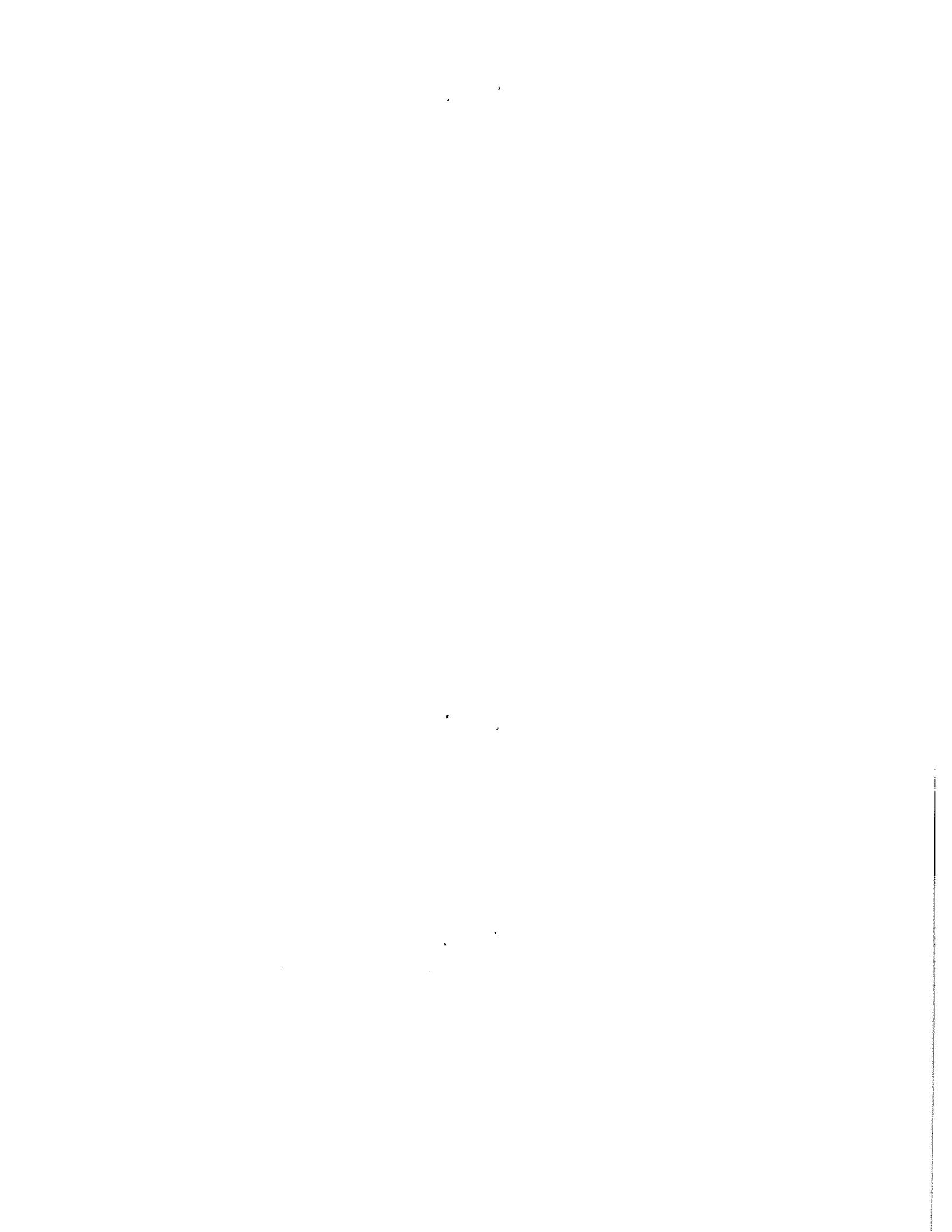
- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other: Needs a Cafe or Restaurant.

7. What do you love about Stockton? *

It's quiet, wonderful.

The Mountains

Friendly People





TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

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Thomas Karjola

Stockton Town Mayor

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

I would like to see a clean town without junk laying around on properties

What do you think needs to be improved in Stockton? Rank in order of importance.

- Housing choices
- 2 Economic development / new businesses
- Parks and recreational opportunities
- 1 Roads and services
- Civic engagement within the community
- Access to jobs and educational opportunities
- Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 1 Rural character
- Agricultural and mining roots
- Recreational opportunities
- Small-town feel
- Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- New housing
- 1 Economic growth
- Parks and trails
- Community-building
- 2 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
<u>Affordable Living</u>	Rural Character	Recreational Opportunity
<u>Quiet</u>	<u>Safe Community</u>	Bedroom Community
Good Health	Clean Air	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Retail - department stores, bigbox stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail - restaurants, cafes, convenience stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Light industrial	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing affordability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agricultural land	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: _____

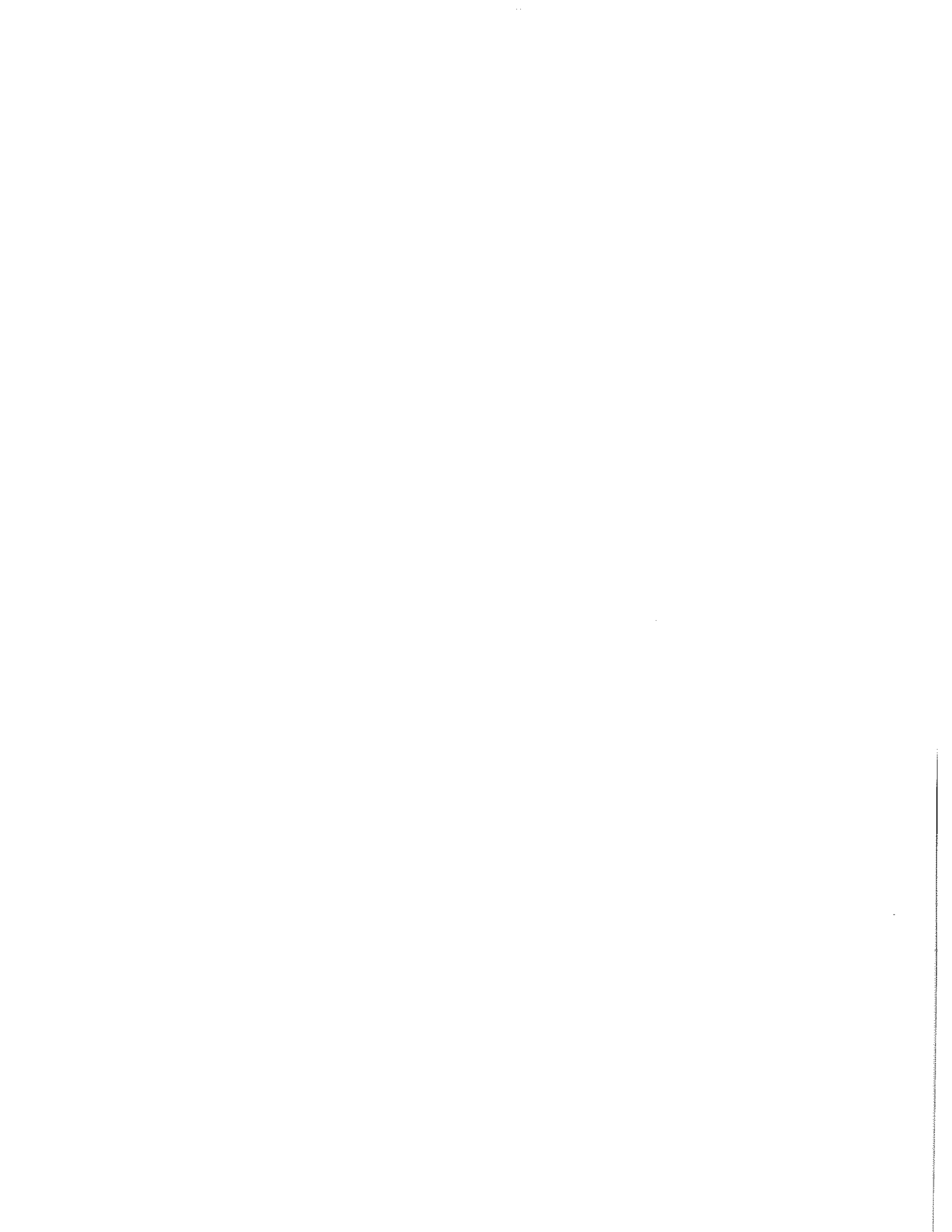
6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

We have quality residents who really step up when a community neighbor is in need.





TOWN OF STOCKTON
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March 30, 2020

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Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- 2 Housing choices
- 1 Economic development / new businesses
- 3 Parks and recreational opportunities
- 2 Roads and services
- 4 Civic engagement within the community
- 5 Access to jobs and educational opportunities
- 1 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 4 Rural character
- 1 Agricultural and mining roots
- 5 Recreational opportunities
- 2 Small-town feel
- 3 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 5 New housing
- 3 Economic growth
- 2 Parks and trails
- 1 Community-building
- 4 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	Rural Character	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
Good Health	Clean Air	<input checked="" type="checkbox"/> Honoring Historic Roots
<input checked="" type="checkbox"/> Equitable and Inclusive	Strong Economy	<input checked="" type="checkbox"/> Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*
Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Retail - restaurants, cafes, convenience stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Civic and institutional - community center, academic building	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Light industrial	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy industrial	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

2. How important are the following items in terms of Stockton's future development? *
 Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing affordability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cultural activities	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Walkability	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *





TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

We are asking all residents to fill out this Stockton Visioning survey and return it to Town Hall. Responses can be dropped in the mail or the drop slot in the front door of Town Hall. We will not be taking any surveys in person. This survey is to help with the Stockton General Plan that is being worked on right now. We appreciate your help with this.

Thomas Karjola

Stockton Town Mayor

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- 2 Housing choices
- 1 Economic development / new businesses
- 3 Parks and recreational opportunities
- 4 Roads and services
- 5 Civic engagement within the community
- 6 Access to jobs and educational opportunities
- 7 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 1 Rural character
- 2 Agricultural and mining roots
- 5 Recreational opportunities
- 3 Small-town feel
- 4 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 4 New housing
- 1 Economic growth
- 3 Parks and trails
- 2 Community-building
- 5 Elementary school WITH SCHOOL BOARD RECOMMENDAIL

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living 1	Rural Character 2	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
Good Health	Clean Air	Honoring Historic Roots 3
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Office	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Civic and institutional - community center, academic building	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Light industrial	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing affordability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighborhood character	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: PATRICK CONNOR

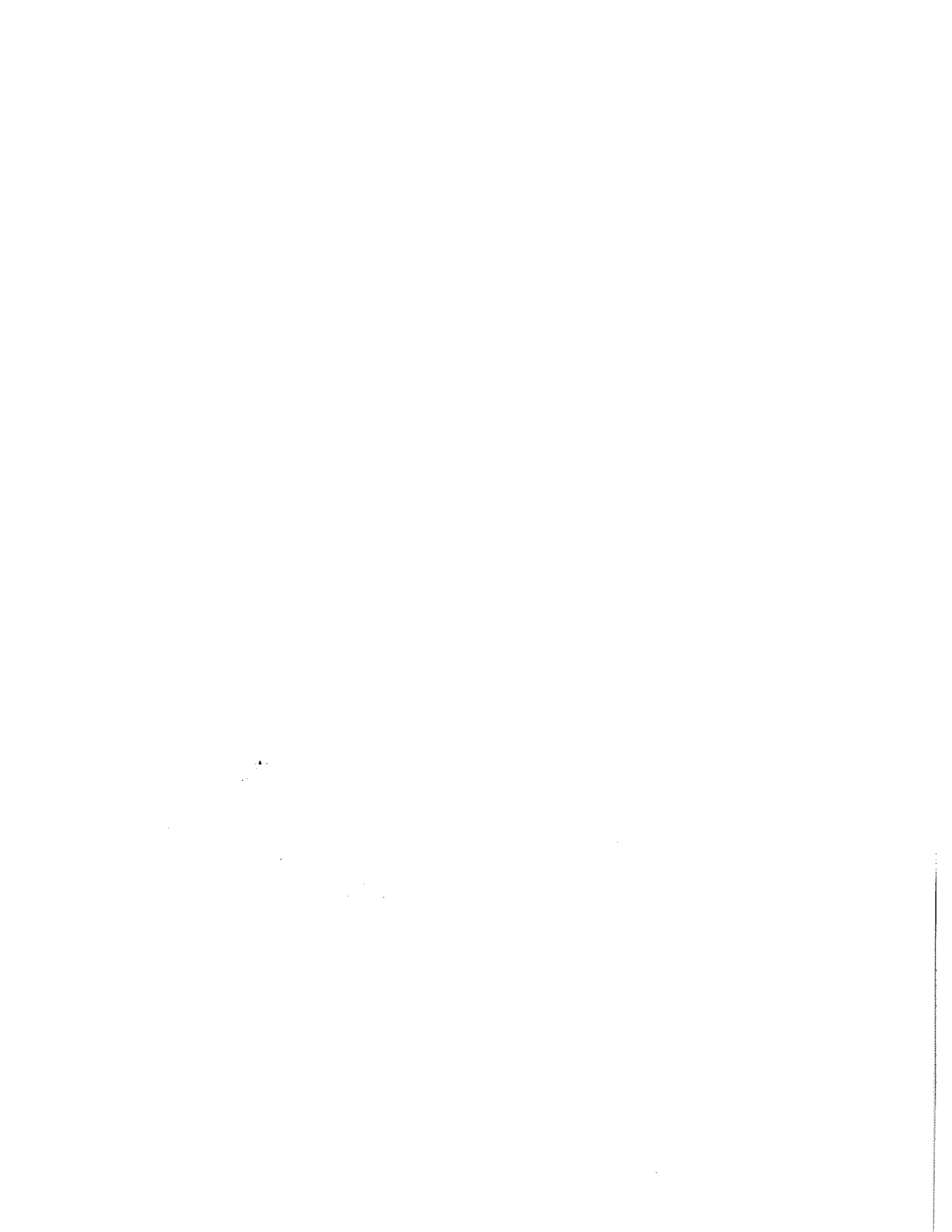
6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

REGULAR SERVICE TO TOOELE ENDING AT THE PARK AND RIDE

7. What do you love about Stockton? *





TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

We are asking all residents to fill out this Stockton Visioning survey and return it to Town Hall. Responses can be dropped in the mail or the drop slot in the front door of Town Hall. We will not be taking any surveys in person. This survey is to help with the Stockton General Plan that is being worked on right now. We appreciate your help with this.

Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

Conner Ave with businesses.

What do you think needs to be improved in Stockton? Rank in order of importance.

- 4 Housing choices
- 1 Economic development / new businesses
- Parks and recreational opportunities
- 2 Roads and services
- Civic engagement within the community
- 3 Access to jobs and educational opportunities
- Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 1 Rural character
- 2 Agricultural and mining roots
- Recreational opportunities
- 3 Small-town feel
- Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 2 New housing
- 1 Economic growth
- Parks and trails
- Community-building
- Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	<u>1st</u> Rural Character	Recreational Opportunity
Quiet	<u>3rd</u> Safe Community	Bedroom Community
Good Health	Clean Air	<u>2nd</u> Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Office	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Light industrial	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *

Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing affordability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agricultural land	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mix of businesses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: _____

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

Rural setting



TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
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RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

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Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

Still a Small Town

What do you think needs to be improved in Stockton? Rank in order of importance.

- Housing choices
- Economic development / new businesses
- Parks and recreational opportunities
- 1 Roads and services
- Civic engagement within the community
- Access to jobs and educational opportunities
- Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 2 Rural character
- 1 Agricultural and mining roots
- 5 Recreational opportunities
- 3 Small-town feel
- 4 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- New housing
- Economic growth
- Parks and trails
- Community-building
- 1 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	<u>Rural Character</u>	Recreational Opportunity
<u>Quiet</u>	Safe Community	Bedroom Community
Good Health	Clean Air	Honoring Historic Roots
Equitable and Inclusive	Strong Economy	<u>Strong Social Ties</u>
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Single-family homes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Office	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Civic and institutional - community center, academic building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Light industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *
Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Housing affordability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The transportation network	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural land	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's

small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above
- Other: _____

4. What community amenities are most important for Stockton to obtain? Choose

up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other:

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above
- Other:

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

Small Town



TOWN OF STOCKTON
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PO Box 240
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RE: Stockton Visioning Survey

March 30, 2020

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Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

What do you think needs to be improved in Stockton? Rank in order of importance.

- 4 Housing choices
- 2 Economic development / new businesses
- 5 Parks and recreational opportunities
- 1 Roads and services
- 6 Civic engagement within the community
- 7 Access to jobs and educational opportunities
- 3 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 2 Rural character
- 3 Agricultural and mining roots
- 5 Recreational opportunities
- 1 Small-town feel
- 4 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 5 New housing
- 3 Economic growth
- 4 Parks and trails
- 1 Community-building
- 2 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	Open Space Preservation	Access to Economic Activity
Affordable Living	<u>2</u> Rural Character	Recreational Opportunity
Quiet	<u>1</u> Safe Community	Bedroom Community
Good Health	Clean Air	<u>3</u> Honoring Historic Roots
Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

1. 1. Would you encourage, be impartial to, or discourage the following land uses in Stockton?

*

Mark only one oval per row.

	Encourage	Be impartial to	Discourage
Agricultural	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Single-family homes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duplexes and multiplexes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Small courthouse apartments and townhomes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Highrise apartments	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Senior housing and assisted living	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Mixed-use areas (retail, office, and residential)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Retail - department stores, bigbox stores	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Retail - restaurants, cafes, convenience stores	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Service businesses - barber shop, bank	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Office	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Civic and institutional - community center, academic building	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Light industrial	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy industrial	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. How important are the following items in terms of Stockton's future development? *
 Mark only one oval per row.

	Very important	Important	Not important
Job creation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing affordability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The transportation network	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cultural activities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Sustainable and energy-efficient services and buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Walkability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Smart technology - wifi, broadband	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Housing options	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Neighborhood character	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historic preservation and commemoration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Parks and access to open spaces	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Agricultural land	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of businesses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

5. What parts of Stockton's history and character would you want to be commemorated in Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
- None of the above

Other: _____

6. What public transit services would you take advantage of regularly (at least once per week) if available? *

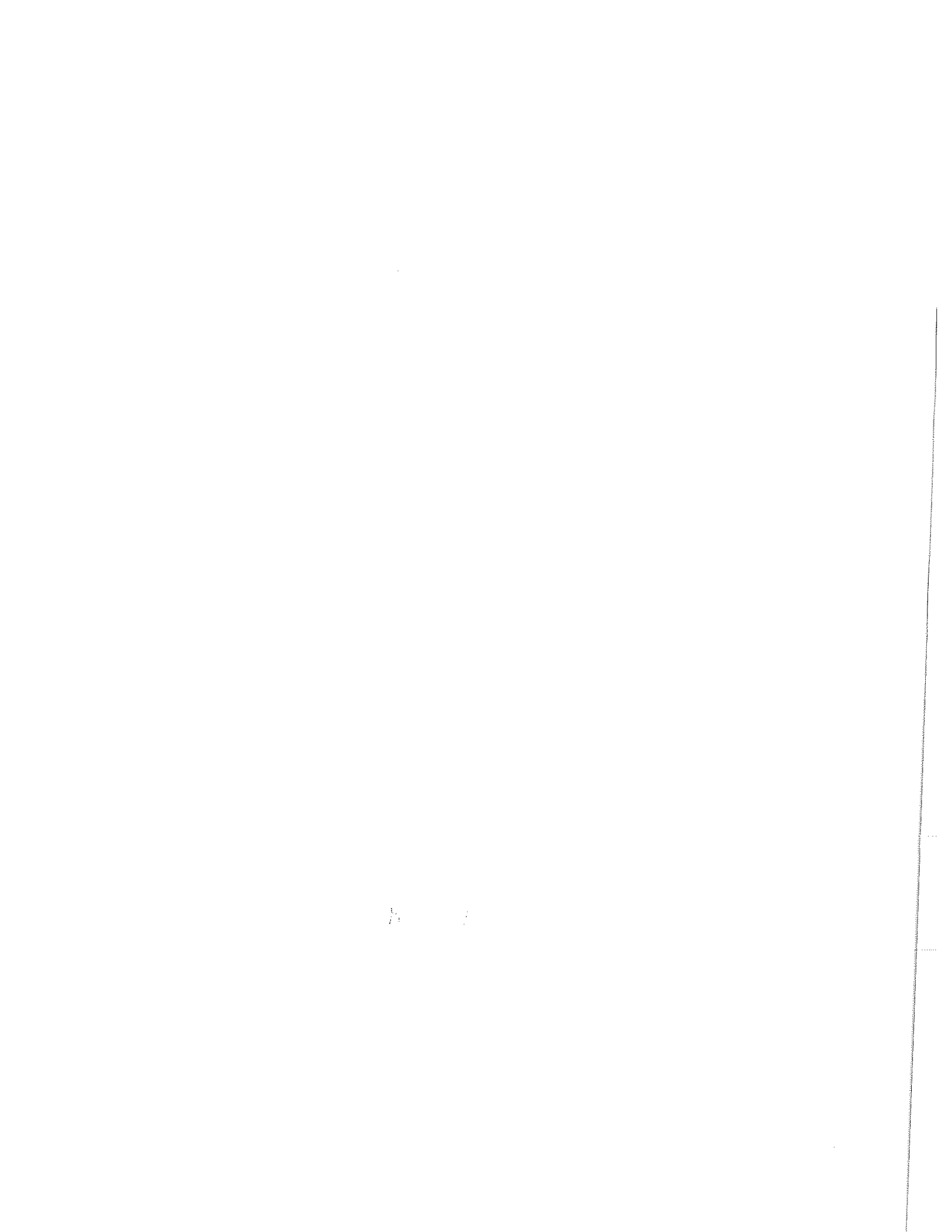
Check all that apply.

- Morning rush hour bus to, and evening bus returning from, Salt Lake City downtown
- Morning, midday, and evening bus to Tooele downtown
- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

7. What do you love about Stockton? *

I used to love the fact that I knew everyone in town. not so now.

I feel safe here



3. Feedback so far indicates that residents value Stockton's small-town atmosphere. Which of the following features have the strongest impact on the town's ability to preserve Stockton's small-town character? Choose up to four. *

Check all that apply.

- Housing density
- The style and design of housing
- Density of commercial uses
- Types of businesses
- The style and design of commercial uses
- The presence of agricultural areas
- The location and size of open spaces and natural areas
- The presence of a walkable, mixed-use town center
- Preservation of historic buildings and sites
- Landscaping of private yards
- Landscaping of public facilities and rights-of-way
- Lack of sprawl
- None of the above

Other: _____

4. What community amenities are most important for Stockton to obtain? Choose up to five. *

Check all that apply.

- Elementary school
- Senior center
- Senior housing
- Community garden
- Horseback riding stables
- Baseball/softball field complex
- Tennis courts
- Ice skating rink
- Pool
- Bowling alley
- Shooting range
- Gym
- Group exercise studio/dance studio
- Sidewalks
- Crosswalks
- Multi-use path
- Increased bus service or other public transit
- Commemorative statues/historical markers
- Art studio
- Library
- Cafe
- Bank
- Broadband internet/Google fiber
- None of the above

Other: riding arena



TOWN OF STOCKTON
18 North Johnson Street
PO Box 240
Stockton, UT 84071
435-882-3877

RE: Stockton Visioning Survey

March 30, 2020

Dear Residents,

We are asking all residents to fill out this Stockton Visioning survey and return it to Town Hall. Responses can be dropped in the mail or the drop slot in the front door of Town Hall. We will not be taking any surveys in person. This survey is to help with the Stockton General Plan that is being worked on right now. We appreciate your help with this.

Thomas Karjola

Stockton Town Mayor

Stockton Visioning Survey

Imagine you left Stockton and came back in 2030. What do you hope to see when you get back?

I have ~~need~~ in Stockton my whole Life
if I leave I will not be back,

What do you think needs to be improved in Stockton? Rank in order of importance.

- 4 Housing choices
- 1 Economic development / new businesses
- 2 Parks and recreational opportunities
- 3 Roads and services
- 7 Civic engagement within the community
- 6 Access to jobs and educational opportunities
- 5 Housing affordability

What of Stockton's current assets should be preserved? Rank in order of importance.

- 1 Rural character
- 3 Agricultural and mining roots
- 2 Recreational opportunities
- 4 Small-town feel
- 5 Strong Social Ties

What opportunities for Stockton are you most excited about? Rank in order of importance.

- 3 New housing
- 4 Economic growth
- 1 Parks and trails
- 2 Community-building
- 5 Elementary school

As you think about your vision for Stockton, what values come up? Select your favorite 3 values from the list below that you think best represent the Stockton community and the direction in which the town should develop.

Sustainable	<u>Open Space Preservation</u>	Access to Economic Activity
Affordable Living	<u>Rural Character</u>	Recreational Opportunity
Quiet	Safe Community	Bedroom Community
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Equitable and Inclusive	Strong Economy	Strong Social Ties
Housing Options	Environmental Amenities	Quality Transportation Choices

Other:

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Midrise apartments and townhomes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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Housing affordability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The transportation network	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
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 - Preservation of historic buildings and sites
 - Landscaping of private yards
 - Landscaping of public facilities and rights-of-way
 - Lack of sprawl
 - None of the above
- Other: _____

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 - Senior housing
 - Community garden
 - Horseback riding stables
 - Baseball/softball field complex
 - Tennis courts
 - Ice skating rink
 - Pool
 - Bowling alley
 - Shooting range
 - Gym
 - Group exercise studio/dance studio
 - Sidewalks
 - Crosswalks
 - Multi-use path
 - Increased bus service or other public transit
 - Commemorative statues/historical markers
 - Art studio
 - Library
 - Cafe
 - Bank
 - Broadband internet/Google fiber
 - None of the above
- Other: In door arena (horse)

5. What parts of Stockton's history and character would you want to be commemorated in

Stockton's public spaces? Choose up to 2. *

Check all that apply.

- Mining
- Agriculture
- Swing dancing
- Outdoor recreation
- Local heroes/influencers (please name them under 'other')
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6. What public transit services would you take advantage of regularly (at least once per week) if available? *

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- Monday and Thursday bus to grocery store and pharmacy
- Saturday bus to Salt Lake City downtown, University of Utah hospital, and VA hospital
- Carshare program
- Vanpool program
- Golfcart program for travel within Stockton
- None of the above Other:

.....

7. What do you love about Stockton? *

Location



DECEMBER 2016

Small Town *and* Rural Multimodal Networks



U.S. Department of Transportation
Federal Highway Administration



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Publication Number: FHWA-HEP-17-024

This document is intended to be a resource for transportation practitioners in small towns and rural communities. It applies existing national design guidelines in a rural setting and highlights small town and rural case studies. It addresses challenges specific to rural areas, recognizes how many rural roadways are operating today, and focuses on opportunities to make incremental improvements despite the geographic, fiscal, and other challenges that many rural communities face.

It provides information on maintaining accessibility and MUTCD compliance, while at the same time encouraging innovation. For example, this document highlights two innovative facility types: Yield Roadways and Advisory Shoulders. Regarding Yield Roadways, this document references AASHTO resources such as the **Guidelines for Very Low-volume Local Roads 2001**, which includes discussion of Two-Way Single-Lane Roads, and the **A Policy on Geometric Design of Highways and Streets**, which notes that "on residential streets the level of user inconvenience occasioned by the lack of two moving lanes is remarkably low". It also notes that when faced with two-way traffic in a single lane "opposing conflicting traffic will yield and pause on the parking lane area until there is sufficient width to pass" (2011, p. 5-13). This document notes that Yield Roadways are a common form for low-volume local rural and urban roads, but recognizes that additional research on this facility type will be helpful. It will also be helpful to learn from the experience of states such as Oregon that recommend similar street types in their Oregon Neighborhood Street Design Guidelines.

Similarly, the document notes that as of 2016, an approved Request to Experiment is required to implement Advisory Shoulders. Called "dashed bicycle lanes" in the FHWA experimentation process, at least five such experiments are currently ongoing. Beyond local experimentation, the guidance in this document incorporates lessons learned from installations in the UK, where speed and crash reduction benefits were noted after facility implementation. Refer to FHWA's Bicycle and Pedestrian Program website for the current approval status of these and other treatments before implementation.

By including these facilities in this document, FHWA is fostering innovation and encouraging participation in the formal experimentation process. This will help to ensure that conversations about design flexibility and multimodal networks also address rural conditions and meet the needs of everyone. In doing so, this document is intended to foster an ongoing dialogue about multimodal transportation infrastructure needs in small towns and rural areas.



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CHAPTER 1

Introduction

- 1-5 *Why a Rural and Small Town Focused Guide?*
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Introduction

The *Small Town and Rural Multimodal Networks* guide is a design resource and idea book to help small towns and rural communities support safe, accessible, comfortable, and active travel for people of all ages and abilities.

In many small towns and rural communities, active transportation is even more common than it is in urban areas. However, infrastructure to support active transportation is often limited or absent. Many small and rural communities are located on State and county roadways that were built to design standards that favor high-speed motorized traffic, resulting in a system that makes walking and bicycling less safe and uncomfortable. These roadways can be retrofitted and redesigned over time to provide a transportation network that better serves the safety, health, and economic interests of the community.

This guide is a resource for practitioners developing and promoting multimodal networks in small and rural communities. The opportunities for road design highlighted in this document build on a broad range of existing national design guidelines and references. This guide translates existing street design guidance and best practices for bicycle and pedestrian safety and comfort to the rural context, and provides examples of how to interpret and apply these design practices to create safe, accessible, and comfortable multimodal networks.

The guide is intended to:

- Provide a bridge between existing guidance on bicycle and pedestrian design and rural practice.
- Encourage innovation in the development of safe and appealing networks for bicycling and walking in small towns and rural areas.
- Provide examples of peer communities and project implementation that is appropriate for rural communities. 



Rushford, Minnesota—Population 1,720



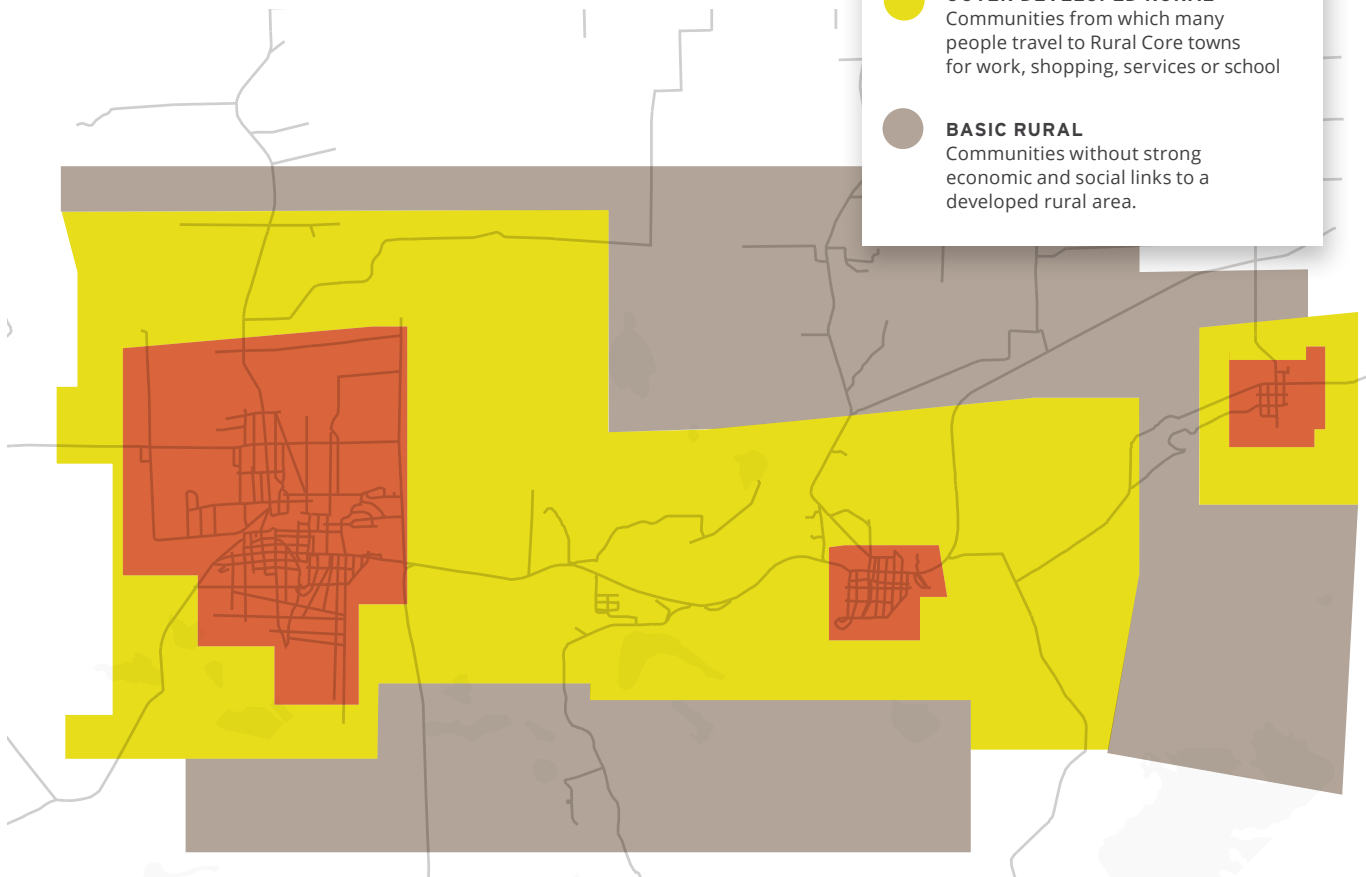
Why a Rural and Small Town Focused Guide?

Rural and small town America is diverse and varied throughout the country. According to the FHWA's Planning for Transportation in Rural Areas, 75 percent of America's 3,000 counties qualify as rural and cover 81 percent of the land area. Approximately 19 percent of the population live in rural areas.

For more information on official designations of urban and rural areas, refer to FHWA's website on Census Urbanized Areas and MPO/TMA Designation, available at https://www.fhwa.dot.gov/planning/census_issues/urbanized_areas_and_mpo_tma/faq/page01.cfm

Figure 1-1. Rural town definitions adapted from FHWA Planning for Transportation in Rural Areas 2001.

The field of planning and design for walking and bicycling is advancing rapidly, as more communities across America value incorporating active transportation into their daily lives. Much of the research and analysis of infrastructure design has been focused on larger cities, such as New York City, Portland, and Chicago. This guide is intended to provide design information on bicycle and pedestrian facilities specifically applicable to small towns and rural communities.





Why a Rural and Small Town Focused Guide?

There is a need and desire to make travel safer and more active in small and rural communities.

While rural places vary considerably in geographic scale and character, there are common issues that prevail:



Longer Non-local Trip Distances

Rural trip distances have been increasing.⁽ⁱ⁾



Health Disparities

Rural areas have higher rates of physical inactivity and chronic disease than urbanized areas.⁽ⁱⁱ⁾



Higher Crash Rates

While only 19 percent of the population lives in rural areas, 58 percent of all fatal crashes and 60 percent of traffic fatalities were recorded in rural regions.⁽ⁱⁱⁱ⁾



Income Disparities

Urban households earn 32 percent more in yearly income than rural households.^(iv)

Though in many rural communities, residents live long distances from services, most small towns provide a compact center well-suited for walking and bicycling trips.



2 miles



Allendale, SC

Population 3,328



2 miles



Palmer, AK

Population 6,250



1.3 miles



Rushford, MN

Population 2,102



2.3 miles



Ukiah, CA

Population 15,956



1 MILE WALK = 20 MINUTES (3 MPH)

1 MILE BIKE RIDE = 6 MINUTES (10 MPH)



Building a Rural and Small Town Multimodal Network

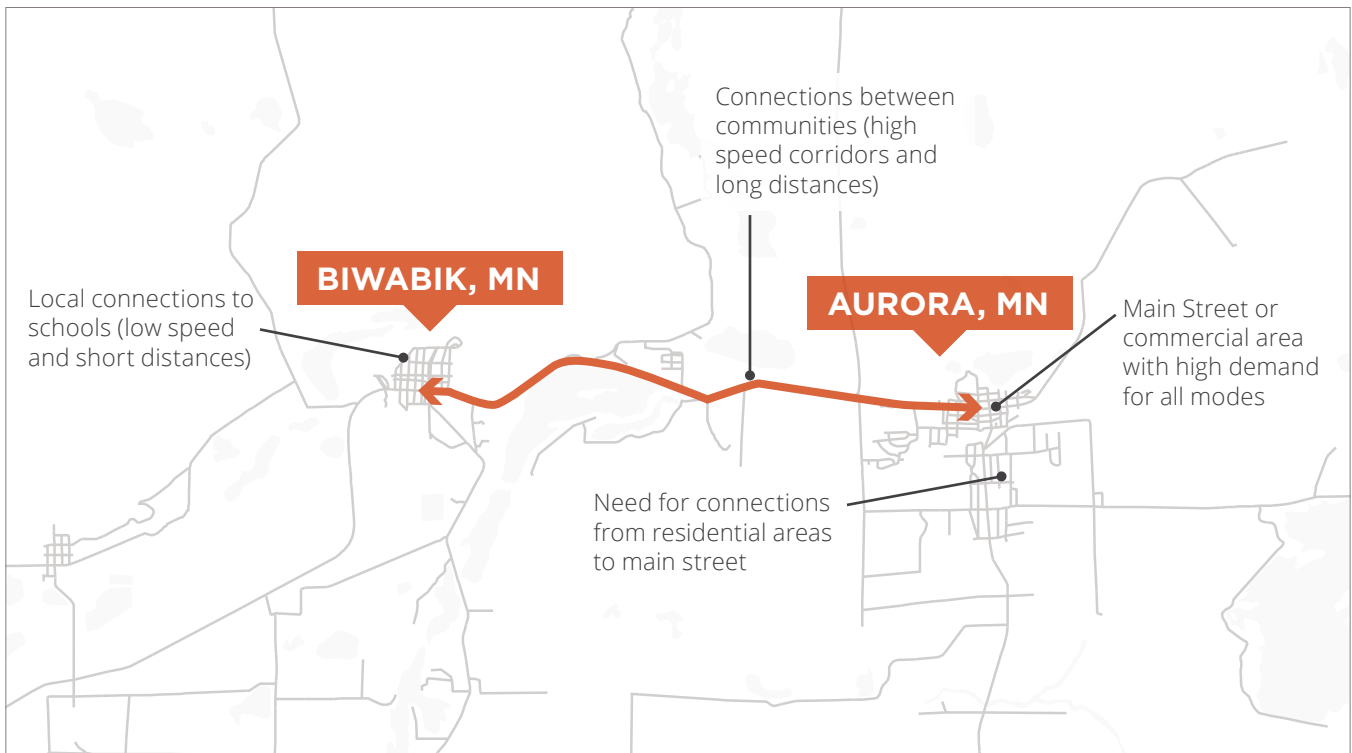
Many communities have invested in good places to walk or ride a bicycle. However, few smaller communities have a complete network that supports people comfortably walking and bicycling throughout the community.

A complete network creates safe, comfortable, and accessible multimodal routes for people walking and bicycling. The network may be comprised of varying facilities that appeal to a range of ages and abilities, such as shared use paths, sidewalks, and bike lanes. These facilities also provide equitable transportation for people of all income levels.

A safe and direct network provides convenient access to key destinations, while minimizing exposure to motor vehicle traffic. In addition to physical safety, user comfort is an important aspect of a multimodal network. Typically, additional separation between motor vehicles and those walking or bicycling, or slowing motor vehicles to walking and bicycling compatible speeds, is desired to create a more comfortable network.

Small and rural towns have great potential for creating viable networks that serve residents and visitors. Common attributes of a small town network include connections between communities that are located along highways and access to retail businesses and schools in a relatively small area within the community core. Communities with strong ties to public lands may also prioritize connections to natural areas, and tribal communities may desire access to ceremonial sites outside of the core.

Figure 2-2. Network Connections for Rural Communities and Small Towns





Who Uses the Rural Network?

A walkable and bikeable community is one in which active transportation trips are safe and comfortable for people of all ages and abilities.



All ages means that children as young as eight can walk and bike independently from their parents. It means that older adults can get around comfortably without a car. Facility needs vary by age, and there is no “one size fits all” solution.

All abilities means that people using mobility devices or people with limited vision are not faced with barriers.

Most small towns across America were established prior to the post-war era, in which most children walked to school and people could navigate their communities without a car. Vehicles served farms and industry but were not necessary to travel the short distances within the community. Over time, as roads were widened and changed to accommodate travel by car, the ability of people to walk and bike diminished.

The rural active transportation network is designed for a range of ages, abilities, incomes, and skill levels. It is designed for people to move independently within their community—such as families walking to the nearby school—and also to experience the landscape between communities, for travel, recreation, or in the context of bicycle tourism.

Practitioners should consider the expected “Design User” of the facility to determine not only physical dimensions, but the characteristics and physical abilities that influence user comfort. Practitioners should design pedestrian and bicycle facilities along roadways, as well as roadway crossings with these factors in mind or they will not be utilized to their full potential.

Current policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects and encourage transportation agencies to go beyond minimum standards to provide safe and convenient facilities for these modes (USDOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations 2010).

The American Association of State Highway and Transportation Officials' (AASHTO) *AASHTO Guide for the Development of Bicycle Facilities 2012* discusses bicycle user type in terms of comfort and rider skill level. Adult riders can be classified into two general categories: 1) Experienced and Confident; and 2) Casual and Less Confident. Casual riders are often not comfortable traveling in traffic on busy roads, and prefer low-traffic conditions, or paths separated from busy roads. The *AASHTO Bike Guide* states the Casual group “includes a majority of the population” (2012, p. 2-5).

In some communities horse drawn buggy accommodations are important and should also be addressed as a part of the transportation planning process.





How to Use this Guide

FACILITIES AND DESIGN CONTEXT

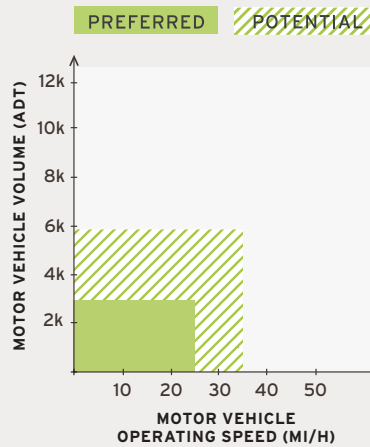
This guide provides design information for a variety of facility types applicable to small town and rural settings.

Within the design chapters, the application context of each facility is identified within the sidebar graphics shown to the right. Refer to the following page for a description of each context area.

EXAMPLE APPLICATION

Speed and Volume

Most appropriate on streets with low to moderate volumes and moderate speed motor vehicles.⁽⁶⁾



A Speed and Volume

Where is the facility type most appropriate, based on typical speed and volume of motor vehicles?

Network

Applies to constrained connections between built-up areas.

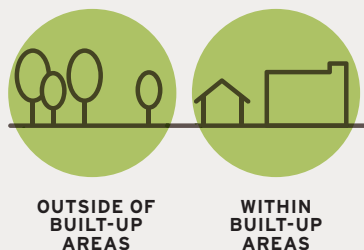


B Network

On which part of a roadway network is the facility type likely to be applicable?

Land Use

For use outside, between and within built-up areas with bicycle and pedestrian demand and limited available paved roadway surface.



C Land Use

Is this facility type most appropriate in built up developed rural areas, or less-developed basic rural areas?



How to Use this Guide

A Speed and Volume

Motor vehicle operating speeds and the volumes on a roadway are key considerations in selecting the most appropriate bicycle and pedestrian facilities along a particular roadway. Generally speaking, the greater the speed and volume of motor vehicle traffic, the greater the amount of separation is desired for comfortable biking and walking facilities. Where streets have low volumes and low speeds, the need for separation is less critical, and mixing modes may be appropriate.

The speed and volume chart summarizes how speed and volume affect possible facility options.

- **Preferred Application Range:** identifies roadway conditions where a facility functions particularly well. This range is intended to set a high bar for facility application.
- **Potential Application Range:** refers to conditions where the facility type has also been shown to function and may be provide an appropriate context for using the facility.

B Network

The collection of roadways and multimodal facilities in a community creates a network. Networks are interconnected pedestrian and/or bicycle transportation facilities that allow people of all ages and abilities to safely and conveniently get to where they want to go. The network not only connects to destinations within a community, but also creates connections between communities and to external destinations. There are varying levels of comfort associated with roadways within the network, ranging from low-volume, low-speed local streets to high-speed, high-volume arterial roadways. Successful networks also provide equitable access regardless of income level.

C Land Use

Land use describes the manner and intensity in which land is developed or modified from its natural state. Built-up areas, such as commercial districts in a small town, contain a higher density of attractions, destinations, and people, and may support a greater diversity of bicycle and pedestrian amenities. Outside of built-up areas, the land use patterns are much less dense, with more space between destinations.

BENEFITS AND CONSIDERATIONS

For each facility type, the summary lists some key benefits and considerations. In addition to benefits related to transportation, the summary addresses other factors, such as compatibility with a rural aesthetic, and potential environmental impacts caused by road widening.



Creating Networks

Networks are interconnected pedestrian and/or bicycle transportation facilities that allow people of all ages and abilities to safely and conveniently get where they want to go. They provide equitable access for all people.

Developing interconnected networks of bicycling and walking facilities in rural and small town settings can be challenging due to a lack of alternate through roadways and the concentration of motor vehicle traffic on major roads. Planners and engineers must think creatively to establish connected facilities within communities, and consider how all roadway types and independent connections can be used to create access to key locations. A connected network is not developed by a single trail, sidewalk, or bike lane but is comprised of many facilities that support walking and bicycling throughout the community.

The Federal Highway Administration's (FHWA) *Case Studies in Delivering Safe, Comfortable and Connected Pedestrian and Bicycle Networks 2016* lists principles of exemplary multimodal network creation. These principles are listed below, and the following images illustrate these concepts in a variety of network scenarios.

Use the facilities shown in this guide to form a cohesive network to allow for uninterrupted travel to destinations. The specific facility type will change in response on the traffic and community context.

COHESION

How connected is the network in terms of its concentration of destinations and routes?

DIRECTNESS

Does the network provide direct and convenient access to destinations?

ACCESSIBILITY

How well does the network accommodate travel for all users, regardless of age, income level, or ability?

ALTERNATIVES

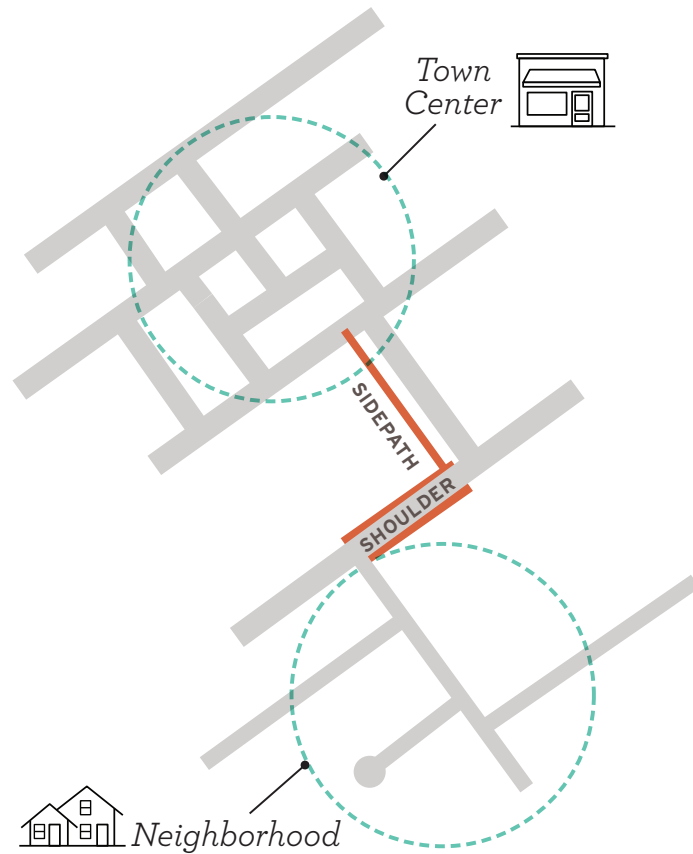
Are there a number of different route choices available within the network?

SAFETY AND SECURITY

Does the network provide routes that minimize risk of injury, danger, and crime?

COMFORT

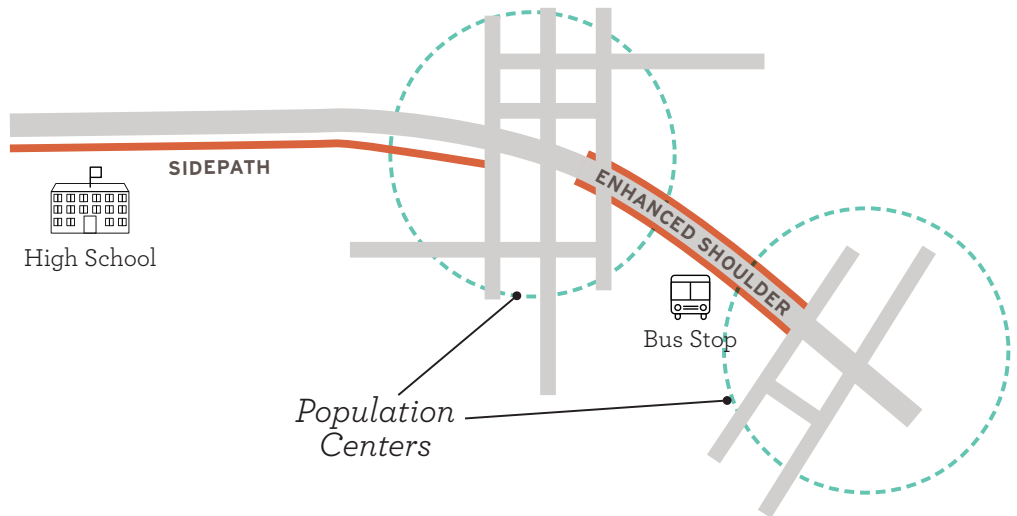
Does the network appeal to a broad range of age and ability levels and is consideration given to user amenities?



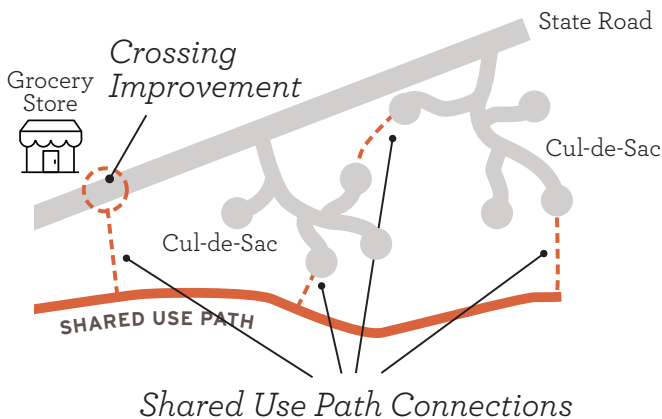
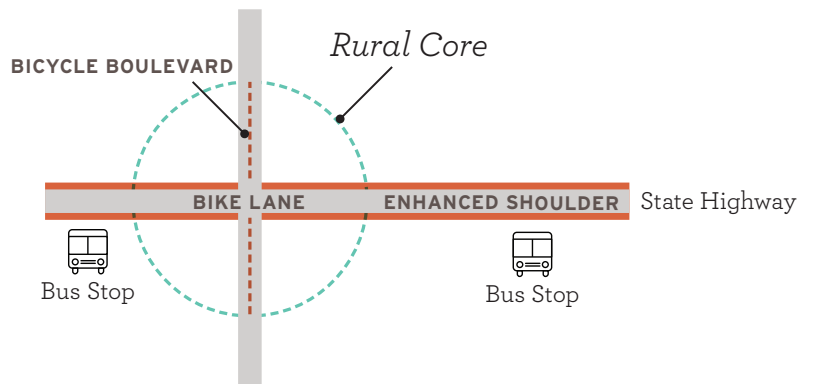


Creating Networks

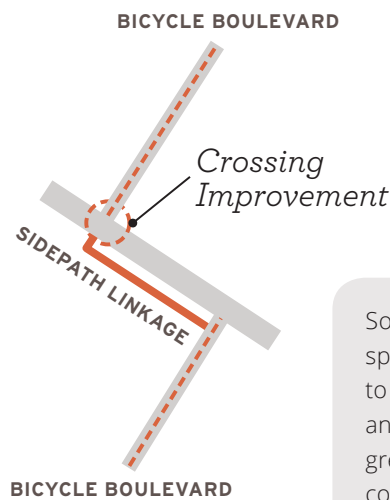
Connections near schools should provide increased separation of walking and biking facilities that are more appropriate for younger users.



Rural cores should support walking and biking on main commercial corridors and main streets. As the street transitions out of the core area, the facility design that accommodates people walking and biking should change.



Adjacent roadways or shared use paths may complement the transportation function of a primary roadway.



Some facilities may only span short distances to provide connections and fill gaps along a greater network or facility corridor. Transitions between facility types are important and should not be overlooked.



Common Challenges in Small Town and Rural Areas



Small towns and rural areas near agricultural operations need to consider the needs of wide and slow moving special equipment.



Many small town and rural communities are located near public lands that serve as popular destinations. Creating comfortable linkages, in effect, extends these public lands into their surrounding communities.



With lower densities and greater distances, many small towns and rural areas have developed in a more auto-oriented fashion than urban areas.



A singular focus on automobile mobility results in a lack of facilities for people walking and bicycling, making travel by these modes difficult and less safe.

Common Challenges in Small Town and Rural Areas

CONSTRAINED TERRAIN



Rural highways often have physical constraints that make the provision of cost-effective facilities for bicycling and walking difficult.

SAFETY



Pedestrian crossings are often not defined and may be difficult to warrant based on low existing use; however, not providing pedestrian crossings makes streets act as barriers that divide communities.

HIGHWAY AS A MAIN STREET



State highways often pass through the heart of small towns and may prioritize through traffic over local access. Some may be wide and over designed, and some may be constrained and hard to change.

CLIMATE AND MAINTENANCE



Winter maintenance is a significant constraint in much of the country. Many small towns and counties do not have adequate resources to pay for special equipment to clear certain types of active transportation facilities.



Reference Guide

Several design resources are referenced frequently throughout this document. The table below includes both the abbreviated title used in this document and full document title..

AASHTO Flexibility Guide 2004	American Association of State Highway and Transportation Officials, <i>A Guide for Achieving Flexibility in Highway Design</i> , 2004.
AASHTO Bike Guide 2012	American Association of State Highway and Transportation Officials, <i>Guide for the Development of Bicycle Facilities</i> , 2012.
AASHTO Pedestrian Guide 2004	American Association of State Highway and Transportation Officials, <i>Guide for the Planning, Design, and Operation of Pedestrian Facilities</i> , 2004.
AASHTO Pedestrian Guide 2017	American Association of State Highway and Transportation Officials, <i>Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2nd Edition</i> , 2017.
AASHTO Green Book 2011	American Association of State Highway and Transportation Officials, <i>A Policy on Geometric Design of Highways and Streets</i> , 2011.
AASHTO Low Volume Roads 2001	American Association of State Highway and Transportation Officials, <i>Guidelines for Geometric Design of Very Low-Volume Roads, 1st Edition</i> , 2001.
AASHTO Low Volume Roads 2017	American Association of State Highway and Transportation Officials, <i>Guidelines for Geometric Design of Low-Volume Roads, 2nd Edition</i> , 2017.
FHWA Achieving Multimodal Networks 2016	Federal Highway Administration, <i>Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflict</i> , 2016.
FHWA Resurfacing Guide 2016	Federal Highway Administration, <i>Incorporating On-Road Bicycle Networks into Resurfacing Projects</i> , 2016.
FHWA MUTCD 2009	Federal Highway Administration, <i>Manual on Uniform Traffic Control Devices for Streets and Highways</i> , 2009.
FHWA Separated Bike Lane Guide 2015	Federal Highway Administration, <i>Separated Bike Lane Planning and Design Guide</i> , 2015.
PROWAG 2011	United States Access Board, <i>Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way</i> , 2011. Supplemental Notice of Proposed Rulemaking, <i>Shared Use Paths</i> , 2013.
PEDSAFE 2013	Federal Highway Administration. <i>Pedestrian Safety Guide and Countermeasure Selection System</i> , 2013.
BIKESAFE 2014	Federal Highway Administration. <i>Bicycle Safety Guide and Countermeasure Selection System</i> , 2014.



Accessibility Standards

GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY

The U.S. Access Board is the Federal agency responsible for developing and updating accessibility guidelines under the Americans with Disabilities (ADA) of 1990. The Access Board published its *Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way* (PROWAG) in 2011. At the time of publication of this document, the Board had not issued a final PROWAG rule.

The PROWAG will become an enforceable standard only after the Board publishes a final rule and only after the U.S. Department of Justice (USDOJ) and/or the U.S. Department of Transportation (USDOT) adopt the final guidelines into their respective ADA and Section 504 of the Rehabilitation Act regulations. Until that time, the USDOJ 2010 ADA Standards and the USDOT 2006 ADA and Section 504 Standards provide enforceable standards applicable to the public right-of-way. Where the 2010 ADA Standards or the

2006 ADA and Section 504 Standards do not address a specific issue in the public right-of-way, the Federal Highway Administration encourages public entities to look to the draft PROWAG for best practices. Several jurisdictions have chosen to apply the draft PROWAG as an alternative to, or equivalent facilitation for, the ADA Standards because they provide more specific coverage of accessibility issues in the public-right-of-way. Jurisdictions that have adopted the draft PROWAG as their standard should consistently apply all provisions of the draft PROWAG.

This document cites the draft PROWAG in anticipation of final PROWAG being adopted as the enforceable standard in the near future. Public entities and/or recipients of Federal financial assistance are responsible for complying with the current ADA and Section 504 accessibility standards and/or demonstrating equivalent facilitation.







Introduction

FOOTNOTES

- i 2009 National Household Travel Survey, Summary of Travel Trends. <http://nhts.ornl.gov/2009/pub/stt.pdf>
- ii <http://www.ncbi.nlm.nih.gov/pubmed/16092298>
- iii NHTSA Traffic Safety Facts. 2013. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812181>
- iv Bureau of Labor Statistics. <http://www.bls.gov/opub/btn/volume-2/expenditures-of-urban-and-rural-households-in-2011.htm>

WORKS CITED

- Federal Highway Administration. *Planning for Transportation in Rural Areas*. 2001.
- Federal Highway Administration. *Case Studies in Delivering Safe, Comfortable and Connected Pedestrian and Bicycle Networks*. 2016.
- US Department of Transportation. *United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations*. 2010.

PHOTO CREDIT

- Page 1-1. Mr. Tin D.C. via Flickr (CC BY NC-ND 2.0).
- Page 1-3. Alta Planning + Design
- Page 1-4. Alta Planning + Design
- Page 1-8. Alta Planning + Design
- Page 1-13 (Agricultural Uses). William Lovell via Wikimedia Commons (CC BY SA 2.0)
- Page 1-13 (Public Lands). David Clow via Flickr (CC BY NC-ND 2.0)
- Page 1-13 (Auto Oriented Roadways). Stephen Lee Davis, Transportation for America via Flickr (CC BY NC-ND 2.0)
- Page 1-13 (Lack of Transportation Options). Dr. Scott Crawford via Flickr (CC BY NC-ND 2.0)
- Page 1-14 (Constrained Terrain). Public Domain
- Page 1-14 (Safety). Frank Warnock, Bike Delaware
- Page 1-14 (Highway as a Main Street). Emmett Anderson via Flickr (CC BY NC 2.0)
- Page 1-14 (Climate and Maintenance). North Dakota Department of Transportation
- Page 1-16. Federal Highway Administration
- Page 1-17. Alta Planning + Design





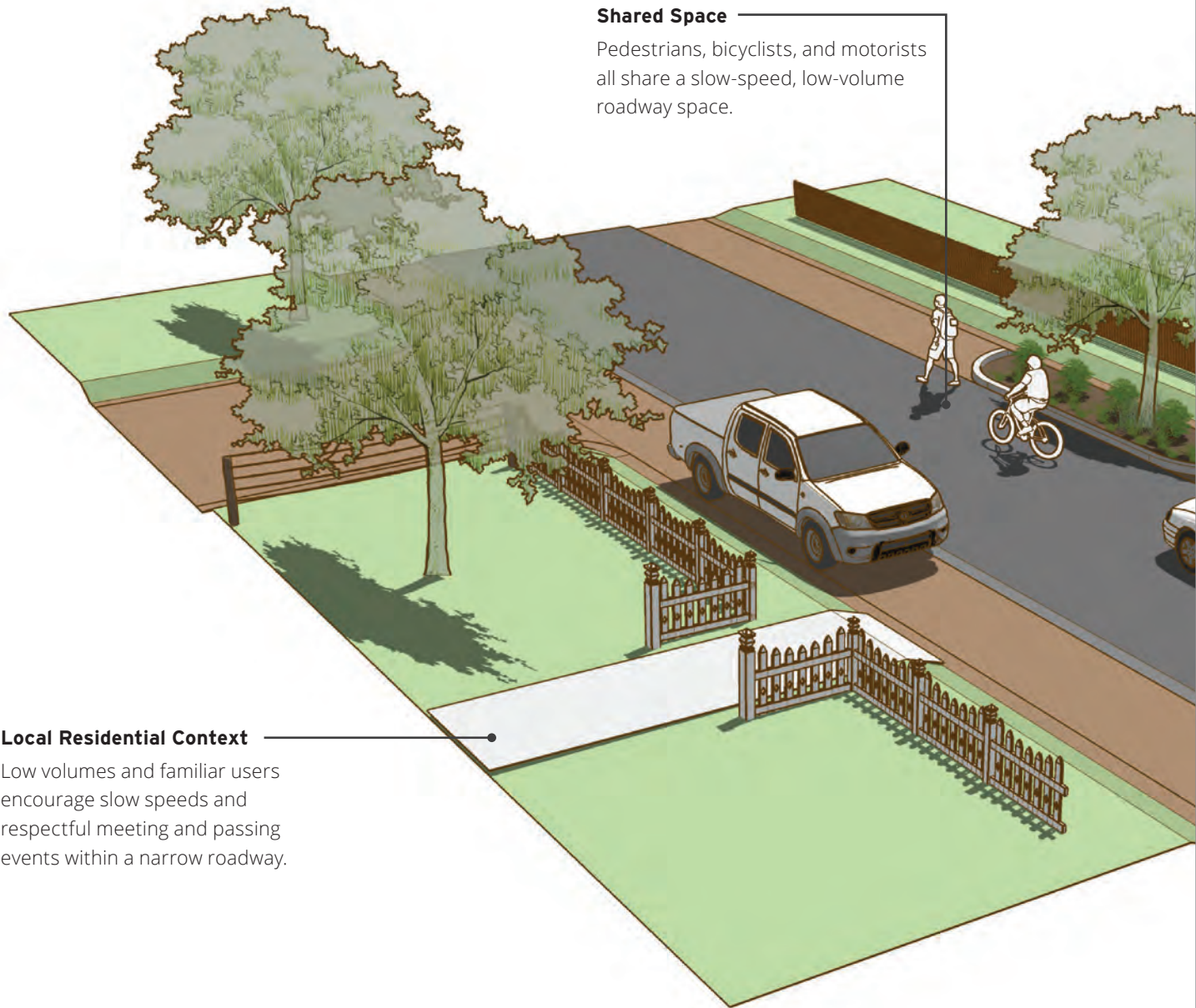
CHAPTER 2

Mixed Traffic Facilities

2-3 *Yield Roadway*

2-9 *Bicycle Boulevard*

2-17 *Advisory Shoulder*



Shared Space

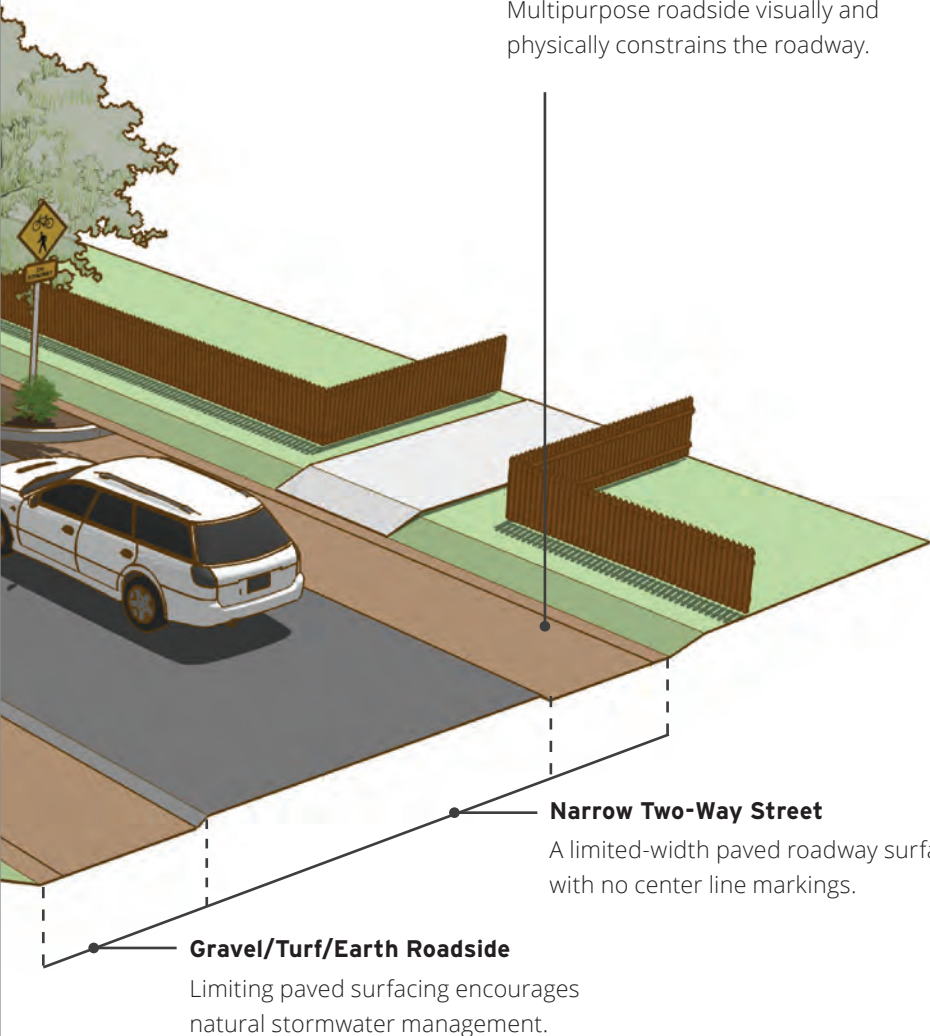
Pedestrians, bicyclists, and motorists all share a slow-speed, low-volume roadway space.

Local Residential Context

Low volumes and familiar users encourage slow speeds and respectful meeting and passing events within a narrow roadway.

Yield Roadway

A yield roadway is designed to serve pedestrians, bicyclists, and motor vehicle traffic in the same slow-speed travel area. Yield roadways serve bidirectional motor vehicle traffic without lane markings in the roadway travel area.



Parking/Pull-Out/Furnishings

Multipurpose roadside visually and physically constrains the roadway.

Narrow Two-Way Street

A limited-width paved roadway surface with no center line markings.

Gravel/Turf/Earth Roadside

Limiting paved surfacing encourages natural stormwater management.

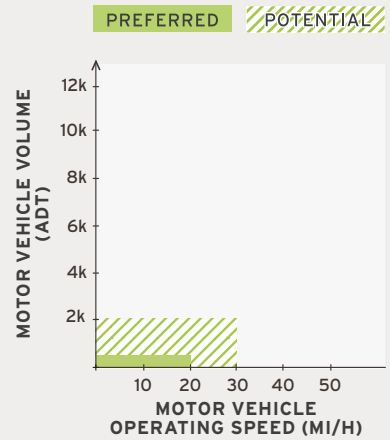
BENEFITS

- Less costly to build and/or maintain than fully paved cross sections.
- Connects local residential areas to destinations on the network.
- Limits impermeable surface area and minimizes stormwater runoff.
- Maintains aesthetic of narrow roads and uncurbed road edges.
- Encourages slow travel speed when narrower than 20 ft (6.0 m).
- Can support a larger tree canopy when located within wide unpaved roadside areas.
- Supports on-street or shoulder parking for property access.
- Low maintenance needs over time.

APPLICATION

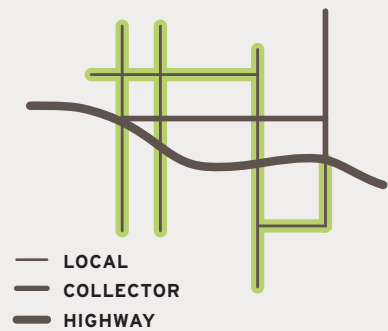
Speed and Volume

Appropriate on roads with very low volumes⁽¹⁾ and low speed.



Network

Local residential roadways. Not for through motor vehicle travel.



Land Use

Within built-up areas, particularly near residential land uses where most traffic is familiar with prevailing road conditions.





Yield Roadway

Yield roadways can effectively serve local travel needs, maintain aesthetic preferences, and is a common form for low-volume local rural roads. When operating at very-low volumes and at low speeds, pedestrians and bicyclists are comfortable walking within the travel area of the roadway.⁽ⁱ⁾ Yield roadways are designed with narrow roadway dimensions to prioritize local access and community livability.

For more information on related roadway types, refer to sections on **Slow Streets** and **Shared Streets** in *FHWA Achieving Multimodal Networks 2016*.

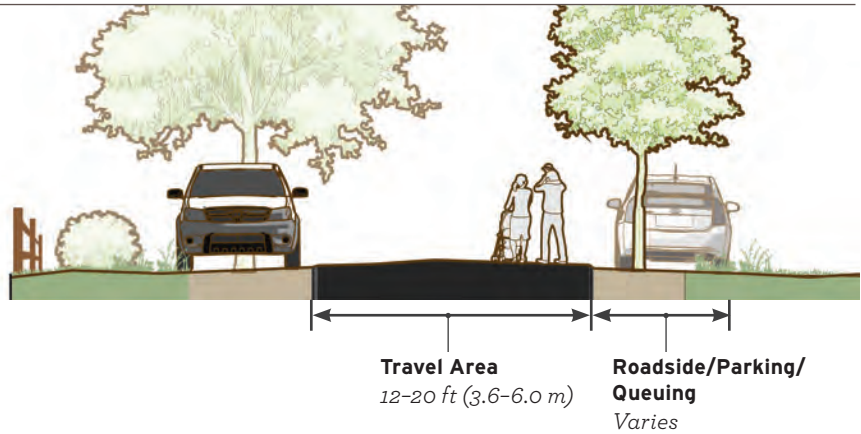


Figure 2-1. When vehicles travelling in opposite directions meet, the two vehicles may not have enough room to pass within the travel area. One vehicle may need to pull into a parking lane, pull-out, or driveway area to let the other pass.

GEOMETRIC DESIGN

TWO-WAY TRAVEL LANE

The paved two-way travel lane should be narrow to encourage slow travel speeds and require courtesy yielding when vehicles traveling in opposite directions meet.

- Total traveled way width may vary from 12 ft (3.6 m)–20 ft (6.0 m).⁽ⁱⁱ⁾
- Traveled way width below 15 ft (4.5 m) or below function as a two-way single-lane roadway and should follow the guidance of the **AASHTO Low Volume Roads 2001**.

- A** When width is 15 ft (4.5 m) or narrower, provide pull-out areas every 200–300 ft to allow for infrequent meeting and passing events between motor vehicles. Pull-out areas may be established in the parking lane or roadside area.⁽ⁱⁱⁱ⁾

 - Access for emergency vehicles should be provided.^(iv) There is no single fire code standard for local roads; however, a range of clear widths for parking and deploying fire department apparatus is between

16–20 ft (5.0–6.0 m). Designers should provide an opening of this width every 200–300 ft (600–91 m).^v

ROADSIDE

If desired, parking may be located on the paved roadway surface or on gravel or soil shoulders outside of the paved roadway. The parking lane may also serve as a pull-out area while yielding.

- When possible, the parking lane should be constructed with a contrasting material to differentiate the lane from the travel area. Bituminous, crushed stone, gravel, and turf shoulders can be used as contrasting materials to the travel area (AASHTO Green Book 2011, p. 4-13).
- Trees may be planted within the roadside area at regular intervals to visually and physically narrow the corridor, add to the aesthetic environment, and encourage slow speeds.

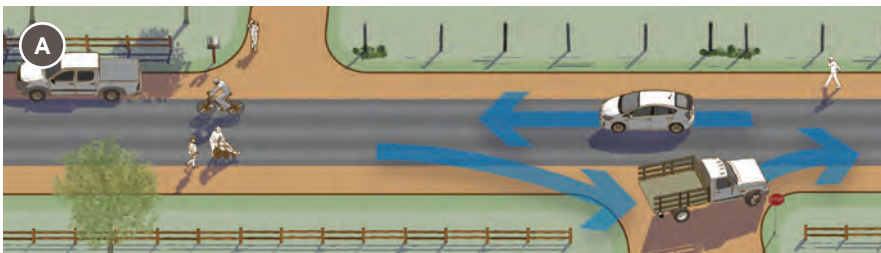


Figure 2-2. A travel area width of 16–18 ft (4.8–5.5 m) is appropriate for low volumes of two-way traffic and may require slowing when vehicles traveling in opposite directions meet. A travel area of 12–15 ft (3.6–4.5 m) is too narrow for two motor vehicles to pass, and one vehicle may need to pull into a parking lane, pull-out, or driveway area to let the other proceed.



Yield Roadway

MARKINGS

No markings are necessary to implement a yield roadway.

- Do not mark a center line within the travel area. The single two-way lane introduces helpful traffic friction and ambiguity, contributing to a slow-speed operating environment.^(vi)

SIGNS

Use signs to warn road users of the special characteristics of the street. Potential signs include:

- A PEDESTRIAN (W11-2) warning sign with ON ROADWAY legend plaque. See Figure 2-3.^(vii)
- Use a Two-Way Traffic warning sign (W6-3) to clarify two-way operation of the road if any confusion exists.

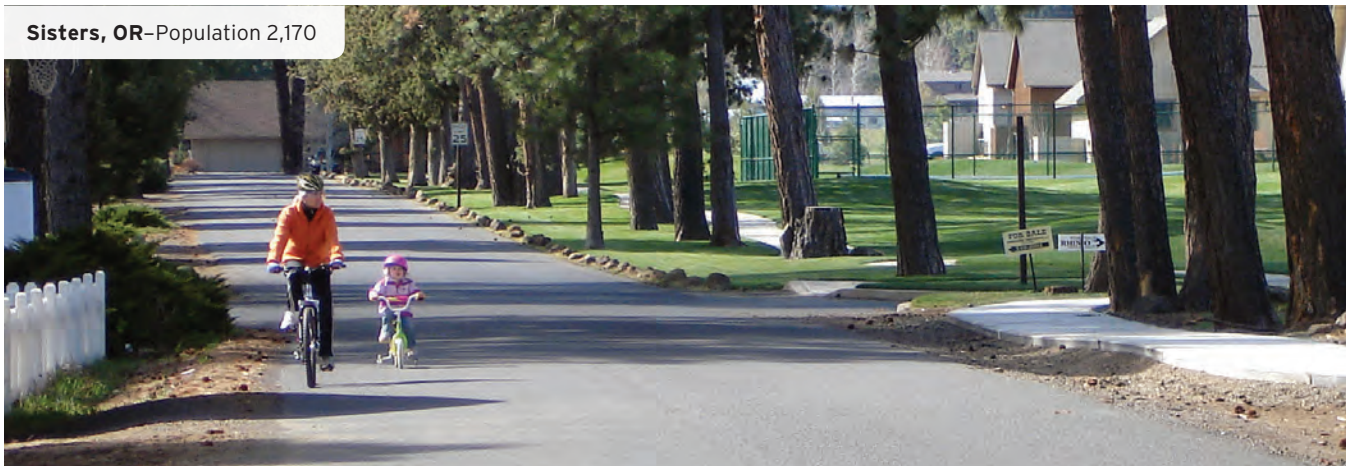


Figure 2-3. Pair a W11-1, W1-2, or W11-15 warning sign with a custom legend plaque to inform road users that shared use by pedestrians and/or bicyclists might occur.

INTERSECTIONS

At uncontrolled crossings of local streets, no special treatment is necessary. The additional space within the intersection area offers queuing opportunities when vehicles traveling in opposite directions meet.

- Consider parking prohibitions of 20–50 ft (6.0–15.0 m) in advance of intersections. This is particularly helpful to accommodate large vehicle turning movements.
- Provide adequate stopping sight distance around curves and at uncontrolled intersections. Values of stopping sight distance for two-way single-lane roads should be twice the stopping sight distance for a comparable two-lane road.



Sisters, OR—Population 2,170

IMPLEMENTATION

In rural communities with a disconnected street network, local streets are the only viable connection to a scene of an emergency. Implementing agencies should work closely with emergency response stakeholders.

ACCESSIBILITY

Yield roadways allow motor vehicles, bicyclists, and pedestrians to share the same space. On very low-volume and low-speed streets, pedestrians and bicyclists may be comfortable using the roadway with the occasional vehicle. If this facility is intended for use by pedestrians, it must meet accessibility guidelines for walkways.



CASE STUDY | YIELD ROADWAY

Manzanita, Oregon

PROJECT DESCRIPTION

The residents of Manzanita cherish their small town and have outlined ways to maintain this character. One of the goals identified in the town's Comprehensive Plan is "to maintain and create residential living areas which are safe and convenient, which make a positive contribution to the quality of life, and which are harmonious with the coastal environment." Toward this end they have a network of local streets that create peaceful conditions for people walking, bicycling, and driving.

In addition, there is a recognition that even on collector streets bicycle and pedestrian travel should be safe. The plan states that "Sufficient pavement width should be included on all major streets or roads to accommodate bicycle traffic."

Where a visually or physically separated facility is not provided, speeds will be slowed to create bicycle-friendly conditions. The plan states, "Efforts to reduce speeding on Laneda Avenue should be carried out by the city. This should take the form of maintaining a low speed (20 Mi/h), requesting that the City police and Tillamook County Sheriff's Department maintain a high level of enforcement and installing appropriate warning signs." Efforts such as these enable Manzanita's local streets to be shared roadways where people driving, walking, and biking can all safely share the street.

DETAILS**COMMUNITY CONTEXT**

Manzanita is a quiet, peaceful village surrounded by the natural beauty of the Pacific Ocean, Neah-Kah-Nie Mountain, and State and private forests. The Manzanita area is home to 725 full time residents. In the summer the population swells to 2,500 to 3,000.

KEY DESIGN ELEMENTS

The standard City residential street is 20 ft wide paved with asphalt and with a concrete gutter along one side.

ROLE IN THE NETWORK

Manzanita's local streets connect residences with the ocean, parks, and downtown. The ability to use these shared local streets allow people walking or on bikes to access all parts of the community.

FUNDING

The key aspect of this treatment is that it requires funding beyond what is currently used to maintain the local streets. The City maintains the streets that have been brought up to city standards. Graveled streets that have not been brought up to City standards are maintained by the adjacent property owners. There are some roads within the City that are County roads maintained by Tillamook County.

For more information refer to the City of Manzanita website:

<http://ci.manzanita.or.us/>



Yield Roadway

Ennis, MT—Population 850



FOOTNOTES

- i Very low-volume local roads are typically used by people who are familiar with the roads. These roads are used by such low volumes of traffic that crashes are rare, as vehicles hardly encounter other vehicles. AASHTO defines a very low-volume street as one that is functionally classified as a local road and has 400 cars per day or less (AASHTO Green Book 2011, p. 5-34).

On local streets with less than 400 vehicles per day, no separated pedestrian infrastructure may be necessary (AASHTO Pedestrian Guide 2004).
- ii The AASHTO Green Book notes that, on narrow, unlaned roads, “random intermittent parking on both sides of the street usually results in areas where two-way movement can be accommodated” (2011, p. 4-74). Additionally, “The level of user inconvenience occasioned by the lack of two moving lanes is remarkably low in areas where single-family units prevail” (2011, p. 5-13).
- iii When two vehicles do encounter one another on a narrow, unlaned street, “opposing conflicting traffic will yield and pause on the parking lane area until there is sufficient width to pass” (AASHTO Green Book 2011, p. 5-13).
- iv On the subject of emergency response, the AASHTO Green Book states that a “curb face-to-curb face width of 8 m [26 ft] provides a 3.6-m [12-ft] center travel lane that provides for the passage of fire trucks and two 2.2-m [7-ft] parking lanes” (2011, p.5-13).
- v The Oregon DOT Neighborhood Street Design Guidelines support local street configurations with a clear travel area of 14 ft (2000, p.20). Dan Burden’s *Emergency Response Handbook* calls for an “operations area for emergency responders every 200–300 ft” (Burden 2000, p.32).
- vi The FHWA MUTCD does not recommend center line markings on paved two-way streets that are narrower than 16 ft wide, or operating below 3,000 ADT (2009, p.349).

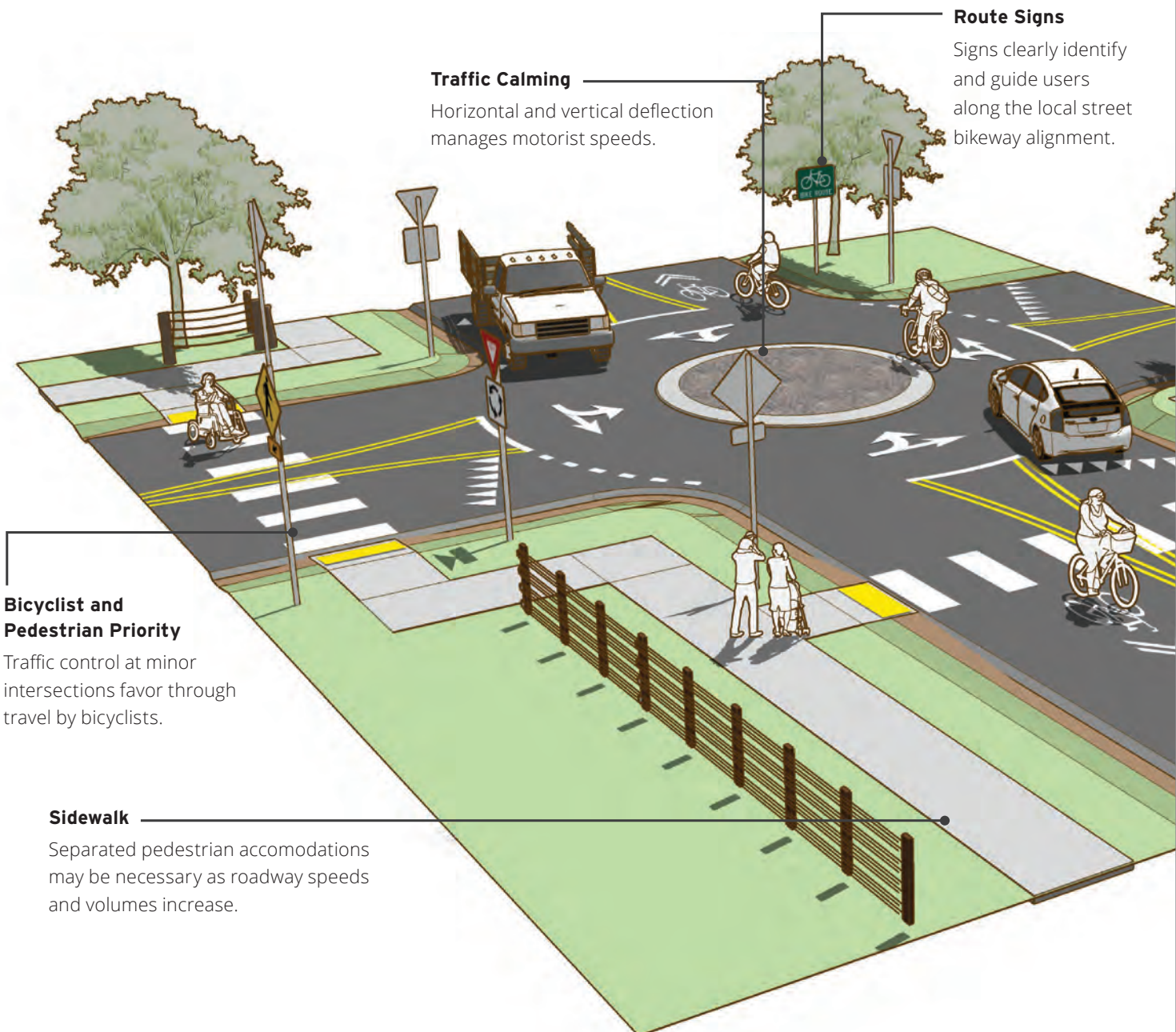
- vi The FHWA MUTCD permits local highway agencies to “develop special word message signs in situations where roadway conditions make it necessary to provide road users with additional regulatory, warning, or guidance information...” These “new word message signs may be used without the need for experimentation.” (2009, p.28).

WORKS CITED

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PHOTO CREDIT

- Page 2-1. Western Transportation Institute
- Page 2-6. Western Transportation Institute
- Page 2-7. Alta Planning + Design
- Page 2-8. Western Transportation Institute



Traffic Calming

Horizontal and vertical deflection manages motorist speeds.

Route Signs

Signs clearly identify and guide users along the local street bikeway alignment.

Bicyclist and Pedestrian Priority

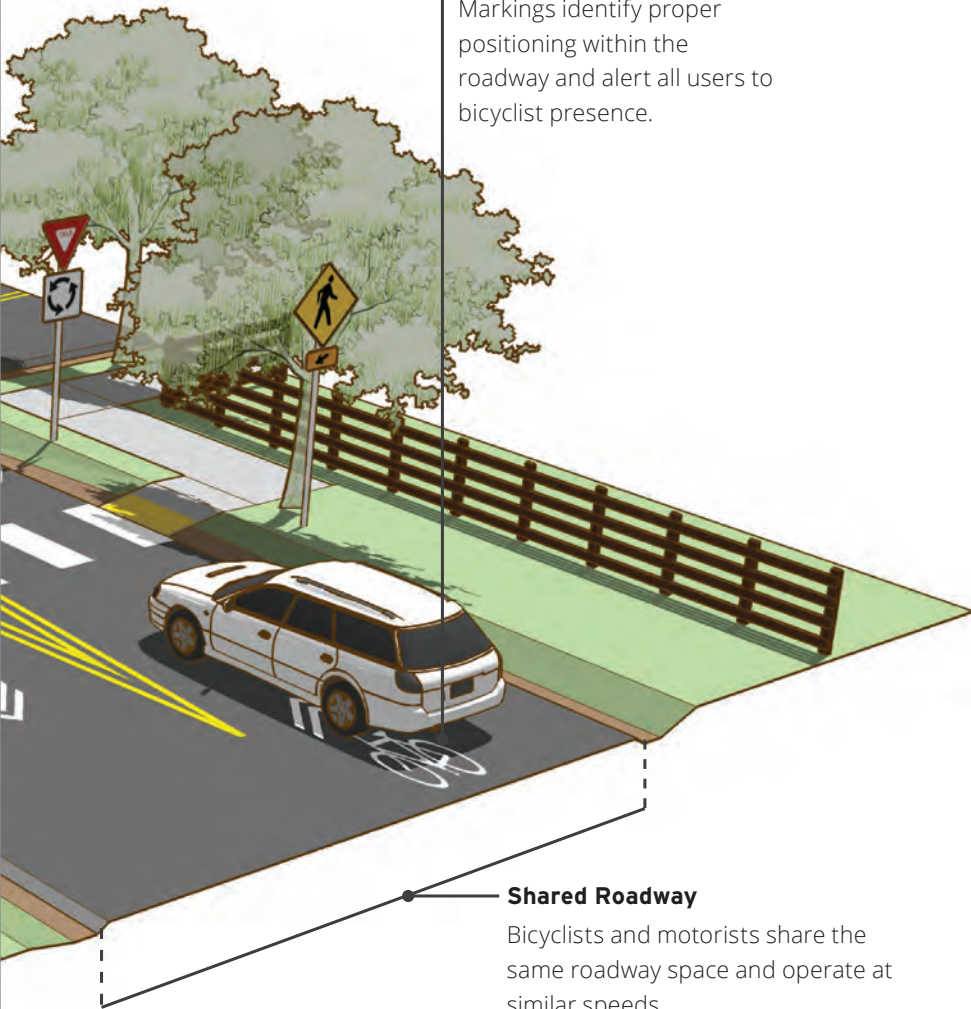
Traffic control at minor intersections favor through travel by bicyclists.

Sidewalk

Separated pedestrian accommodations may be necessary as roadway speeds and volumes increase.

Bicycle Boulevard

A bicycle boulevard is a low-stress shared roadway bicycle facility, designed to offer priority for bicyclists operating within a roadway shared with motor vehicle traffic.



Route Markings
 Markings identify proper positioning within the roadway and alert all users to bicyclist presence.

Shared Roadway
 Bicyclists and motorists share the same roadway space and operate at similar speeds.

BENEFITS

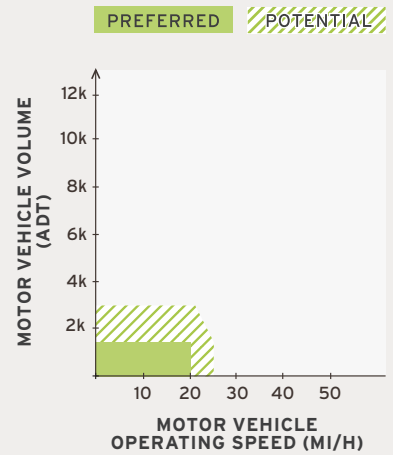
- Increases comfort for people bicycling by reducing motor vehicle operating speeds and volumes, if diversion is included.
- Connects local residential roads to commercial corridors and community services such as schools.
- Improves conditions for pedestrians when implemented with sidewalks and enhanced pedestrian crossings.
- May reduce the incidence of serious injuries through reduced travel speeds.

CONSIDERATIONS

- Improves the quality of life for residents through calmer traffic and safer crossings.
- Less visually impactful than separated facilities.
- May require additional paved surface to provide sidewalk space for pedestrians.

APPLICATION

Speed and Volume
Appropriate on local streets with low volumes and low speed. Speed and volume management may be necessary to create desired operating conditions.



Network
Local residential roadways. Not for through motor vehicle travel.



Land Use
For use inside of built-up areas to connect biking and walking routes in small town street networks.





Bicycle Boulevard

Bicycle boulevards provide a bicycle-priority route designed to offer convenient, low-stress access to local destinations and through neighborhoods. Combinations of access management, traffic calming, and crossing treatments work in concert to enhance the bicycling experience.

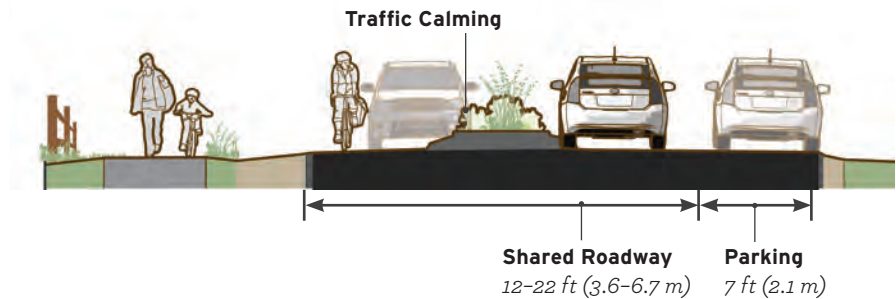


Figure 2-4. Common elements of a bicycle boulevard

GEOMETRIC DESIGN

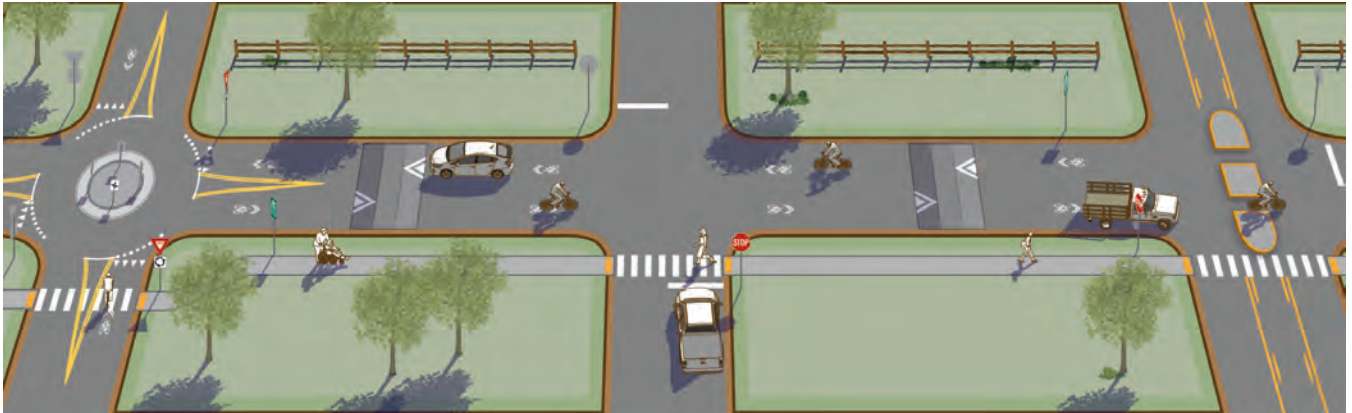


Figure 2-5. Bicycle boulevards combine road markings, traffic-calming measures, and crossing improvements designed to enhance the comfort and priority of bicyclists traveling along the route.

The **AASHTO Bike Guide** describes bicycle boulevards as streets “that have been modified to accommodate through bicycle traffic and minimize motor traffic” (2012, p. 1-2).

Many small town or rural local streets may have existing low-speed and low-volume traffic conditions that are ideal for bicycle boulevard implementation. In cases where speeds and volumes do not meet preferred values, traffic-calming techniques may be used to improve conditions. Even in curvilinear local street networks without cut-through traffic, speeding can be a problem on long, wide streets.

Speed reduction measures can help maintain vehicle speeds below 25 mi/h (40 km/h) and greatly improve bicyclists’ comfort on a roadway by reducing the overtaking speed differential between motor vehicles and bicyclists.

For more information on speed reduction measures, refer to the section on **Traffic Calming** in this guide.



Bicycle Boulevard

MARKINGS

Use markings to encourage motorists to pass bicyclists at a safe distance.

- Do not mark a center line on bicycle boulevard facilities unless it serves as a short channelization device.

Clear identification of the bicycle boulevard is important for road user awareness of the facility.

- Shared lane markings (SLMs) are the standard marking for indicating shared roadway bicycle operations.
- Place SLMs in the center of the travel lane to minimize wear and encourage riding a safe distance from parked cars.

SIGNS

Route wayfinding is critical on bicycle boulevards when located along local routes with circuitous network connections. There are three functional types of wayfinding signs, illustrated in Figure 2-6:

- B Confirmation Signs.** Bike Route Guide (D11-1c) signs indicate to bicyclists that they are on a designated bikeway and make motorists aware of the bicycle route.
- C Turn Signs.** A Bicycle Destination Sign (D1-1) with one or more destinations in a single direction indicates where a bike route turns from one street onto another street.

- D Decision Signs.** Decision sign assemblies are a combination of D11-1c and D1-3a signs used to mark the junction of two or more bikeways and inform bicyclists of the designated bike route to access key destinations.



D11-1c



D1-1



D11-1c; D1-3a



Ennis, MT—Population 850

Figure 2-6. MUTCD guide signs for bicycle route navigation. The use of the D11-1c sign is preferred over D11-1 whenever practical, as it provides the reader with more useful information regarding the destination or route.



Bicycle Boulevard

INTERSECTIONS

Comfortable and intuitive intersection accommodations on bicycle boulevards are required to make the route attractive and functional for bicyclists of all ages and abilities. While crossings of local and minor collector streets may be comfortable with minimal modification, most local streets lack appropriate traffic control to safely and comfortably cross large streets. Crossing improvements should safely and comfortably accommodate pedestrians as well as bicyclists.

MINOR INTERSECTION CROSSINGS

Design treatments at minor roadway intersections to offer priority for bicyclists over cross-street traffic.

- Stops or yield signs should be oriented to favor the bicycle boulevard.

MAJOR INTERSECTION CROSSINGS

The quality of treatments at major street crossings significantly affect the utility of a bicycle boulevard route. Design crossing treatments to enhance safety and comfort for crossing users.

Refer to the National Cooperative Highway Research Program's *NCHRP 562 Improving Pedestrian Safety at Unsignalized Crossings Appendix A* for

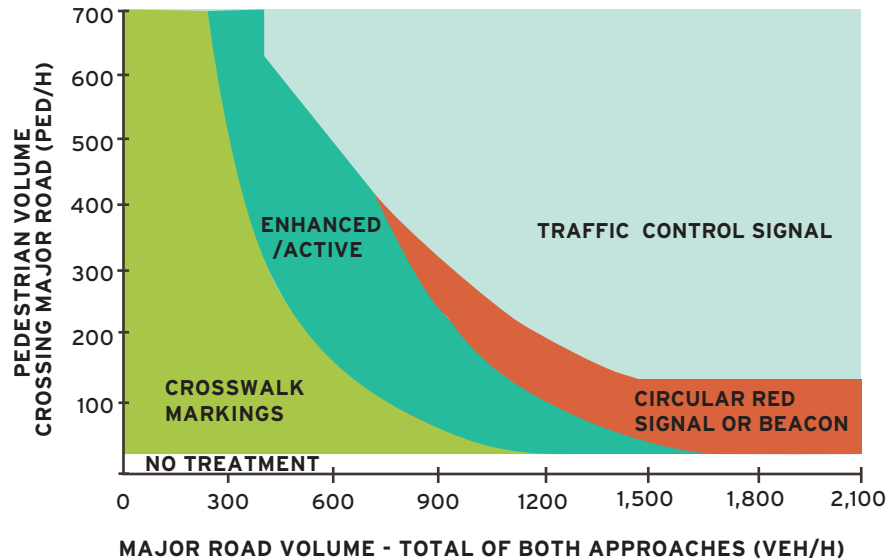


Figure 2-7. Example Guidelines for Pedestrian Crossing Treatments adapted from NCHRP 562 (Fig. A-5). Calculations assume 34 ft (10.4 m) Pavement, 35 mi/h (55 km/h), 3.5 ft/s (1.1 m/s) Walking Speed.

a method to analyze an appropriate crossing treatments for a given roadway context. Evaluate the calculation assuming moderate bicycle and pedestrian activity to reflect the anticipated activity-level at the future enhanced crossing.

Figure 2-7 provides an example graph of crossing guidelines following NCHRP 562 methodology. This should only be used when the major-road speed, the pedestrian walking speed, and the crossing distance are matched to the value presented at the top of the graph. For other situations, the reader should use the equations listed in the Appendix A worksheets.

IMPLEMENTATION

Development of bicycle boulevards in rural settings can often be challenging due to a lack of alternate through roadways and the concentration of motor vehicle traffic on arterials. Disconnected road networks may maintain low traffic speeds and discourage through traffic on local roads, but these benefits often sacrifice connectivity.

ACCESSIBILITY

Bicycle boulevards are designed to prioritize use by bicyclists and are not intended for use by pedestrians. On bicycle boulevards, the appropriate pedestrian facility is generally a sidewalk. If the bicycle boulevard is intended to facilitate pedestrian travel within the roadway it must be accessible.



Bicycle Boulevard

CROSSING ENHANCEMENT TOOLS

Crossing enhancements can use a variety of engineering tools to address user comfort, provide additional gap acceptance opportunities, and increase yield to pedestrian rates.

For more information on crossing enhancements for bicycle boulevards, refer to BIKESAFE 2014.

Figure 2-8. The following images illustrate some potential crossing enhancements for increasing the safety and comfort of bicycle boulevard crossings of other roadways.



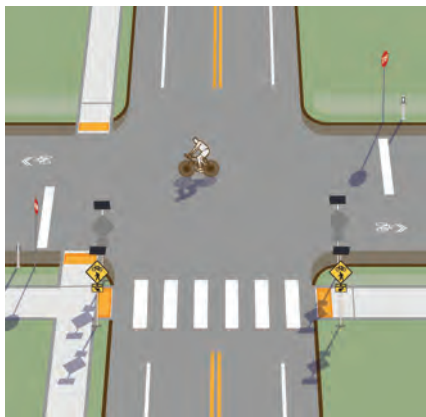
Crosswalk Markings and Crossing Warning Signs

Crosswalk markings and warning signage raise awareness of the crossing by motorists. Use a combined bicycle and pedestrian W11-15 sign to indicate the potential of bicyclists and pedestrians crossing at specific locations.



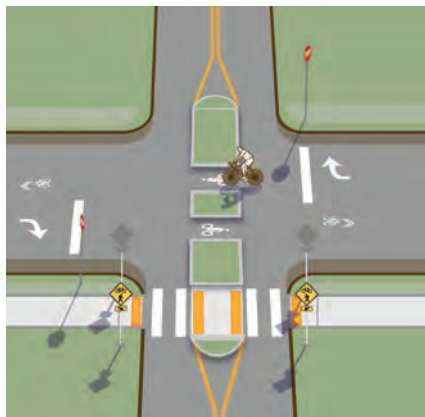
Curb Extensions

Curb extensions reduce traffic exposure and increase visibility of crossing users. Curb extensions should not be used within shoulders where they interfere with bicycle travel along the major roadway.



Active Warning Beacons

At locations with poor yield-to-pedestrian compliance, install active warning beacons such as rectangular rapid flashing beacons to supplement crossing warning signs and remind motorists of the obligation to yield. Refer to FHWA Interim Approval 11 for more information on the use and application of rectangular rapid flashing beacons.



Median Islands

Divide crossings into multiple stages with a median safety island. This allows crossing bicyclists and/or pedestrians to accept gaps in traffic one direction at a time. Median safety island for bicycle boulevards should be at least 8 ft (2.4 m) deep to accommodate crossing bicyclists.

Median islands are an FHWA Proven Safety Countermeasure.



Pedestrian Hybrid Beacons

At locations with multiple lanes of traffic, high-speed traffic, and/or no opportunity for a median safety island, a full traffic signal or pedestrian hybrid beacon may be effective in creating safe crossing conditions. Pedestrian hybrid beacons are an FHWA Proven Safety Countermeasure. Refer to the FHWA Pedestrian Hybrid Beacon Guide 2014 and MUTCD Chapter 4F for more information.



CASE STUDY | BIKE BOULEVARD

Arcata, California

PROJECT DESCRIPTION



The objective of the Arcata Bicycle Boulevard project was to create a more balanced and multimodal transportation system that provided facilities for walking and biking. Bicycle boulevards play an important role in a bicycle network, by providing a traffic calmed street for bicyclists of all ages and abilities.

The Arcata Bicycle Boulevards were implemented roadways with low traffic volumes (fewer than 2,000 cars per day), which run parallel to high-volume roadways (11th and H Streets). The boulevards connect critical destinations throughout the community, including connecting Arcata High School to downtown Arcata and the Arcata Marsh and Wildlife Sanctuary. The facilities also connect to public transportation at the Arcata Intermodal Transit Facility on 10th Street. The boulevard connects to Q and 11th Streets, where a future pedestrian and bicycle shared use trail is planned along south Q Street, leading toward the Arcata Marsh.

Special attention was given to bicyclists at intersections, where it is important to give bicyclists priority to maintain free-flow travel. Mini traffic circles slow motor vehicle traffic at minor intersections, while allowing bicyclists to continue through the intersection. Traffic calming at intersections also included public art to slow motor vehicle speeds, as seen at the intersection of 10th and I Streets.

A project video can be found at:
<https://www.youtube.com/watch?v=-K8j3IKQjGM>

DETAILS

COMMUNITY CONTEXT

Arcata is a university town located along Arcata Bay in northern California. The 2010 population was 17,231, with many visitors in the summer.

KEY DESIGN ELEMENTS

Custom wayfinding signs, pavement markings, and landscaped curb extensions, which act as a traffic-calming element, were used in this project. Traffic controls were put in place at intersections to help bicyclists cross major intersections at 10th and K Streets, 11th and I Streets, and 11th and Q Streets. Additional bike parking was also installed along the bike boulevard at popular destinations.

ROLE IN THE NETWORK

Bicycle boulevards were identified as key projects in the *Arcata Pedestrian and Bicycle Master Plan* in 2005 and 2010. This project provides connections between important community destinations, as well as future or planned projects.

FUNDING

In December 2006, the Public Works Department received a Caltrans Bicycle Transportation Account (BTA) grant for \$173,612. The grant funded the bicycle boulevard improvements, as well as an intersection study, education and awareness programs, and bicycle parking in downtown Arcata.

For more information refer to:
<http://www.cityofarcata.org/298/Arcata-Bicycle-Boulevard>



Bicycle Boulevard

San Luis Obispo, CA—Population 45,911



PHOTO CREDIT

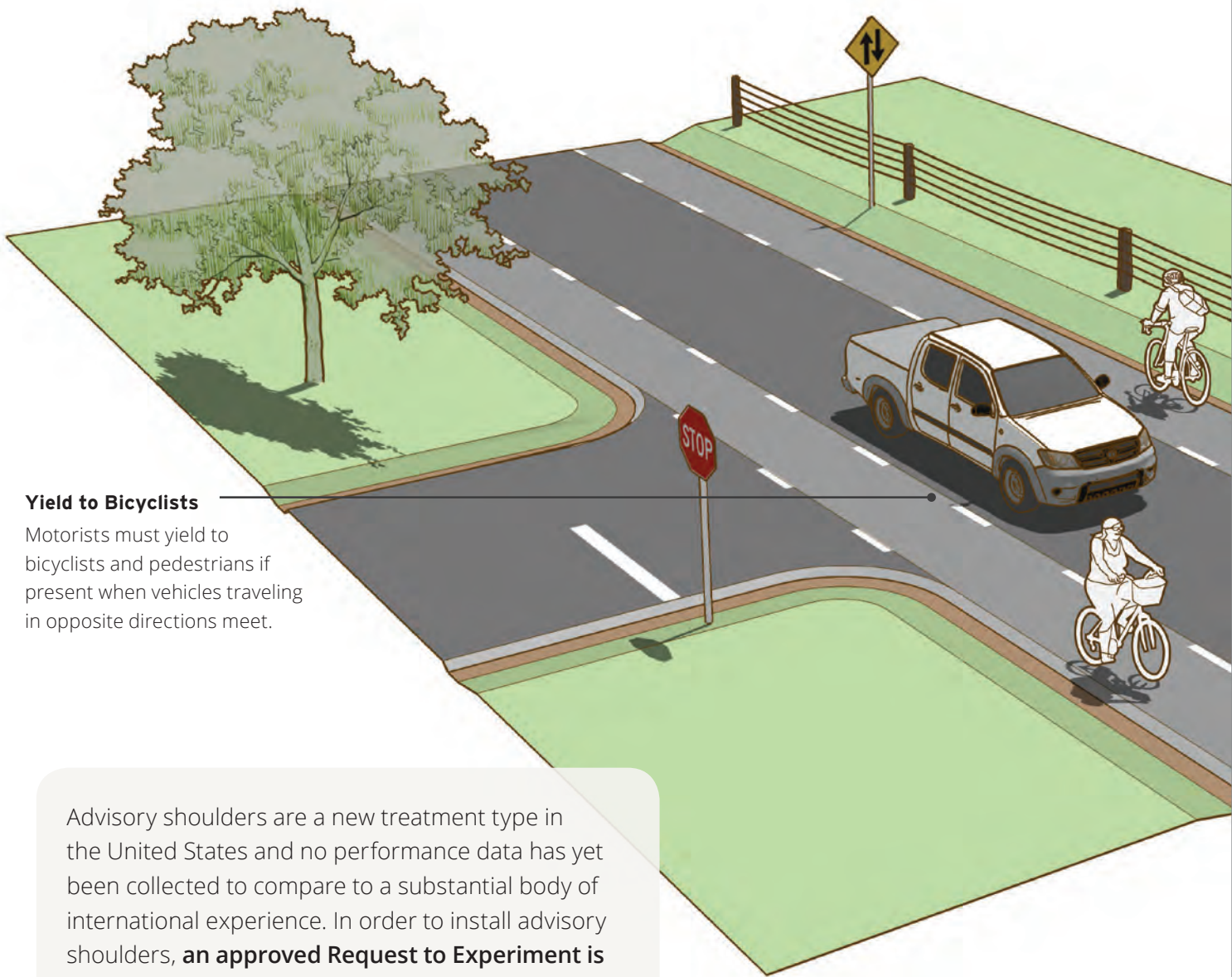
Page 2-12. Alta Planning + Design

Page 2-15. City of Arcata

Page 2-16. Adam Fukushima, City of San Luis Obispo

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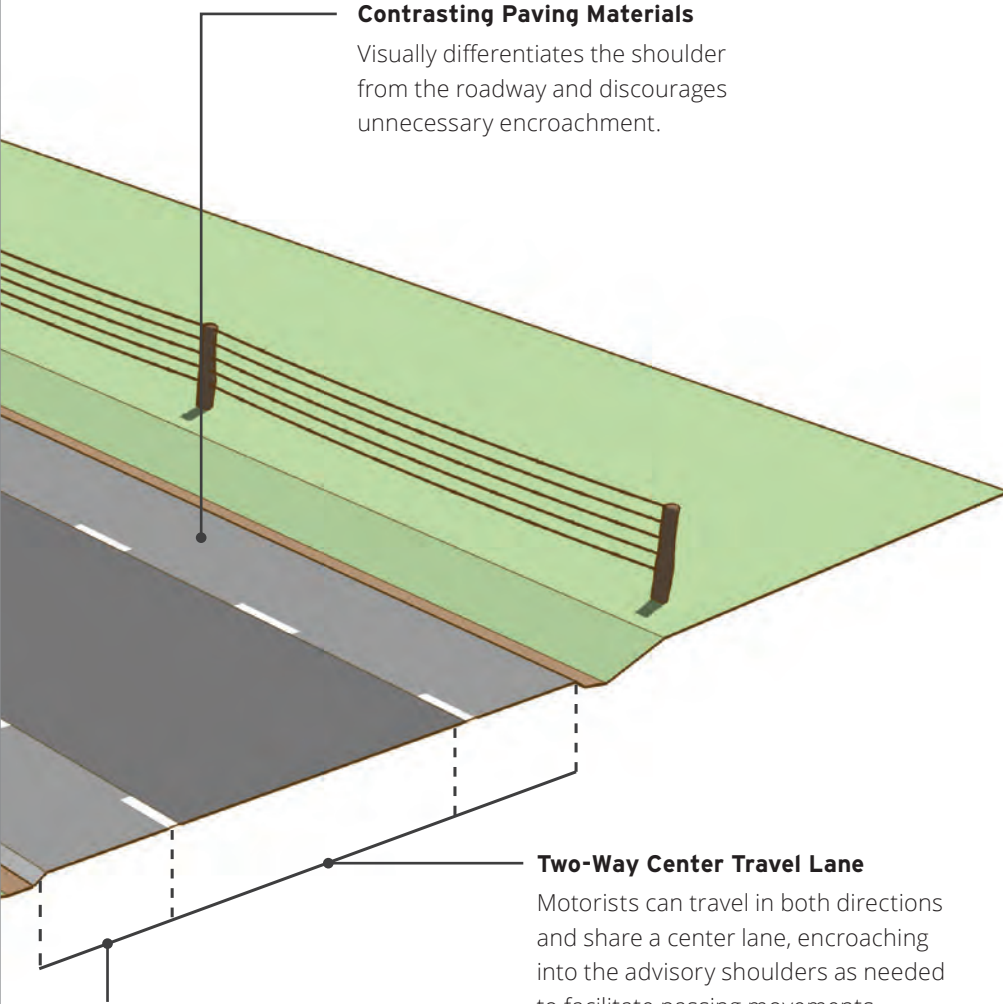
Yield to Bicyclists

Motorists must yield to bicyclists and pedestrians if present when vehicles traveling in opposite directions meet.

Advisory shoulders are a new treatment type in the United States and no performance data has yet been collected to compare to a substantial body of international experience. In order to install advisory shoulders, **an approved Request to Experiment is required** as detailed in Section 1A.10 of the MUTCD. FHWA is also accepting requests for experimentation with a similar treatment called “dashed bicycle lanes.”

Advisory Shoulder

Advisory shoulders create usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic.



Contrasting Paving Materials

Visually differentiates the shoulder from the roadway and discourages unnecessary encroachment.

Two-Way Center Travel Lane

Motorists can travel in both directions and share a center lane, encroaching into the advisory shoulders as needed to facilitate passing movements.

Advisory Shoulder

Prioritizes shared space for bicyclists and occasional pedestrian travel.

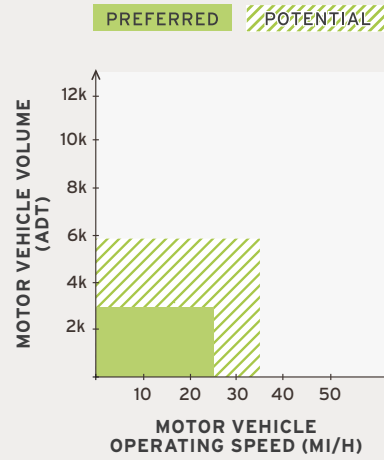
BENEFITS

- Provides a delineated but nonexclusive space available for biking on a roadway otherwise too narrow for dedicated shoulders.
- May reduce some types of crashes due to reduced motor vehicle travel speeds.⁽ⁱ⁾
- Minimizes potential impacts to visual or natural resources through efficient use of existing space.
- Functions well within a rural and small town traffic and land use context.
- Increases predictability and clarifies desired lateral positioning between people bicycling or walking and people driving in a narrow roadway.
- May function as an interim measure where plans include shoulder widening in the future.
- Supports the natural environment through reduced paved surface requirements.

APPLICATION

Speed and Volume

Most appropriate on streets with low to moderate volumes and moderate speed motor vehicles. ⁽ⁱⁱ⁾



Network

Applies to constrained connections between built-up areas.



Land Use

For use outside, between, and within built-up areas with bicycle and pedestrian demand and limited available paved roadway surface.





Advisory Shoulder

Roads with advisory shoulders accommodate low to moderate volumes of two-way motor vehicle traffic and provide a prioritized space for bicyclists with little or no widening of the paved roadway surface.

- A** When vehicles traveling in opposite directions meet, motorists may need to enter the advisory shoulder for clear passage.

GEOMETRIC DESIGN

Unlike a conventional shoulder, an advisory shoulder is a part of the traveled way, and it is expected that vehicles will regularly encounter meeting or passing situations where driving in the advisory shoulder is necessary and safe, as illustrated in Figure 2-9.

ADVISORY SHOULDER

The advisory shoulder space is a visually distinct area on the edge of the roadway, offering a prioritized space for people to bicycle and walk.

- The preferred width of the advisory shoulder space is 6 ft (2.0 m). Absolute minimum width is 4 ft (1.2 m) when no curb and gutter is present.

An approved Request to Experiment is required to implement Advisory Shoulders, called “dashed bicycle lanes” in the FHWA experimentation process. For more information on the experimentation process, visit <http://mutcd.fhwa.dot.gov/condexper.htm>.

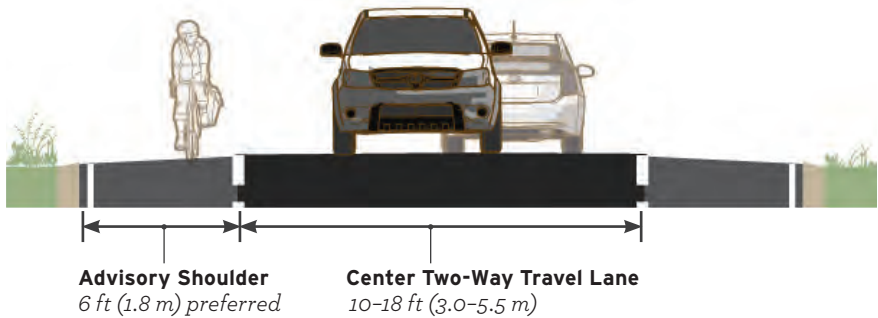


Figure 2-9. Advisory shoulders clarify positioning and yield priority on roads too narrow to provide exclusive travel space. When pedestrians or bicyclists are present, motorists may need to yield to users present in the advisory shoulder before passing.

- Consider using contrasting paving materials between the advisory shoulder and center travel lane to differentiate the advisory shoulder from the center two-way travel lane in order to minimize unnecessary encroachment and reduce regular straddling of the advisory shoulder striping.

TWO-WAY CENTER TRAVEL LANE

The two-way center travel lane is created from the remaining paved roadway space after the advisory shoulder has been accounted for.

- Preferred two-way center travel lane width is 13.5–16 ft (4.1–4.9 m) although may function with widths of 10–18 ft (3.0–5.5 m). Table 2-2 describes the impacts of various center lane widths on roadway operations.

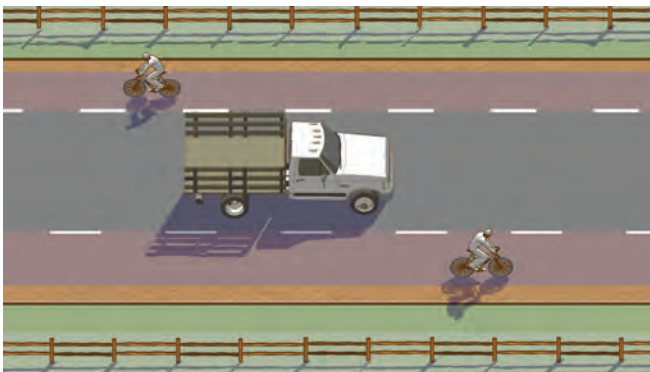


Figure 2-10. Motorists travel in the center two-way travel lane. When passing a bicyclist, no lane change is necessary.

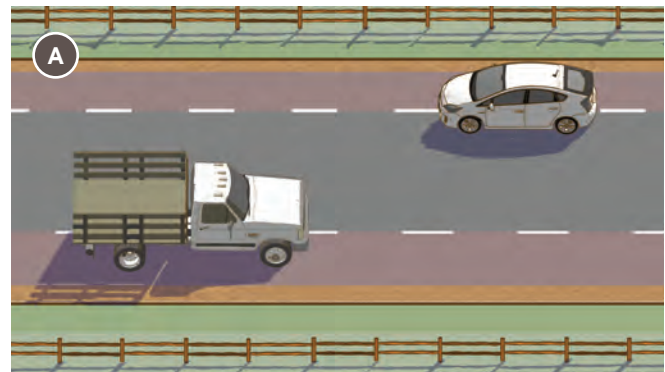


Figure 2-11. When two motor vehicles meet, motorists may need to encroach into the advisory shoulder space.



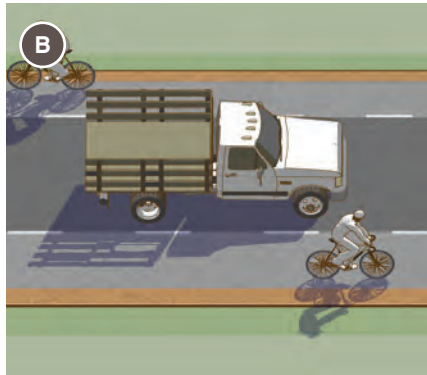
Advisory Shoulder

Table 2-2. Interactions when vehicles traveling in opposite directions meet by two-way center turn lane width.

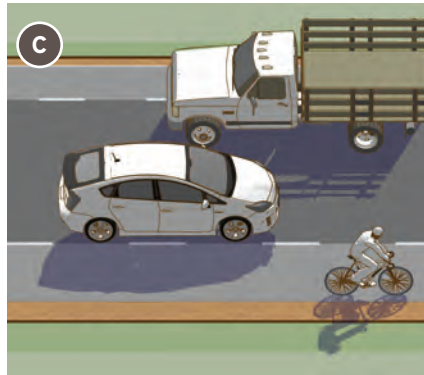
	Two-Way Center Travel Lane Width	Impact on Advisory Shoulder Encroachment When Vehicles Traveling in Opposite Directions Meet
B Practical minimum width	10 ft (3.0 m)	Requires vehicle encroachment into the advisory shoulder space when vehicles traveling in opposite directions meet.
C Preferred minimum width	13.5 ft (4.5 m)	Two passenger cars are physically able to meet each other within the center lane at very low speed. In practice, vehicles will encroach into the advisory shoulder.
Preferred maximum width	16 ft (4.9 m)	Permits two passenger cars to pass within the center lane at modest speeds without encroaching into the advisory shoulder.
D Absolute maximum width	18 ft (5.5 m)	This width is equivalent to two 9 ft (2.7 m) travel lanes and regular encroachment into the advisory shoulder space may not be necessary.

Implementing agencies should be advised that the above dimensional guidance is intended to facilitate implementation on common roadway widths in the U.S. As with most treatments, more overall width is preferable to constrained circumstances.

10 ft (3.0 m) Center Travel Lane



13.5 ft (4.5 m) Center Travel Lane



18 ft (15.5 m) Center Travel Lane

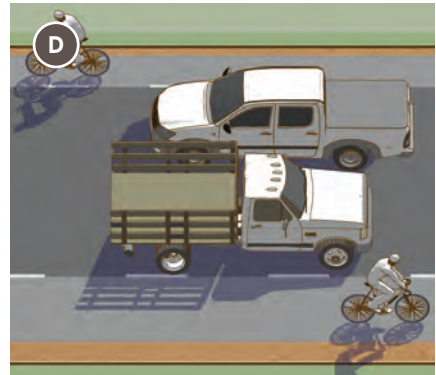


Figure 2-12. Total roadway width affects the number of road users that can meet and pass simultaneously. Wider roadways allow for more simultaneous interactions and can support higher volumes of motor vehicles.

MARKINGS

- A broken lane line used to delineate the advisory shoulder should consist of 3 ft (1.0 m) line segments and 6 ft (2.0 m) gaps.ⁱⁱⁱ
- Where additional edge definition is desired, stripe a normal solid white edge line in addition to the broken advisory shoulder line.
- In general, do not mark a center line on the roadway. Short sections may be marked with center line pavement markings to separate opposing traffic flows at specific locations,

such as around curves, over hills, on approaches to at-grade crossings, and at bridges.

At these locations, widen the paved roadway surface to provide space for paved bicycle-accessible shoulders and conventional width travel lanes. See **Table 2-3** for sight distance requirements.

Table 2-3. Minimum Passing Sight Distances for No-Passing Zone Markings. Adapted from MUTCD Table 3B-1.

85th-Percentile or Posted or Statutory Speed Limit	Minimum Passing Sight Distance
25 mi/h	450 ft (137 m)
30 mi/h	500 ft (152 m)
35 mi/h	550 ft (167 m)
40 mi/h	600 ft (182 m)
45 mi/h	700 ft (213 m)
50 mi/h	800 ft (243 m)
55 mi/h	900 ft (274 m)



Advisory Shoulder

SIGNS

Use signs to warn road users of the special characteristics of the street. Potential signs for use with advisory shoulders include:

- As illustrated in **Figure 2-12**. Use an unmodified Two-Way Traffic warning sign (W6-3) to clarify two-way operation of the road.
- Use a NO CENTER LINE warning sign (W8-12) to help clarify the unique striping pattern.
- Use a NO PARKING ON PAVEMENT (R8-1) to discourage parking within the advisory shoulder.



Figure 2-13. The W6-3 two-Way traffic warning sign can clarify undivided two-way operation of the advisory shoulder configuration.

An approved Request to Experiment is required to implement Advisory Shoulders, called “dashed bicycle lanes” in the FHWA experimentation process. For more information on the experimentation process, visit <http://mutcd.fhwa.dot.gov/condexper.htm>.

Hanover, NH—Pop 11,250

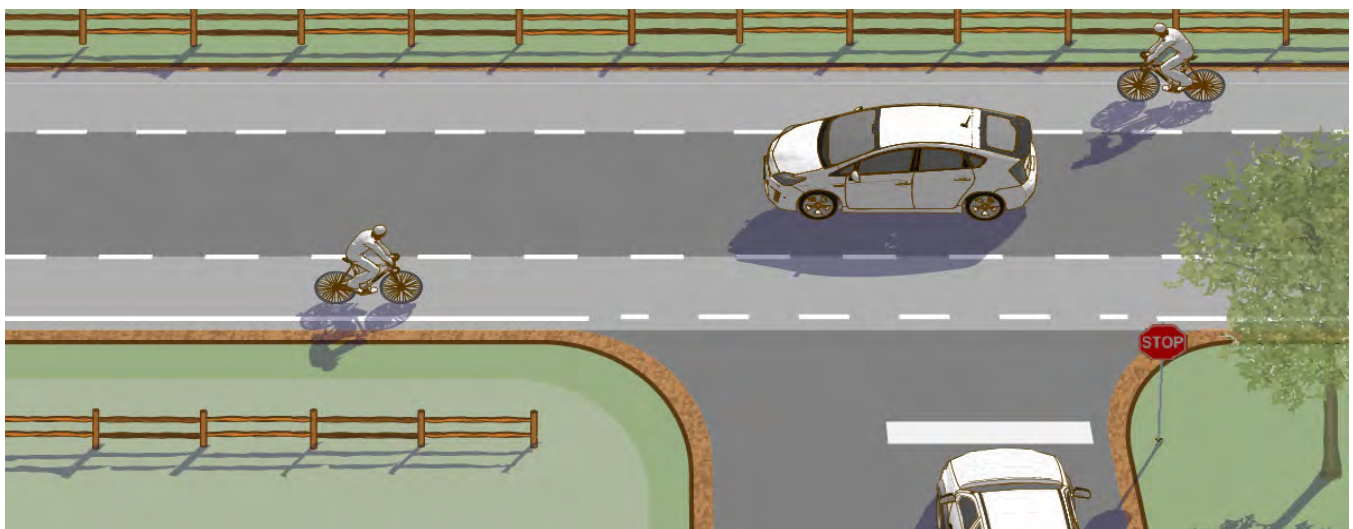


Figure 2-14. At crossings of minor intersections and driveways, maintain the striping and construction material (if used) of the advisory shoulder.



Advisory Shoulder

INTERSECTIONS

Advisory shoulder designs work best on road segments without frequent stop or signal controlled intersections that require vehicles to stop within the roadway. The designer should strive to maintain the visual definition of the advisory shoulder through all driveways and street crossings, and provide a conventional shoulder at controlled intersections.

- At minor street crossings, use a dotted line extension on both sides of the advisory shoulder to maintain delineation of the advisory shoulder space (Figure 2-14).
- If contrasting pavement material is used, maintain the material through driveway crossings and minor intersections.
- Where the road is controlled by a stop sign or traffic signal, discontinue the advisory shoulder 50 ft (15 m) in advance of the intersection.
- At these locations, provide a bicycle accessible paved shoulder outside of the travel lanes or design for operation as a shared roadway.



Edina, MN—Population 49,300

IMPLEMENTATION

In order to install advisory shoulders, an approved Request to Experiment is required as detailed in the **MUTCD 2009, Sec. 1A.10**. FHWA is also accepting requests for experimentation with a similar treatment called “dashed bicycle lanes.”^(iv)

ACCESSIBILITY

Advisory shoulders as described here are not intended for use by pedestrians. When advisory shoulders are intended for use by pedestrians, they must meet accessibility guidelines.



CASE STUDY | ADVISORY SHOULDERS

Hanover, New Hampshire

PROJECT DESCRIPTION

In 2012, Hanover completed a bicycle and pedestrian planning effort. This plan identified Valley Road as a local bicycle connection in the overall network. In 2013, Hanover completed a Safe Routes to School (SRTS) Plan, which introduced the idea of using advisory shoulders (called advisory bike lanes for this project) on Valley Road. Hanover's Bicycle and Pedestrian Committee (HBPC) advocated to use Valley Road as a pilot project for advisory shoulders. The HBPC surveyed the Valley Road neighbors and built support for a pilot project. While there was some resistance, the neighborhood was generally supportive of the idea. Hanover's Department of Public Works was open to the idea and it was presented to the town select board who approved installation of advisory shoulders unit on Valley Rd. The advisory shoulders were painted on about 400 meters of Valley road in the summer of 2014. In 2016 an evaluation report was produced with traffic counts and results from a follow up survey. Based on the success of the Valley Road advisory shoulders, Hanover is currently evaluating adding advisory shoulders to another important bicycle and pedestrian connection between schools and neighborhoods.

Factors in the success of the advisory shoulders were the leadership of the HBPC, support from the adjacent neighbors, the willingness to pilot them by the Department of Public Works and inclusion of Valley Road and advisory shoulders in both the SRTS and Bicycle and Pedestrian Plans.

DETAILS**COMMUNITY CONTEXT**

Hanover, NH, is a town of approximately 11,000 with 8,000 living in the town center. Hanover is home to Dartmouth College with a student population of 6,300. Hanover is located on the Connecticut River and has a dense built-up area surrounded by small suburban neighborhoods that transition quickly to a very rural setting.

KEY DESIGN ELEMENTS

The advisory shoulders project was built on a low-volume, low-speed, residential road. Implementation included pavement markings and signs.

ROLE IN THE NETWORK

Valley Road is a local bicycle connection between neighborhoods with schools, the downtown, and the Dartmouth College campus. Sidewalks were removed due to root damage and were not replaced because the neighborhood preferred the rural look of streets without sidewalks. Advisory shoulders use existing pavement to provide space prioritized for bicycles and pedestrians at very low cost.

FUNDING

The Hanover Bicycle and Pedestrian Plan and the advisory shoulders project were both accomplished with funding from the HBPC, which is funded by a \$5 local fee on vehicle registration that was passed by the select board to support alternative transportation and generates approximately \$30,000 annually.

For more information, refer to the City of Hanover Public Works Department: <http://www.hanovernh.org/public-works>



Advisory Shoulder

Bloomington, IN—Population 82,000



FOOTNOTES

- i Trials conducted by Transport for London (TfL) show a statistically significant speed reduction effect of 5.4mi/h–8.6 mi/h as a result of removing center line markings on the roadway (TfL 2014).

A four-year study from Wiltshire County (England) showed a 35 percent drop in motor vehicle crashes along 30 mi/h roadways where the center line was removed (Wiltshire County Council 2014).
- ii Volume criteria listed here are based on FHWA guidance on center line provision. The FHWA MUTCD recommends center lines on roadways with motor vehicle traffic volumes above 3,000 ADT, and requires them on streets above 6,000 ADT (2009, Sec. 3B.01).

Installations in England have functioned well on streets with volumes as high as 10,000 ADT, and an existing installation carries nearly 14,000 ADT according to Department for Transport estimates (Cardiff Council 2011).
- iii FHWA MTUCD application of broken line markings is to indicate a permissive conditions (Sec. 3A.06). The MUTCD allows use of “dimensions in a similar ratio of line segments to gaps as appropriate for traffic speeds and need for delineation.” (2009, p. 348).
- iv The FHWA is conducting experimentation with dashed bicycle lane treatments in at least 5 locations across the US. Guidance related to experimentation is available from the FHWA online resource **Bicycle Facilities and the Manual on Uniform Traffic Control Devices 2015**.

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PHOTO CREDIT

Page 2-21. Western Transportation Institute

Page 2-22. Alta Planning + Design

Page 2-23. Western Transportation Institute

Page 2-24. City of Bloomington Planning and Transportation Department

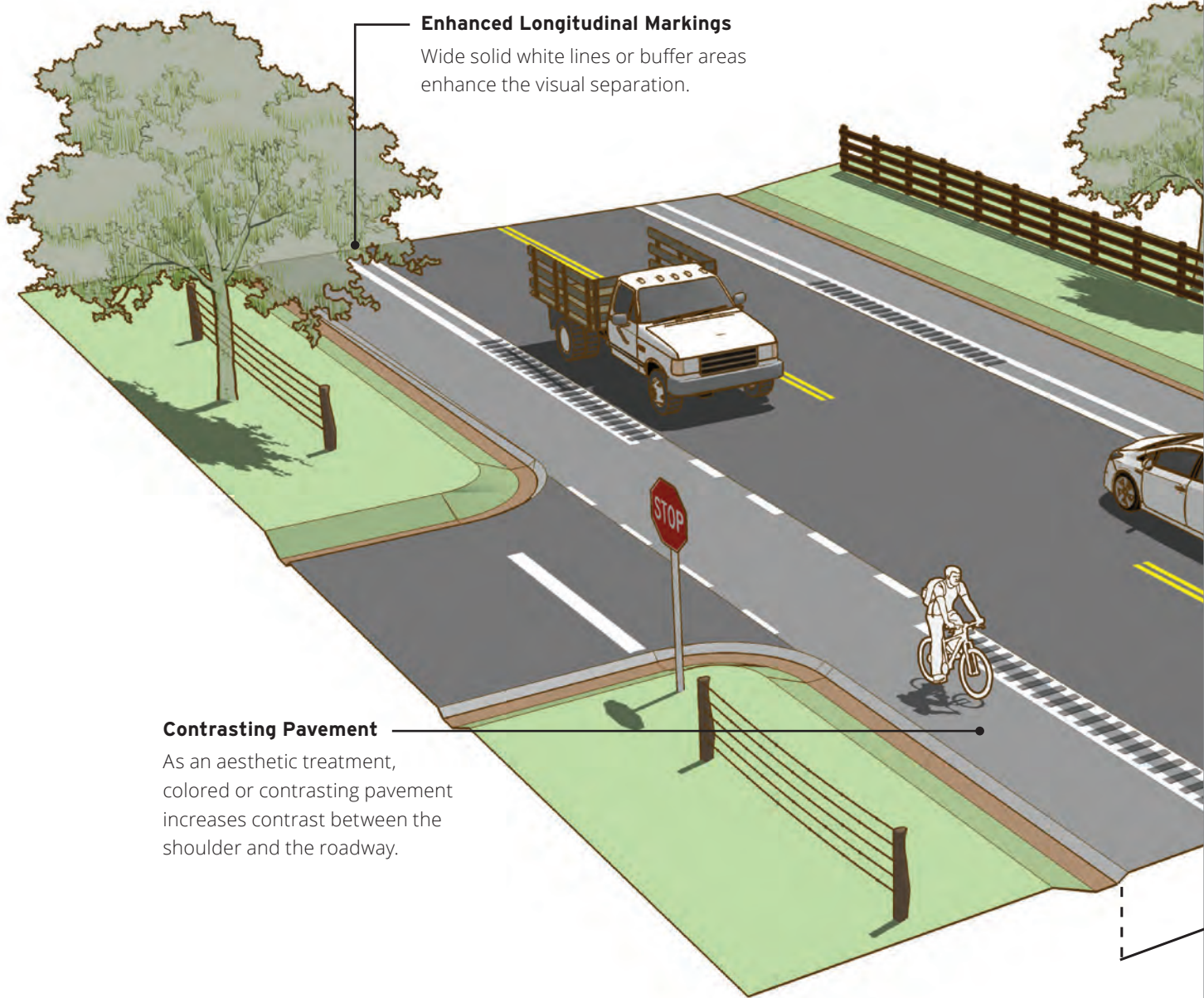


CHAPTER 3

Visually Separated Facilities

3-3 *Paved Shoulder*

3-11 *Bike Lane*



Enhanced Longitudinal Markings

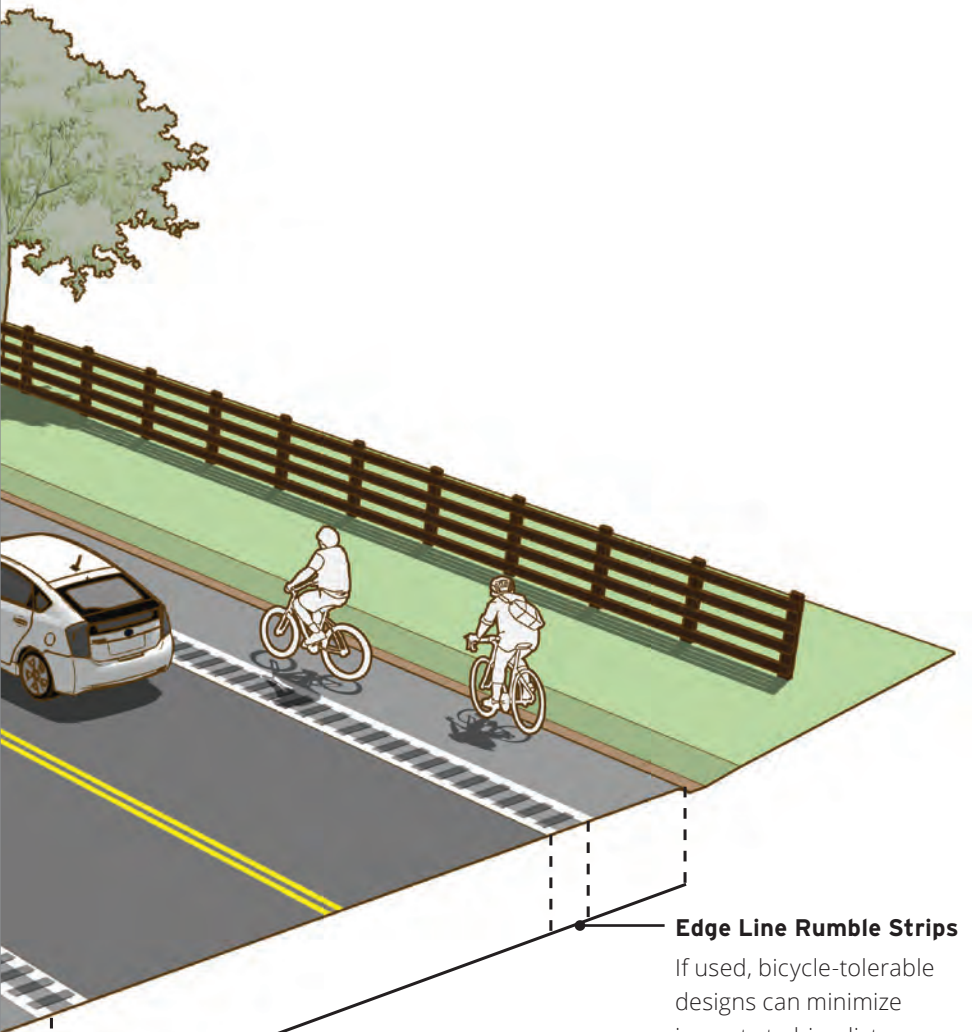
Wide solid white lines or buffer areas enhance the visual separation.

Contrasting Pavement

As an aesthetic treatment, colored or contrasting pavement increases contrast between the shoulder and the roadway.

Paved Shoulder

Paved shoulders on the edge of roadways can be enhanced to serve as a functional space for bicyclists and pedestrians to travel in the absence of other facilities with more separation.



Edge Line Rumble Strips

If used, bicycle-tolerable designs can minimize impacts to bicyclists.

Bicycle Accommodation

Bicyclists travel in the same direction as the adjacent lane.

BENEFITS

- Improves bicyclist experiences on roadways with higher speeds or traffic volumes.
- Provides a stable surface off the roadway for pedestrians and bicyclists to use when sidewalks are not provided.
- Reduces pedestrian “walking along roadway” crashes.
- Can reduce “bicyclist struck from behind” crashes, which represent a significant portion of rural road crashes.

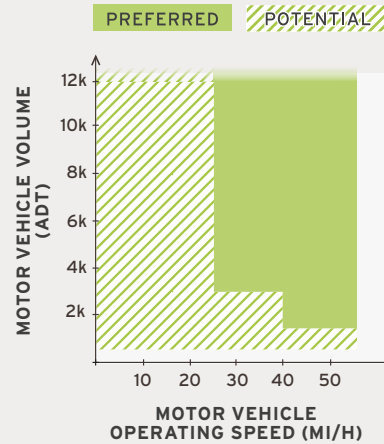
CONSIDERATIONS

- Provides advantages for all roadway users, by providing space for bicyclists, pedestrians, and motor vehicles.
- Enhancements with increased levels of striping and signs may interfere with the low-clutter character of a rural environment.
- Requires a wider roadway to provide an accessible shoulder space.

APPLICATION

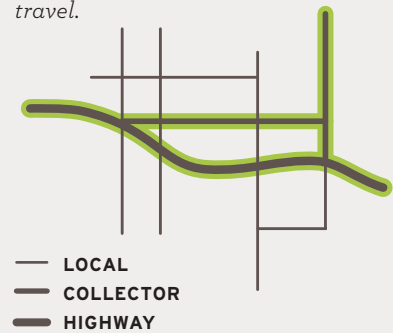
Speed and Volume

Appropriate on roads with moderate to high volumes and speeds and on roadways with a large amount of truck traffic. May function on multilane roads with heavy traffic but fails to provide a low-stress experience in this condition.



Network

Serves long-distance and regional travel.



Land Use

Appropriate outside and within built-up areas, near school zones and transit locations, and where there is expected pedestrian and bicycle activity. Walkable shoulders should be provided along both sides of county roads and highways routinely used by pedestrians.





Paved Shoulder

Shoulders can improve bicyclist comfort and safety when traveling in higher speed and/or volume situations but only when adequate width is provided. If used, locate rumble strips on the edge line or within a buffer area that will not reduce usable space for bicyclists.

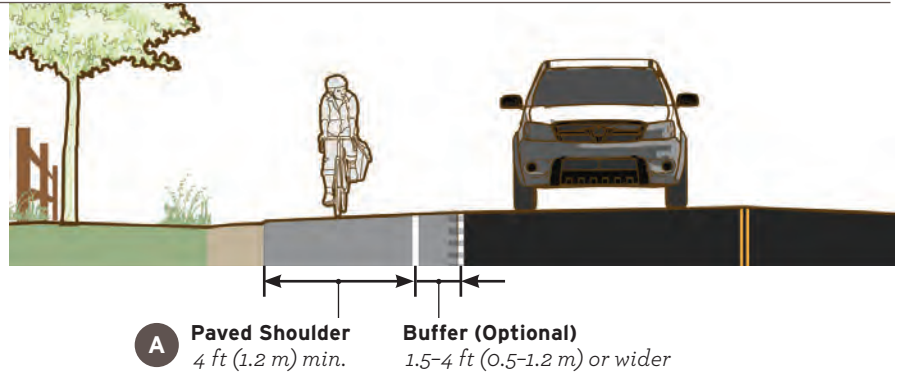


Figure 3-1. When adequate width is provided, shoulders can serve bicycle trips along roads too busy for comfortable shared roadway travel.

GEOMETRIC DESIGN

CLEAR PAVED SHOULDER AREA

Any amount of clear paved shoulder width can benefit pedestrians and bicyclists, however, to be fully functional for their use, the paved shoulder area should be wide enough to accommodate the horizontal operating envelope of these users.

- A** To accommodate bicyclists and pedestrian use of the shoulder, provide a minimum width of 4 ft (1.2 m) adjacent to a road edge or curb, exclusive of any buffer or rumble strip.
- Where possible, provide greater width for added comfort, user passing, and side-by-side riding.⁽ⁱⁱ⁾

Table 3-1. Recommended Minimum Paved Shoulder Widths by Roadway Conditions⁽ⁱⁱⁱ⁾

Functional classification	Volume (AADT)	Speed (Mi/h)	Recommended Minimum Paved Shoulder Width
Minor Collector	up to 1,100	35 (55 km/h)	5 ft (1.5 m)
Major Collector	up to 2,600	45 (70 km/h)	6.5 ft (2.0 m)
Minor Arterial	up to 6,000	55 (90 km/h)	7 ft (2.1 m)
Principal Arterial	up to 8,500	65 (100 km/h)	8 ft (2.4 m)

D'Iberville, MS—Population 10,390



Paved Shoulder

GEOMETRIC DESIGN

RUMBLE STRIPS

Rumble strips are an FHWA Proven Safety Countermeasure for reducing roadway departure crashes. Research has shown that installing rumble strips can reduce severe crashes but may negatively impact bicycle travel if they are poorly constructed.

Additional information on rumble strip design can be found in FHWA Technical Advisory 5040.39 and on the FHWA Rumble Strips and Rumble Stripes Website.

B If rumble strips are desired on bicycle network routes **optimize the dimension, design, and placement of rumble strips to be more tolerable to bicyclists.**^{iv}

- > 12 inch spacing center-to-center
- > 6–8 inches long, perpendicular to roadway
- > 6 inch wide, measured parallel to roadway
- > 3/8 inch deep
- Place rumble strips to overlap with the roadway edgeline, also known as edgeline rumble strips or rumble stripes.^v
- Provide a bicycle gap pattern to allow access into and out of the shoulder area by bicyclists. The gap pattern consists of a 12 ft (3.3 m) clear gap followed by rumbles, typical 40–60 ft (12.1–18.2 m) (NCHRP Synthesis 490, 2016).

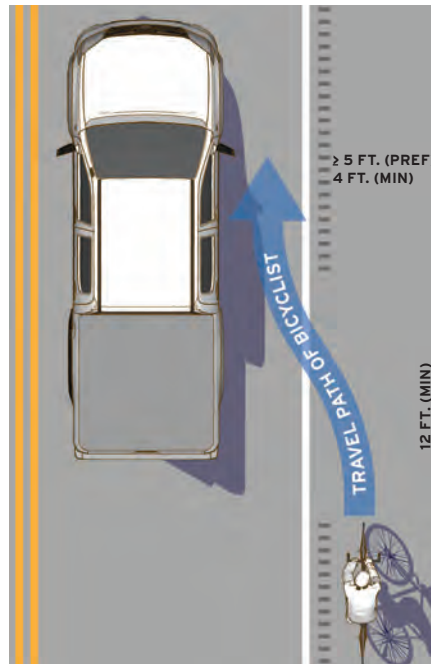


Figure 3-2. Preferred rumble strip dimensions and placement. Figure from FHWA Achieving Multimodal Networks 2016.

PAVEMENT CONTRAST AND COLOR

Contrasting or colored pavement materials may be used to differentiate the shoulder from the adjacent travel lanes (AASHTO Green Book 2011, p. 4-13).

- Colored pavement in a paved shoulder is an aesthetic treatment to enhance awareness and is not intended to communicate a regulatory, warning, or guidance message to road users.

Highway 2, Nebraska





Paved Shoulder

MARKINGS

On shoulders designed for bicycle and pedestrian accessibility, the edge should be clearly delineated and defined to discourage unnecessary encroachment by motor vehicles. Options beyond a normal white line include:

- C** A wide 8 in (200 mm) white line.
- D** A narrow buffer space—two normal 4 in (100 mm) solid white lines separated by an 18 in (0.45 m) or greater space.
- E** A wide buffer space—two normal solid white lines, separated by a 4 ft (1.2 m) or greater space and optional crosshatch markings.

Discontinue the edge line at intersections and major driveways. On a bicycle accessible shoulder, additional definition of the shoulder alignment may be desired. In these conditions, consider:

- A dotted white line to extend the edge line through intersections and major driveways.
- A second normal width dotted white line may be used to define the outside edge of the shoulder, defining both sides of the bicycle travel area.

SIGNS

No signs are required on paved shoulders, but signs may be used to identify a road as a bicycle route.

- Bike Route Guide (D11-1c) signs are used to indicate to bicyclists that they are on a designated bikeway and make motorists aware of the bicycle route.

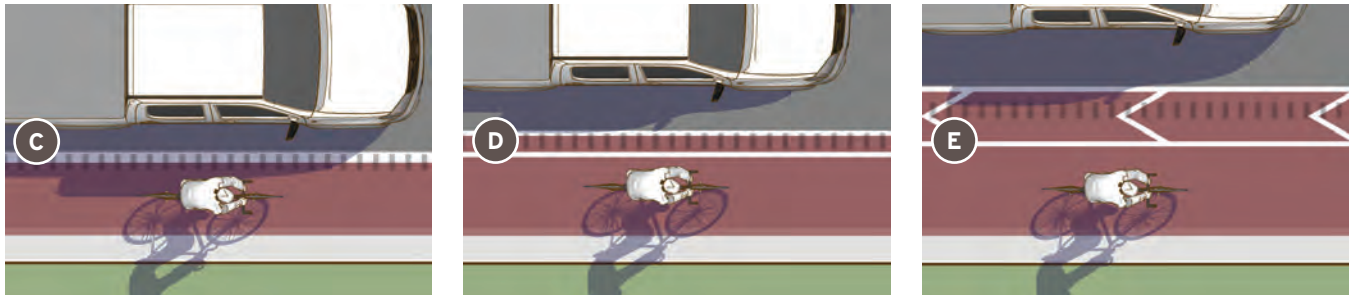


Figure 3-3. Longitudinal markings along shoulders should be selected in response to shoulder width, and the desire to discourage encroachment by motor vehicles.

INTERSECTIONS

At intersections, the shoulder area is often narrowed to provide room for or completely replaced by turning, receiving or bypass lanes. It is important to minimize the impacts of these designs to bicyclists using the shoulder for bicycle travel.

AT BYPASS AND TURN LANES

At intersections with heavy left-turn volumes, an auxiliary bypass lane, or center turn lane may be provided for motor vehicles. While this lane may encroach into the shoulder space, 6 ft (1.8 m) of the shoulder should be preserved for bicyclist travel. Absolute minimum width of the shoulder is 4 ft (1.2 m) to maintain bicycle accessibility.

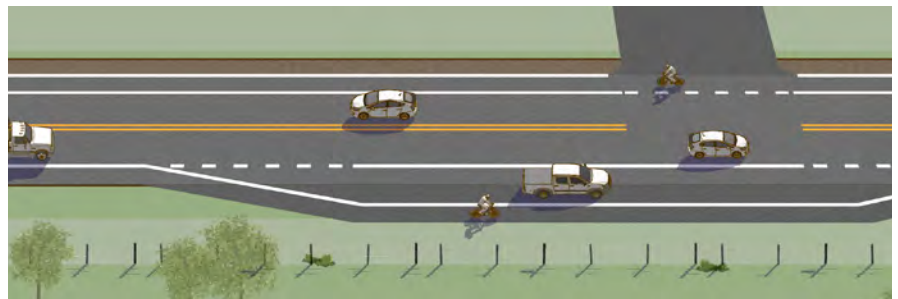


Figure 3-4. At bypass lanes, widen the roadway to provide a clear shoulder area outside of the travel area. (Based on Figure 4-7 in the *AASHTO Bike Guide, 2012*.)



Paved Shoulder

INTERSECTIONS

Paved shoulders are typically located immediately to the right of right turn lanes. This may lead to right-hook conflicts between through bicyclists and turning vehicles. At intersections with right turn only lanes, bicycle accessible shoulders should be classified as **bike lanes** or **separated bike lanes**, and appropriate intersection designs should be used to encourage safe interactions.

CONFIGURE AS AN ON-STREET BIKE LANE

F A right turn lane should be added to the right of the bike lane. Dotted line extensions should be used to define the tapered entrance into the right-turn lane, and signs should direct motorists to yield to bicyclists. For more information, refer to the guidance on **bike lanes** and **FHWA MUTCD Figure 9C-4**.

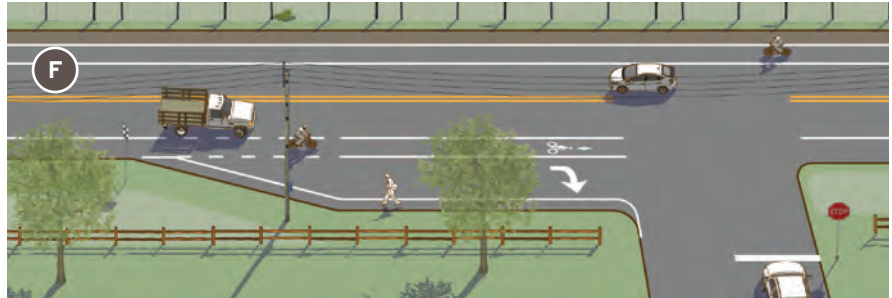


Figure 3-5. In this scenario, the shoulder is designated as a bike lane and a right turn lane is introduced to the right of the bike lane. Drivers must yield to through bicyclists before entering the turn lane.

CONFIGURE AS A SEPARATED BIKE LANE OR SHARED USE PATH

G Where a high degree of user comfort is desired, the shoulder may transition into a one-way separated bike lane or shared use path in advance of intersections. Once established, the separated facility may maintain separation up to the crossing. This increased separation provides an opportunity for motorists to slow in advance of the turn and yield to bicyclists. For more information, refer to the guidance on **separated bike lanes**.



Figure 3-6. In this scenario, the shoulder is designated as a separated bike lane. Bicyclists are shifted laterally away from the roadway and separated from the travel or turn lanes by an unpaved buffer space.

IMPLEMENTATION

Include or upgrade shoulders during roadway resurfacing, rehabilitation, and reconstruction in new construction projects. For more information on implementation strategies, refer to the **FHWA Resurfacing Guide 2016**.

ACCESSIBILITY

When shoulders are intended for use by pedestrians, they must meet accessibility guidelines.



CASE STUDY | PAVED SHOULDER

Capay, California

PROJECT DESCRIPTION

State Route (SR) 16 through the Capay Valley has a wide variety of users including commuters, recreational travelers, freight truck drivers, and farm equipment operators. Capay Valley contains farmland, several small communities, and the Cache Creek Casino Resort. This part of SR 16 is designated as a local Scenic Highway, and is also eligible to become a State Scenic Highway. As SR 16 approaches Interstate 505, the route goes through the unincorporated communities of Esparto and Madison, which are expected to grow in population over the next 20 years from planned development.

The California Department of Transportation (Caltrans) has identified SR 16 corridor safety needs through several studies including a 2012 Transportation Corridor Concept Report (http://www.dot.ca.gov/hq/tpp/corridor-mobility/documents/d_3_docs/SR16_TCCR_FINAL.pdf). The paved shoulders were installed as part of a Caltrans Traffic Calming project within the community of Capay which was completed in December 2011. The enhancements included pigmented and textured shoulders, restriping, improved signage, and architectural, landscaping, and lighting improvements. The improvements along SR 16 have been a partnership effort among Caltrans, Yolo County, the Sacramento Area Council of Governments, a Native American Tribal Government, and the community.

DETAILS**COMMUNITY CONTEXT**

Capay is a small, unincorporated community in northern California's Yolo County, with an estimated population of 133. Yolo County's 2010 population was 200,000, including Davis, with a population of 65,000. Yolo County is in the Sacramento Valley and remains largely a rural agricultural region.

KEY DESIGN ELEMENTS

The existing highway through Capay had wide shoulders that were used by people walking and on bikes to access the businesses along SR 16. The paved shoulders were created using pigmented, stamped asphalt which is a relatively inexpensive treatment with low maintenance costs.

ROLE IN THE NETWORK

SR 16 connects the rural communities of Yolo County with Woodland and the I-5 corridor. This road is the only road that connects through the town and is regularly used by people walking and biking. It links homes with local businesses. The enhanced shoulders provide critical accommodation for people walking and biking.

FUNDING

The paved shoulders were installed as part of a Caltrans project.

For more information, refer to California Department of Transportation District 3:

<http://www.dot.ca.gov/d3/>



Paved Shoulder

Montpelier, VT—Population 7,760



FOOTNOTES

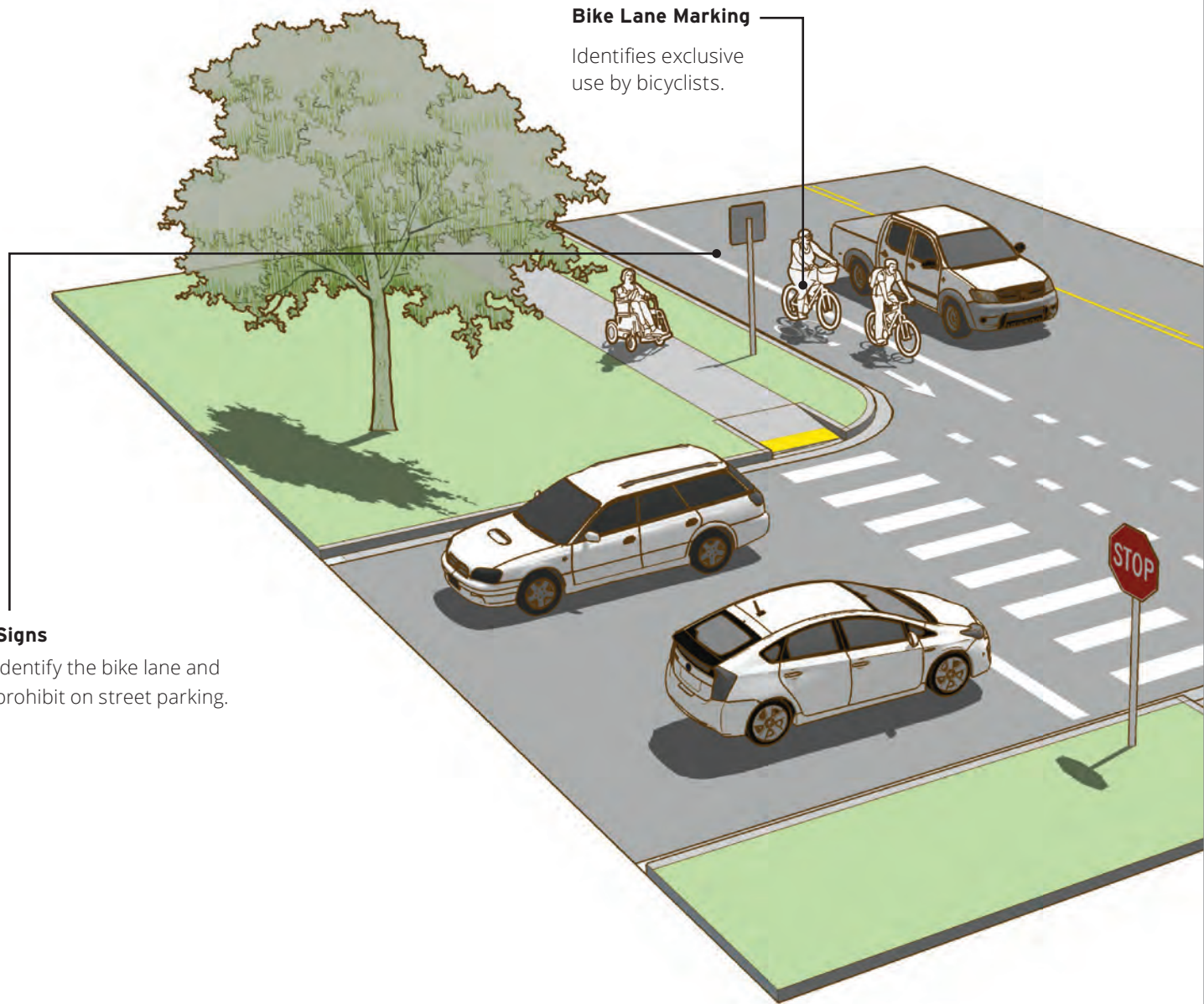
- i NCHRP Report 600 states that the addition of paved shoulders may improve safety of all roadway users and have been shown to significantly reduce run-off-road crash rates by 80 percent on some rural highways (2012, p. 16-6).
- ii The AASHTO Bike Guide states, “Additional shoulder width is also desirable if motor vehicle speeds exceed 50 mi/h (80 km/h); if use by heavy trucks, buses, or recreational vehicles is considerable; or if static obstructions exist at the right side of the roadway” (2012, p.4-7).
- iii Functional classification volumes are based on Table 3-6 in FHWA’s Highway Functional Classification Concepts, Criteria and Procedures 2013. Desirable shoulder widths based on achieving LOS A using the Bicycle Level of Service Calculator 2007. Calculations assume 1 travel lane per direction; outside lane width of 11 ft.; 2 percent heavy vehicle mix; average pavement quality and no on-street parking.
- iv General physical dimensions of rumble strips are based on common designs described in NCHRP Synthesis 490, with bicycle specific enhancements to improve maneuvering by bicyclists identified in FHWA Technical Advisory on Shoulder and Edge Line Rumble Strips 2011.
The decision to use adjusted rumble strip dimensions should be made with the understanding that reducing the dimensions can significantly reduce the alerting noise and associated safety effectiveness of the rumble strip for motorists.
- v NCHRP Report 641 indicates that there may not be a practical difference in the effectiveness of rumble strips placed on the edge line or 2 ft or more beyond the edge line on two-lane rural roads (2016).

WORKS CITED

- American Association of State Highway and Transportation Officials. *A Policy on Geometric Design of Highways and Streets*. 2011.
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- Federal Highway Administration. *Incorporating On-Road Bicycle Networks into Resurfacing Projects*. 2016.
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- Federal Highway Administration. Rumble Strips and Rumble Strips Website. http://safety.fhwa.dot.gov/roadway_dept/pavement/rumble_strips/
- NCHRP. *Report 600: Human Factors Guidelines for Road Systems*. 2012.
- NCHRP. *Report 641: Guidance for the Design and Application of Shoulder and Centerline Rumble Strips*. 2009.
- NCHRP. *Synthesis 490: Practice of Rumble Strips and Rumble Stripes*. 2016.
- Sprinkle Consulting Inc. *Bicycle Level of Service Calculator*. 2007.

PHOTO CREDIT

- Page 3-1. Western Transportation Institute
- Page 3-5. Alta Planning + Design
- Page 3-6 Bob Boyce via Ped Bike
- Page 3-9. Alta Planning + Design
- Page 3-10. Western Transportation Institute



Bike Lane Marking

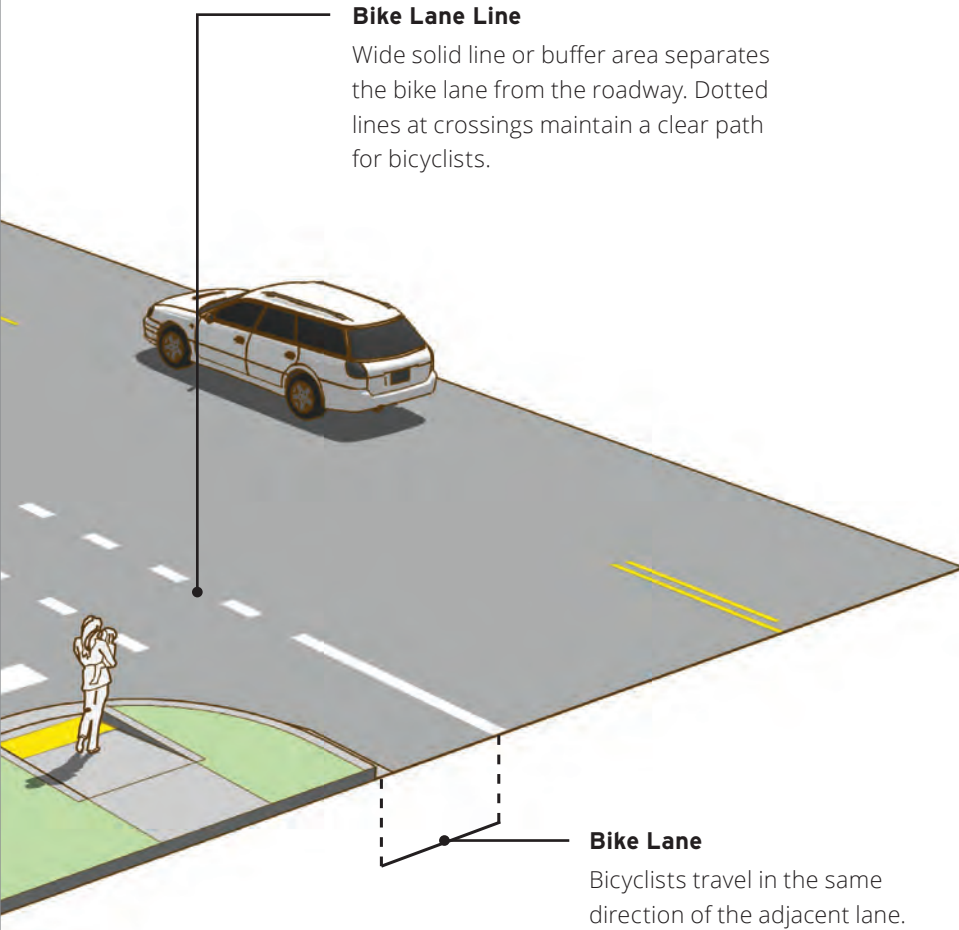
Identifies exclusive use by bicyclists.

Signs

Identify the bike lane and prohibit on street parking.

Bike Lane

Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and optional signs. A bike lane is located directly adjacent to motor vehicle travel lanes and follows the same direction as motor vehicle traffic.



BENEFITS

- Provides additional separation distance between the sidewalk and motor vehicle travel area, if a sidewalk is present.
- Connects and completes bikeway networks through built-up areas.
- Provides a designated space on the roadway suitable for many skilled bicyclists within built-up areas of small communities.
- Can support school access by bicycle when configured as a wide bike lane on lower-speed, lower-volume streets.
- Provides additional visual cues to drivers that they should expect bicyclists on the roadway. This can be particularly useful when transitioning to a built-up area from a highway context.

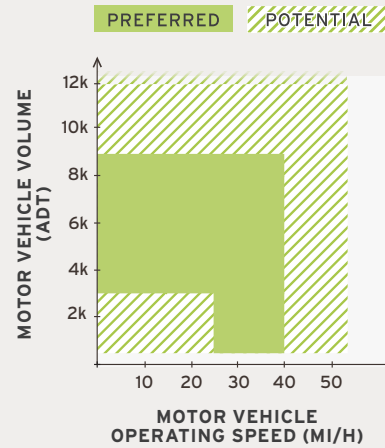
CONSIDERATIONS

- Reflects a more urban visual atmosphere than an unmarked shoulder.

APPLICATION

Speed and Volume

Appropriate on streets with moderate volumes and moderate speed. May function on multilane streets with heavy traffic but fails to provide a low-stress experience in this condition, which would appeal to larger numbers of bicyclists.



Network

Serves moderate distance trips connecting local bikeway routes to regional corridors.



Land Use

For use inside or between, built-up areas where increased pedestrian and/or bicycle activity is present or expected.





Bike Lane

Within built-up areas, increased pedestrian activity and curbside uses degrade the experience of nonexclusive bicycling accommodations such as shoulders. Providing a designated bike lane can provide a consistent area for bicyclists to travel outside the path of motor vehicles. When space is available, add a buffer area, distancing the bike lane from the adjacent motor vehicle travel lane.

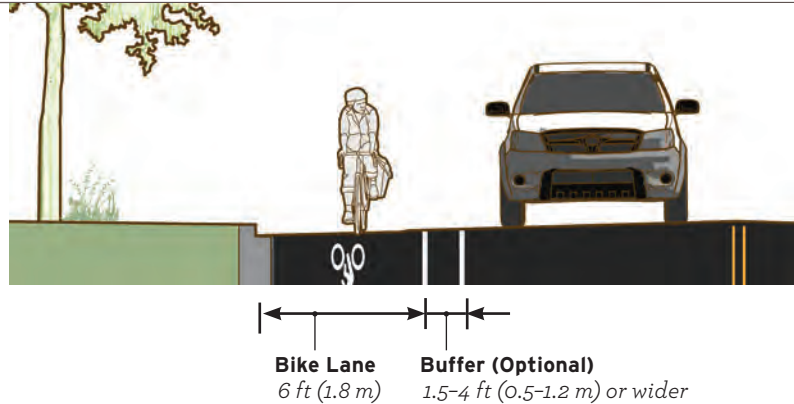


Figure 3-7. Bike lanes establish an area for exclusive bicycle use outside the path of motor vehicles.

GEOMETRIC DESIGN

BIKE LANES

Design bike lanes to separate road users and reduce the stress of motor vehicle passing events.

- The preferred minimum width of a bike lane is 6.5 ft (2.0 m) to allow for bicyclists to ride side-by-side or pass each other without leaving the bike lane.
- Absolute minimum bike lane width is 4 ft (1.2 m) when no curb and gutter is present or 5 ft (1.5 m) when adjacent to a curbface, guardrail, other vertical surface or on-street parking stalls (AASHTO Bike Guide 2012).
- Widths 7 ft (2.1 m) or greater may encourage motor vehicle use of bike lane for parking or driving. If extra width is available or desired, configure with a buffer zone to delineate space.

MARKINGS

Mark a bike lane line with a normal solid white line and a standard bike lane symbol marking. Standards and guidance for applying these elements can be found in the MUTCD 2009.

Lane markings should remain solid and not dotted at driveway crossing. The MUTCD does not recognize a driveway as an intersection (MUTCD 2009, AASHTO Bike Guide 2012).

BUFFER ZONE

Bike lanes may be enhanced with a longitudinal marked buffer area for more separation distance. This treatment is appropriate for bike lanes on roadways with high motor vehicle traffic volumes and speed, adjacent to parking lanes, or a high volume of truck or oversized vehicle traffic.¹

- A minimum width buffer of 1.5 ft (0.5 m) may be bound by two solid lines, without interior markings.

- A** If the buffer is 4 ft (1.2 m) or wider, mark with diagonal or chevron hatching.

For more information on buffer zone striping and application, refer to NCHRP 766–Recommended Bicycle Lane Widths for Various Roadway Characteristics 2014.



Figure 3-8. Helmeted bicyclist symbol inside a bike lane with a painted buffer area.



Bike Lane

SIGNS

An optional bike lane sign may be used to supplement the bike lane pavement markings. Standards and guidance for applying these elements can be found in the FHWA MUTCD.



Figure 3-9. An optional R3-17 Bike Lane sign may be used to supplement bike lane markings. An R7-9 sign may be used if parked vehicles frequently block the bike lane.

INTERSECTIONS

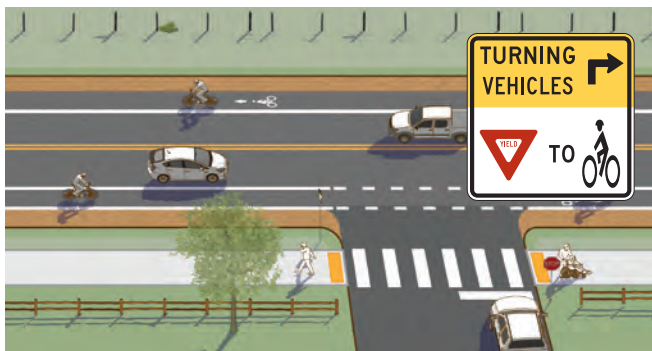
Design strategies for bike lanes at intersections emphasize reducing speeds, minimizing exposure, raising awareness, and communicating right-of-way priority.

- Under most conditions, bicyclists have priority over turning traffic. Markings and signs should support this priority and remind motorists of the obligation to yield.

- B** Adjacent to a through-right lane, use a modified R10-15 Turning Vehicles Yield to Bikes sign to clarify user priority.
- C** Where a right-turn lane is established to the right of a bike lane, R4-4 Begin Right Turn Lane Yield to Bikes sign reminds motorists to yield to bicyclists before entering the lane.

- Where special emphasis is desired, green pavement color may be used within bike lanes and at merging or weaving areas where motor vehicles may cross bike lanes. For more information on the use of color, refer to FHWA Interim Approval 14 2011.

Intersection Crossing Markings



Added Right Turn-Only Lane



Figure 3-10. A variety of design treatments exist depending on the roadway configuration, available curb-to-curb width, traffic volumes and desire to provided a dedicated turn lane. All designs should strive to reduce speeds of turning vehicles, remind users of bicycle priority, and clarify user positioning approaching and through the intersection. Common signs at intersections include R4-4 Begin Right Turn Lane Yield to Bikes and a modified R10-15 Turning Vehicles Yield to Bikes sign.⁽¹⁾

IMPLEMENTATION

Include or upgrade shoulders during roadway resurfacing, rehabilitation, and reconstruction and in new construction projects. For more information on implementation strategies, refer to FHWA Resurfacing Guide 2016.

ACCESSIBILITY

Bike lanes are designed for the exclusive use of bicyclists and are not intended for use by pedestrians. For information on appropriate pedestrian facilities, refer to the guidance on Sidewalk or Sidepath in this guide.



CASE STUDY | BIKE LANE

Lyndonville, Vermont

PROJECT DESCRIPTION

The Lyndonville planner worked with the Vermont Agency of Transportation (VTrans) during the construction of a large repaving project through Lyndonville to incorporate bike lanes into the project. Bike lanes were incorporated on Main Street, Broad Street, and Center Street. Along Depot Street, shared lane markings are the preferred option given on-street parking. On the Main Street section of the project, the existing roadway had no parking and wide shoulders. This combination allowed VTrans to design painted buffered bike lanes.

The addition of buffered bike lanes to the already under construction paving project was possible through the use of painted buffers. In addition, green paint was added at the bike lane through the intersections to highlight the areas of potential conflict. Because of variable shoulder widths, the painted buffer has a constant width of 2 ft while the bike lane width varies between 5 and 8 ft.

DETAILS**COMMUNITY CONTEXT**

Lyndonville, population 1,207, is a village within the town of Lyndon, VT. Located in Vermont's rural Northeast Kingdom, Lyndonville is home to Lyndon State College with approximately 1,400 students. Nearby Burke Mountain offers lift access downhill mountain biking, and Kingdom Trails anchors a growing network of mountain bike trails in the region.

KEY DESIGN ELEMENTS

Painted buffered bike lane with additional pavement markings.

ROLE IN THE NETWORK

The buffered bike lanes on Main Street are part of the network of on-street bike lanes and shared streets that connect the downtown businesses with residential streets and Lyndon State College.

FUNDING

The bike lanes were included as part of the paving project which was funded with 81 percent Federal funds and 19 percent State funds. Being incorporated into a planned and funded paving project meant that the additional costs for the buffered bike lanes were minimal.

For more information, refer to the Vermont Agency of Transportation: <http://vtrans.vermont.gov/>



Bike Lane

South Lake Tahoe, CA—Population 21,380



FOOTNOTES

- i The AASHTO *Bike Guide* states that “striped buffers may be used to provide increased separation between a bike lane and another adjacent lane that may present conflicts, such as a parking lane with high turnover or a higher speed travel lane” (2012, p. 4-18).
- ii The FHWA *Separated Bike Lane Planning and Design Guide* recommends the use of a modified R10-15 with a bicycle symbol in place of the pedestrian symbol (2012, p. 127).

WORKS CITED

- American Association of State Highway and Transportation Officials. *Guide for the Development of Bicycle Facilities*. 2012.
- Federal Highway Administration. *Incorporating On-road Bicycle Networks into Resurfacing Projects*. 2016.
- Federal Highway Administration. *Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14)*. 2011.
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- Federal Highway Administration. *Separated Bike Lane Planning and Design Guide*. 2015.
- NCHRP. *Report 766 - Recommended Bicycle Lane Widths for Various Roadway Characteristics*. 2014.

PHOTO CREDIT

- Page 3-15. Western Transportation Institute
- Page 3-16. Tahoe Regional Planning Agency (TRPA)



CHAPTER 4

Physically Separated Facilities

4-3 *Shared Use Path*

4-11 *Sidepath*

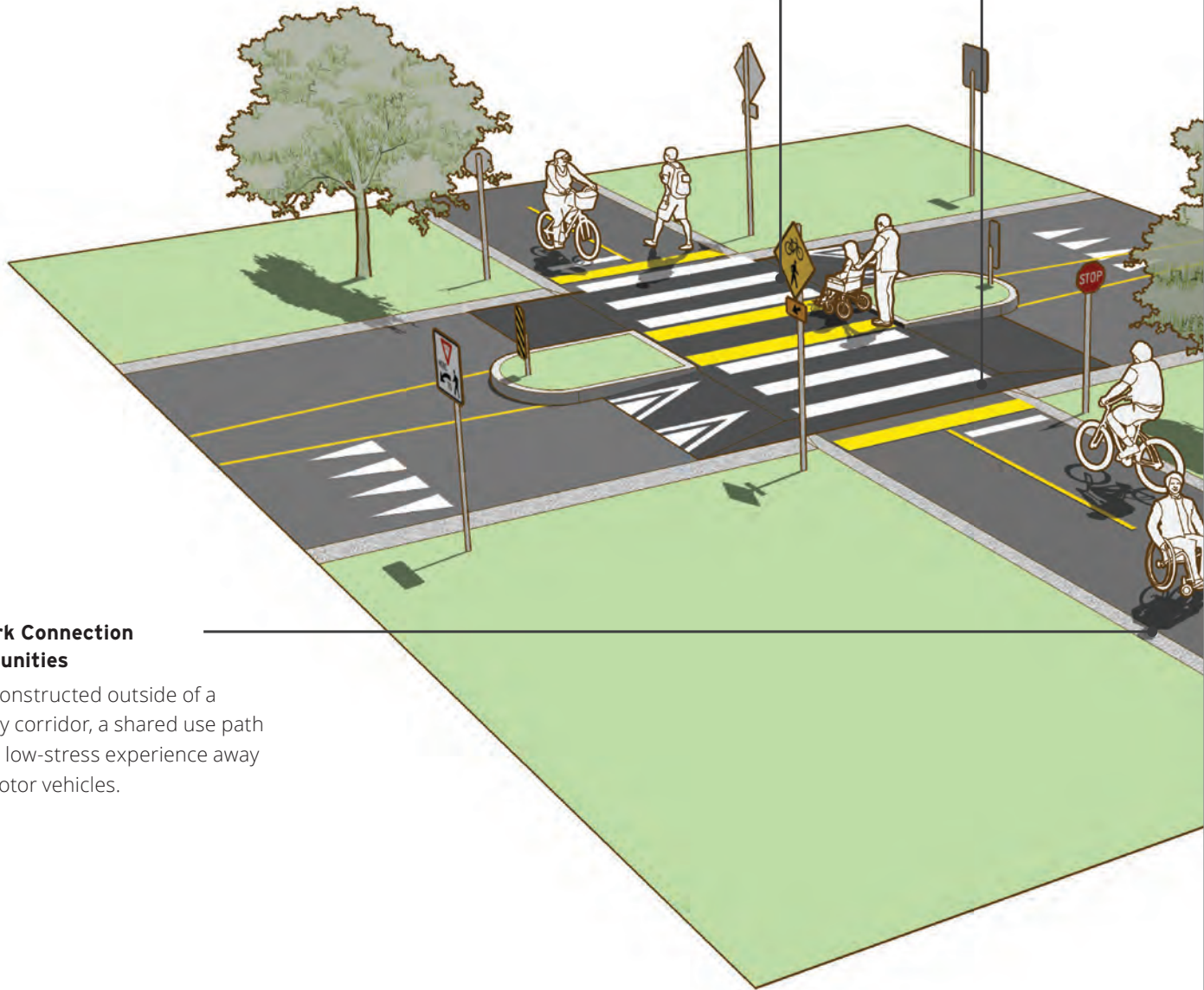
4-19 *Sidewalk*

4-25 *Separated Bike Lane*



Intersection Crossings

Enhancements such as median crossing islands or raised crossings can increase comfort and safety for path users.



Network Connection Opportunities

When constructed outside of a roadway corridor, a shared use path offers a low-stress experience away from motor vehicles.

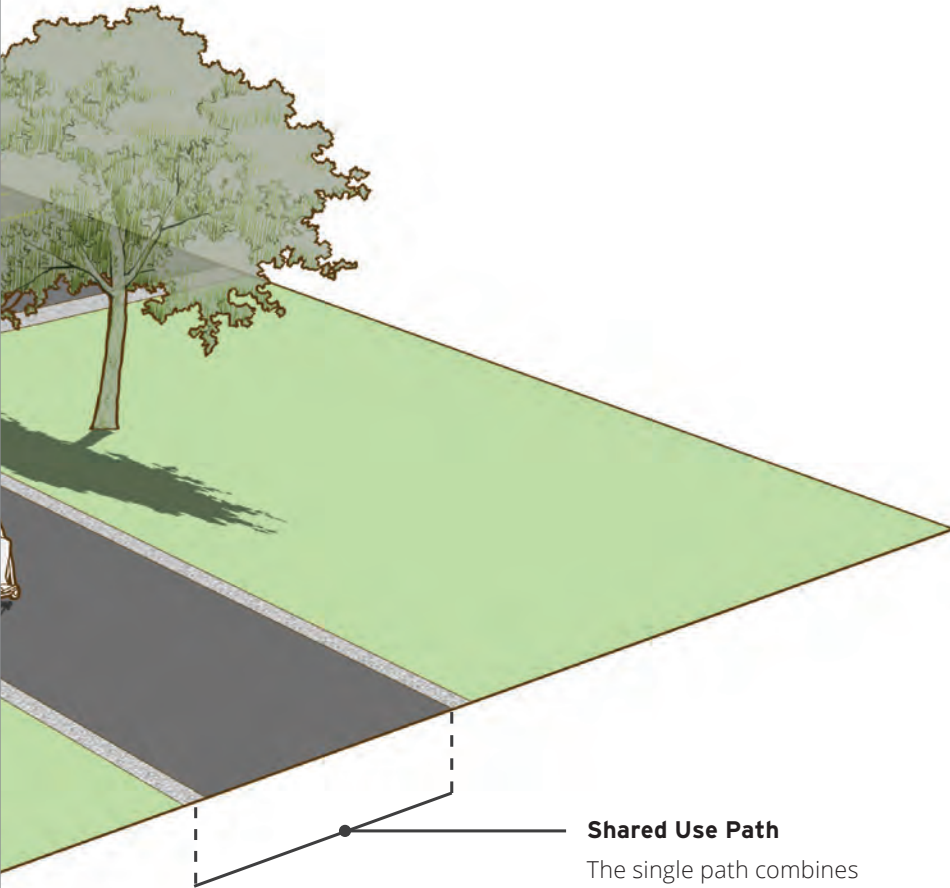
Shared Use Path

A shared use path provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation.



Roadway Crossings

Where paths intersect roads, enhancements should improve conditions for path users.



Shared Use Path

The single path combines bicyclists and pedestrians in both directions.

BENEFITS

- Provides a dedicated facility for users of all ages and abilities.
- Provides, in some cases, a short-cut between cities or neighborhoods.
- Provides, in some cases, access to areas that are otherwise served only by limited-access roadways.
- Supports tourism through convenient access to natural areas or as an enjoyable recreational opportunity itself.
- Provides nonmotorized transportation access to natural and recreational areas, which can especially help low-income people obtain access to recreation.
- Paths have a small footprint and can display a distinctly rural character.

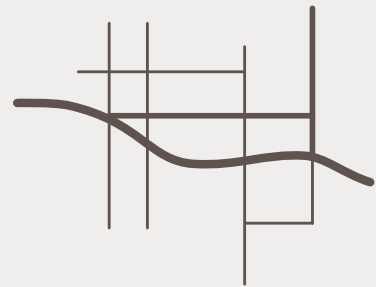
APPLICATION

Speed and Volume

Paths operating in independent corridors are fully separated from traffic. Facility provision is based on opportunity and connectivity rather than roadway context. In some cases, an independent corridor may offer similar connectivity and access to destinations as a nearby roadway.

Network

Serves connections independently of the street network. May function as a network alternative road and highway connections.



Land Use

Generally appropriate outside of built-up areas, and also as a corridor connection within built-up areas.





Shared Use Path

Shared use paths offer network connectivity opportunities beyond that of the roadway network. These facilities are often located in parks, along rivers, beaches, and in greenbelts or utility corridors where there are few conflicts with motorized vehicles. For paths adjacent to roadways, see *Sidepath*.

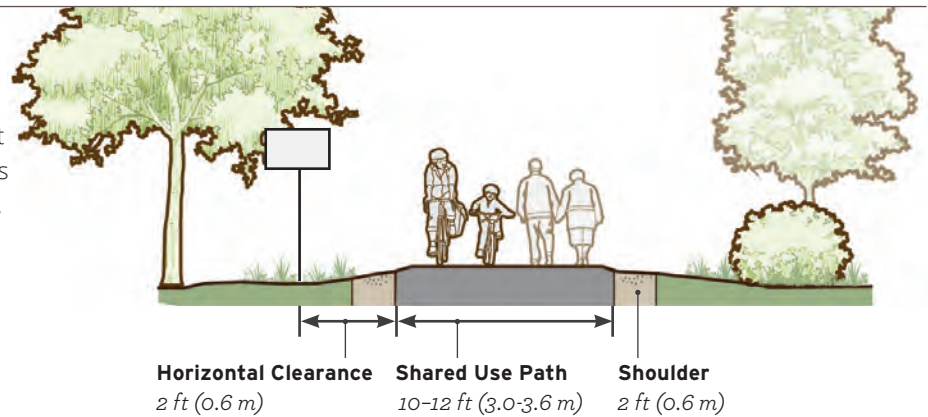


Figure 4-1. Shared Use Path Dimensions



Yacolt, WA—Population 1,600

GEOMETRIC DESIGN

WIDTH

The geometric design of shared use paths should support the speed and volume of expected user types.

- 10 ft (3.0 m) width is recommended in most situations and will be adequate for moderate to heavy use.
- A 2 ft (0.6 m) shoulder should be provided on each side of the path, kept clear of vertical elements or obstructions.

Table 4-1. Pathway Volume and User Mix⁽¹⁾

Volume and User Mix	Recommended Minimum Pathway Width
Low volume (less than 50 users in one direction per hour), low mix (75 percent bicyclists, 25 percent pedestrians).	8-10 ft (2.4-3.0 m)
Low volume (less than 50 users in one direction per hour), heavy user mix (50 percent bicyclists, 50 percent pedestrians).	12 ft (3.6 m)
High volume (150 or more users in one direction per hour), low mix (75 percent bicyclists, 25 percent pedestrians).	12-14 ft (3.6-4.2 m)

Shared Use Path

GEOMETRIC DESIGN

- 8 ft (2.4 m) is the minimum allowed for a two-way bicycle path and is only recommended for low traffic situations or for short lengths.
- 12-14 ft (3.6–4.3 m) is recommended for heavy use situations with high concentrations of multiple users.
- Wider paths are useful to accommodate maintenance vehicles; on steep grade to allow for comfortable passing and meeting; and through curves to provide more operating space.



MARKINGS

STRIPING

Under most conditions, center line markings are not necessary, and path users will naturally keep right except to pass.

On shared use paths with heavy peak hour and/or seasonal volumes, the use of a center line stripe may help organize pathway traffic.

- When striping is required, use a 4 inch broken yellow center line stripe with 4 inch solid white edge lines.
- Solid center lines can be provided on tight or blind corners and on the approaches to roadway crossings.
- Mark edge lines on paths expecting evening use.

SIGNS

In a mixed user environment, Yield etiquette signs may be used. An example is shown in Figure 4-2. Many communities have created customized signage to reflect local user groups and conditions.

- Bikes Yield to Peds (R9-6) signs may be used at the entrances of path segments to remind bicyclists of the requirement to yield.



Figure 4-2. Signs can clarify yielding rules in shared-use environments may be modified based on expected user types.



Shared Use Path

INTERSECTIONS

Motorists should yield right-of-way to pedestrians within crosswalks. Depending on State or local laws, motorists may also yield to bicyclists within crosswalks.⁽ⁱⁱ⁾

Figure 4-3 identifies recommendations related to marked crosswalk installation and enhancement by speed and volume on two-lane streets.

FHWA *Safety Effects of Marked Crosswalks at Uncontrolled Locations 2005* recommends crossing enhancements on high-speed and high-volumes roadways where crosswalk markings alone are not a viable safety measure.

For additional information on marked crosswalks, refer to the Enhanced Crossing Treatments section of FHWA *Achieving Multimodal Networks 2016* and *BIKESAFE 2014*.

Marked Crosswalks

A basic marked shared use path crossing consists of a marked crosswalk, plus signs and other markings to slow or stop traffic.

- Crosswalk markings establish a legal crosswalk at areas away from intersections.
- Crossing sign assemblies and advance crossing sign assemblies using W11-15 and W16-7P signs should be used to warn users of the crossing location.

High-visibility crosswalk markings are the preferred marking type at uncontrolled marked crossings. Transverse lines are “essentially not visible” when viewed from a standard approaching vehicle (ITE 2010).

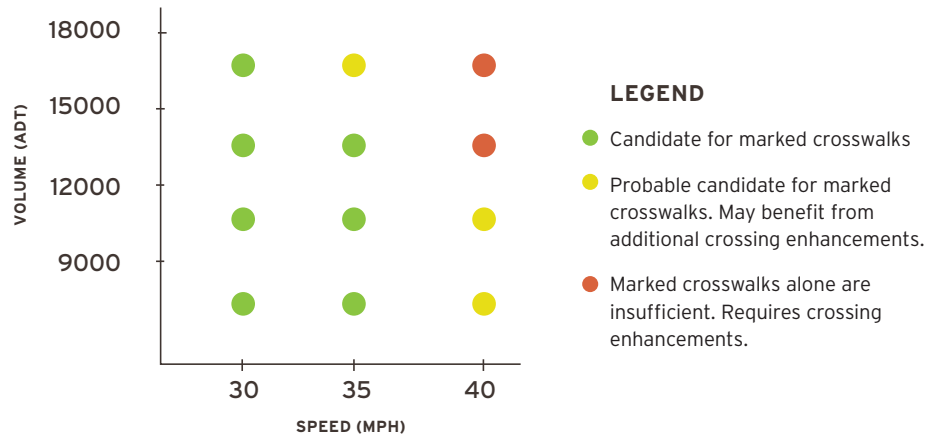


Figure 4-3. Conditions unsuitable for a marked crosswalk alone are candidates for additional enhancements such as curb extensions, median islands and/or active warning beacons. Chart adapted from FHWA *Safety Effects of Marked Crosswalks at Uncontrolled Locations 2005* Table 2-11 (data for two-lane roadway at non school crossings).

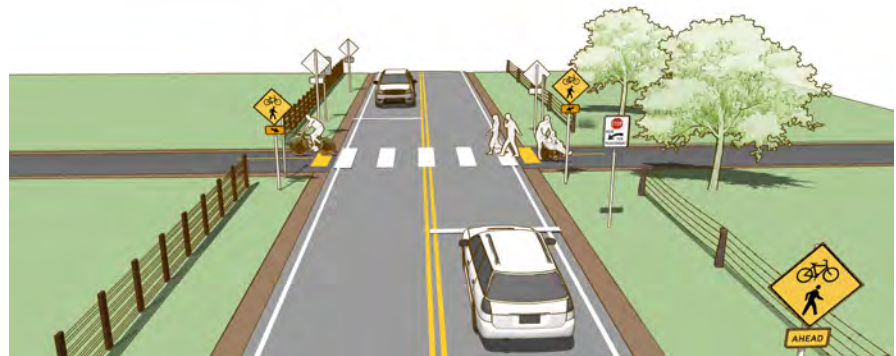


Figure 4-4. A simple marked crosswalk may be appropriate at crossings with low motor vehicle speeds and volumes.



Shared Use Path

INTERSECTIONS

MEDIAN ENHANCED CROSSWALKS

Median islands are beneficial on roadways with high volumes and/or high speeds, and on roadways with three or more travel lanes. Median islands particularly benefit people who may travel slower, such as children, older adults, and people with disabilities.

Median islands are an FHWA Proven Safety Countermeasure.

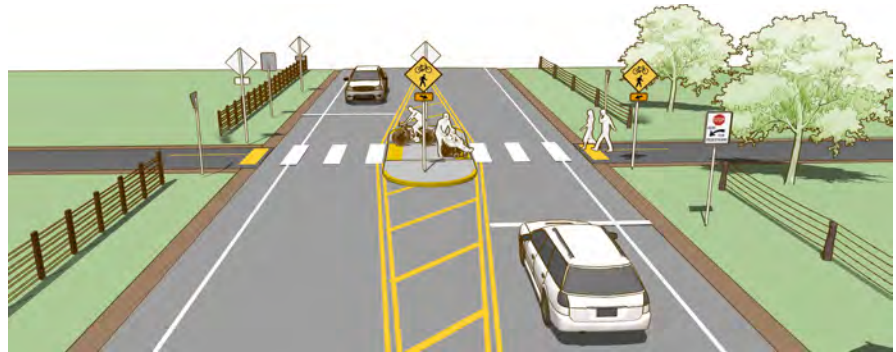


Figure 4-5. A median safety island should allow path users to cross one lane of traffic at a time. The bicycle waiting area should be at least 8 ft deep to allow for a variety of bicycle types. To promote yielding to bicyclists the median safety island should be designed to require horizontal deflection of the motor vehicle travel lanes.

ACTIVE ENHANCED CROSSWALKS

Where greater visibility or traffic control is desired, a rectangular rapid flash beacon (RRFB) or pedestrian hybrid beacon (PHB) may be used.

- RRFBs are a yield enhancement device for use at uncontrolled crossings. They may be configured with solar power where it is the most cost-effective option. See FHWA Interim Approval 11 2008 for guidance on the application of RRFBs.
- PHB's provide a red signal indication to drivers, and create yielding rates similar to that of a conventional traffic signal. PHBs are particularly useful on undivided roadways with multiple lanes in any one direction. PHBs are an FHWA Proven Safety Countermeasure. See FHWA Pedestrian Hybrid Beacon Guide 2015 for more information.

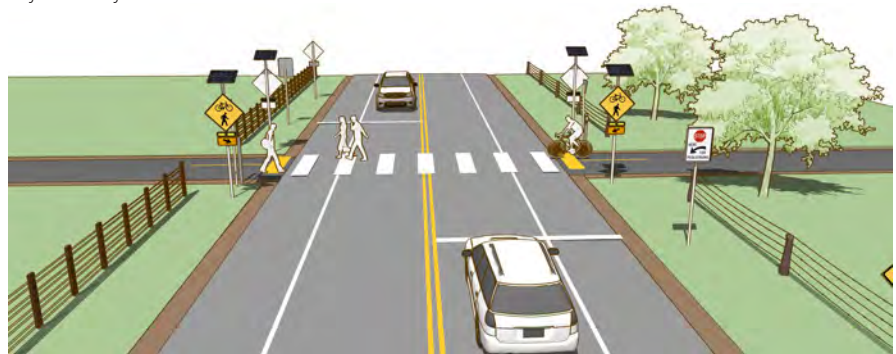


Figure 4-6. Where yield compliance is low, rectangular rapid flash beacons can be used to draw attention to crossing path users and signal their intent to cross.

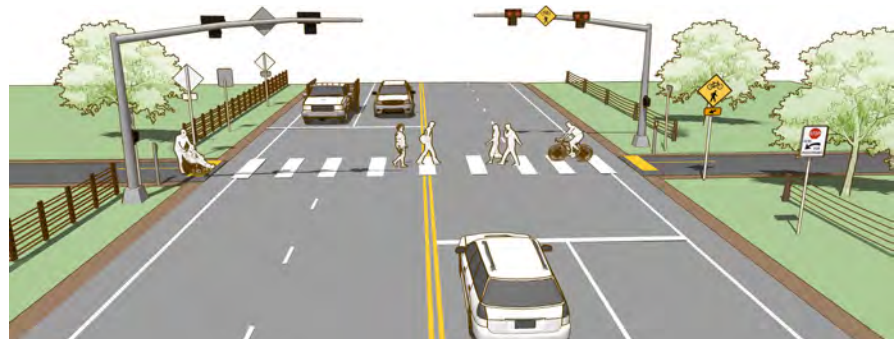


Figure 4-7. On multilane streets with high volumes and few gaps for crossing, a pedestrian hybrid beacon may be used to increase yielding rates.

IMPLEMENTATION

Asphalt is the most common surface for shared use paths. The use of concrete for paths has proven to be more durable and significantly reduces maintenance costs over the long term. Saw-cut concrete joints rather than troweled improve the experience for wheeled path users.

ACCESSIBILITY

A shared use path is a separated facility intended for use by pedestrians and must meet accessibility guidelines for walkways and curb transitions. Shared use paths are required to be accessible by all users, including those with mobility devices and vision disabilities.



CASE STUDY | SHARED USE PATH

Pickens and Easley, South Carolina

PROJECT DESCRIPTION

The Pickens “Doodle Line” Railway is a 7.4-mile railroad that previously connected the cities of Pickens and Easley for lumber and other freight travel. As freight and manufacturing in Pickens declined in the late 1990s, the private owner of the railway decided to explore options to sell the ownership rights and promote a rail to trail conversion. The Doodle Trail, a 7.4 mile rails-to-trails partnership between the City of Easley and the City of Pickens opened Memorial Day Weekend 2015.

The shared-use asphalt path provides a vital recreation and transportation corridor for visitors and residents alike, as well as major economic and regional impacts. Residents and governmental leaders saw the economic impacts of the Swamp Rabbit Trail, an over 20-mile rail-trail in neighboring Greenville and wanted to create a similar regional attraction, that also benefited the local community.

The City of Easley and City of Pickens jointly purchased the railway corridor, creating a cooperative partnership between the two cities.

Soon after the trail was completed in Spring 2015, residents of Easley saw the economic development potential of the shared use path and wanted it to extend to their businesses in downtown Easley, approximately 1 mile from the Doodle Trailhead. An extension of the path, from the trailhead to downtown, is currently in the design phase and construction is set to begin in Winter 2016.

DETAILS**COMMUNITY CONTEXT**

The City of Easley has a population of 20,300. The City of Pickens, located to the northwest, has a population of 3,150. Both cities are located within Pickens County.

KEY DESIGN ELEMENTS

Fencing, landscaping, and roadway crossings were all designed and constructed to ensure a safe, attractive path between the two communities.

ROLE IN THE NETWORK

The shared use path serves as a transportation and recreation corridor for residents and visitors, and enhances connectivity between the two communities. The City of Pickens developed bike lanes to connect to downtown Pickens. The City of Easley is extending the trail into downtown and has provided bike lanes for alternate connections to Baptist Easley Hospital and cultural amenities.

FUNDING

Both cities used separate General Obligation Hospitality Tax Bonds to fund the acquisition and construction of the trail. The City of Easley is currently using a General Obligation Bond to fund acquisition, design, and construction of the shared use path extension into Downtown. The federally-funded Recreational Trails Program administered through the South Carolina Department of Parks, Recreation, and Tourism funded the extension to Highway 8.

For more information, refer to the City of Easley and the City of Pickens:

<http://www.cityofeasley.com/>

<http://www.cityofpickens.com/>



Shared Use Path

Bentonville, AR—Population 40,000



FOOTNOTES

- i Table calculated based on a target level of service of “B” the FHWA Shared-Use Path Level of Service Calculator 2006.
- ii The **Uniform Vehicle Code UVC** is clear in the priority of pedestrians over motor vehicles in marked or unmarked crosswalks and through driveways.

UVC § 11- 502(a) Pedestrians’ right of way in crosswalks: When traffic-control signals are not in place or not in operation, the driver of a vehicle shall yield the right of way, slowing down or stopping if need be to yield to a pedestrian crossing the roadway within a crosswalk.

UVC § 11-509 Pedestrians’ right of way on sidewalks: The driver of a vehicle crossing a sidewalk shall yield the right of way to any pedestrian and all other traffic on the sidewalk.

Additionally, bicycles on sidewalks receive the same rights as pedestrians, such as priority over other traffic, and must fulfill the same duties, and shall not “enter the intersection in disregard of approaching traffic” (Sec. 46.2-924)

UVC § 11-1209(c), Bicycles and human powered vehicles on sidewalks: A person propelling a vehicle by human power upon and along a sidewalk, or across a roadway upon and along a crosswalk, shall have all the rights and duties applicable to a pedestrian under the same circumstances.

PHOTO CREDIT

- Page 4-1. Western Transportation Institute
- Page 4-5. Alta Planning + Design
- Page 4-6. Alta Planning + Design
- Page 4-9. Alta Planning + Design
- Page 4-10. Alta Planning + Design

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Intersection Treatments

Geometric design at intersections slows motorists and prioritizes bicyclists and pedestrians.

Roadway Separation

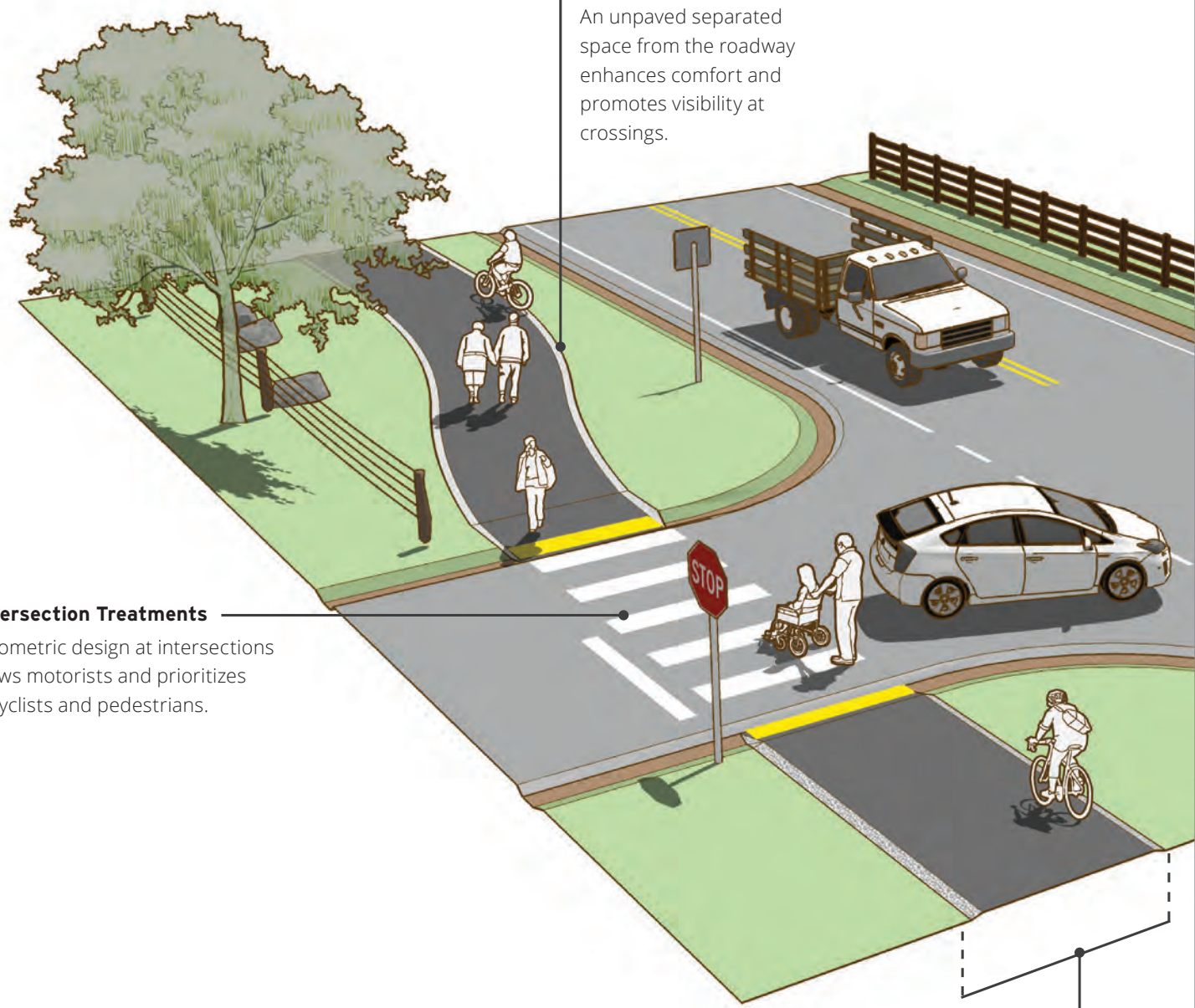
An unpaved separated space from the roadway enhances comfort and promotes visibility at crossings.

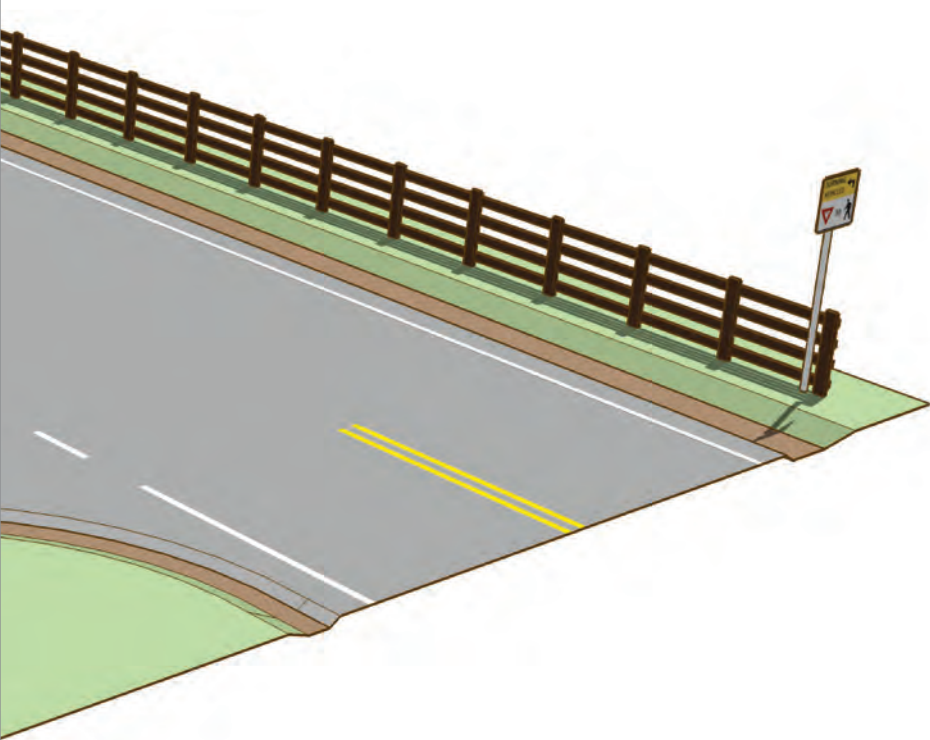
Sidepath

Sidepaths serve bidirectional pedestrian and bicyclist travel.

Sidepath

A sidepath is a bidirectional shared use path located immediately adjacent and parallel to a roadway. Sidepaths can offer a high-quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain rural and small town community character.

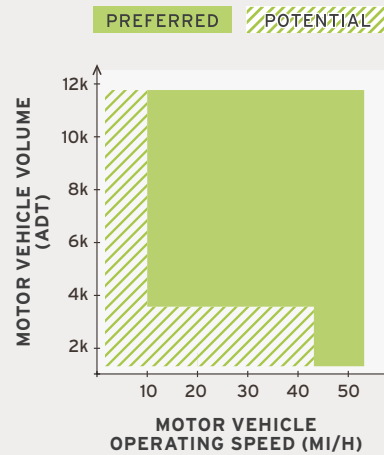




APPLICATION

Speed and Volume

For use on roads with high volumes, and moderate-to high-speed motor vehicle traffic.



Network

For use on arterial links on the regional or local biking and walking network



Land Use

For use inside of built-up areas to provide a dedicated space for pedestrians.



BENEFITS

- Completes networks where high-speed roads provide the only corridors available.
- Fills gaps in networks of low-stress local routes such as shared use paths and bicycle boulevards.
- Provides a more appropriate facility for users of all ages and abilities than shoulders or mixed traffic facilities on roads with moderate or high traffic intensity.⁽ⁱ⁾
- Encourages bicycling and walking in areas where high-volume and high-speed motor vehicle traffic would otherwise discourage it.⁽ⁱⁱ⁾
- Maintains rural character through reduced paved roadway width compared to a visually separated facility.⁽ⁱⁱⁱ⁾
- Very supportive of rural character when combined with vegetation to visually and physically separate the sidepath from the roadway.

CONSIDERATIONS

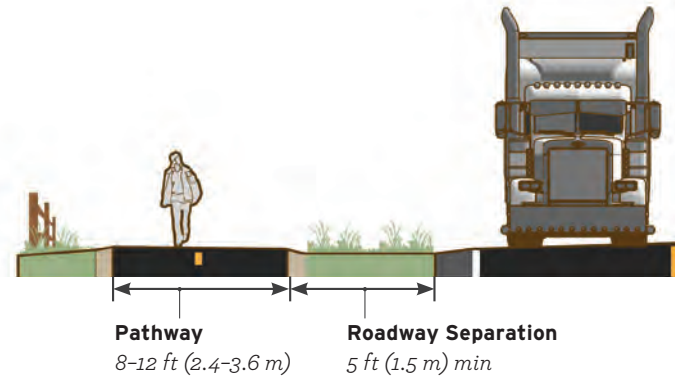
- Requires a wide roadside environment to provide for separation and pathway area outside of the adjacent roadway.



Sidepath

Sidepaths offer a low-stress experience for bicyclists and pedestrians on network routes otherwise inhospitable to walking and bicycling due to high-speed or high-volume traffic.

Figure 4-8. Recommended dimensions for sidepath width and unpaved separation distance.



GEOMETRIC DESIGN

Widths and design details of sidepath elements may vary in response to the desire for increased user comfort and functionality, the available right-of-way, and the need to preserve natural resources.

PATHWAY

Sidepath width impacts user comfort and path capacity. As user volumes or the mix of modes increases, additional path width is necessary to maintain comfort and functionality.

- Minimum recommended pathway width is 10 ft (3.0 m). In low-volume situations and constrained conditions, the absolute minimum sidepath width is 8 ft (2.4 m)
- Provide a minimum of 2 ft (0.6 m) clearance to signposts or vertical elements.

ROADWAY SEPARATION

Separation from the roadway should be informed by the speed and configuration of the adjacent roadway and by available right-of-way as illustrated in Figure 4-9.

- Preferred minimum separation width is 6.5 ft (2.0 m). Minimum separation distance is 5 ft (1.5 m).
- Separation narrower than 5 ft is not recommended, although may be accommodated with the use of a physical barrier between the sidepath and the roadway. The barrier and end treatments should be crashworthy which may introduce additional complexity if there are frequent driveways and intersections. Refer to the **AASHTO Roadside Design Guide 2011** for additional information.

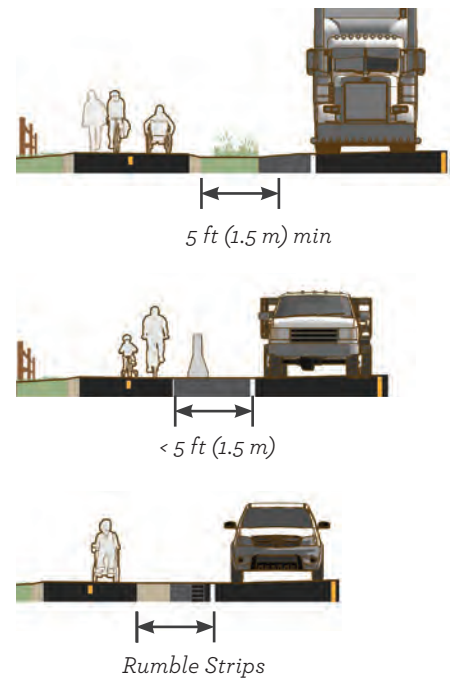


Figure 4-9. Where a minimum of 5 ft (1.5 m) unpaved separation cannot be provided (top), A physical barrier may be used between the sidepath and the roadway (center). In extremely constrained conditions for short distances, on-roadway rumble strips may be used as a form of separation (bottom).

- On high-speed roadways, a separation width of 16.5–20 ft (5–6 m) is recommended for proper positioning at crossings and intersections.

Sidepath

GEOMETRIC DESIGN

LANDSCAPING

Trees and landscaping can maintain community character and add value to the experience of using a sidepath. They provide shade for users during hot weather and help to absorb stormwater runoff.

- Provide a 3 ft (0.9 m) horizontal clearance between trees and the pathway to minimize pavement cracking and heaving of the paved surface. Consult a local arborist in the selection and placement of trees.
- When trees are desired within the roadway separation area, consider planting small caliper trees with a maximum diameter of 4 inches (100 mm) to alleviate concerns about fixed objects or visual obstructions between the roadway and the pathway.^(iv)

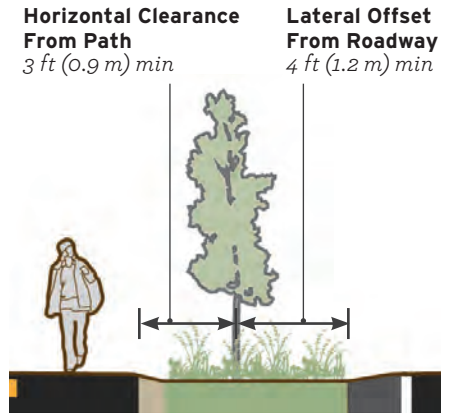


Figure 4-10. Even small trees can provide an additional feeling of separation between the sidepath and the roadway.

South Lake Tahoe, CA—Population 21,380



MARKINGS

Sidepaths may include edgelines or centerlines or be unmarked.

- Edge lines should be marked on paths expecting evening use.
- Paths with a high volume of bidirectional traffic should include a centerline. This can help communicate that users should expect traffic in both directions and encourage users to travel on the right and pass on the left (Flink and Searns 1993).

SIGNS

- Shared use paths are bidirectional facilities and signs should be posted for path users traveling in both directions.
- It is important for signs that only apply to the path to not be interpreted as a guidance for roadway travel lanes.



Sidepath

INTERSECTIONS

Operational and safety concerns exist where sidepaths cross driveways and intersections. Refer to section 5.2.2 of the **AASHTO Bike Guide 2012** for an identification of potential design issues. Design crossings to promote awareness of conflict points, and facilitate proper yielding of motorists to bicyclists and pedestrians.

DESIGN STRATEGIES

Collision risk increases as the speed and volume of the parallel roadway increase. The **AASHTO Bike Guide 2012** lists a variety of design strategies for enhancing sidepath crossings including:

- Reduce the frequency of driveways.
- Design intersections to reduce driver speeds and heighten awareness of path users.
- Encourage low speeds on pathway approaches.
- Maintain visibility for all users.
- Provide clear assignment of right-of-way with signs and markings and elevation change.

DESIGN DETAILS

- A** Maintain physical separation of the sidepath through the crossing. Sidepath separation distance may vary from 5 ft–24 ft (1.5–7.0 m). Refer to **Table 4-2**.
- Use small roadway corner radii to enforce slow turning speeds of 20 mi/h or less. On a high-speed roadway, a deceleration lane may be necessary to achieve desired slow turning speeds.

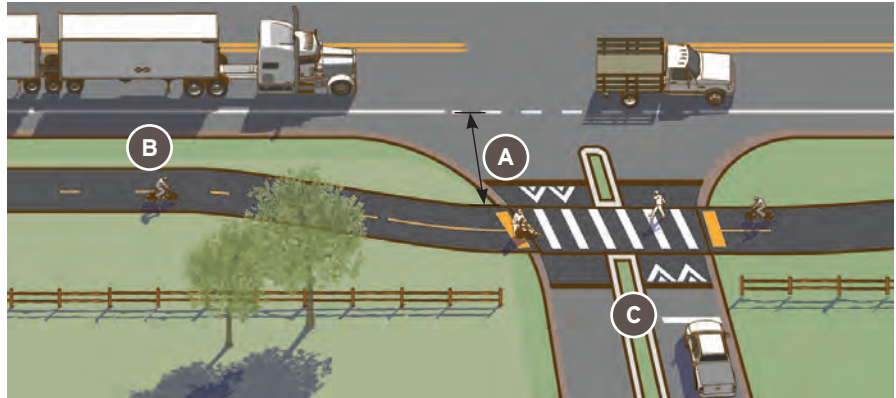


Figure 4-11. Separation distance should be selected in response to speed and traffic intensity. The pathway may need a shift in horizontal alignment in advance of the crossing to achieve desired separation distance. As speeds on the parallel roadway increase, so does the preference for wider separation distance.

Table 4-2. Sidepath Separation Distance at Road Crossings^(vii)

Adjacent Road Speed Limit (Mi/h)	Recommended Sidepath Separation Distance at Crossings
< 25 mi/h	6.5 ft (2.0 m)
35–45 mi/h	6.5–16.5 ft (2.0–5.0 m)
≥ 55 mi/h	16.5–24 ft (5.0–7.0 m)

^{*}Separation distance may vary in response to available right of way, visibility constraints and the provision of a right turn deceleration lane.

- B** The roadway and path approaches to an intersection should always provide enough stopping sight distance to obey the established traffic control, and execute a stop before entering the intersection (**AASHTO Bike Guide 2012**).
- Configure crossings with raised speed table or “dustpan” style driveway geometry to create vertical deflection of turning vehicles. This physically indicates priority of path travel over turning or crossing traffic and helps reduce the risk associated with bidirectional sidepath use.^(vi)
- C** Where possible, include raised median island on the cross street to provide additional safety and speed management benefits.
- Use crosswalk markings to indicate the through crossing along the pathway. Continental crosswalk markings are preferred for increased visibility. At low-volume residential driveways, crosswalk markings may be omitted.^(vi)
- Use stop or yield line markings in advance of the crossing to discourage encroachment into the crosswalk area.

Sidepath

ACCESSIBILITY

A sidepath is intended for use by pedestrians and must meet accessibility guidelines for walkways and curb transitions. Sidepaths are required to be accessible by all users, including those with mobility devices and visually-impaired pedestrians.

IMPLEMENTATION

Where sufficient roadway width or right of way is available, designers should consider the simultaneous provision of both sidepaths and bicycle accessible shoulders to serve a diverse range of user types.

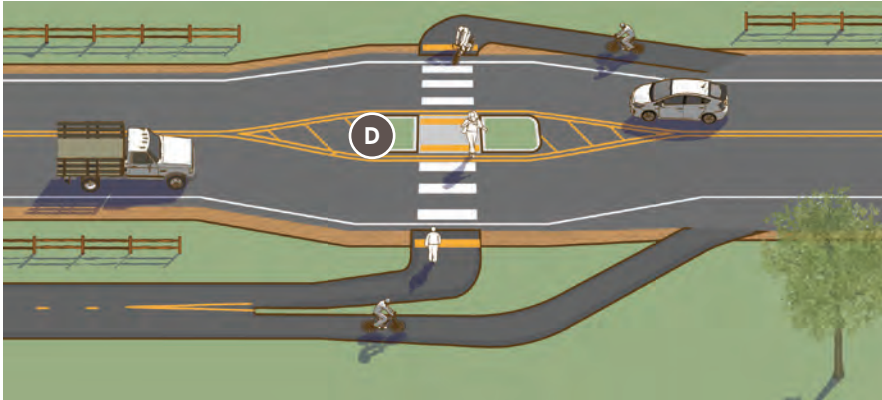


Figure 4-12. Transition from a sidepath on one side to shoulders on each side of the road.

Minor Street Crossings

Give sidepaths the same priority as the parallel roadway at all crossings. Attempts to require path users to yield or stop at each cross-street or driveway promote noncompliance and confusion, and are not effective. Geometric design in these cases should promote a high degree of yielding to path users through geometric design.

- Landscaping, barriers, or other visual obstructions should be low to provide unobstructed sight of the crossing from the major street. Both motorists and path users should have a clear and unobstructed view of each other at intersections and driveways.
- Consider using a R10-15 RIGHT TURN YIELD TO PEDESTRIANS at street crossings with right turn interactions.

Connections with On-Street Bikeways

Where a sidepath terminates, it may be necessary for path users to transition to a facility on the opposite side of the road.

- D** Designs should consider the desire for natural directional flows, and the potential for conflicts with adjacent traffic. Use median islands and horizontal deflection of the roadway travel lanes to slow motor vehicle traffic and offer improved crossing conditions for path users.



CASE STUDY | SIDEPATH

Ennis, Montana

PROJECT DESCRIPTION

The Ennis schools are located in the heart of town, though there were few pedestrian and bicycle facilities connecting to them. In 2010, local nonprofit Madison Byways organized a program to identify safer routes to school.

The project resulted in a network of walking and biking facilities including a sidepath, sidewalks, and bicycle boulevards on residential streets. This network of facilities is called the Mustang Trail, named for the Ennis school mascot.

The central location of the schools means the bike and pedestrian network benefits the entire community, connecting neighborhoods to schools, businesses, and other services.

Critical factors for success included strong leadership by Madison Byways and a collaboration effort that engaged schools, residents, businesses, and public agency representatives. Numerous activities were held to increase awareness of the Mustang Trail, including monthly Farmer's Markets, the 4th of July parade, and annual 5K run/walk.

DETAILS**COMMUNITY CONTEXT**

Rural destination community, especially in the summer, with a population of 880 in the town limits and 3,291 within the school district.

KEY DESIGN ELEMENTS

Sidepaths and sidewalks were constructed where previously there were no pedestrian facilities. The sidepath transitions from a concrete path in central Ennis to an asphalt path further west, toward a subdivision.

ROLE IN THE NETWORK

The facilities connect neighborhoods to school and businesses throughout the community. In this small town, residential streets that connect neighborhoods to schools can be shared by people walking, biking, and driving.

FUNDING

Funded by grants from three Federal funding programs: Safe Routes to School (SRTS), Recreational Trails Program (RTP), and allocated through Madison County from the Community Transportation Enhancement Program (CTEP). Local fundraising provided matching funds for the grants.

For more information, refer to the City of Ennis:
<http://www.ennismontana.org/>



Sidepath

FOOTNOTES

- i The **AASHTO Bike Guide** states that “children often prefer and/or are encouraged to ride on sidepaths because they provide an element of separation from motor vehicles” (2012, p.1-4). Some researchers have found that young riders on sidepaths or sidewalks have a lower crash rate than that of older riders. The researchers speculate that this may be related to lower speeds, group travel or heightened awareness by motor vehicle operators. **Wachtel, Alan., Lewiston, Diana, 1994.**
- ii The **AASHTO Bike Guide** notes that roadways with high-volume and high-speed motor vehicle traffic “might discourage many bicyclists from riding on the roadway...” (2012, p. 5-10). This idea is supported by the “Four Types of Types of Transportation Cyclists” concept, which estimates 60 percent of the population is interested in riding but concerned about the safety risk of high-speed and high-volume roadways (**FHWA Separated Bike Lane Guide, 2015**).
- iii A visual preference survey in rural Maine found that narrow roads were positively contributing to perceptions of rural character and that it was “somewhat” important to conserve this landscape characteristic. (**Walker, A., Ryan, R. 2008.**)
- iv The **AASHTO Green Book** does not classify trees that will grow to below 4 inches (100 mm) diameter as a fixed object, and trees of this width may be placed within the clear zone (2011, p. 7-6). Trees should be placed outside of the lateral offset of roadways.

On roadways with a curb and gutter, a minimum lateral offset of 18 inches (0.5 m) should be provided. On facilities without a curb and with a shoulder width less than 1.2 m [4 ft], a minimum lateral offset of 1.2 m [4 ft] from the edge of the traveled way should be provided. (**AASHTO Green Book**). Trees should be placed carefully as to not cause visual obstructions for turning motorists.
- v Researchers have found that raised crossings of sidepaths reduces bicyclist crash risk by 51 percent (**Schepers 2011**).
- vi An FHWA study of crosswalk marking styles find that high-visibility crosswalk markings are the preferred marking type at uncontrolled marked crossings (**FHWA, 2013**). Other research indicates that simple transverse lines markings are “essentially not visible” when viewed from a standard approaching vehicle (**ITE, 2010**).
- vii This table is based off of statements from the **AASHTO Bike Guide** and research from the State of Florida, which indicate that separation distance should increase as speeds increase. Values are based on safety research related to roadway separation distances and, design standards from the **Dutch CROW Design Manual for Bicycle Traffic 2006**.

The **AASHTO Bike Guide** states that “... in locations where the sidepath parallels a high-speed roadway and crosses a minor road, it is advisable to move the crossing away from the intersection to a mid-block location. By moving the crossing away from the intersection, motorists are able to exit the high-speed roadway first, and then turn their attention to the pathway crossing.” (2012, p.5-11). The phrase “mid-block location” may imply a separation distance of at least one car length, 19.5 ft (6.0 m), from the parallel roadway.

Research conducted for the Florida Department of Transportation indicates that, to maximize safety, separation of the sidepath from a roadway should increase as road speeds increase. The Florida data suggest that at lower adjacent road speeds, a smaller separation produces crash rates lower than those of the adjacent road, while that threshold is reached at greater separations for high-speed facilities (**Florida Department of Transportation (FDOT). Sidepath Facility Selection and Design. 2005**).

Safety research conducted on crash history at separated bike lanes (which function similarly to sidepaths) identify 6.5–16.5 ft (2.0–5.0 m) as the optimal roadway separation distance for safe interactions (**Schepers 2011**).

The Dutch design manual for bicycle facilities prefers a wide separation of 19.5–23 ft (6.0–7.0 m) for use outside of built-up areas and on roads operating above 35 mi/h (60 km/h) (**CROW 2006, p. 231-232**).

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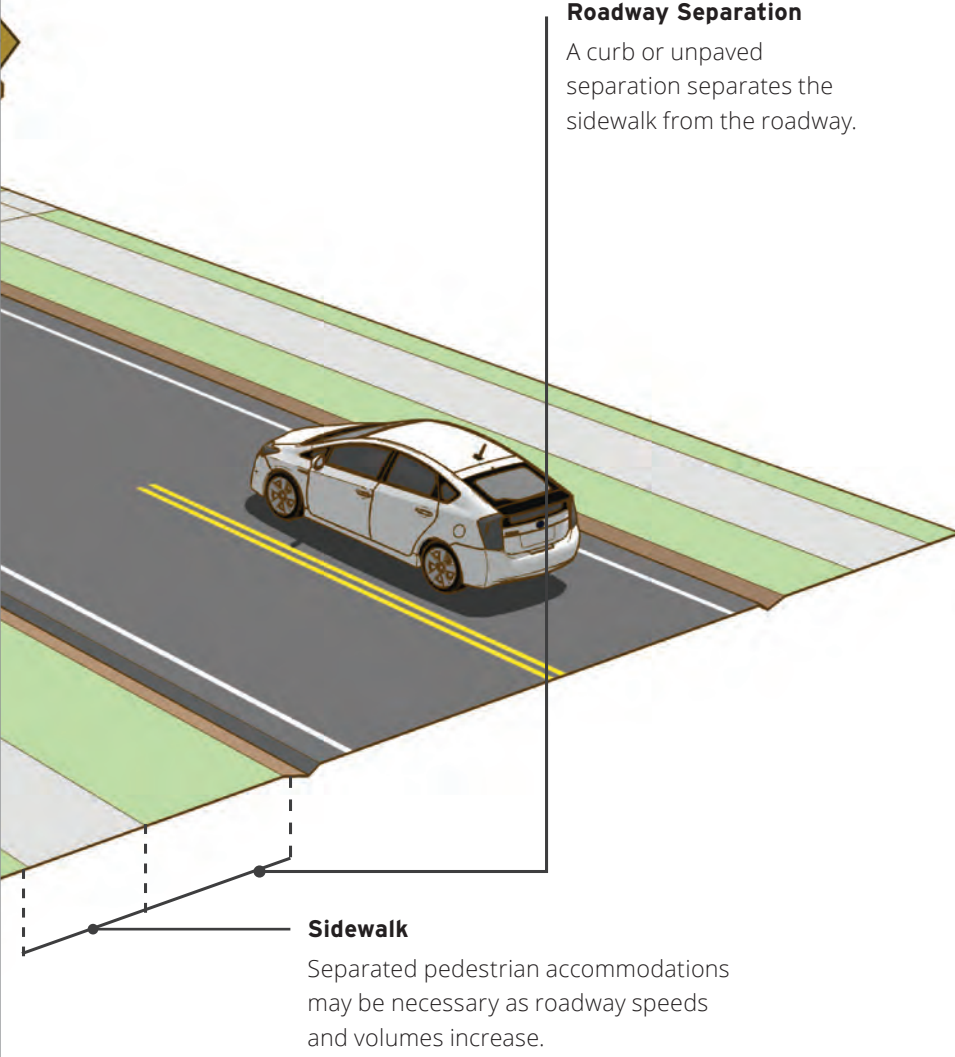
PHOTO CREDIT

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- Page 4-17. Western Transportation Institute



Sidewalk

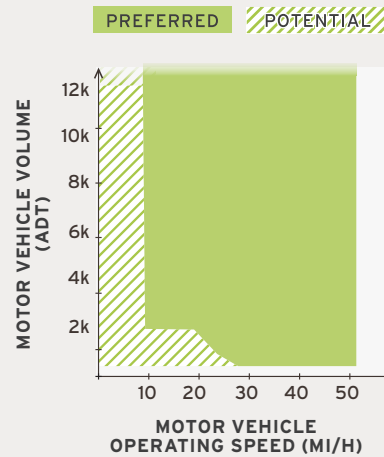
Sidewalks provide dedicated space intended for use by pedestrians that is safe, comfortable, and accessible to all. Sidewalks are physically separated from the roadway by a curb or unpaved buffer space.



APPLICATION

Speed and Volume

Sidewalks are recommended on all but the most low-speed and low-volume roadways.



Network

Sidewalks are appropriate on all types of roadways where pedestrian activity is likely.



Land Use

Appropriate inside of built-up areas. May serve short distance travel between built-up areas, e.g., along or near highways in rural areas near pedestrian-generating development, such as neighborhoods, schools, and businesses.



BENEFITS

- Provides a dedicated place within the public right-of-way for pedestrians to safely travel and reduces pedestrian collisions in rural areas.
- Reduces “walking along roadway” crashes.
- May notably increase levels of walking in areas with high traffic speeds and/or volumes.⁽¹⁾

CONSIDERATIONS

- Sidewalks may not support a rural visual character when configured with curb and gutter and no landscaped separation.
- Requires a moderate-width roadside environment to provide for separation and sidewalk area outside of the adjacent roadway.



Sidewalk

Sidewalks are desirable to support pedestrian safety and comfort in areas with a mix of land uses and also in areas of the community where the roadway network connections have generally high traffic volumes or speeds.

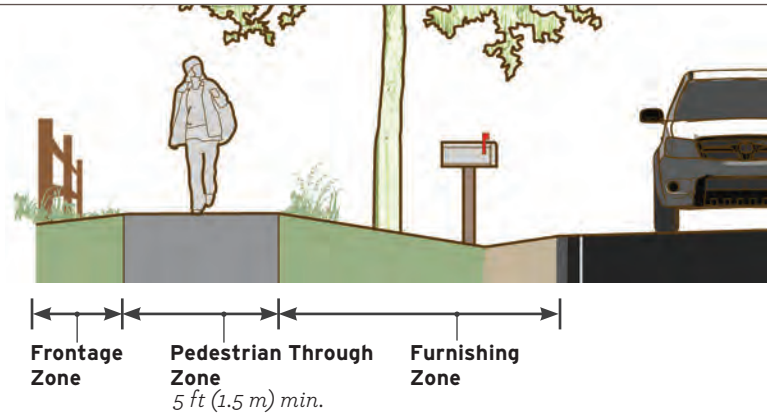


Figure 4-14. Sidewalks should be physically separated from the roadway by an unpaved buffer separation, barrier or curb edge.

GEOMETRIC DESIGN

Sidewalks serve multiple important functions and should be designed with three distinct zones to accommodate these uses. **Table 4-3** provides recommended and constrained minimum dimensions for a sidewalk elements.

Table 4-3. Minimum recommended dimensions for sidewalks

Volume And User Mix	Frontage Zone	Pedestrian Through Zone	Furnishing Zone	Total Width
Constrained Minimum	1 ft (0.3 m)	5 ft (1.2 m)	2 ft (0.6 m)	8 ft (2.4 m)
Recommended Minimum	2 ft (0.6 m)	6 ft (1.5 m)	4 ft (1.2 m)	12 ft (3.6 m)

FRONTAGE ZONE

The frontage zone is a shy zone adjacent to the property line and provides space for people to enter and exit buildings.

- Next to buildings with active ground floor uses, the frontage zone may be widened to 4–6 ft to provide room for door swing, café seating, product display, and window shopping.
- On most sidewalks, a frontage zone of 1–2 ft (0.3–0.6 m) allows for shy distance to fences and building walls. No frontage zone is necessary adjacent to parks or open space.

PEDESTRIAN THROUGH ZONE

The pedestrian through zone is the clear width needed for pedestrian travel activity and should be wide enough for two people to walk side-by-side.

- The pedestrian through zone should be at least 5 ft (1.5 m) wide. This permits side-by-side walking and meets accessibility guidelines for turning and maneuvering.⁽ⁱⁱ⁾

FURNISHING ZONE

The furnishing zone is closest to the street and provides space for mailboxes, signs, street lighting, and other utilities. This area serves as snow storage areas in winter climates and protects pedestrians from splash during rain events.

- A furnishing zone of 4–6 ft (1.2–1.8 m) is preferred for comfort and aesthetics. This width allows for trees, benches, and other large furnishing items.⁽ⁱⁱⁱ⁾



Figure 4-15. Sidewalks on roads with curbs may feature an unpaved or paved furnishing zone separation (left), or may be constructed with curb and gutter, immediately adjacent to the roadway (right). Offering separation from the roadway is preferred in most areas for user comfort and design flexibility at intersections.

Sidewalk

INTERSECTIONS

Legal crosswalks often exist at all intersections, whether marked or not. A crosswalk at an intersection is defined as the extension of the sidewalk across the intersection.

UNMARKED CROSSWALKS

Lane markings, stop lines, yield lines, or other traffic control markings should be placed outside of the unmarked crosswalk area. The only way a crosswalk can exist at a midblock location is if it is marked.

MARKED CROSSWALKS

Marked crosswalks are at intersections or midblock crossings based on engineering judgement. They are not to be used indiscriminately. For more information on evaluating locations for crosswalk markings, refer to *FHWA Safety Effects of Marked Crosswalks at Uncontrolled Locations 2005*.

- The minimum width for a marked crosswalk is 6 ft (1.8 m).
- For improved visibility, the preferred crosswalk marking pattern at uncontrolled and midblock locations is the high-visibility “continental” crosswalk marking. If placed to avoid the wheel track, these markings may last significantly longer than transverse line crosswalks.
- Use of transverse line crosswalk markings should be limited to signalized intersections, or crossings of side streets controlled by stop signs.^(iv)
- Minor crossings of local streets may be unmarked.

MARKINGS

No roadway markings are required on sidewalk installation. At intersections, stop lines, yield lines, and crosswalks may be used to clarify pedestrian crosswalk area.

SIGNS

No signs are required on sidewalk installation. Signs may be used to enhance the awareness of crosswalk locations, to remind drivers of the obligation to yield to crossing pedestrians, such as the R10-15 sign shown in Figure 4-16.



Figure 4-16.
R10-15 sign for use at potential right turn conflict locations.

IMPLEMENTATION

STORMWATER MANAGEMENT

A furnishing zone is often configured as an open ditch for stormwater catchment and infiltration. Ditches can be retrofitted into bioswales or raingardens for filtration and water purification.

CONSTRUCTION MATERIALS

While sidewalks are commonly constructed with concrete, less expensive walkways constructed of asphalt, crushed stone, or other stabilized surfaces may be appropriate. Ensure accessibility and properly maintain all surfaces regularly.

ACCESSIBILITY

A sidewalk is a separated facility intended for use by pedestrians and must meet accessibility guidelines for walkways and curb transitions. Sidewalks are required to be accessible by all users.

Denmark, SC—Population 3,400





CASE STUDY | SIDEWALK

Miles City, Montana

PROJECT DESCRIPTION

The Miles City Active Living Taskforce is an involved group working to encourage residents of Miles City to be more physically active. It was the catalyst for starting a Safe Routes to School (SRTS) program in Miles City. With support from the Montana Department of Transportation's SRTS program, a bicycle and pedestrian safety program was started at Garfield Elementary school. The program is taught by the health enhancement staff and the school resource officer.

The Garfield School sidewalk project was identified through SRTS effort in Miles City and included the installation of approximately 1/2 mile of sidewalk. The northeast portion of Miles City is an area of mostly low income residential development. While most streets in this part of town lack accommodation for bicycles and pedestrians, many children in the area walk or bike to Garfield Elementary. Garfield is the largest of four elementary schools in Miles City with 67 percent of students eligible for free or reduced lunch.

The sidewalks were installed along Lincoln Street, North Lake Avenue, and Riverside Street. This route functions as a collector for a number of neighborhood streets and is the connection to the school. In addition to providing a walking route to the school, the sidewalk project provides access from these neighborhoods to the park along the south side of Lincoln Street.

DETAILS**COMMUNITY CONTEXT**

Miles City is located at the confluence of the Tongue and Yellowstone rivers in southeastern Montana. It is the county seat for Custer County with a population of 8,400. Miles City is a medical and financial hub in eastern Montana with a strong agricultural economy.

KEY DESIGN ELEMENTS

Concrete sidewalk was installed behind a gravel shoulder that also serves as parking for the homes and park along Lincoln Street.

ROLE IN THE NETWORK

The sidewalk installed under this project connects the low-speed, low-volume neighborhood streets to a network of existing sidewalks in the area around Garfield School. It provides a critical network link between home, school, and the park.

FUNDING

The project was funded with Federal SRTS funds, as well as Community Transportation Enhancement Program (CTEP) funds and local matching funds from Miles City. While constructed at the same time, funding for the project was applied for in phases and received funding in two different SRTS funding cycles.

For more information, refer to the City of Miles City:

<http://miles-city-mt.org/>



Sidewalk

Altamont, NY—Population 1,609



FOOTNOTES

- i The AASHTO Pedestrian Guide states, “even in areas where there may not be an initial demand for pedestrian facilities, walking can almost always be expected to increase when adequate facilities are provided” (2004, p. 54).
“Wherever there is developed frontage along a road or street, there will be people walking for exercise, visiting neighbors, accessing bus stops, or walking for pure enjoyment. Sidewalks or pathways are needed to safely accommodate these activities” (2004, p. 25).
- ii Absolute minimum width of an accessible aisle is 4 ft (1.2 m) (PROWAG 2011). This lacks space for comfortable movement and maneuvering, and these conditions should only exist around point obstructions, driveways, and curb ramps.
- iii Plant only small caliper trees (4 inch diameter when mature) in 4-foot tree wells.
- iv An ITE study of pavement marking patterns at uncontrolled pedestrian crossings found that Transverse lines are “essentially not visible” when viewed from a standard approaching vehicle (ITE Pavement Marking Patterns 2010).

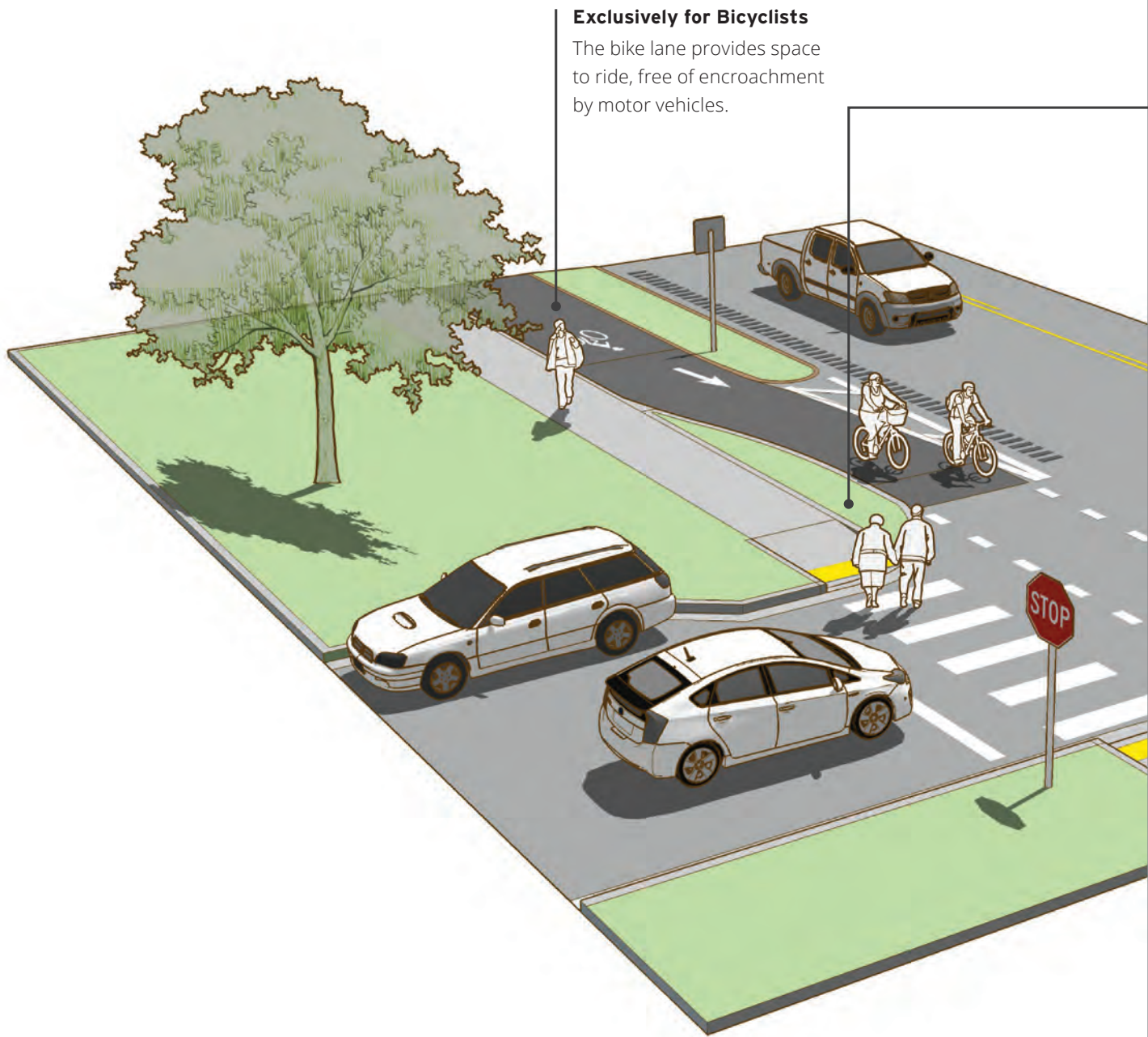
Because of the increased performance of high-visibility markings over transverse lines markings, The 2010 FHWA. **Crosswalk Marking Field Visibility Study** recommends making continental markings the default for all crosswalks at uncontrolled locations, with exceptions allowing transverse lines where engineering judgment determines that such markings would be adequate, such as a location with low-speed residential streets.

WORKS CITED

- American Association of State Highway and Transportation Officials. *Guide for the Planning, Design, and Operation of Pedestrian Facilities*. 2004.
- Federal Highway Administration. *Crosswalk Marking Field Visibility Study*. 2010.
- Federal Highway Administration. *Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations*. 2005.
- Institute of Transportation Engineers (ITE) *Technical Committee 109-01. Pavement Marking Patterns Used at Uncontrolled Pedestrian Crossings*. 2010.
- United States Access Board. *Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG)*. 2011.

PHOTO CREDIT

- Page 4-22. Alta Planning + Design
- Page 4-23. Western Transportation Institute
- Page 4-24. Alta Planning + Design



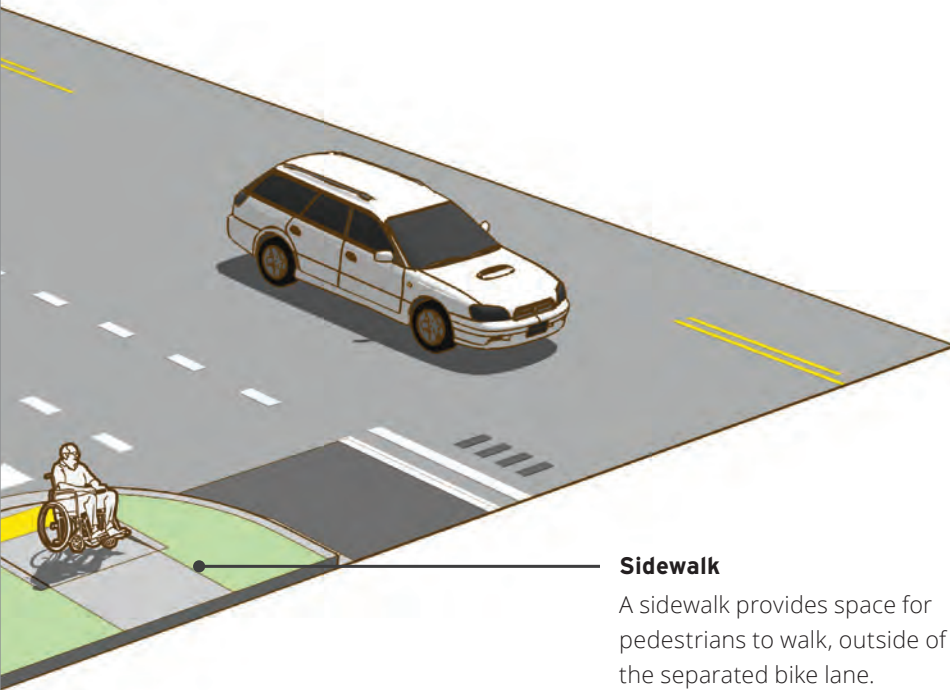
Separated Bike Lane

A separated bike lane is a facility for exclusive use by bicyclists that is located within or directly adjacent to the roadway and is physically separated from motor vehicle traffic with a vertical element.



Pedestrian Separation

The separated bike lane should be distinct from the sidewalks, with contrasting materials, a curb, or other detectable edge.



Sidewalk

A sidewalk provides space for pedestrians to walk, outside of the separated bike lane.

BENEFITS

- Provides a more comfortable experience on high-speed and high-volume roadways than on-road shoulders.
- Separated bike lanes offer bicyclists a similar riding experience to sidepaths but with fewer operational and safety concerns over bidirectional sidepath facilities.
- Offers an increased level of service over sidepaths in areas with high-volumes of pedestrians, when paired with sidewalks.
- Can reduce the incidence of sidewalk riding and potential user conflicts.
- Increases the degree of connectivity over a sidepath, when configured as a one-way directional facility on both sides of the street.

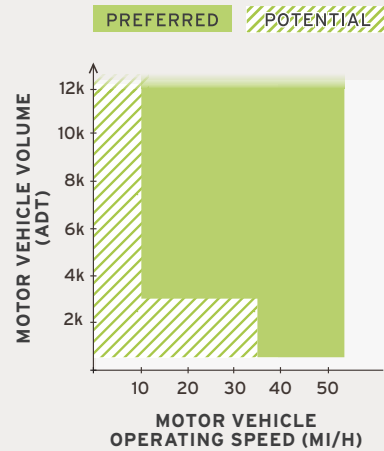
CONSIDERATIONS

- Reflects a more urban visual atmosphere than a sidepath. Use of a wide landscaped buffer may lessen visual impact concerns.
- Requires a wide roadside environment to provide for separation, sidewalks, and bike lane areas.

APPLICATION

Speed and Volume

For use on roads with high motor vehicle volumes, and moderate to high-speed motor vehicle traffic.



Network

Serves primary connections on major roads through and across communities.



Land Use

For use inside built-up areas where a moderate to high volume of bicyclists and pedestrians is expected.





Separated Bike Lane

DESIGN GUIDANCE

Separated bike lanes can offer a similar experience as sidepaths for bicyclists and pedestrians but with increased functionality and safety where increased numbers of pedestrians and potential conflicts with motor vehicles are present. The guidance in this section focuses on one-way separated bike lanes. For two-way separated bike lanes, refer to the FHWA Separated Bike Lane Planning and Design Guide 2015.

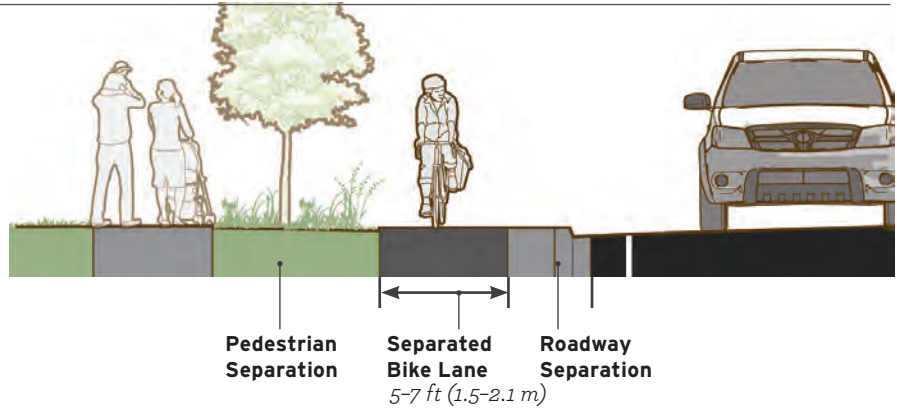


Figure 4-17. Separated bike lanes are exclusive facilities for bicyclists that are distinct from the sidewalk and physically separated from motor vehicle traffic with a vertical element.

GEOMETRIC DESIGN

Separated bike lanes are made up of three interrelated zones, illustrated in Figure 4-17.

SEPARATED BIKE LANE

The separated bike lane zone offers a clear operating area for bicyclist travel. Because of the physical separation between the bike lane and the adjacent travel lanes, the design may be more sensitive to debris accumulation, maintenance access, and operating space impacts than conventional on-street bike lanes.

- Preferred minimum width of a one-way separated bike lane is 7 ft (2.1 m). This width allows for side-by-side riding or passing.
- Absolute minimum bike lane width is 5 ft (1.5 m). At this width, bicyclists will not be able to pass slower users until there is a break in the facility and an opportunity to overtake.
- A clear through area of 10 ft (3.0 m) is beneficial for allowing access by snow plows and street sweepers.



Separated Bike Lane

ROADWAY SEPARATION

The roadway separation is the vertical element between the bike lane and the adjacent roadway. Separation width will vary based on separation type.

- A separation width of 3 ft (0.9 m) allows for a variety of separation methods and provides space adjacent to a parking lane to accommodate door swing and passenger unloading.
- A minimum width roadway separation of 1 ft (0.3 m) may be possible with a mountable or vertical curb face.

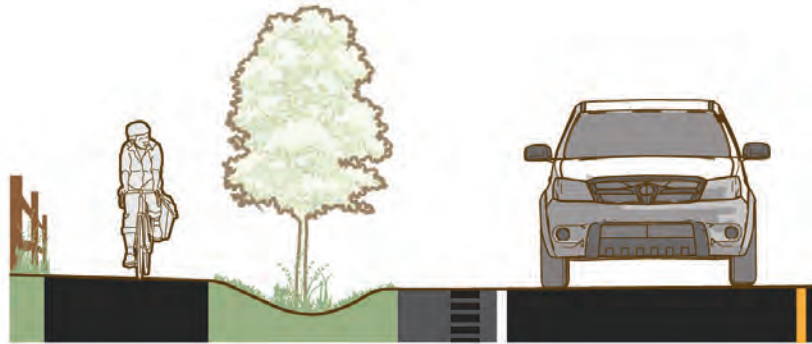


Figure 4-18. Separated bike lanes may be separated by an unpaved roadway separation, and a vertical element. When configured as directional facilities, separated bike lanes should be provided on both sides of the roadway.



Figure 4-19. Separated bike lanes may be configured on an existing roadway surface by using a physical barrier such as a curb or median to separate the bikeway from the roadway.

PEDESTRIAN SEPARATION

Separation from pedestrians is particularly important when a separated bike lane is located immediately adjacent and at the same level as a sidewalk.

- Design and construct separated bike lanes as clearly distinct from the sidewalk. This is accomplished with the use of a curb, separation buffer space, different pavement or other surface treatments, or detectable tactile guidance strips.



Figure 4-20. Separation from the sidewalk is valuable for reducing unwanted pedestrian encroachment into the bike lane. The use of physical separation with vertical elements, unpaved separation, or detectable edges may be more effective than visual delineation.

MARKING

Separated bike lanes use markings to clarify intended users and travel direction.

- Standard Bike Lane symbol markings clarify that the lanes are for the exclusive use of bicyclists.

SIGNING

An optional Bike Lane (R3-17) sign may be used to supplement the bike lane pavement markings. Standards and guidance can be found in the MUTCD 2009.

Guide signs may be used to indicate which users belong on the separate parts of a separated bike lane corridor, as illustrated in Figure 4-21.



Figure 4-21. MUTCD signing options for specifying user types and path positioning can be used to indicate which users belong on the separate parts of a separated bike lane corridor (D11-1a, D11-2).



Separated Bike Lane

INTERSECTIONS

Separated bike lanes may operate similar to sidepaths at intersections, but the one-way directional alignment of the facility allows for additional design treatments and mitigates some of the operational and safety concerns associated with sidepath facilities.

Pedestrians should not travel within the separated bike lane. Accommodate pedestrians on a separate pedestrian facility such as a sidewalk.

Table 4-4 summarizes four approaches to treatments at intersections with separated bike lanes. For details on intersection treatments, refer to the FHWA Separated Bike Lane Guide 2015.

Under all conditions parking, if present, should be prohibited within 20 ft (6.0 m) of the intersection to improve visibility.



Table 4-4. Intersection Treatments for Separated Bike Lanes[®]

Treatment	Advantages	Disadvantages	Design Details
Bend-In Position bicyclists closer to turning vehicles to increase visibility prior to the turn.	Motorists on a side street can see bicycles and vehicles in a similar field of vision. Requires less space than bending out.	Bicyclists may perceive less separation due to proximity of through vehicles.	Align the bike lane immediately adjacent to the roadway, at least 20 ft (6.0 m) in advance of the intersection.
Bend-Out Provide space for right-turning vehicles to yield to bicyclists.	Allows vehicle traffic turning across separated bike lane to queue out of the way of through traffic and before the separated bike lane. Allows a queuing location for bicyclists wanting to turn left. Raised crossing provides traffic calming for automobiles and can also slow bicyclists.	Requires more space than the bend-in approach. Adequate sight distance may be difficult for vehicles approaching on the side street depending on vegetation, grading, and property boundaries.	Position the bike lane 6.5–16.5 ft (2.0–5.0 m) from the adjacent roadway (Schepers 2011).
Mixing Zone Shared turn lane with motor vehicles and bicyclists.	Requires less space. Organize conflicts; reduce right-hook risk by negotiating conflict upstream of the intersection.	Greater traffic stress.	Only appropriate in areas with low speed differentials between bicyclists and motor vehicles.
Protected Signal Phase Separate conflicting movements in time.	Elimination of turn conflict through exclusive bicycle signal phase.	Increased signal cycle length, possibly with increased delay.	May be appropriate at signalized intersections with high turn volumes.



Separated Bike Lane

INTERSECTIONS

Bend In



Bend Out



Mixing Zone



Protected Signal Phase

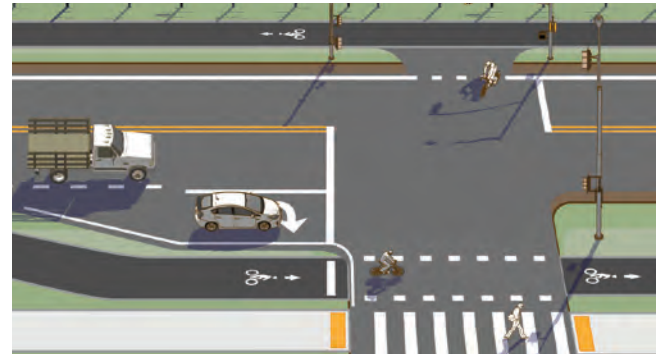


Figure 4-22. A variety of design treatments exist depending on the roadway configuration, available curb-to-curb width, traffic volumes and desire to provided a dedicated turn lane. All designs should strive to reduce speeds of turning vehicles, remind users of bicycle priority, and clarify user positioning up to and through the intersection.

IMPLEMENTATION

With new roadway construction a raised separated bike lane can be less expensive to construct than adding an enhanced shoulder by building the separated bike lane to support reduced vehicle load requirements.

On streets with existing curb and gutter, it may be possible to implement a protected bike lane outside of the curb, between the curb and the sidewalk.

Separated bike lanes may be implemented during roadway resurfacing, rehabilitation, and reconstruction or new construction projects. For more information on implementation strategies, see the [FHWA Resurfacing Guide 2016](#).

ACCESSIBILITY

Separated bike lanes are not intended for use by pedestrians. On roadways with separated bike lanes, the appropriate pedestrian facility is a sidewalk.

The design of separated bike lanes must consider driveway conflicts, accessible parking and parking access aisles, transit stop access and egress, and loading zone accommodation ([FHWA Separated Bike Lane Guide 2015](#)).



CASE STUDY | SEPARATED BIKE LANE

Connellsville, Pennsylvania

PROJECT DESCRIPTION

The Great Allegheny Passage (GAP) is a long-distance trail network that connects Pittsburgh, PA with Washington, DC. The development of this network has taken grand vision and many years, with the first section of the trail being completed in 1986, and the final piece completed in 2013. The 150-mile trail connects defunct corridors of the four different railways. The Youghiogheny River Trail, as the section of the GAP through Connellsville is known, was constructed in the mid-1990s. During that time, Connellsville decided to route the trail along four blocks of South 3rd Street.

The roadway was widened without the need for additional right of way and the separated bike lane was created. The landscaped buffers are maintained by social groups and clubs in the community.

Because South 3rd Street is the connection of the GAP bike route through Connellsville, a critical aspect of the design is that the bike lane is bidirectional. Additionally, as this is the only section of the Passage that routes on city streets, the bike lane was separated to maintain the rider experience of being separated from motor vehicles. The landscaped buffer maintains this separation and encourages slow-speeds. Where the bike lane crosses West Crawford Avenue (State Route 711), a traffic signal was installed to improve safety at the intersection.

DETAILS**COMMUNITY CONTEXT**

Connellsville is a community of approximately 7,000, straddling the Youghiogheny River in western Pennsylvania's Fayette County. Connellsville is located in the heart of coal country and was once a top producer of coke, the fuel for iron smelting furnaces. At one time, five different railways served Connellsville.

KEY DESIGN ELEMENTS

Vertically separated bike lane with curbs and planters providing physical separation.

ROLE IN THE NETWORK

The separated bike lane is the connection of the GAP through Connellsville. Connellsville's *Bicycle Master Plan* builds off of this key element in establishing a broader network that will connect people on bikes from the trail with businesses across the city and Connellsville residents with the GAP.

FUNDING

The South 3rd Street improvements were made through a local project with Federal funding for the signal improvement at West Crawford.

For more information, refer to the Connellsville Redevelopment Authority:

www.connellsvilleredevelopment.org



Separated Bike Lane



Russellville, AR—Population 28,581

FOOTNOTES

- i Table contents adapted from Table 3 and Table 4 from the FHWA Separated Bike Lane Guide 2015.

WORKS CITED:

Federal Highway Administration. *Incorporating On-Road Bicycle Networks into Resurfacing Projects*. 2016.

Federal Highway Administration. *Manual on Uniform Traffic Control Devices (MUTCD)*. Department of Transportation. 2009.

Federal Highway Administration. *Separated Bike Lane Planning and Design Guide*. 2015.

Schepers, J.P., et al. *Road factors and bicycle—motor vehicle crashes at unsignalized priority intersections*. *Accident Analysis and Prevention*. Volume 43, Issue 2, 2011.

PHOTO CREDIT

Page 4-27. Wyoming Pathways

Page 4-29. Federal Highway Administration

Page 4-31. Saara Snow, Adventure Cycling Association

Page 4-32. Alta Planning + Design





Key Network Opportunities

5-3 *Speed Management*

5-7 *Pedestrian Lane*

5-9 *School Connections*

5-15 *Multimodal Main Streets*

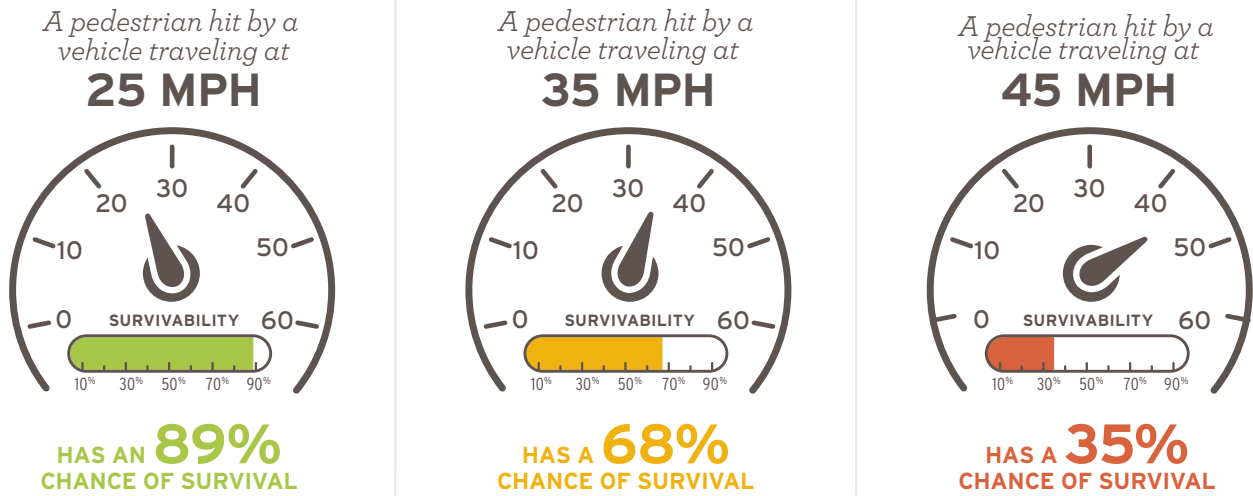
5-21 *Bridges*

5-27 *Access to Public Lands*

Speed Management

CRITICAL LINKS: SPEED MANAGEMENT

Figure 5-1. Impact speed and a pedestrian's risk of severe injury or death (Tefft 2011).



The ITE publication *Traffic Calming: State of the Practice* defines traffic calming as “the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for nonmotorized street users” (1999, p. 2).

The FHWA Office of Safety Traffic Calming Website note that traffic calming includes physical changes to the roadway, signage, or operation changes and can be thought of as a “silent policeman” enforcing speed limits where no law enforcement is present.

For more information on traffic calming, refer to the [FHWA Speed Management Safety Website](#).

BENEFITS OF REDUCING SPEED

Speeding is a major contributing factor in crashes of all types, and increases severity in the event of a crash. Faster speeds also increase the likelihood of a pedestrian being hit as reaction time and the higher speed of the vehicle increase stopping distance. At higher speeds, motorists are less likely to see and react to a pedestrian and are even less likely to be able to stop in time to avoid hitting one.

APPLICATION

Speed management can play an important part of creating multimodal networks in rural areas. Speed reduction measures are common as part of Bicycle Boulevards to create and enforce desired operating speeds. Speed management can also enhance pedestrian safety in Main Street areas. Refer to the [Transitions to Main Streets](#) section in *FHWA Achieving Multimodal Networks 2016* for more information on applying traffic calming in advance of built-up areas.

TRAFFIC-CALMING MEASURES

There are three general types of speed reduction measures:

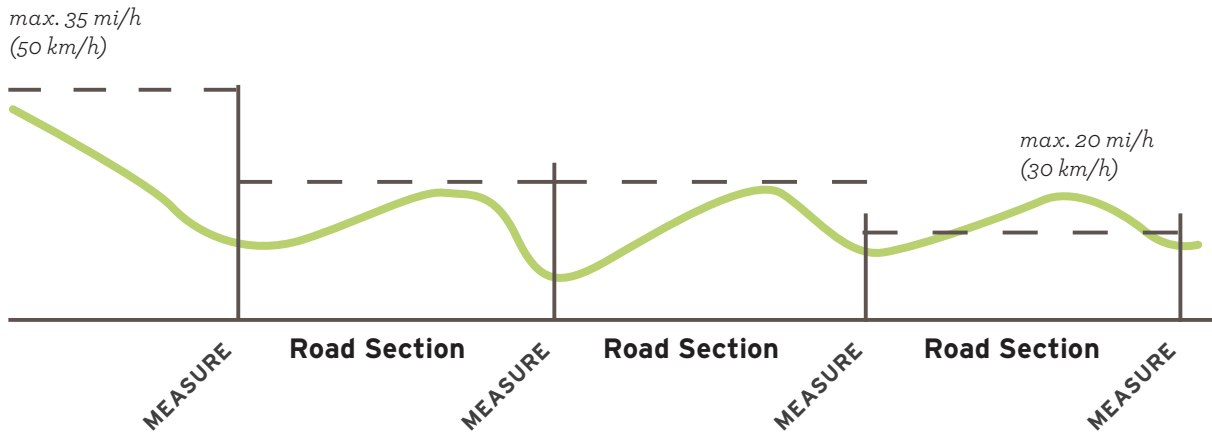
- Physical measures, such as vertical deflections, horizontal shifts, and roadway narrowings, intended to reduce speed and enhance the street environment for nonmotorists.
- Nonphysical measures using signs and markings are intended to raise awareness and reduce speed through visual indications.
- Diversion treatments reduce cut-through traffic by obstructing or otherwise preventing traffic movements in one or more directions.

Due to small community populations and limited roadway connectivity, traffic-calming efforts in small town and rural areas tend to emphasize speed reduction measures rather than volume reduction.

Speed Management

APPLYING SPEED REDUCTION MEASURES

Figure 5-2. Managing travel behavior through speed management techniques



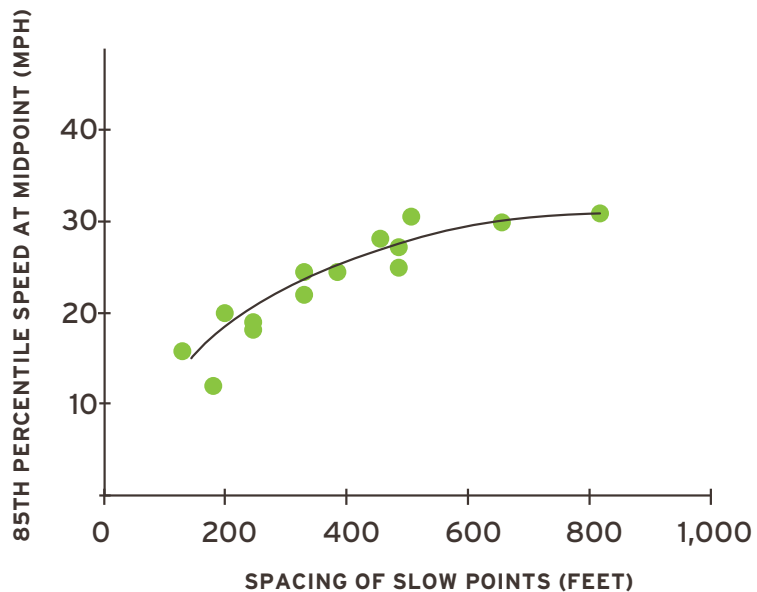
Measures should generally be applied frequently and in concert to create continuous slow conditions along the road. Figure 5-2 illustrates desired speed behavior in managed roadway environments.

Infrequent use of speed reduction measures will fail to effectively manage speed along a roadway corridor. Based on recorded observations displayed in Figure 5-3, slow points should be no more than 300 to 400 ft apart to maintain midpoint speeds of 25 mi/h.

Details on the effectiveness and application of various speed reduction measures can be found in FHWA reference *A Desktop Reference of Potential Effectiveness in Reducing Speed 2014*. Detailed design drawings for physical traffic-calming measures can be found in *U.S. Traffic Calming Manual 2009*.

More information on speed management can also be found in *BIKESAFE 2014* and *PEDSAFE 2013*.

Figure 5-3. Effect of slow point spacing on motor vehicle speed – this figure illustrates measured 85th percentile speeds and spacing of speed reduction measures, as observed in the UK, Australia and Denmark. Adapted from R. Ewing, *Best Development Practices*, American Planning Association (in cooperation with the Urban Land Institute), Chicago, 1996, p.64.

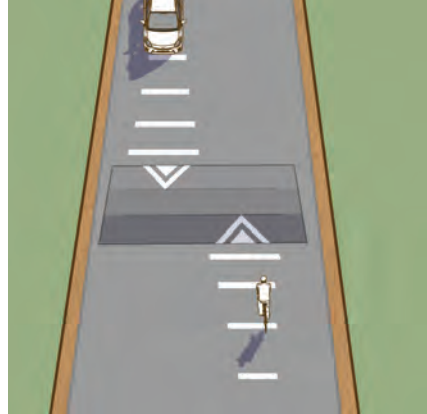


Speed Management

This page presents concepts for speed management in rural settings. See reference materials for contextual guidance in selecting the appropriate measures for implementation.

Traffic calming should use a context sensitive approach to roadway modifications. On roadways with no curb and gutter, speed reduction measures constructed with traffic islands to deflect and channelize traffic can be constructed with minimal impacts to drainage and reduce construction and maintenance costs.

Figure 5-4. The following images illustrate physical speed reduction measures.



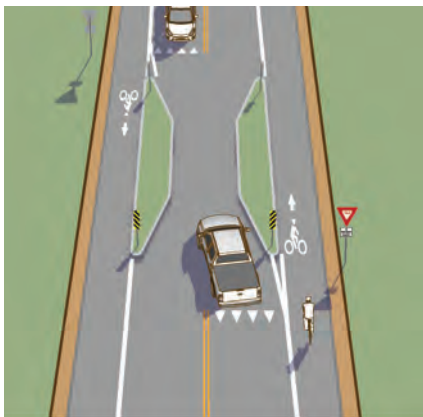
Speed Humps and Speed Tables

Speed humps and tables apply vertical deflection in the roadway that is designed to limit the speed of traffic. The main difference between humps and tables are length and profile. For more information on speed humps refer to the MUTCD 2009.



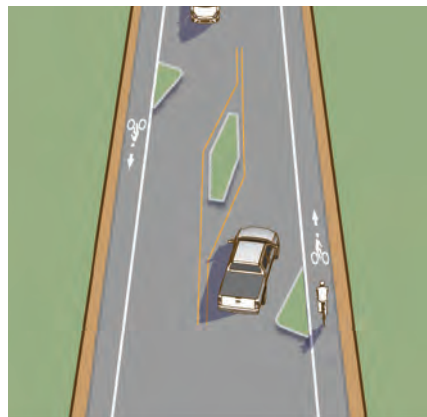
Mini Roundabout

Mini roundabouts are roundabouts with a small footprint and fully traversable central island. For more information on mini roundabouts refer to the MUTCD 2009, and NCHRP 672.



Pinch Point

Pinch points, also called chokers, are curb extensions or edge islands at midblock locations which narrows the road for a short distance, forcing all motorists to merge into a single lane.



Lateral Shift

Lateral shifts are realignments of an otherwise straight travel path. When multiple lateral shifts are applied to form an S-shaped curve it is called a chicane. For traffic calming, the taper lengths may be as much as half of what is suggested in traditional highway engineering.



Median Island

Median island are raised islands located along the centerline of a street that narrow the travel lanes and require deflection of an otherwise straight travel path.

Median islands are an FHWA Proven Safety Countermeasure.

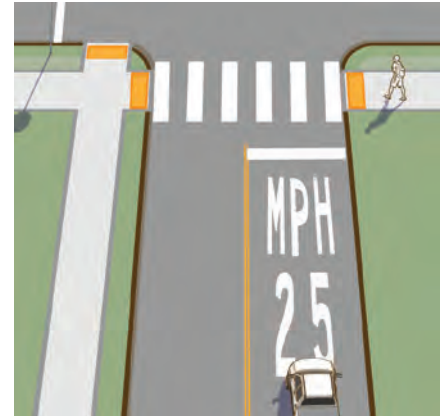
Speed Management

Generally appropriate on higher speed roadways and high-to-low-speed transition areas, nonphysical speed reduction measures use signs and markings to warn, regulate, and influence driver behavior.



Speed Feedback Sign

Police departments and transportation agencies use speed feedback signs as educational tools that can enhance enforcement efforts directed at speed compliance. Speed feedback signs educate drivers as to their operating speed, and remind them of the posted speed limit on the roadway.



SLOW or Speed Limit Pavement Legends

Use SLOW or speed limit pavement markings as a supplement to speed-limit signs and reinforce the lawful speed limit.

Figure 5-5. The following images illustrate nonphysical speed reduction measures.



Speed Reduction Markings

Speed reduction markings are a series of white rectangular markings typically 1 foot wide placed just inside both edges of the lane and spaced progressively closer to create the illusion of traveling faster as well as the impression of narrower lane.

Pedestrian Lane

Pedestrian lanes provide interim or temporary pedestrian accommodation on roadways lacking sidewalks. They are not intended to be an alternative to sidewalks and often will fill short gaps between other higher quality facilities. As part of the planning process, agencies should explore issues and the potential challenges a pedestrian lane may face, including:

- Detectability by people with vision disabilities
- Undesired use by bicyclists
- Accessible cross-slope requirements
- Maintenance strategies, such as sweeping and snow removal

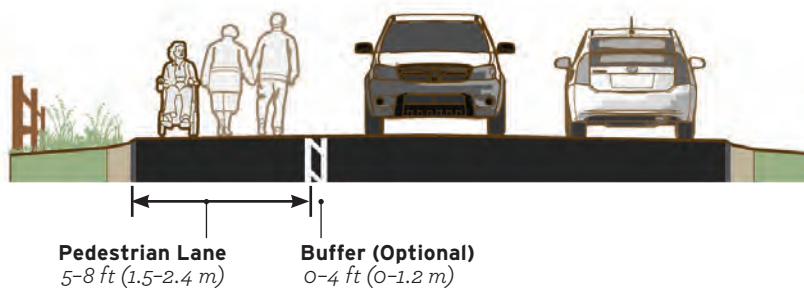


Figure 5-6. Pedestrian lanes provide an exclusive space for pedestrians to walk outside of the travel area.

A pedestrian lane is an interim or temporary pedestrian facility that may be appropriate on roads with low to moderate speeds and volumes. A pedestrian lane is a designated space on the roadway for exclusive use of pedestrians. The lane may be on one or both sides of the roadway and can fill gaps between important destinations in a community.

A pedestrian lane may be considered to operate similarly to a sidewalk. Consult State and local vehicle code for implications in a situation where pedestrians are walking along a roadway with no sidewalk or shoulder available.

GEOMETRIC DESIGN

Pedestrian lanes should be designed to support and promote side-by-side walking within the lane. Because of the lack of physical separation, additional width beyond this should be included for added comfort.

- 8 ft (2.4 m) width is preferred
- 5 ft (1.5 m) width is the minimum to allow for side-by-side walking and maneuverability by users of mobility devices.

Pedestrian lanes are intended for use by pedestrians and must meet accessibility guidelines for a pedestrian access route. This includes:

MARKINGS

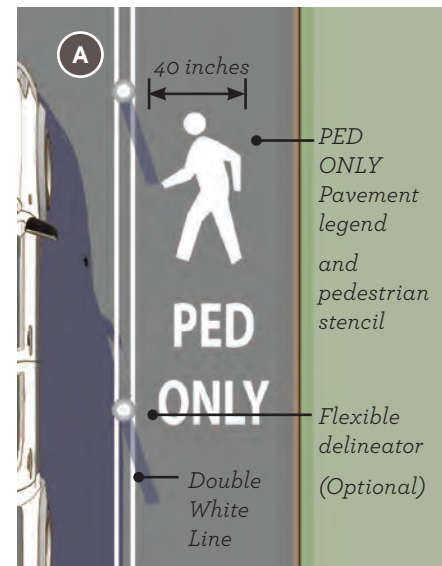


Figure 5-7. PED ONLY legend marking and/or Pedestrian symbol marking to identify the pedestrian lane to all users.

- The grade of pedestrian access routes shall not exceed the general grade established for the adjacent street or highway.
- The cross slope of pedestrian access routes shall be 2 percent maximum.
- The surface of pedestrian access routes shall be firm, stable, and slip resistant.

Lane Markings

Separate a pedestrian lane from the adjacent travel lanes with some form of longitudinal marking.⁽ⁱⁱ⁾

- Use a double white line for extra emphasis and to discourage motor vehicle encroachment.
- If additional comfort is desired, mark a buffer to increase separation between pedestrians and motor vehicles.

Pedestrian Lane

INTERSECTIONS

Legends and Symbols

Mark pedestrian lanes with the appropriate pavement word markings.⁽ⁱⁱⁱ⁾

- A** Use a PED ONLY legend marking to designate exclusive pedestrian use of the lane.
- For additional conspicuity, use a pedestrian symbol to communicate exclusive pedestrian use.
- Markings should be visible to “approaching traffic for all available departures” (MUTCD 2009, p. 415).

Signs

Pedestrian Warning Sign (W11-2) paired with an “ON ROADWAY” legend plaque may be used to indicate to drivers to expect pedestrians within the paved road surface.

R8-1



W11-2



Figure 5-8. A W11-2 warning sign may be paired with a legend plaque to inform road users that shared use by pedestrians and/or bicyclists might occur.

Configure pedestrian lanes with treatments to provide for a safe, clear, and accessible passage at street crossings.

- B** Define the corner at intersections with a double solid white line to reduce motor vehicle encroachment into the pedestrian areas. Use flexible delineators where a more robust treatment is desired.

- Place stop lines or yield lines outside of the crosswalk area.
- Crosswalks may be marked to clearly delineate the crossing paths of pedestrians.
- C** Provide detectable warning surfaces advance crosswalks, following accessibility guidelines for blended transitions.

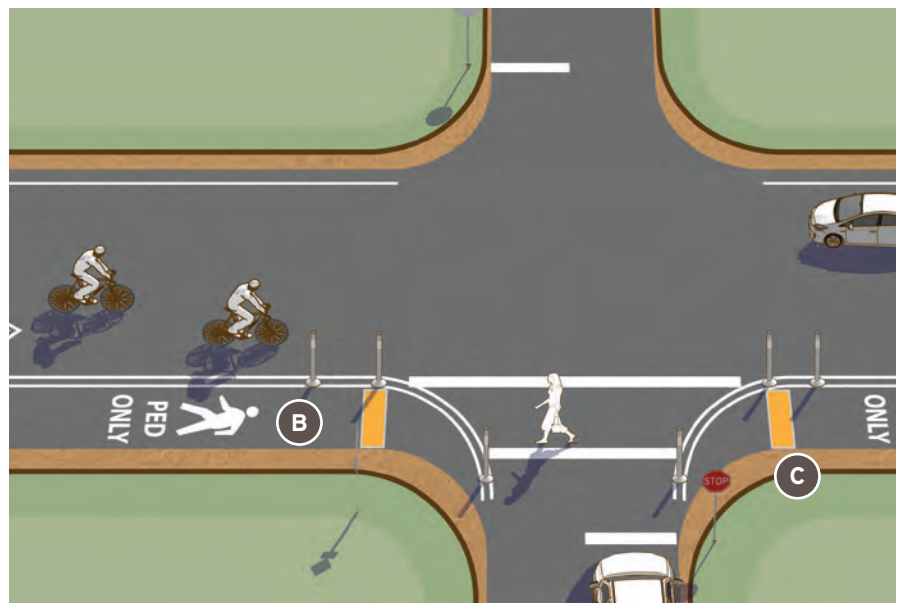


Figure 5-9. Where clarity of street crossings for persons with vision impairments are a concern, detectable warning strips may be used in advance of the intersection area. This transition can indicate a crosswalk, or a transition out of the pedestrian lane into a shared roadway environment.

IMPLEMENTATION

Sufficient space to provide a pedestrian lane may already exist or may be created through configuration changes, including removing or consolidating on-street parking, or narrowing of travel lanes. Implementing pedestrian lanes may share some strategies with the implementation of bike lanes. For more information on potential implementation strategies, refer to the *FHWA Resurfacing Guide 2016*.

ACCESSIBILITY

A pedestrian lane is an on-roadway facility intended for use by pedestrians and must meet accessibility guidelines for walkways. Any deficiencies in meeting ADA guidelines during implementation as a restriping project should be identified in the ADA transition plan and be corrected in the next resurfacing.

Pedestrian lanes are a interim facility, and a full sidewalk construction should be planned for future implementation.

School Connections

Schools are key destinations in communities of all sizes. This is particularly true in small and rural places, where they often play a prominent role in the community as centers of activity for people of all ages and abilities. Since children will be present each day, it is essential to provide separation from motorized traffic, controlled crossings, and wayfinding to and throughout the school campus.



Design for children

When developing facilities for children, increased separation from motorized traffic is preferred. Clearly defined facilities for walking and bicycling should be provided, with vertical and horizontal separation from motor vehicle traffic (AASHTO Pedestrian Guide p. 35). Children have a wide range of skills and abilities when navigating traffic. Walking and bicycling skills can be learned, and development characteristics can change as children mature. The planning and design of routes that serve schools should consider that children tend to react slowly, have a narrow field of vision, have difficulties judging the speed and distance of approaching vehicles, have difficulty concentrating on more than one thing at a time, and have difficulty determining direction of auditory input (AASHTO Bike Guide 2012).



Opportunity for activity

In 1969, almost half of all elementary and middle school students walked or bicycled to school. Today only 13 percent walk or bike.⁽ⁱⁱⁱ⁾ In rural areas, 12 percent of students on the West Coast and 1.1 percent in the South Atlantic region bike and walk to school.^(iv) Lack of physical activity contributes to high rates of unhealthy weight for American children nationwide, but rates are even higher in rural communities where 40 to 50 percent of children are overweight or obese.^(v) In fact, rural children are 25 percent more likely to be overweight than urban children.^(vi, vii)



Multimodal network

When planning walking and biking infrastructure to for access to school, consider both the school site and bus stop locations. In rural communities, many children will live in locations that are too far to walk or bicycle. Developing walking and bicycles facilities that serve school bus stops or the provision of satellite drop-off locations where children who are bussed can still safely walk a short distance to school.



Centers of community

For many rural communities, schools serve as centers of community life. Safe walking and biking access to schools not only benefits the children and families that are attending the schools but also all community members that attend events and use the school grounds and amenities. It is important to plan on a network scale, balancing new segments of sidewalk, low-stress streets, bike lanes, and crosswalks with filling in gaps and repairing broken stretches.



School location

School siting plays a large role in whether or not students can walk and bike to school. Schools placed further away from residential areas, or sited outside of town along high-speed roadways, create difficult and dangerous routes for students using active transportation. School siting should focus on locating schools near the households they will serve and minimizing required crossings of highways and multilane roads. Properly siting new schools creates more opportunities for cost effective walking and biking facilities as compared to road expansion and increased congestion.

School Connections



St Charles, Minnesota
POPULATION 3,695

St. Charles is located in southeastern Minnesota. In an effort to better connect destinations within the city, the Public Works department painted a network of on-street walk and bike lanes. This nonmotorized network connects the elementary school with the middle and high school and other civic destinations. Where the walk/bike lanes cross an intersection, the lane widths are maintained and are complemented with a crosswalk-style marking.



Arlee, Montana
POPULATION 602

A pathway connecting the north side of Arlee to the schools was completed in 2012. This pathway provides a critical connection that enables students and parents from the neighborhood north of the school to walk and bike to and from school. The pathway connection also provides an additional link from the neighborhood to the businesses in town. The project was funded through the Montana Department of Transportation's Safe Routes to School Program.



Mt Shasta, California
POPULATION 3,292

Completed in 2014, this street reconstruction project eliminated parking from the side of the street opposite the school, removed a midblock crossing, added bike lanes and improved sidewalks. Removal of the parking lane eliminated the practice of students crossing the street to/from their parent's vehicle. The bike lanes and sidewalks provide a comfortable route to and from school as well as completing an important link in this town's bicycle route network. This project was funded with money from the State Transportation Improvement Program.

“Rural arterials often provide the only direct connection between populated areas and locations to which the public wishes to travel. Schools, parks, and rural housing developments are usually located to be readily accessible by automobile. However, pedestrians and bicyclists may also wish to travel to the same destination points. Where demands for pedestrian and bicycle travel exist, the designer should consider the needs of pedestrians and bicyclists and provide facilities where appropriate” (AASHTO Green Book p. 10-13).

School Connections

The preferred facilities near schools should provide as much separation as possible between children and motor vehicles. Facilities such as sidepaths and paved shoulders should also be wider than typical facilities when high-volumes of children are expected to be present. Traffic-calming measures that reduce motor vehicle operating speeds, as well as the volume of motor vehicles near schools, may also be appropriate.

Figure 5-6. The following images illustrate potential facility designs appropriate for school areas.

SEPARATION PREFERRED OVER MIXED TRAFFIC

Even in low-speed and low-volume conditions, parents and children may prefer walking in an exclusive pedestrian use space.

For more information, refer to the guidance in this chapter on interim pedestrian lanes.



Before



After

School Connections

SIDEWALKS PREFERRED OVER SHOULDERS

Paved shoulders do not offer protection for children walking along the roadway. It may be possible to construct a sidewalk within the same paved roadway area in order to create a safe place to walk.

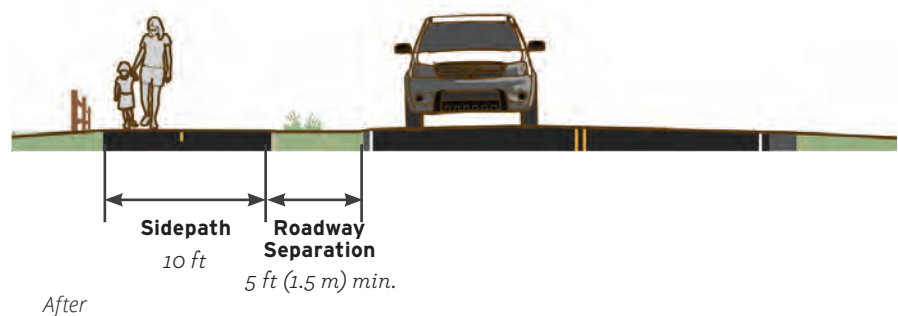
For more information, refer to the guidance on **sidewalks**.



SIDEPATHS PREFERRED ON HEAVY TRAFFIC STREETS

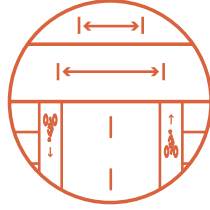
On higher speed and volume streets, even wide shoulders may not offer adequate security for children to be comfortable walking to school. A separated path may be a good facility in these conditions.

For more information, refer to the guidance on **sidepaths**.



Multimodal Main Streets

A traditional “main street” is designed with street-fronting land uses, slow travel speeds, and pedestrian-oriented design features. Running through a built-up, commercial area, a main street may only be a few blocks long and is important for a community’s commercial, civic, and sometimes historical identity. These streets are often the most “urban” part of a small town or rural community and may feel similar to commercial areas in larger communities. Main streets are often a small portion of a larger, county road or State-owned highway and may need to balance competing needs and objectives. Many main streets were established prior to the wide spread adoption of motor vehicles. Some have limited width, while others are overly wide. In many cases these main streets have evolved and transformed over their history as transportation priorities and technologies have changed.



Flexible Design

Main streets can be constrained spaces, with more demand for roadway design features than there is typically space to accommodate. Decisions should be informed by local context and reflect the community vision.



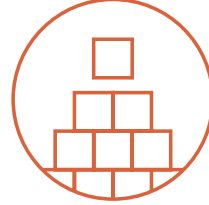
Multimodal Design

Multimodal networks provide mobility and access for all users and modes of travel. Main streets become connections between modes, as motorists become pedestrians and pedestrians become transit users.



Placemaking

Main streets can strengthen community identity by creating enhanced aesthetics, spaces for civic activities, and creating conditions to attract and retain business. Successful places foster improved community cohesion and participation in public life.



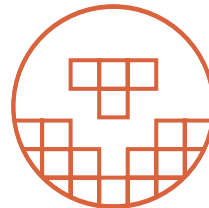
Incrementalism

Small projects can make a big difference. Opportunities such as roadway resurfacing or enhancements associated with individual development projects can be the first step in a gradual transformation.



Environmental Sustainability

Street trees and other vegetation can support a pleasant environment and are a key component of stormwater management strategies. Trees and other vegetation intercept rainfall and can help regulate the flow of stormwater.



Compactness

No one mode or use should dominate the street. Providing compact, well delineated zones for each user of the main street creates a sense of belonging.

Multimodal Main Streets



Imbler, Oregon
POPULATION 305

Located in rural Eastern Oregon, Imbler is bisected by State Highway 82. The highway, which serves as an important freight route for the area, also functions as the town's main street. In 2007, the existing roadway, which included two travel lanes with wide shoulders, was redesigned to add pedestrian and bicycle facilities. Sidewalks and bike lanes were constructed on both sides of the street and pedestrian scale lighting, street trees, and planters were added. Crosswalks were marked at key intersections to connect residents with schools and other destinations.



Los Molinos, California
POPULATION 2,037

Los Molinos has a busy State highway as its main street. The street features high levels of pedestrian and bicyclist use, as well as high-volumes of through vehicular traffic. Prior to reconstruction, vehicle speeds and crash rates were high. Reconstruction of the highway through the downtown corridor added buffered bike lanes, sidewalks, and crosswalk signal treatments. Improvements included stamped colored concrete buffers, in-pavement flashers at crosswalks, islands, lighting, street trees, and speed feedback signs.



Willow Creek, California
POPULATION 1,710

Prior to implementing roadway improvements, Highway 299 in Willow Creek was a four-lane road through downtown that also functioned as the town's main street. Lacking pedestrian and bicycle facilities, people had to walk and bike along the street. By reconfiguring the roadway from four lanes to three lanes (one lane in each direction with a center turn lane), additional space was made available for sidewalks, bike lanes, and landscaping.

Multimodal Main Streets

Galena, IL—Population 3,429



The ITE Walkable Urban Thoroughfares Guide 2010 recommends the following design details for walkable and bikeable commercial main streets:

- **Minimum sidewalk width:**
6 ft (1.8 m)
- **Furnishing zone:**
6 ft (1.8 m)
- **Target travel speed:**
25 mi/h (40 km/h)
- **Number of through lanes:**
2
- **Lane Width:**
10–11 ft (3.0–3.3 m)
- **Parallel On-Street Parking Width:**
7–8 ft (2.1–2.4 m)
- **Bike facility:**
5–6 ft (1.5–1.8 m) min

Hull, IA—Population 2,175



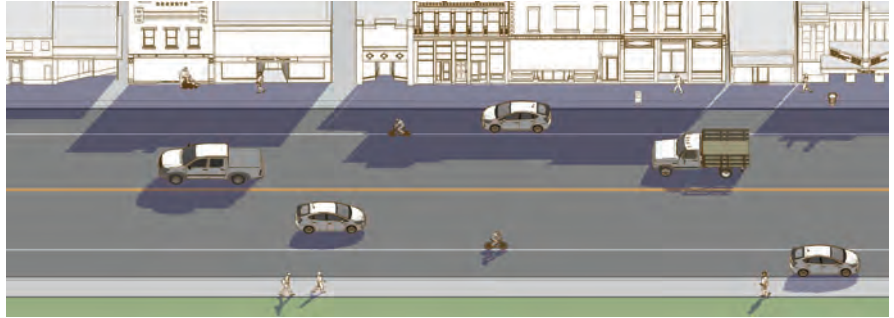
Multimodal Main Streets

TWO-LANE STREET SCENARIOS

Figure 5-7. The following concepts illustrate potential design options for wide 2-lane main streets.

EXISTING CONDITIONS TWO-LANE

A typical two-lane main street often has wider than necessary lane widths. Wide lanes encourage higher travel speeds and should be avoided on main streets where lower speeds are desired. By narrowing lanes with excess width, the additional space can be reallocated for other uses.



MEDIAN ISLAND

Providing curb extensions and median islands can enhance crossing experience for pedestrians.

For more information, refer to the [FHWA Proven Safety Countermeasures](#) on medians and pedestrian crossing islands.



ANGLED PARKING CHICANE

Where through traffic volumes are low, a slow-speed street design may maximize comfort and use by pedestrians and bicyclists.

For more information on creating slow-speed conditions, refer to the guidance on [Traffic Calming](#).



BIKE LANE

Narrowing wide travel lanes may provide room to establish on street bike lanes. Pay attention to on street parking by adding a parking side buffer or other mitigation to reduce door zone conflicts.

Refer to the [FHWA Resurfacing Guide 2016](#) for more information.



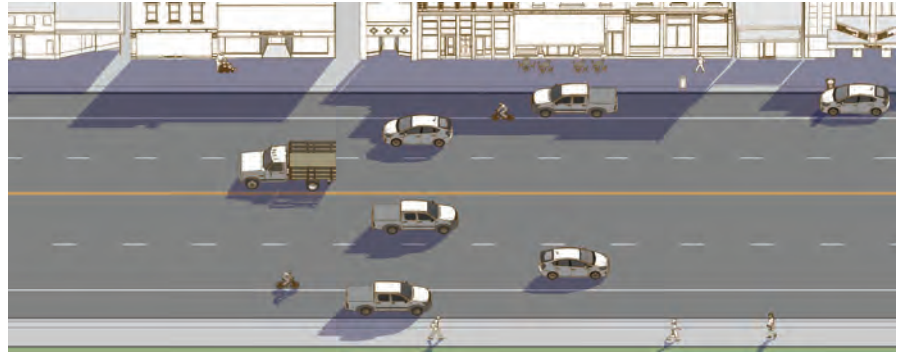
Multimodal Main Streets

FOUR-LANE STREET SCENARIOS

Figure 5-8. The following concepts illustrate potential design options for main streets with multiple travel lanes in each direction.

EXISTING CONDITIONS FOUR-LANE

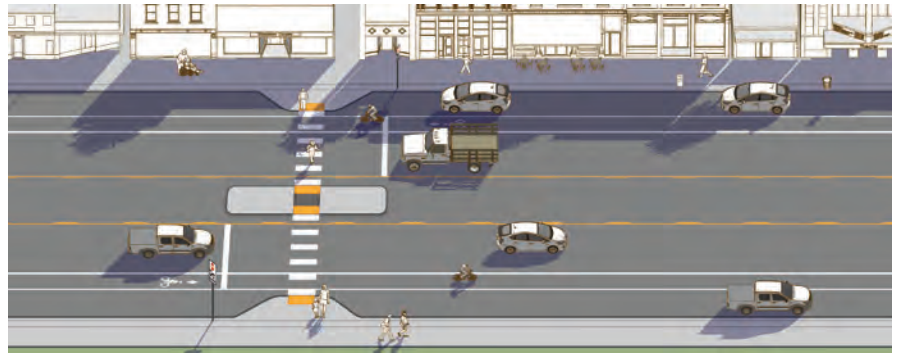
Rural highways are often widened through town centers, providing multiple travel lanes to reduce impediments to through traffic. These configurations may encourage inappropriately high-speed travel and erratic behavior in the vicinity of pedestrian and bicycle activity.



ROAD DIET

A four-lane to three-lane road diet can balance the needs of through travel and local community access, while increasing safety.

Road diets are an FHWA Proven Safety Countermeasure. For more information on road diets, refer to the FHWA Resurfacing Guide 2016 and the FHWA Road Diet Guide 2014.



STREETScape EXPANSION WITH BIKE LANES

Narrowing and consolidating excess space dedicated to motor vehicles can provide room to expand sidewalk areas.

Road diets are an FHWA Proven Safety Countermeasure. For more information on roadway reconfigurations, refer to the FHWA Road Diet Guide 2014. Refer to the ITE Walkable Urban Thoroughfares Guide 2010 for more information on sidewalk configuration.



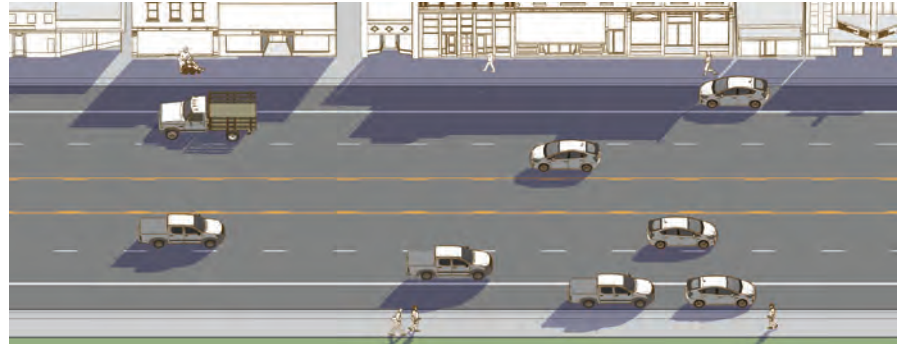
Multimodal Main Streets

FIVE-LANE STREET SCENARIOS

Figure 5-9. The following concepts illustrate potential design options for under capacity 5-lane main streets.

EXISTING CONDITIONS: FIVE-LANE

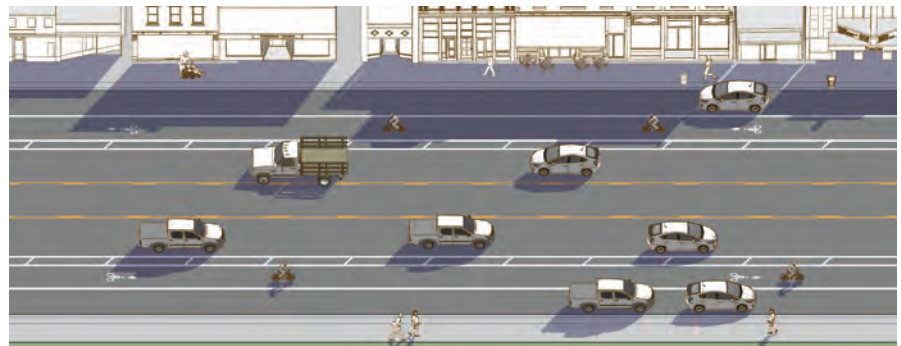
Some small towns have five-lane main streets. This configuration may have arisen from a more intensive highway use that may no longer be relevant due to decline in attractors, or the addition of a bypass over the years. Five-lane main streets with excess capacity represent dramatic opportunities to create high quality experiences for all users.



ROAD DIET WITH BIKE LANES

Where high quality bicycling experience is desired, provide a buffered bike lane.

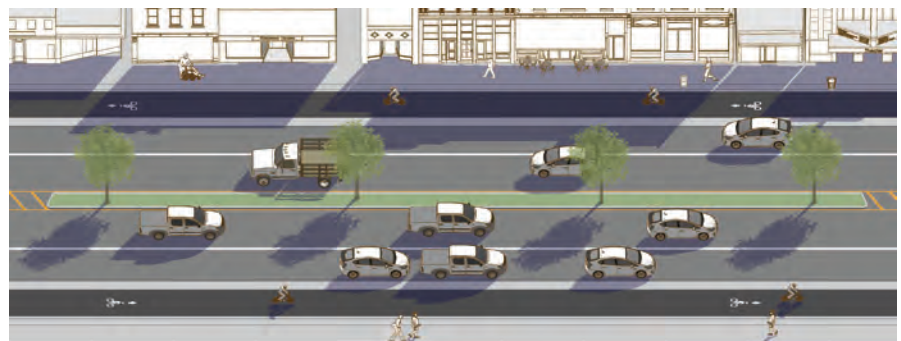
For more information, refer to the guidance on [Separated Bike Lanes](#) and the [FHWA Separated Bike Lane Planning and Design Guide 2015](#).



MEDIAN AND SEPARATED BIKE LANES

A continuous center median may take up less space than a center turn lane, providing additional room to establish separated bike lanes and landscaping.

For more information, refer to the [FHWA Separated Bike Lane Planning and Design Guide 2015](#).



STREETSCAPE EXPANSION WITH BIKE LANES

Removing over-capacity lanes creates opportunities for not only bike lanes, but streetscape expansion as well.

Refer to the [FHWA Road Diet Guide 2014](#) for more information on roadway reconfiguration, and the [ITE Walkable Urban Thoroughfares Guide 2010](#) for more information on sidewalk configuration.

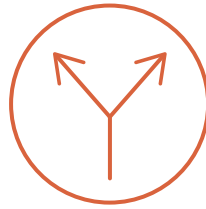


Bridges

Bridges are critical connections in any transportation network. Due to the high cost of bridge replacement or upgrades and the various existing and constrained bridge designs that exist, it is not always possible to have continuity in design approaches for multimodal facilities on bridges. It may take decades for older bridges to be replaced with a design that supports walking and bicycling. Rehabilitation existing bridges presents opportunities for reconfiguring bridge decks and structures to better accommodate all the modes that need to use the connection in the network. The overall strategy for accommodating people walking and bicycling on bridges may vary depending on whether the bridge is being reconfigured, retrofitted, or replaced.

REQUIREMENTS

“In any case where a highway bridge deck being replaced or rehabilitated with Federal financial participation is located on a highway on which bicycles are permitted to operate at each end of such bridge, and the Secretary determines that the safe accommodation of bicycles can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations” (23 U.S.C. 217(e)). Although this requirement only mentions bicycles, DOT encourages States and local governments to apply this same policy to pedestrian facilities as well.



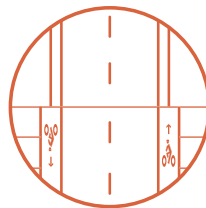
Separation

Bridges are constrained areas where pedestrians and bicyclists have less flexibility to operate. As such, separation becomes more important than along roadway segments.



Awareness

Signing, marking and active warnings can alert all users to a change in condition or of an active condition needing heightened attention.



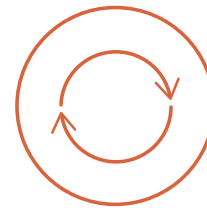
Future Proof

People bicycling and walking should be assumed users of any new or replacement bridge structure. A bridge replacement or rehabilitation project may create an opportunity to provide a new pedestrian and/or bicycle facility that does not necessarily connect to existing facilities. Provide temporary connections from the roadway to the new bridge facilities until the roadway can be permanently upgraded. Providing facilities during construction is less expensive than retrofitting them later.



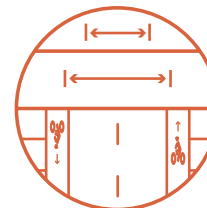
Prioritize

A single major barrier such as a narrow bridge can render an otherwise attractive bikeway or pedestrian route undesirable.



Continuity

Facilities should maintain a consistent alignment across the bridge. Solutions that require users to transition from one side of the road to the other are unlikely to be embraced.



Flexibility

Retrofitting pedestrian and bicycle facilities on bridges presents special challenges because it may be impractical to widen an existing bridge. Evaluate options that can provide space for people walking and/or bicycling without roadway widening.

Bridges



Ferndale, California POPULATION 1,362

Fernbridge is a historic, two-way vehicle bridge with no shoulder space for bicyclists. The California Department of Transportation added a push button, which bicyclists activate prior to crossing the bridge. The push button activates a flashing beacon notifying motorists that a bicyclist is using the bridge and occupying the vehicle lane. The buttons and beacons are solar powered which reduced installation costs.



Boonville, Missouri POPULATION 8,370

The Boonslick Bridge, located on State Highway 40, features a sidepath separated from motor vehicle traffic by a concrete barrier. The bridge crosses the Missouri River, connecting Boonville on its southern bank with Franklin (pop 97) and New Franklin (pop 1,100) on its northern bank.



Centerville, California. POPULATION 362

Constructed at a cost of \$369,000, the Clear Creek Bridge provides a cantilevered bridge connection between two trail networks for equestrians, hikers, and mountain bikers as well as providing a secure crossing for commuting bicyclists. This project was a joint effort by Western Shasta Resource Conservation District, the Bureau of Land Management, and Shasta County. The project was funded by the California Natural Resources Agency.

Additional case studies and policy recommendations can be found in FHWA's Pedestrian and Bicycle Information Center white paper: "Improving Pedestrian and Bicycle Connectivity during Rehabilitation of Existing Bridges" 2016.

While pedestrian facilities on bridges are more difficult to design due to space limitations, "provisions should always be made to include some type of walking facility as part of vehicular bridges" (AASHTO, Guide for the Planning and Design of Pedestrian Facilities, 2004, p. 63).

Bridges

BRIDGE RECONFIGURATION

Rehabilitation generally fall into one of two categories, bridges that have some potential for space reconfiguration, and those that are so constrained that there is little to no potential to achieve separated pedestrian and/or bicycle space without widening the bridge.

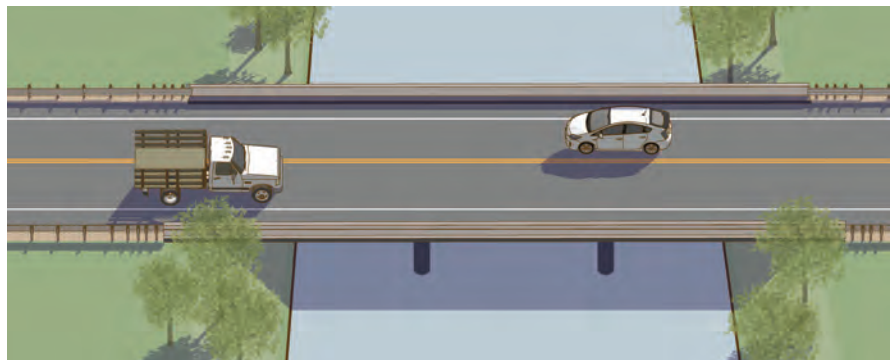


This sidewalk was installed over the existing bridge deck during a rehabilitation project.

Figure 5-10. The following concepts illustrate potential design options for retrofitting existing bridges for increased multimodal accommodations.

EXISTING CONDITIONS

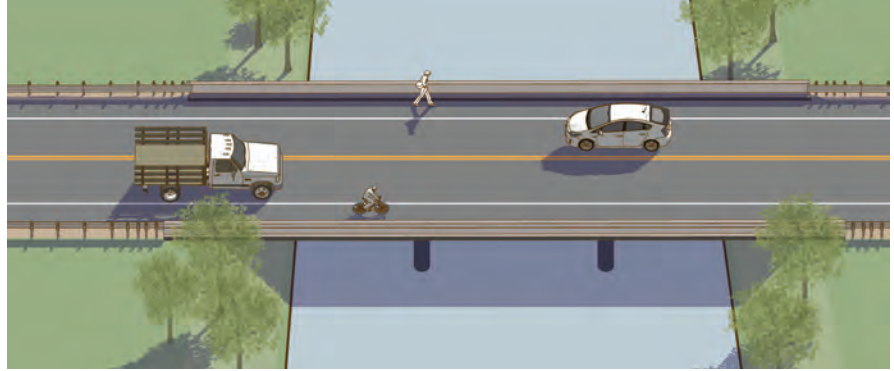
Candidate bridges have travel lanes greater than 11 ft (3.3 m), or some form of existing but substandard pedestrian facility or shoulder space. Many older bridges have narrow, 2 or 3 foot wide curbs where pedestrians may be walking.



Bridges

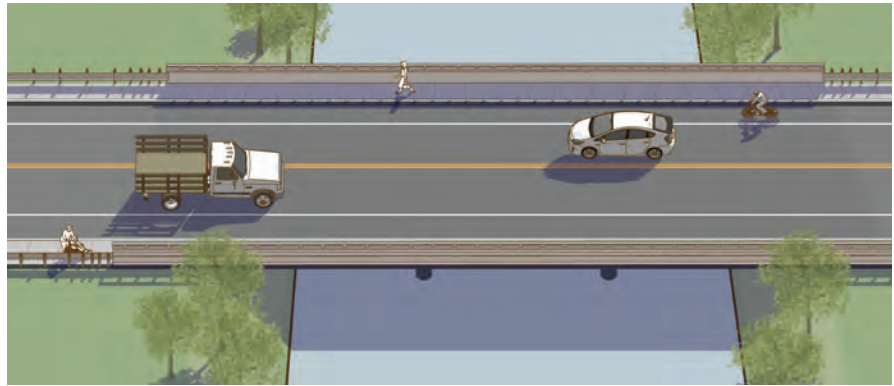
WIDEN SHOULDERS

Remove narrow or substandard sidewalks in favor of widened shoulder space. This may add flexibility and functionality for users. Shoulder space must meet accessibility guidelines if intended for pedestrian use.



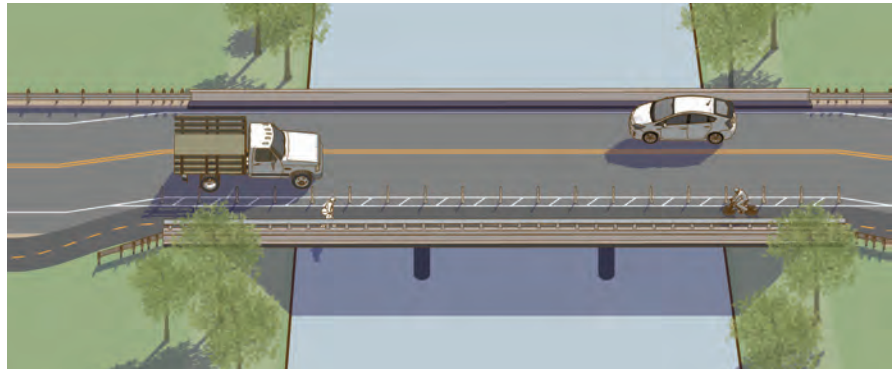
WIDEN SIDEWALKS

Where additional width is available, extend or replace sidewalks into the shoulder, or wide travel lane space to create adequate width. Sidewalks should be 5 ft minimum and be as wide as possible. Ramps at the ends of the bridge facilitate pedestrian and bicycle access.



ON DECK SIDEPATH

Where a sidepath or sidewalk exists that focuses all bicycle and pedestrian traffic on one side of the roadway it may be possible to reduce lane width and shift the travel lanes to create enough space for a shared use path on one side of the bridge deck. Provide a barrier if possible between the travel lanes and the sidepath. Bicyclists riding with traffic on the opposite side of the road from the sidepath may not be able to be accommodated with this scenario without creating a shared lane.



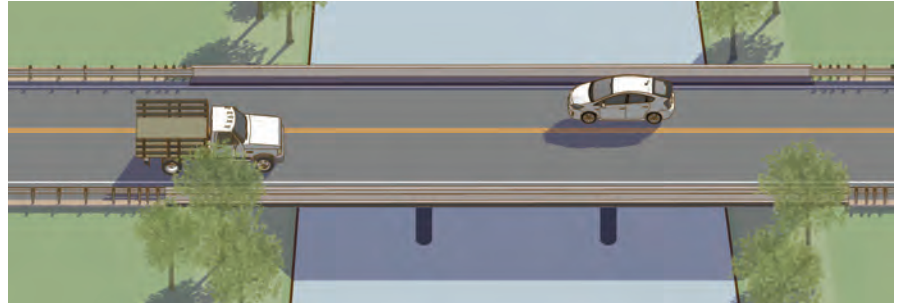
Bridges

CONSTRAINED BRIDGE

Figure 5-11. The following concepts illustrate potential design options for retrofitting highly constrained bridges.

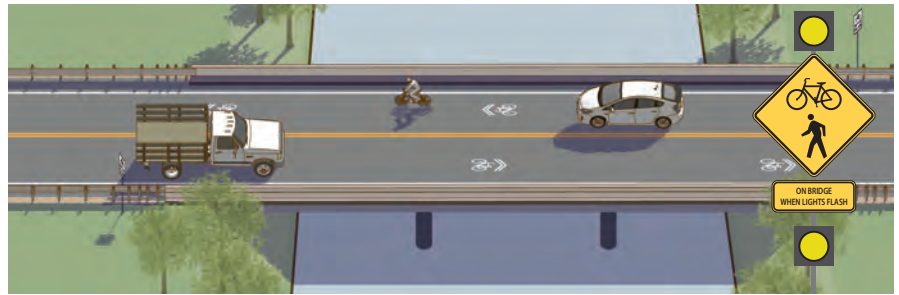
EXISTING CONDITIONS

Some bridges may be so narrow (26 ft or less) as to make any reconfiguration option impossible or too narrow to be of value. Sufficient existing space is only provided for a single travel lane in each direction. No functional sidewalks or shoulders are present.



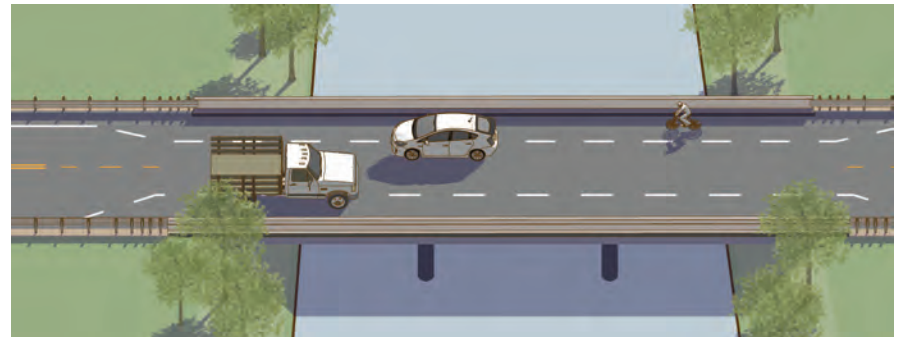
MARKINGS, SIGNS, AND BEACONS

Active warning beacons, R4-11 signs and SLMs may be used to alert bridge users to the likely presence of bicyclists on the roadway. For increased bicyclist comfort, consider reduced or advisory speed limits on the bridge.



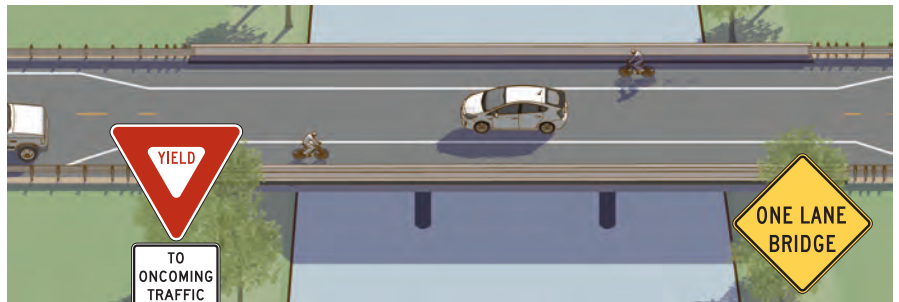
ADVISORY SHOULDERS

Establishing advisory shoulders on the bridge creates dedicated pedestrian and/or bicycle space within the same roadway width. Refer to the guidance on advisory shoulders for additional context.



ONE LANE BRIDGE

Along roadways with low motor vehicle volumes and adequate sight distance, configuring the structure as a one-lane bridge can provide an exclusive separated space for pedestrians and bicyclists. Refer to the FHWA MUTCD section 2C.21.

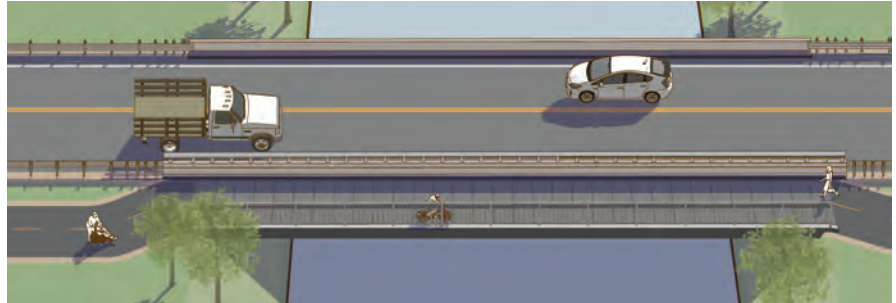


Bridges

CANTILEVERED SIDEPATH

Where other on-deck retrofit strategies are impractical, it may be possible to cantilever a path on one or both sides of the bridge structure.

Refer to the *AASHTO Bike Guide 2012* Section 4.12.3



Cottonwood, CA—Population 3,316



This bridge was reduced to one lane for structural loading reasons; however, this one-lane bridge does offer space for pedestrians to cross the bridge where no space existed.

Farmington, UT—Population 21,599



This bridge, being too narrow to provide dedicated facilities, was given sharrows and “bikes may use full lane” signage in Farmington, UT.

Bridges

BRIDGE RECONSTRUCTION

New bridges or bridge reconstruction projects offer an opportunity to integrate high-quality and comfortable facilities for people walking and bicycling.

WIDE SHOULDERS

Bridges in areas with little or no pedestrian activity should have wide shoulders maintained across the bridge, even if the roadway is currently lacking them. Wide shoulders should be designed with cross-slopes less than 2 percent if pedestrians are to be accommodated, and 8 ft (2.4 m) is the desirable minimum for comfortable shoulder use by bicyclists and pedestrians. Consider marking the shoulder as a bike lane with buffers if sufficient width is available.

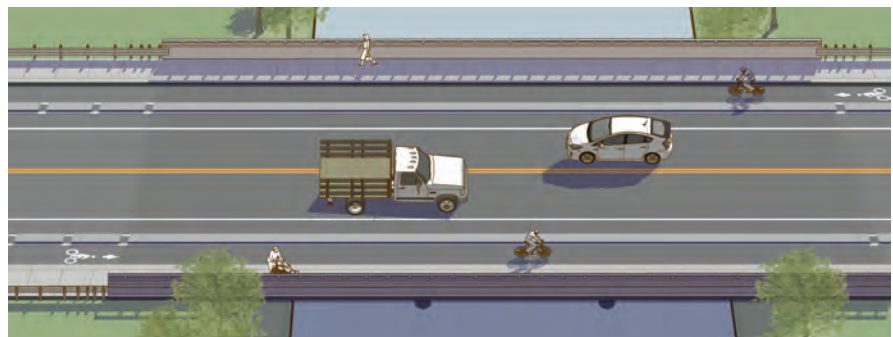
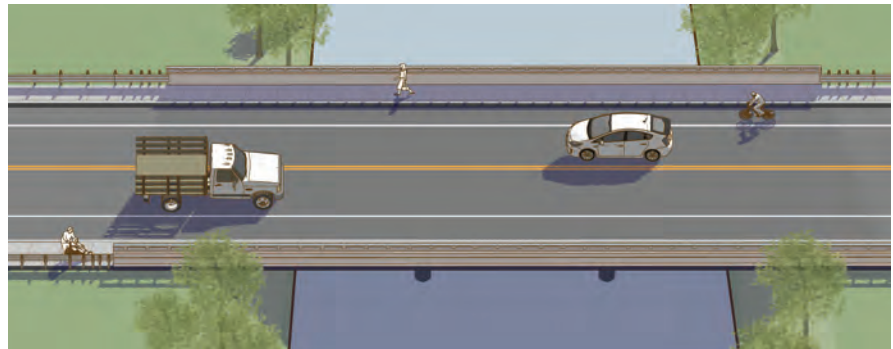
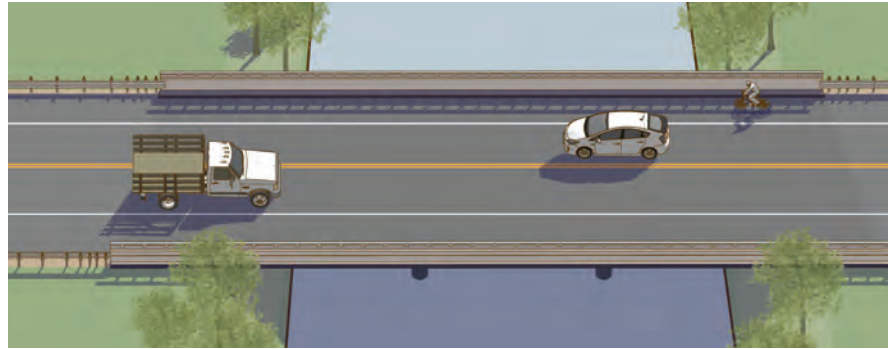
SIDEWALKS AND SHOULDERS

New bridge decks in areas that experience pedestrian use should be given sidewalks with a desired minimum of 6 ft (1.8 m) in width. Shoulders serving bicyclists should follow AASHTO guidance and be 5 ft (1.5 m) in width minimum.

SEPARATED BIKE LANES AND SIDEWALKS

Bridges in built-up areas that experience significant numbers of bicyclists and pedestrians may benefit from separating user types through the use of a separated bike lanes and sidewalks.

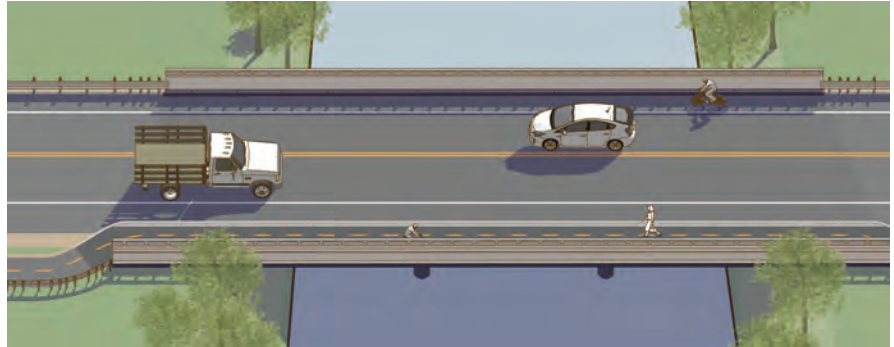
Figure 5-12. The following concepts illustrate potential design options to consider when reconstructing bridges.



Bridges

SHARED USE PATHS

Bridges along roadways with sidepaths, or roadways with planned sidepaths should be designed to maintain continuity. This configuration may also be desirable to provide greater separation from vehicle traffic for people bicycling over the bridge even if there is no sidepath along the corridor. This may be advantageous in built-up areas where bicyclists will have a greater variety of skills and comfort tolerances.



Decorah, IA—Population 8,127



Unincorporated Tehama County, CA—Population 63,463



The Bowman Bridge is a new bridge that integrates wide shoulders with designs from the Nomkaki tribe.

Access to Public Lands



Gateway National Recreation Area

Public lands make up a significant portion of the nation's land area. Federal lands alone make up almost 30 percent of the land in the United States. National parks, forests, wildlife refuges, and the Bureau of Land Management (BLM) lands, State and County parks, and other forms of public lands play important roles in the economies of many rural communities and small towns across America. Improved walking and bicycling access to public lands can also provide opportunities for physical activity in communities. There is increasing interest from public land managers and gateway communities in providing more options for people to access and experience public lands by foot and bike—creating more seamless multimodal transportation networks.

Federal Lands Transportation Program

The Federal Lands Transportation Program (FLTP) was established under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and continued under the Fixing America's Surface Transportation (FAST) Act (23 U.S.C. § 203), to improve transportation facilities for the following Federal Land Management Agency (FLMA) partners:

- National Park Service (NPS)
- Fish and Wildlife Service (FWS)
- USDA Forest Service (USFS)
- Bureau of Land Management (BLM)
- US Army Corps of Engineers (USACE)
- Bureau of Reclamation (BOR), and
- Independent Federal Agencies with natural resource and land management responsibilities (IFAs)

WHAT MAKES PUBLIC LANDS UNIQUE?

Public lands:

- Are often scenic places where people may be more motivated to walk and bike.
- May draw many visitors from other places, creating more support and opportunities for partnerships.
- Offer opportunities for different funding sources, such as the Federal Lands Access Program.

Federal Lands Access Program

The Federal Lands Access Program (FLAP) was established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.

FLAP funded projects have to contain title or maintenance responsibilities vested in a State, county, town, township, tribal, or local government. This requirement leverages partnerships and recognizes the mutual benefit of the projects.

Funds are allocated among the States using a statutory formula based on road mileage, number of bridges, land area, and visitation. Projects are selected by a Programming Decision Committee (PDC) established in each State. The PDCs request project applications through a call for projects. The frequency of the calls is established by the PDCs.

Access to Public Lands

North Moab Recreation Area Alternative Transportation System

Moab, Utah

POPULATION 5,000

This community has evolved from a mining town to a recreation-based economy attracting 2.5 million visitors annually. In 1999, a coalition of public and private agencies initiated the North Moab Recreation Area Alternative Transportation System project in response to congestion and safety concerns due to growing visitation. This project expands the walking and biking network, enabling transportation by nonmotorized modes. The entire project is just under \$12 million and has resulted in about 12 miles of shared use paths, a bike and pedestrian bridge over the Colorado River, transit hubs, and 14 miles of wide shoulders. This infrastructure connects Moab to the Colorado River way, Arches National Park, Deadhorse Point State Park, Canyonlands National Park, and popular trailheads and campgrounds on BLM lands.



Moab Canyon Wayfinding



Colorado Riverway Path near Moab



Colorado Riverway Path near Moab

MORE INFORMATION AT:

Partnership Case Study: North Moab Recreation Area Alternative Transportation Project, 2010

<http://www.fedlandsinstitute.org/ResourceLibrarySearch/Repository.aspx>

North Moab Recreation Area Connections, 2013.



Access to Public Lands



Leelanau County, Michigan **SLEEPING BEAR HERITAGE TRAIL**

The Sleeping Bear Heritage Trail will provide a 27-mile nonmotorized multi-use route through the National Park Service Sleeping Bear Dunes National Lakeshore that will connect the Lakeshore's primary visitor destinations with the small gateway communities of Glen Arbor and Empire. The trail will measure 10 ft wide and have 2-foot shoulders, and the surface will alternate between asphalt and smoothly compacted crushed limestone. The Sleeping Bear Heritage Trail was conceived by the Leelanau Scenic Heritage Route (LHRS) Committee, which is made up of representatives from NWMCOG, all the townships, villages, and cities along the Leelanau County portion of M-22, M-204, M-109 that makes up the Heritage Route. Trail development is a partnership between the LSHR Committee, the Michigan Department of Transportation, Sleeping Bear Dunes National Lakeshore, Friends of Sleeping Bear Dunes, and TART Trails. Funding for trail development comes from Federal and State grants, foundations, and individual donations.



Boulder County, Colorado **RURAL ROAD STANDARDS**

Boulder County in Colorado has ten incorporated towns and is mostly rural. Forest Service lands in the mountains nearby are popular destinations. The County's paved road standard has been widened from 24 ft to 30 ft for collectors or 32 ft for minor arterials. That allows the County to stripe 11-foot lanes on rural roads, leaving 4 ft or 5 ft for shoulders to be used by all types of users, including people biking and walking. A key to success for Boulder County is emphasizing flexible-use facilities that respond to local context and needs, rather than labeling them as bike facilities or another specific user group. "Multimodal Mobility Transportation facilities shall be designed and constructed so as to maximize the mobility of people, goods, and services by multiple transportation modes, including motorized vehicles, bicycles, pedestrians, and transit." (*Boulder County Multimodal Transportation Standards 2012*).



Three Forks, Montana **HEADWATERS TRAILS SYSTEM**

The City of Three Forks is located in Gallatin County and has a population of 1,869 (2010 Census). Two of Three Forks' unique assets are the historic Sacajawea Hotel and the Missouri Headwaters State Park. The former Mayor Gene Townsend and the City of Three Forks have worked over the years to create the Headwaters Trail System to connect to these and other key destinations within the community. Thus far, 8.5 miles of paved shared use path have been built, including two bicycle and pedestrian bridges. Details on how this small town developed an exceptional trail system, including installation of a recycled bridge may be found in the **2012 Montana Complete Streets Toolkit**.





References

FOOTNOTES

- i In the MUTCD, pedestrian lanes may be considered a type of preferential lane. "Preferential lanes are established for one or more of a wide variety of special uses, including but not limited to, high-occupancy vehicle (HOV) lanes, ETC lanes, high-occupancy toll (HOT) lanes, bicycle lanes, bus only lanes, taxi only lanes, and light rail transit only lanes" (2009, p. 415).
- ii Section 3B.20 in the MUTCD states that "Word, symbol, and arrow markings on the pavement are used for the purpose of guiding, warning, or regulating traffic" (2009, p. 389). Preferential lane word markings are specifically identified for use, and PED ONLY word markings may qualify.

The MUTCD also states that "Symbol messages are preferable to word messages," although pedestrian markings are not specifically included in the "Standard Highway Signs and Markings" book.
- iii The National Center for Safe Routes to School (2011). *How Children Get to School: School Travel Patterns from 1969 to 2009*. Retrieved from http://saferoutesinfo.org/sites/default/files/resources/NHTS_school_travel_report_2011_0.pdf.
- iv Active Living Research. *Walking & Biking to School*. http://activelivingresearch.org/sites/default/files/Infographic_WalkBikeToSchool_Regional.pdf.
- v Gordon, Serena. *Child Obesity Soaring in Rural America*. U.S. News & World Report. April 9, 2010. Retrieved from <http://health.usnews.com/health-news/family-health/childrens-health/articles/2010/04/09/child-obesity-soaring-in-rural-america>.
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- vii McMurray, Robert G, et al. *Cardiovascular Disease Risk Factors and Obesity of Rural and Urban Elementary School Children*. *Journal of Rural Health*. September 1999.

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Photo by Tom Robertson, Adventure Cycling Association



Planning and Project Development

- 6-3 *The Transportation Planning Process*
- 6-4 *Steps in the Transportation Planning Process*
- 6-5 *Key Products of the Transportation Planning Process*
- 6-6 *What are the Key Products of the Transportation Planning Process?*



The Transportation Planning Process

This chapter is intended to encourage the reader to understand their local, regional, and state process is and what the entry points are for improvements. It is also intended to emphasize the ultimate goal of “mainstreaming” bike and pedestrian planning so that these projects can be systematically and integrally considered alongside motorized enhancements.

Transportation planning is a continuing, cooperative, and comprehensive process that uses a performance-driven approach for decision making. Public agencies that are responsible for the operation, maintenance, and development of transportation systems and facilities work cooperatively to determine long and short-range investments. Public agencies at all scales, from small towns, transit authorities, Metropolitan Planning Organizations (MPOs) to State Departments of Transportation, carry out planning, with active involvement from the traveling public, the business community, community groups, environmental organizations, and freight operators. **Figure 6-1** illustrates the development of products and activities within the transportation planning process.

Transportation planning is critical to creating multimodal networks for all users. Jurisdictions employ a system for categorizing roads by function, and the number of vehicles it can accommodate. However, this approach may not always consider the need for active transportation facilities that provide multimodal connections to jobs and essential services. The planning and design of the transportation network should take a comprehensive

approach to the various roadway types of arterial, collector, and local roads and associated active transportation facilities that can be implemented with them. The State is required to consult with affected nonmetropolitan local officials to determine projects that may be of regional significance.

This document includes a number of strategies tailored for small town and rural contexts, for consideration during the transportation planning process. The process itself should address local conditions, regional connections, opportunities, and challenges, and consider the needs of the all people in the study area. Gathering demographics of the study area can provide essential information about the travel needs of the community. Nearly one-third of the

general population includes residents that are too young or old to drive, are disabled, traditionally underserved, or don't have access to a vehicle. It is critical that transportation planning efforts pay significant attention to these populations and tailor public involvement strategies to involve these groups, even though they may be difficult to reach through traditional public involvement strategies. Flexibility requires consideration of all transportation users; in some unique rural regions user consideration may include safe access for horse-drawn buggies. Other considerations may include providing safe passage for school students, addressing the needs of tourists, and ensuring access for people with disabilities.

Figure 6-1. *The Transportation Planning Process*



Steps in the Transportation Planning Process

- **Engaging** the public and stakeholders to establish shared goals and visions for the community.
- **Monitoring** existing conditions and comparing them against transportation performance goals.
- **Forecasting** future population and employment growth, including assessing projected land uses in the region and identifying major corridors of growth or redevelopment.
- **Identifying** current and projected transportation needs by developing performance measures and targets.
- **Analyzing** various transportation improvement strategies and their related tradeoffs using detailed planning studies.
- **Developing long-range plans and short-range programs** of alternative capital improvement, management, and operational strategies for moving people and goods.
- **Estimating** how recommended improvements to the transportation system will impact achievement of performance goals, as well as impacts on the economy and environmental quality, including air quality.
- **Developing a financial plan** to secure sufficient revenues that cover the costs of implementing strategies and ensure ongoing maintenance and operation.

Within the transportation planning process it is critical to provide a well-vetted strategy for addressing mobility for all users of the transportation system. Performance measures and targets should be identified to track this progress and monitored over time. Connected networks should be defined that service key destinations whether someone is driving, walking, bicycling, or taking transit (if available). Through flexibility in design a variety of ages and abilities should be accommodated.

PLANWORKS: BETTER PLANNING. BETTER PROJECTS.

PlanWorks is a web resource that supports collaborative decision-making in transportation planning and project development. PlanWorks is built around key decision points in long-range planning, programming, corridor planning, and environmental review. PlanWorks suggests when and how to engage cross-disciplinary partners and stakeholder groups. This system can help build consensus throughout these processes. Featured in PlanWorks is an application focused on Bicycles and Pedestrians, available at <https://fhwaapps.fhwa.dot.gov/planworks/Application/Show/17>.

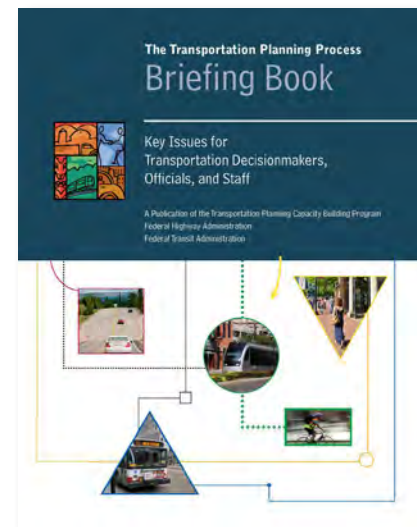


Figure 6-2. The Transportation Planning Process Briefing Book

This application is intended to help Metropolitan Planning Organizations, State Departments of Transportation, and other partners fully integrate pedestrian and bicycle planning and design into the formal transportation planning and project development processes. It provides detailed information on how agencies can incorporate multimodal transportation into specific key decisions. It identifies how the user can incorporate information on multimodal transportation into specific key decisions.



Key Products in the Transportation Planning Process

Planning for multimodal small town and rural networks should be integrated into every level of transportation planning. Plans should be as consistent as possible with clear policies to reference local plans before implementing a project. Project descriptions should be detailed enough to glean the full intended roadway configuration and character and not limited to functional classification or lane configuration. The presence of sidewalks, sidepaths, shoulders, or other active transportation facilities should be clearly highlighted. Potentially relevant planning processes include:

- **The Unified Planning Work Program:** The UPWP lists the transportation studies and tasks that MPO staff and member agencies will perform to support the metropolitan transportation planning process. It must identify the funding source for each project, the schedule of activities, and the agency or agencies responsible for each task or study. UPWPs reflect issues and strategic priorities unique to each metropolitan area and will differ by MPO.
- **The Metropolitan Transportation Plan:** In metropolitan areas, the MTP identifies how the region intends to invest in the transportation system. Federal law requires the plan, include both long-range and short-range program strategies or actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods.
- **Transportation Improvement Program:** MPOs use a TIP to identify transportation projects and strategies they will pursue over the next four years. These projects reflect the investment priorities detailed in the MTP. TIPs list the immediate program of investments that, once implemented, will go toward achieving the performance targets established by the MPO and documented in the MTP. In short, a TIP is a region's means of allocating its transportation resources among the various capital, management, and operating investment needs of the area, based on a clear set of short-term transportation priorities prepared through a performance-driven process. All projects receiving Federal funding must be in the TIP.
- **The Long-Range Statewide Transportation Plan:** State DOTs cooperate with nonmetropolitan area local officials to develop an LRSTP using a performance-driven process based on an agreed upon set of performance measures and targets. Plans are prepared with active engagement with the public and stakeholders and will vary by State. LRSTPs may be either policy-oriented strategic plans, or project-focused investment plans that include lists of recommended projects.
- **Statewide Transportation Improvement Program:** The STIP is similar to the TIP in that it identifies the immediate short-range priorities for transportation investments statewide and must be fiscally constrained. Through an established process, State DOTs work with local officials to identify projects across rural areas, small urban areas called urban clusters (with 2,500 to 49,999 people), and urbanized areas. Projects are selected for the STIP based on adopted procedures and criteria. As noted above, TIPs developed by MPOs must be incorporated, directly or by reference and without change, into the STIP.
- **Public Involvement Process (PIP) and Public Participation Plans (PPP):** States must involve the general public and all other affected constituencies in the essential functions listed above. MPOs and States engage the public and stakeholder communities as they prepare procedures that outline how the public will be advised, engaged, and consulted throughout the planning process. MPOs prepare public participation plans (PPPs), which describe how the MPO involves the public and stakeholder communities in transportation planning. The MPO also must periodically evaluate whether its public involvement process (PIP) is still effective. Similarly, States prepare documented public involvement processes that describe the occasions, procedures, and intended outcomes of public engagement in statewide and nonmetropolitan transportation planning.



What are the Key Products of the Transportation Planning Process?

Federal requirements call for agencies to deliver several key groups of documents as part of the transportation planning process, including (1) *Planning Work Programs*, which include Unified Planning Work Programs (UPWPs) prepared by MPOs and State Planning and Research Work Programs prepared by States; (2) *Transportation Plans*, which include MTPs prepared by MPOs and Long Range Statewide Transportation Plans (LRSTPs) prepared by States; and (3) *Transportation Improvement Programs (TIPs)*, which include Metropolitan TIPs prepared by MPOs and Statewide TIPs prepared by States.

Regional Planning Organizations (RPO) and Regional Transportation Planning Organizations (RTPO) are organizations that identify local transportation needs, conduct planning, assist local governments, and support the statewide transportation planning process in nonmetropolitan regions of a State.

RPOs and RTPOs may carry out the following planning tasks:

- Preparation of a Regional Long-Range Transportation Plan (LRTP)
- Preparation of a Regional Transportation Improvement Program (TIP)
- Coordination of local planning, land use, and economic development
- Provision of technical assistance to local officials
- Participation in national, multi-State, and State policy and planning development processes

Table 6-1. The key transportation planning products.

	Who Develops?	Who Approves?	Time Horizon	Content	Update Requirements
UPWP	FHWA/FTA/MPO	MPO	1 or 2 Years	Planning Studies and Tasks	At Least Once Every 2 Years
MTP	MPO	MPO	20 Years	Future Goals, Strategies, and Projects	Every 5 Years <small>4 years for nonattainment and maintenance areas</small>
TIP	MPO	MPO/Governor	4 Years	Transportation Investments	Every 4 Years
LRSTP	State DOT	State DOT	20 Years	Future Goals, Strategies, and Projects	Not Specified
STIP	State DOT	FHWA/FTA	20 Years	Transportation Investments	Every 4 Years
PIP	State DOT	State DOT	Not Specified	Public Engagement Strategies and Goals, Incorporating Input, Responding to Comments	Periodic Review and Update
PPP	MPO	MPO	Not Specified	Public Engagement Strategies and Goals, Incorporating Input, Responding to Comments	Periodic Review and Update

- Facilitation of a forum for public participation in regional and Statewide planning
- Coordination of plans and programs with neighboring RPOs and RTPOs and Metropolitan Planning Organizations and tribal organizations

Benefits that can be achieved by coordination with RPOs and RTPOs

- Conducting duties that support and enhance the Statewide planning process
- Providing a forum for public participation in nonmetropolitan areas
- Insuring the regional and local input of nonmetropolitan areas
- Fostering coordination of local planning, land use, and

economic development plans with transportation plans and programs at the State, regional, and local levels

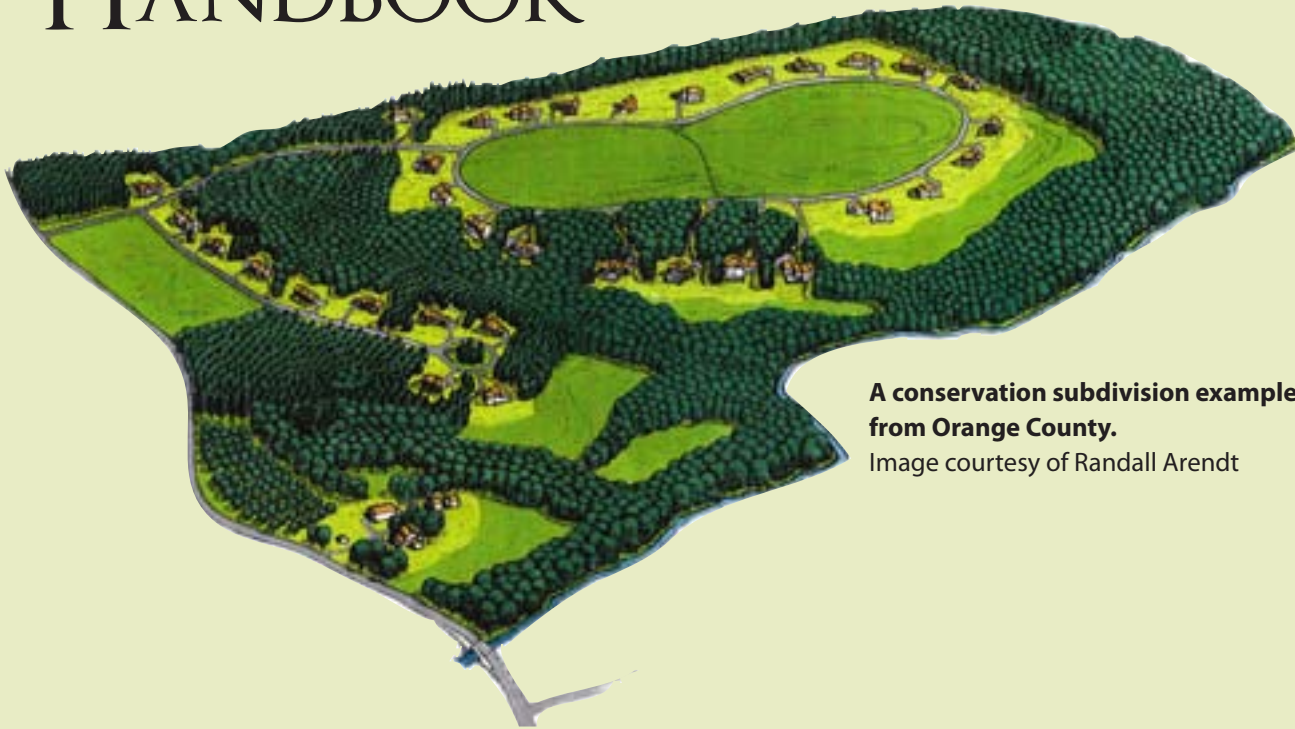
- Cooperating on the development of the Statewide Transportation Plan
- Consulting on the development of the Statewide Transportation Improvement Program in the non-metropolitan areas of the State

For more information, visit www.planning.dot.gov/focus_rural.asp and www.fhwa.dot.gov/planning/processes/rural



U.S. Department of Transportation
Federal Highway Administration

CONSERVATION SUBDIVISION HANDBOOK



A conservation subdivision example from Orange County.
Image courtesy of Randall Arendt

A GUIDE FOR NORTH CAROLINA COMMUNITIES
IN THE USE OF CONSERVATION DESIGN
FOR LAND USE PLANNING



The North Carolina
Urban and Community
Forestry Program



NC State University
Forestry and Environmental
Outreach Program



MODEL CONSERVATION SUBDIVISION ORDINANCE

This model ordinance is courtesy of landscape planner Randall Arendt; Marvin Collins, former Orange County planning director and coauthor with Arendt of *Open Space Design Guidebook: Albemarle-Pamlico Estuarine Region*; and the North Carolina Association of County Commissioners.

The Model Ordinance presented in this appendix is based on the open space design approach described in the narrative portion of this guidebook. It is also very closely related to the model contained in *Open Space Design Guidebook: Albemarle-Pamlico Estuarine Region*, published by the North Carolina Association of County Commissioners in 1996, written by Randall Arendt and Marvin Collins, former Orange County planning director.

The wording here presents a mandatory approach, wherein conventional subdivision plans that divide an entire property into lots and streets would no longer be acceptable. Instead, all new subdivision plans must be prepared using the open space design approach.

Where an optional approach is preferred, the local government may wish to consider the use of disincentives to discourage the use of conventional subdivision plans and encourage open space development plans. As an example, a developer might be permitted to create only a certain percentage (such as 60 to 70 percent) of the allowable number of building lots if he/she elects to use the conventional approach (imposing a 30 to 40 percent “density penalty”). On the other hand, the use of the open space design approach would permit the developer to achieve the maximum allowable density.

Another approach involves designating open space designs as by-right permitted uses and conventional cookie-cutter plans as conditional uses. The condition for approving conventional submissions would be a clear and compelling case by the applicant that dividing all the land into house lots and streets, with little or no open space, better implements official municipal or county policies, as contained in an adopted comprehensive plan (such as for agricultural preservation or woodland habitat protection), compared with open space designs. This approach enables local governments to remain true to their comprehensive plans when processing applications for new development.

It might be instructive to note that when Orange County first adopted open space design in its ordinances, it did so as an optional, voluntary approach. After several years of experimentation, during which very few developers chose open space design (largely due to their conservative reluctance to try new ideas), the county adopted standards requiring subdivision applicants to follow the open space design approach – which is actually the design approach that is most consistent with the county’s official comprehensive plan of land-use policies for protecting environmental resources. In other words, developers are, for the first time, really complying with key policies in the county’s comprehensive plan and attaining full density in very attractive and marketable subdivisions that preserve significant buildable upland habitat and farmland.

Deciding which approach to use is an example of the choices that each local government has in implementing an open space design process. Another example stems from the very character of the Albemarle-Pamlico estuarine region. Counties located in the NC piedmont or headwaters section may have a much different list of natural and cultural resources than counties of the NC coastal plain, where rolling hills give way to flatter terrain, vast scenic vistas, and more expansive floodplains and wetlands. Likewise, decisions regarding the resources that make up primary and conservation areas may lead to other decisions regarding the percentage of open space to preserve and whether that percentage applies to the total tract or only to the unconstrained, buildable portion of the site.

The very character of the resources to be preserved will also have an impact on ordinance provisions. Alternative approaches such as the use of “conservancy lots” and “neotraditional town planning” principles can be blended with conservation design to protect irreplaceable resources. For this reason, supplemental standards for an “estate” or conservancy lot option and a neotraditional “village” option have been included with the model ordinance.

The model ordinance represents a starting point. And regardless of the provisions ultimately adopted, they too should be viewed as a beginning. To acquaint landowners, developers, surveyors, and land planners and designers with the open space design process, a series of education workshops should be held either before or immediately after ordinance adoption. As subdivision plans are approved, they should be evaluated to determine if the goals of open space design are being achieved, particularly where an “optional” or voluntary approach is pursued. As conditions warrant, the ordinance provisions may be “fine-tuned” to achieve the desired result.

Open space subdivision design

Section 1 General

1.1 Purposes

The purposes of Open Space Subdivision Design are to preserve agricultural and forestry lands, natural and cultural features, and rural community character that might be lost through conventional development approaches. To accomplish this goal, greater flexibility and creativity in the design of such developments is encouraged and required. Specific objectives are as follows:

- To preserve areas of the county with productive soils for continued agricultural and forestry use by preserving blocks of land large enough to allow for efficient operations.
- To encourage the maintenance and enhancement of habitat for various forms of wildlife and to create new woodlands through natural succession and reforestation where appropriate.
- To minimize site disturbance and erosion through retention of existing vegetation and avoiding development on steep slopes.
- To preserve open land, including those areas containing

Model conservation subdivision ordinance

unique and sensitive features such as natural areas and wildlife habitats, steep slopes, streams, wetlands, and floodplains.

- To preserve scenic views and elements of the county’s rural character, and to minimize perceived density by minimizing views of new development from existing roads.
- To preserve and maintain historic and archaeological sites and structures that serve as significant visible reminders of the county’s social and architectural history.
- To provide for the active and passive recreational needs of county residents, including Implementation of the Recreation & Parks Plan.
- To provide greater efficiency in the siting of services and infrastructure by reducing road length, utility runs, and the amount of paving for development.
- To create compact neighborhoods accessible to open space amenities and with a strong identity.

1.2 Applicability

Open Space Subdivision Design is permitted in all residential zoning districts, but only upon approval of a Preliminary Subdivision Plat by the Board of County Commissioners. All Open Space Development subdivision plats shall comply with the requirements and standards specified herein and in all respects with other applicable codes and ordinances to the extent that they are not in conflict with these provisions.

Open Space Subdivision Design shall also be required in the following zoning districts, and/or within the following overlay districts: [to be completed by each county].

Potential Alternative Wording (allowing conventional design as a Conditional Use):

Authorization to develop a tract in a conventional manner, without open space (conventional development), rather than utilizing Open Space Design, may be granted by the Board of County Commissioners as a Conditional Use pursuant to Section _____ pertaining to conditional uses, provided that the applicant clearly demonstrates, at a Public Hearing,

compliance with the standards and criteria contained in that Section and, in addition, establishes the following:

- A.** That conventional development setting aside little or no open space for permanent protection would preserve environmental resources, natural and scenic features, historic sites, and historic resources to a degree equal to or greater than development utilizing Open Space Design principles would permit. The applicant may be required to protect such features, sites and resources from further development with appropriate covenants running with the land.
- B.** That the applicant has achieved the open space preservation goals set forth in this ordinance by conveyance of a perpetual conservation easement to a recognized nonprofit corporation established for that purpose, or to an agency or department of county, state, or federal government specifically charged with protecting environmental resources.

Section 2 Open space standards 2.1 Minimum Required Open Space

At least fifty percent (50%) of the unconstrained (buildable) land area in the Open Space Development shall be set aside as protected open space. Unconstrained lands are lands that do not lie within “Primary Conservation Areas,” as described below. Unconstrained lands also exclude the rights-of-way of high tension electrical transmission lines, and the rights-of-way of existing or proposed streets, which therefore may not be counted toward meeting minimum open space requirements. Except under the “Estate Lot” provisions, this open space shall remain undivided, and may not be incorporated into individual houselots. [Note: In areas with very low rural density, say more than two acres per dwelling, open space percentages greater than 50% are easily achievable and highly recommended. On the other hand, in serviced locations with public water and sewer, where densities might be several dwellings per acre, open space percentages might dip to 35 or 40%.]

2.2 Types of Open Space

The types of open space conserved through Open Space Development shall be consistent with the following standards:

- A.** Open space shall be comprised of two types of land: “Primary Conservation Areas” and “Secondary Conservation Areas,” and shall be configured to create or maintain interconnected networks of conservation lands, to the greatest extent that is practicable.
- B.** Primary Conservation Areas form the core of the open space to be protected. They are the first type of open space to be designated on an Open Space Development Plan to satisfy the minimum open space requirement and consist of the following site features:

- **Wetlands**, including, but not limited to, streams, creeks, ponds, reservoirs, and adjoining land areas identified as part of:

- The National Wetlands Inventory maps prepared by the U.S. Fish and Wildlife Service;
- Soil maps published by the County Soil Survey prepared by the USDA Natural Resources Conservation Service (where “very poorly drained” soils can be considered as a proxy for wetlands);
- A required Environmental Assessment or Environmental Impact Statement; and/or
- A site analysis conducted by a registered engineer, land surveyor, landscape architect, architect or land planner.

- **Floodplains** (100-year) and alluvial soils identified as part of:

- A Flood Insurance Study prepared by the Federal Emergency Management Agency; and
- The County Soil Survey prepared by the USDA Natural Resources Conservation Service.

- **Steep slopes**, defined as those greater than 25 percent, identified as part of:

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○ A County Soil Survey prepared by the USDA Natural Resources Conservation Service; and/or

○ A site analysis conducted by a registered engineer, land surveyor, landscape architect, architect or land planner and calculated using topographic maps from an actual surveyor from the U.S. Geological Survey.

C. Secondary Conservation Areas consist of unconstrained land that would otherwise be suitable for building and include the following site features:

- **Woodlands**, including forest land for the planting and production of trees and timber, where management practices such as selective timber harvesting and wildlife enhancement are employed. Such woodlands may consist of hardwood, pine, and/or mixed pine-hardwood forests identified as part of:

○ A site analysis conducted by a registered engineer, land surveyor, landscape architect, architect or land planner using aerial photographs and/or satellite imagery;

○ A required Environmental Assessment or Environmental Impact Statement; and/or

○ An independent site study conducted by a trained botanist and/or forester.

- **Farmland**, whether actively used or not, including cropland, fields, pastures, and meadows.

- **Natural areas** and wildlife habitats and corridors identified as part of:

○ An Inventory of Natural Areas and Wildlife Habitats as prepared by a state agency, the Nature Conservancy or a local land trust;

○ A required Environmental Assessment or Environmental Impact Statement; and/or

○ An independent site study conducted by a trained botanist and/or biologist.

- **Slopes** of 15% to 25% which require special site planning due to their erosion potential, limitations for

septic tank nitrification fields, and terrain or elevation changes. Such areas may be suitable for building but higher site preparation and construction costs are to be expected.

- Historic and/or archaeological sites, including, but not limited to, sites listed on the National Register of Historic Places or included on the State’s National Register study list, designated as a local historic landmark or district, and/or designated as having a high potential for archaeological remains. Such sites are generally identified as part of

○ A local architectural survey;

○ A local archaeological survey;

○ A required Environmental Assessment or environmental Impact Statement; and/or

○ An independent site study conducted by a trained architectural historian or archaeologist.

- **Public and/or private recreation areas and facilities, including:**

○ “Active recreation areas” such as public recreation areas, including district and community parks as identified in the Recreation and Parks Plan; and private recreation facilities, including golf courses, playing fields, playgrounds, swimming pools, and courts for tennis, basketball, volleyball, and similar sports, and commercial campgrounds.

Active recreation areas represent a kind of development in which natural lands are cleared, graded, and managed for intensive uses, thereby reducing the wildlife habitat or natural resource area that add to an area’s ecological well-being.

For this reason, only half (50%) of the land in this category may be credited toward meeting the minimum open space requirement.

○ “Passive recreation areas” such as pedestrian, bicycle, and equestrian trails, picnic areas, community commons or greens, and similar kinds of areas, whether public or private. Land in this category receives full credit toward meeting the minimum open space requirement.

- **Scenic views**, especially of natural and cultural features from designated scenic road corridors, including “views from the road” as well as views outward from potential home sites.

2.3 General Location Standards

A. Undivided Preserves. Both Primary and Secondary Conservation Areas shall be placed in undivided preserves which adjoin housing areas that have been designed more compactly to create larger conservation units that may be enjoyed by all residents of the subdivision. Such undivided open space shall be accessible to the largest number of lots within the development. To achieve this, the majority of houselots should abut undivided open space to provide residents with direct views and access. Safe and convenient pedestrian access to the open space from all adjoining houselots shall be provided, except in the case of farmland or other resource areas vulnerable to trampling damage or human disturbance.

When the “Estate Lot Development Option” is used, up to 85 percent of the Secondary Conservation Area may be incorporated into estate lots not smaller than six acres.

Where undivided open space is designated as separate non-contiguous parcels, no parcel shall consist of less than three (3) acres in area, nor have a length-to-width ratio in excess of 4:1, except such areas that are specifically designed for neighborhood commons or greens, playfields, buffers adjacent to wetlands and watercourses, wildlife corridors, or trail links.

B. Interconnected Open Space Network. As these standards are implemented, the protected open space in each new subdivision should be consciously designed to adjoin each other, so that they may ultimately form an interconnected network of Primary and Secondary Conservation Areas across the county.

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2.4 Ownership and Protection of Open Space

Conservation land within an Open Space Development may be owned and/or administered by any of the following methods, either individually or in combination. All open space shall be permanently restricted from further subdivision through permanent conservation easements recorded in the County Registry of Deeds. These easements should be held by land trusts or conservation agencies of the state or local government, and are not recommended to be held by the elected officials of the county or municipality. Ownership options include:

- Fee simple dedication to the County, another unit of local government, the State of North Carolina or a private nonprofit land conservancy.

- Ownership by a homeowners association where specific development restrictions and maintenance requirements are included as part of its bylaws. Such land shall also be protected through permanent conservation easements, as described below.

- Within Open Space Subdivisions designed according to the "Estate Lot Development Option," all of the open space may be incorporated into the estate lots themselves. This open space shall consist of all land lying outside the building envelopes within each estate lot, and shall be permanently protected through conservation easements, as described below.

- Up to 85 percent of the conservation land within an Open Space Subdivision may be "non-common open space" that is designated for individual private ownership, such as by the original farmer or landowner, the developer, or another private entity that maintains the open space for the uses permitted in this ordinance (such as a nursery business or commercial equestrian operation). The remaining conservation land shall remain undivided for the enjoyment of the residents, and this remainder shall consist of land that is not wet or submerged, not steep (i.e., with slopes less than 25 percent), and not within the rights-

of-way of high-tension electrical transmission lines.

- All conservation land shall be permanently protected through conservation easements dedicated to the County, another unit of local government, the State of North Carolina or a private non-profit land conservancy. Such easements shall apply to land owned by a homeowners' association, individual lot owners within Estate Lot Developments, land owned by other private entities managing the land for open space purposes, and land dedicated to units of local government. (Land dedicated to units of local government shall be eased to a private land trust or conservancy organization because, over time, the conservation and development philosophies of elected officials are subject to change.)

2.5 Maintenance of Open Space

Natural features shall be maintained in their natural condition, but may be modified to improve their appearance, functioning, or overall condition, as recommended by experts in the particular area being modified. Permitted modifications may include:

- Reforestation;
- Pasture or cropland management;
- Buffer area landscaping;
- Stream bank protection; and/or
- Wetlands management.

Unless accepted for dedication or otherwise agreed to by the County, another unit of local government, the State of North Carolina or a private non-profit land conservancy, the cost and responsibility of maintaining open space and any facilities located thereon shall be borne by the property owner and/or homeowners' association.

Management Plans are required for all open space within Open Space subdivisions specifying who is responsible for which maintenance responsibilities and on what schedule. Guidelines for management can be found in the Stewardship Handbook for Natural Lands, published by the Natural Lands Trust <http://www.natlands.org/services/for-land-owners/stewardship-handbook/>

Section 3 Design standards

3.1 Two Options for Calculating Maximum Permitted Density

The maximum number of lots in a Conservation Subdivision shall be determined by either of the following two methods, at the discretion of the Applicant:

1. Yield Plan: The maximum number of lots reasonably achievable on the property, based on a conventional subdivision design plan consisting of lots meeting or exceeding the minimum dimensions required for lots in conventional subdivisions, conforming to the County's regulations governing lot dimensions, land suitable for development, and street design. The Yield Plan shall be prepared by the applicant, showing how the tract of land could be subdivided to yield the maximum number of buildable residential lots. Although the Yield Plan does not have to meet formal requirements for a site design plan, and is not intended to involve significant engineering or surveying costs, the design must be realistic and economically capable of being constructed, given site features and all applicable regulations. Potential building lots and streets must not be shown in areas that would not ordinarily be permitted in a conventional plan. For example, Yield Plans would include, at minimum, basic topography, wetland locations, 100-year floodplains, and slopes exceeding 25 percent in defining areas unsuited for development. For additional details, see Section 8.4.

2. On sites not served by public sewerage or a centralized private sewage treatment facility, soil suitability for individual septic systems shall be demonstrated. In areas of the site considered to be marginal for such systems, typically where the most challenging site conditions exist with respect to seasonal high water tables, or shallow depth to bedrock or restrictive soil layers, a small percentage of lots (10%) shall be tested. The local government shall select the lots for such testing. If tests on the sample lots pass the percolation test, the applicant's other lots shall also be deemed suitable for septic systems for the purpose of calculating total lot yield. However, if any of the sample lots fail, several others shall be tested, until all the lots in

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a given sample pass.

3. Formulaic Approach: Because they represent sensitive environmental features and/or significant cultural resources considered unbuildable in a legal or practical sense, Primary Conservation Areas receive only partial credit toward meeting the minimum open space requirement. Specifically, the maximum number of lots is determined by dividing the area of the tract of land by the minimum conventional lot size specified in the underlying zoning. In making this calculation, 50% (fifty percent) of the following two land types shall be included in the density calculations:

A. Slopes over 25% of at least 5000 square feet contiguous area;

B. The 100-year floodplain.

In addition, 10% (ten percent) of land within rights-of-way for high-tension electrical transmission lines shall be counted.

Furthermore, 5% (five percent) of wetlands meeting the definition of the Army Corps of Engineers pursuant to the Clean Water Act, or land that is submerged for more than three months of the year shall be included in the density calculations.

No density credit shall be given to bodies of open water over 5000 square feet contiguous area, or to land lying within the rights-of-way of existing or proposed streets

Note: In these calculations, density credit may be applied to certain other unconstrained parts of the site, such as land used for onsite sewage disposal, including nitrification fields and fields used for “spray irrigation” (sometimes called “land treatment”). Unless specified otherwise, these lands may also be counted toward meeting the minimum open space requirements for Open Space Subdivisions.

3.2 Existing Features/Site Analysis

Since it forms the basis of the open space design process, an Existing Features/Site Analysis Map analyzing each site’s special features is required for all proposed subdivisions. The Map shall identify, at minimum, those natural, historic, and cultural features listed in Sections

2.2.B and 2.2.C without distinction as to whether they are Primary or Secondary Conservation Areas.

3.3 Design Process

Open Space Development subdivisions shall be designed around both the Primary and Secondary Conservation Areas, which together constitute the total required open space. The design process should therefore commence with the delineation of all potential open space, after which potential house sites are located. Following that, access road alignments are identified, with lot lines being drawn in as the final step. This “four-step” design process is further described below.

• **Open Space Designation:** During the first step, all potential Conservation Areas, both Primary and Secondary, shall be identified, using the Existing Features/Site Analysis Map. Primary Conservation Areas shall consist of those features described in Section 2.2.B above. Secondary Conservation Areas shall comprise at least half of the remaining land and shall include the most sensitive and noteworthy natural, scenic, and cultural resources as described in Section 2.2.C above.

Guidance as to which parts of the remaining land to classify as Secondary Conservation Areas shall be based upon:

- On-site visits;
- The Open Space Standards contained in Section 2 above; and
- The Evaluation Criteria contained in Section 4 below.

• **House Site Location:** During the second step, potential house sites are tentatively located. The proposed location of houses within each lot represents a significant decision with potential impacts on the ability of the development to meet the Evaluation Criteria contained in Section 4 below. Generally, house sites should be located no closer than 100 feet from Primary Conservation Areas. Such sites may be situated 50 feet from Secondary Conservation Areas to permit the enjoyment of scenic views without negatively

impacting Primary Conservation Areas.

• **Street Alignment and Trail Networks:** The third step consists of aligning proposed streets to provide vehicular access to each house in the most reasonable and economical manner, and of laying out a network of informal trails connecting neighborhood areas with open space features within the conservation lands. When lots and access streets are laid out, they shall be located in such a way that avoids or at least minimizes impacts on both Primary and Secondary Conservation Areas. To the greatest extent practicable, wetland crossings and streets traversing slopes over 15 percent shall be strongly discouraged, unless such streets link one buildable portion of a site with another when no other means of access is available.

Street connections shall generally be encouraged to minimize the number of new cul-de-sacs to be maintained and to facilitate easy access to and from homes on different parts of the property and on adjoining parcels. Where cul-de-sacs are necessary, those serving six (6) or fewer homes may be designed with “T-turnarounds” facilitating three-point turns. Cul-de-sacs serving more than six homes shall generally be designed with a central island containing indigenous trees and shrubs, either conserved or planted. All cul-de-sacs should provide trail access to the open space and/or other nearby streets. The creation of single-loaded residential access streets is encouraged to maximize the number of homes in new developments that may enjoy views of open space. To make this approach economical, narrower lots as well as flag lots, both of which help to make the street system more efficient, are permitted in Open Space Developments.

• **Drawing in the Lot Lines:** The fourth step consists of drawing in lot lines around potential house sites. Each lot must contain a buildable area of sufficient size to accommodate a single-family detached dwelling and customary accessory uses, including, but not limited to, storage buildings and garages, patios and decks, lawns, and driveways. Individual wells and septic systems, where these are to be provided, may be located within

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the undivided conservation lands if sufficient space is not available on the lots.

Note with Respect to Village Design: For open space subdivisions submitted under the Village Development Option, the sequence of steps is: conservation areas; streets, squares, and trails; house sites; and lot lines. In this denser development form, the location of streets and squares becomes elevated in importance, after the identification of Primary and Secondary Conservation Areas. House positions are of lesser importance, as they become the supporting elements within a larger streetscape. Squares and greens shall be generally laid out so that they form “terminal vistas” at the ends of streets, or at the ends of the sight-lines which are terminated by bends in the streets.

3.4 Dimensional Standards

Provided the arrangement, design, and shape of house lots is such that lots provide satisfactory and desirable sites for building, and contribute to the preservation of designated Primary and/or Secondary Conservation Areas, minimum lot area, lot width, and setback requirements may be reduced as set forth below.

- Minimum lot area requirements may be reduced by up to sixty percent (60%) but shall be no smaller than 5000 square feet.
- Minimum lot width requirements may be reduced by forty percent (40%) but shall be no less than forty (40) feet.
- Minimum front setback requirements may be reduced by fifty percent (50%) but shall be no less than fifteen (15) feet.
- Minimum rear and side setback requirements may be reduced by fifty percent (50%) but shall be no less than five (5) feet. Side setbacks may be combined on one side provided that at least two (2) feet of setback remains on the other. Such combinations are permitted in lot layouts where this pattern is repeated with homes located off-center on their lots but evenly spaced between buildings on adjoining lots.
- Minimum lot frontage requirements may be reduced to twenty (20) feet, to allow for a driveway extension on a flag lot.

Section 4 Evaluation criteria

For any given site, resources may vary widely in importance; e.g., a natural area compared to a historic site. Likewise, for each type of resource, there may be examples of greater or lesser significance; e.g., a notable example of local vernacular building traditions compared to a much altered older home. Priorities for conserving such resources should therefore be based upon a thorough site analysis and an understanding of what is more special, unique, environmentally sensitive, and or historic as compared with other similar features or different types of resources.

In evaluating the layout of lots and open space, the following criteria will be considered as indicating design appropriate to the site’s features and meeting the intent of the Flexible Development standards. Whereas diversity and originality in lot layout are encouraged, it is recognized that not all objectives may be achieved on a given site. Each applicant must therefore strive to achieve the best possible relationship between development and preservation objectives.

In evaluating the relative significance of different categories of site features, or of individual features within certain categories, applicants shall consider recommendations by the Planning Department, during and after the On-Site Visit which precedes submission of the Concept Plan.

4.1 General Criteria

The following criteria apply to all Open Space Development projects:

- Protect and preserve all wetlands, floodplains, and steep slopes from clearing, grading, filling, or construction except as may be approved by the Board of Commissioners.
- The shape of the open space shall be reasonably contiguous, coherently configured, and shall abut existing or potential open space on adjacent properties. Long, narrow segments must be avoided except in the case of trail or stream corridors, or landscape buffers adjoining street rights-of-way and/or neighborhood boundaries.
- The pedestrian circulation system shall be designed to

assure that pedestrians can walk safely and easily on the site, between properties and activities or special features within the neighborhood open space system. All roadside footpaths should connect with off-road trails, and link with existing or potential open space on adjoining parcels.

- Landscape common areas (neighborhood greens), cul-de-sac islands, and both sides of new streets with native species shade trees and flowering shrubs with high wildlife conservation value.

4.2 Forest Land/Natural Areas Conservation

Where the goal of the Open Space Development project is to conserve forest land and/or natural areas and wildlife habitats, the following criteria apply:

- Dwellings should be located in unwooded parts of the site away from mature forests, natural areas, and/or wildlife corridors.
- To the greatest extent practicable, development should be designed around existing hedgerows and treelines between fields or meadows. The impact on larger woodlands (greater than five acres), especially those containing mature trees, natural areas, and/or wildlife corridors, should be minimized.
- When any woodland is developed, care shall be taken to locate buildings, streets, yards, and septic disposal fields to avoid mature forests, natural areas, and/or wildlife corridors.

4.3 Farmland Conservation

Where the goal of the Open Space Development project is to conserve farmland, the following guidelines apply:

- Locate building lots in forested areas away from existing pastures, cropland, feedlots, and similar uses.
- If development must be located on open fields or pastures because of greater constraints on other parts of the site, dwellings should be sited in locations at the far edge of a field, as seen from a public road.
- Identify the most productive portions of existing pastures and cropland, and locate building lots on less productive land.

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- Buffers shall be provided between houselots and cropland or pastures, to reduce the potential for conflict between residents and farming activities. Such buffers shall generally be 75 feet in width and shall be managed to encourage the growth of successional woodland.

4.4 Conservation of Scenic Views

Where the goal of the Open Space Development project is to conserve scenic views, the following guidelines apply:

- Leave scenic views and vistas unblocked or uninterrupted, particularly as seen from public roadways. Consider “no-build, no-plant” buffers along public roadways where views or vistas are prominent or locally significant. In wooded areas where enclosure is a feature to be maintained, consider a “no-build, no-cut” buffer created through the preservation of existing vegetation.

- Where development is located in unwooded areas clearly visible from existing public roads, it should be buffered from direct view by a vegetative buffer or an earth berm constructed to reflect the topography of the surrounding area, or located out of sight on slopes below existing ridge lines.

- Protect rural roadside character and vehicular carrying capacity by avoiding development fronting on existing public roads; e.g., limiting access to all lots from interior rather than exterior roads.

- Protect rural roadside character and scenic views by providing conservancy lots (e.g., six acres or more in size) adjacent to existing public roads.

- Avoid siting new construction on prominent hilltops or ridges, or so close to hilltops and ridges that rooflines break the horizon (unless such buildings can be effectively screened or buffered with trees).

4.5 Historic and Archaeological Features

Where the goal of the Open Space Development project is to conserve historic and archaeological sites and structures, the following guidelines apply:

- Design around and preserve sites of historic, archaeological or cultural value so as to safeguard the character of the feature(s), including fences and walls, farm outbuildings, burial grounds, abandoned roads, and earthworks.

- New streets, driveways, fences, and utilities must be sited so as not to intrude on rural, historic landscapes. Wherever possible, streets and driveways are to follow existing hedgerows, fence lines, and historic farm drives.

- New developments must include plantings which reflect natural and historic landscape materials, and are in harmony with the character of the area.

- Building designs and styles used in new construction should be compatible with the architectural style of historic buildings located on or adjacent to the site, especially in terms of scale, height, roof shape, and exterior materials.

4.6 Recreation Provision

Where the goal of the Open Space Development project is to provide recreation and parks facilities for neighborhood residents and/or the general public, the guidelines contained in Section _ shall apply.

Section 5 Water supply and sewage disposal facilities

5.1 Alternative Options

Water supply and sewage disposal facilities to serve Open Space Developments may be provided through the use of various alternatives, including:

- Individual wells and septic tanks located either on each lot or in off-lot locations within undivided open space areas designated for such uses on the Final Plat, and protected through recorded easements; or

- A community water supply and/or sewage disposal system designed, constructed, and maintained in conformity with all applicable state, federal, and local rules and regulations; or

- Connection to a water supply and/or sewage disposal system operated by a municipality, association, or water or sewer authority. System extensions are permitted only in accordance with applicable water and sewer, and land use

policies and shall be sized only to serve the Open Space Development for which the system is extended; or

- A combination of the above alternatives.

Section 6 Density bonuses

The maximum number of building lots or dwelling units in an Open Space Development shall not exceed the number that could otherwise be developed by the application of the minimum lot size requirement and/or density standard of the zoning district or districts in which the parcel is located. However, increases in the number of building lots or dwelling units are permitted through one or more of the following options:

6.1 To Encourage Additional Open Space

A. A density increase is permitted where more than fifty percent (50%) of the unconstrained land area in an Open Space Development is designated as permanent, undivided open space. The amount of the density increase shall be based on the following standard:

For each additional acre of protected open space provided in the Open Space Development, one (1) additional building lot or dwelling unit is permitted.

B. In lieu of providing additional open space in the Open Space Development, the applicant may purchase in fee simple or less than fee (e.g., development rights) land separate from the Open Space Development which is comprised of Primary and/or Secondary Conservation Areas as defined in Section 2. Land purchased in fee may be dedicated to the County, another unit of local government, the State of North Carolina, or a private non-profit land conservancy.

C. For land purchased in less than fee, a conservation easement shall be recorded which restricts the development potential of the land. The conservation easement shall be dedicated to the County, another unit of local government, the State of North Carolina, or a private non-profit land conservancy.

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6.2 To Encourage Public Access

Dedication of land for public use (including trails, active recreation, municipal spray irrigation fields, etc.), in addition to any public land dedication authorized under the state enabling statutes, may be encouraged by the County, which is herein authorized to offer a density bonus for this express purpose. This density bonus, for open space that would be in addition to the basic public land dedication mentioned above, shall be computed on the basis of one dwelling unit per three acres of publicly accessible open space. The decision whether to accept an applicant’s offer to dedicate open space for public access shall be at the discretion of the County, which shall be guided by recommendations contained in existing and future recreation plans, particularly those sections dealing with trail connections, greenway networks, and/or recreational facilities.

6.3 To Encourage Maintenance Endowments

The County may allow a density bonus to generate additional income to the applicant for the express purpose of endowing a permanent fund to offset continuing open space maintenance costs. Spending from this fund would be restricted to expenditure of interest, in order that the principal may be preserved. Assuming an average interest rate of five (5) percent, the amount designated for the Endowment Fund should be twenty (20) times the amount estimated to be needed on a yearly basis to maintain the open space. On the assumption that additional dwellings, over and above the maximum that would ordinarily be permitted on the site, are net of development of development costs and represent true profit, 75 percent of the net selling price of the lots should be donated to the Open Space Endowment Fund for the conservation lands within the subdivision. Such estimates should be prepared by an agency or organization with experience in open space management acceptable to the County. This fund shall be transferred by the developer to the designated entity with ownership and maintenance responsibilities, such as a homeowners' association, a land trust, or a unit of local government.

6.4 To Encourage Affordable Housing

A. A density increase is permitted where the Open Space Development provides on-site or off-site housing opportunities for low- or moderate-income families. The amount of the density increase shall be based on the following standard:

For each affordable housing unit provided in the Open Space Development, one (1) additional building lot or dwelling unit is permitted Affordable housing is defined as units to be sold or rented to families earning 70 to 120 percent of the County median income, adjusted for family size, as determined by the U.S. Department of Housing and Urban Development.

B. In lieu of providing affordable housing units in the Open Space Development, the applicant may donate to the County land separate from the Open Space Development with suitable soils or access to public water and sewer for the purpose of developing affordable housing. The donated land shall contain at a minimum the land area needed to develop the total number of bonus units in accordance with the zoning requirements of the district in which the donated land is located, together with a minimum of twenty (20) percent open space land, at least half of which is suitable for active recreation.

Section 7 Procedures for application and approval

7.1 Concept Plan

A. Pre-Application Review: To promote better communication and avoid unnecessary expense in the design of acceptable subdivision proposals, each subdivider is encouraged to meet with the Planning Department prior to filing an application for Concept Plan approval. The purpose of this informal meeting is to introduce the applicant to the provisions of this Ordinance and discuss his/her objectives in relation thereto.

B. On-Site Visit: Prior to the submission of a Concept Plan, the applicant shall schedule a mutually convenient time to walk the property with the Planning Department

staff. The purpose of this visit is to familiarize the Planning Department staff with the property’s special features, and to provide them an informal opportunity to offer guidance to the applicant regarding the tentative location of Secondary Conservation Areas, and potential house locations and street alignments.

Prior to scheduling the on-site visit, the applicant shall have prepared the Existing Features/Site Analysis Map as required in Section 8.3 below. If the on-site visit is not scheduled before the Concept Plan submission, it should occur prior to the Public Information Meeting described below.

C. Application Requirements: Applications for Concept Plan approval shall be submitted to the Planning Department prior to the submission of a Preliminary Plat and shall contain the following information:

- A County Tax Map showing the location of the parcel to be subdivided.
- Fifteen (15) copies of a Concept Plan of the proposed major subdivision prepared in accordance with the specifications for Concept Plan drawings as contained in Section 8 of this Ordinance. A Concept Plan shall consist of three parts, including:

- An Existing Features/Site Analysis Map;
- A Yield Plan; and
- An Open Space Development Plan.

- A Concept Plan application form as prescribed by the Planning Department in a form which provides a checklist identifying consistency with applicable design guidelines, the goals of the County’s Comprehensive Plan, and the stated purposes of the zoning district within which the development is to be located.

- Stamped envelopes addressed to each owner of property within 500 feet of the property proposed to be subdivided. The names and addresses of property owners shall be based on the current listing as shown in the County Tax Office or Land Records System.

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D. Public Information Meeting: Upon receipt and acceptance of the Concept Plan application, the Planning Department shall schedule a Public Information Meeting and mail notices of the meeting to each owner of property within 500 feet of the property proposed to be subdivided. The Public Information Meeting shall be held within 15 days of acceptance of the application, and notices shall be mailed by first class mail at least ten (10) days prior to the date of the meeting.

At the meeting, the Planning Department staff will explain the County’s subdivision approval process, and the applicant will be available to answer questions about the proposed subdivision.

E. Planning Department Review Procedures: Within thirty (30) days of the date of the Public Information Meeting or within such further time consented to in writing by the applicant, the Planning Department shall submit to the Planning Board its recommendation, including a written analysis of the Concept Plan; its general compliance with the requirements of this Ordinance, the Comprehensive Plan, and other applicable codes and ordinances; and the concerns of citizens expressed at the Public Information Meeting. If the Planning Department fails to prepare a report to the Planning Board within the specified time period, or extension thereof, the Concept Plan is recommended without conditions.

F. Planning Board Review and Approval Procedures: After receiving the Planning Department’s report or, if applicable, after the expiration of the time period prescribed in Section III-D-1-b, the Planning Board shall consider the Concept Plan and take action on the proposals. The Planning Board shall base its action on its findings as to the conformity of the proposals with all applicable regulations and shall:

- Approve the Concept Plan;
- Approve the Concept Plan subject to conditions; or
- Deny the Concept Plan.

If the Planning Board approves the Concept Plan subject to conditions, such conditions shall be reasonable and shall

seek to ensure compliance with applicable regulations. If the Planning Board denies the Concept Plan, the reasons for such decision shall be stated in writing to the applicant and entered into the minutes of the meeting at which such action was taken.

The Planning Board shall take action within forty-five (45) days of the meeting at which the Planning Department’s report is submitted to it or within such further time consented to in writing by the applicant. If the Planning Board fails to take action within the specified time period, or extension thereof, the Planning Board shall be deemed to recommend approval of the Concept Plan without conditions.

G. Action Subsequent to Approval: If the Concept Plan is approved or approved with conditions, the Planning Board Chair shall endorse his/her approval on two (2) copies of the Concept Plan. One (1) copy of the Concept Plan shall be retained by the Planning Department, and one (1) copy shall be returned to the subdivider or his/her authorized agent.

From the date of approval of the Concept Plan by the Planning Board, the applicant shall have one (1) year in which to prepare and file an application for Preliminary Plat approval. If a Preliminary Plat for the subdivision has not been submitted within the specified time limit, the Concept Plan shall become null and void.

H. Appeal Procedures: The decision of the Planning Board regarding the Concept Plan may be appealed to the Board of Commissioners. If appealed, the Concept Plan shall be placed on the next regular meeting agenda of the Board of Commissioners. The Board of Commissioners shall have final approval authority, and, where applicable, all Concept Plans shall contain information and/or conditions approved by the Board of Commissioners.

The Board of Commissioners in all such appeals shall make findings of fact in support of its decision. The applicant shall be notified, in writing, of the Board of

Commissioners’ decision within ten (10) days after said decision is made.

Section 8 Specifications for concept plans 8.1 Components of Concept Plans

The Concept Plan required by Section 7 shall consist of three parts:

- An Existing Features/Site Analysis Map;
- A Yield Plan; and
- An Open Space Development Plan.

The Concept Plan shall be prepared according to the “four-step” process for designing open space subdivisions described in Section 3.3 above. In addition, the Concept Plan shall be prepared by a team including at least a civil engineer or registered land surveyor, plus either a landscape architect or a land use planner experienced in open space design.

Each map or plan shall be drawn in black ink or pencil to a scale of not less than two hundred (200) feet to the inch. The scale chosen shall be large enough to show all required detail clearly and legibly.

8.2 General Information

Each map or plan required in Section 8.1 above shall contain the following general information:

- A.** A sketch vicinity map showing the location of the subdivision in relation to the existing street or highway system;
- B.** The plotted boundaries of the tract from deeds or maps of record and the portion of the tract to be subdivided;
- C.** The total acreage to be subdivided, including tax map, block and lot number reference;
- D.** The name, address and telephone number of the subdivider or owner and the person responsible for the subdivision design;
- E.** Scale, approximate north arrow and date of plat preparation; and
- F.** Name of subdivision.

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8.3 Existing Features/Site Analysis Map

As determined from readily identifiable on-site inventories, aerial photographs, maps of record, State/Federal resource maps, and local planning documents and inventories, the Existing Features/Site Analysis Map shall contain the following information:

A. Primary Conservation Areas: Identification of physical resources associated with the site which restrict its development potential or contain significant natural and/or cultural resources, including:

- Topographic contours at ten-foot intervals, showing rock outcrops and slopes of seven and one-half percent (7.5%) to fifteen percent (15%), and more than fifteen percent (15%).
- Soil type locations and characteristics relating to seasonal high water table and depth to bedrock.
- Hydrologic characteristics of the site, including drainage tributaries, surface water bodies, floodplains, and wetlands.

B. Secondary Conservation Areas: Identification of significant site elements on buildable portions of the site, including:

- Vegetation of the site, defining approximate location and boundaries of woodland areas, and, wherever possible, vegetative association in terms of species and size. Information from aerial photographs shall be acceptable at the Concept Plan stage.
- Current land use and land cover (cultivated areas, pastures, etc.), existing buildings and structures, and burial grounds.
- Natural areas and wildlife habitats and corridors.
- Historic and archaeological sites, especially those listed on the National Register of Historic Places or included on the State's National Register study list, designated as a local historic landmark, and/or located in a local historic district.
- Scenic views onto the site from surrounding roads as well as views of scenic features from within the site.

C. Transportation and Utility Systems: Identification of facilities associated with the movement of people and goods, or the provision of public services, including:

- Railroad and street rights-of-way.
- Easements for vehicular access, electric and gas transmission lines, and similar uses.
- Public and private water and sewer lines, and storm drainage facilities.

8.4 Yield Plan

The Yield Plan shall contain the following information:

A. In addition to basic topography, the location of areas unsuited for development, including wetland locations, 100-year floodplains, and slopes exceeding 25 percent;

B. The proposed arrangement of lots, including size and number, and streets within the subdivision, including right-of-way widths; and

C. The location of soils suitable for individual septic systems as determined by:

- A map based on the medium-intensity soil survey for the County, published by the USDA Natural Resources Conservation Service, showing the location of soil types suited for septic systems. This map shall be prepared in consultation with the Soil Scientist of the Environmental Health Division of the Health Department.
- In reviewing the soils data in relation to the layout of the proposed lots, the County Planning Department may require the applicant to present the results of the preliminary soil suitability analyses conducted on a 10% to 15% sample of the proposed lots as required in Section 3.1.

8.5 Open Space Development Sketch Plan

1. A Sketch Plan shall be submitted by the applicant as a diagrammatic basis for informal discussion with the County Planning Commission regarding the design of a proposed subdivision or land development. It shall be drawn by a landscape architect, or by a physical planner experienced in conservation subdivision design. One of the purposes of the Sketch Plans is to help applicants and

officials develop a better understanding of the property and to help establish an overall design approach that respects its special or noteworthy features, while providing for the density permitted under the zoning ordinance.

2. To provide a full understanding of the site's potential and to facilitate the most effective exchange with the Planning Commission, the Sketch Plan should include the information listed below. Many of these items can be taken from the Site Analysis Map, a document that must in any case be prepared and submitted no later than the date of the Site Inspection, which precedes the Preliminary Plan. The diagrammatic Sketch Plan shall be prepared as an overlay sheet placed on top of the Site Analysis Map, both maps therefore being drawn to the same scale.

3. Sketch Plans shall be prepared by a landscape architect or by a physical planner with experience designing Open Space Subdivisions. Civil engineers and surveyors may also be added to the design team at this stage. However, their role does not become preeminent until the Preliminary Plan stage.

4. The Open Space Development Sketch Plan shall contain the following information:

A. The proposed arrangement of lots within the subdivision, including size and number.

B. The proposed street layout within the subdivision, including travelway and right-of-way widths, and connection to existing streets.

C. The location, type, and area of the open space proposed in the subdivision, including open space to be preserved:

- In a separate lot or lots under the ownership of a homeowners' association.
- As part of individually owned lots through a conservation easement applicable to multiple lots.
- In a separate lot or lots through dedication for public use, such as a park site, to a unit of local government, state government or a private land conservancy.

D. The location of proposed water supply and sewage disposal facilities, including:

- Well sites for individual and community water

Model conservation subdivision ordinance

systems.

- Nitrification fields and land application areas for community sewage disposal systems employing subsurface disposal and spray irrigation, respectively.
- Nitrification fields and land application areas for individual on- and off-lot sewage disposal systems employing subsurface disposal and spray irrigation, respectively.

Public water and sewer lines, where such facilities are available or capable of being extended.

5. Sketch Plan Submission and Review: Copies of a diagrammatic Sketch Plan, meeting the requirements described above, shall be submitted to the Commission’s Secretary during business hours for distribution to the Planning Commission, the County Planner, the County Engineer and applicable advisory boards at least seven (7) days prior to the Planning Commission meeting at which the Sketch Plan is to be discussed. The Sketch Plan diagrammatically illustrates initial thoughts about a conceptual layout for Open Space lands, house sites, and street alignments, and shall be based closely upon the information contained in the Site Analysis Map. The Sketch Plan shall also be designed in accordance with the four-step design process herein.

The Planning Commission shall review the Sketch Plan in accordance with the criteria contained in this ordinance and with other applicable ordinances of the County. Their review shall informally advise the Applicant of the extent to which the proposed subdivision conforms to the relevant standards of this Ordinance, and may suggest possible plan modifications that would increase its degree of conformance. Their review shall include but is not limited to:

- A.** the location of all areas proposed for land disturbance (streets, foundations, yards, septic disposal systems, storm water management areas, etc.) with respect to notable features of natural or cultural significance as identified on the applicant’s Site Analysis Map and on the County’s Map of Potential Conservation Land, in its Comprehensive Plan;
- B.** the potential for street connections with existing streets, other proposed streets, or potential developments

on adjoining parcels;

- C.** the location of proposed access points along the existing road network;
- D.** the proposed building density and impervious coverage;
- E.** the compatibility of the proposal with respect to the objectives and policy recommendations of the County Comprehensive Plan; and
- F.** consistency with the zoning ordinance.

The Commission shall submit its written comments to the applicant and the Board. The diagrammatic Sketch Plan may also be submitted by the Board to the County Planning Commission for review and comment.

8.6 Management Plan.

1. Applicants shall submit a Plan for Management of Open Space and Common Facilities (“Plan”) that:

- A.** allocates responsibility and guidelines for the maintenance and operation of the Open Space and any facilities located thereon, including provisions for the frequency of specific ongoing maintenance activities and for long-term capital improvements;
- B.** estimates the costs and staffing requirements needed for maintenance and operation of, and insurance for, the Open Space and outlines the means by which such funding will be obtained or provided;
- C.** provides that any changes to the Plan be approved by the Commission; and
- D.** provides for enforcement of the Plan.

2. In the event the party responsible for maintenance of the Open Space fails to maintain all or any portion in reasonable order and condition, [the jurisdiction] may assume responsibility for its maintenance and may enter the premises and take corrective action, including the provision of extended maintenance. The costs of such maintenance may be charged to the Homeowner’s Association, or to the individual property owners that make up the Homeowner’s Association, and may include administrative costs and penalties. Such costs shall become a lien on all subdivision properties.

8.7 Legal Instrument for Permanent Protection

1. The Open Space shall be protected in perpetuity by a binding legal instrument that is recorded with the deed. The instrument shall be a permanent conservation easement in favor of either:

- a land trust or similar conservation-oriented non-profit organization with legal authority to accept such easements. The organization shall be bona fide and in perpetual existence and the conveyance instruments shall contain an appropriate provision for retransfer in the event the organization becomes unable to carry out its functions; or
- a governmental entity with an interest in pursuing goals compatible with the purposes of this ordinance. If the entity accepting the easement is not the County, then a third right of enforcement favoring the County shall be included in the easement.

2. The instrument for permanent protection shall include clear restrictions on the use of the Open Space. These restrictions shall include all restrictions contained in this article, as well as any further restrictions the Applicant chooses to place on the use of the Open Space.

8.8. Tax Assessment of Open Space

Once a legal instrument for permanent protection has been placed upon the Open Space, the County tax assessment office shall be directed to reassess the Open Space at a lower value to reflect its more limited use. If the Open Space is used purely for passive recreational purposes and the terms of the instrument for permanent protection effectively prohibit any type of significant economic activity, then the assessment shall be at a value of zero.

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Planning department surveys

We conducted a mixed-mode (telephone and e-mail) survey of 100 county planning departments to determine which counties have adopted conservation subdivisions in their zoning and development regulations.

Land trust surveys

We conducted a mixed-mode (telephone and e-mail) survey of North Carolina's land trusts to determine which land trusts had easements in conservation subdivisions and what the major concerns from land trusts were regarding the long-term management of open space in subdivisions.



Funding for this project was provided in part through an Urban & Community Forestry Grant from the North Carolina Division of Forest Resources, Department of Environment and Natural Resources, in cooperation with the USDA Forest Service, Southern Region.



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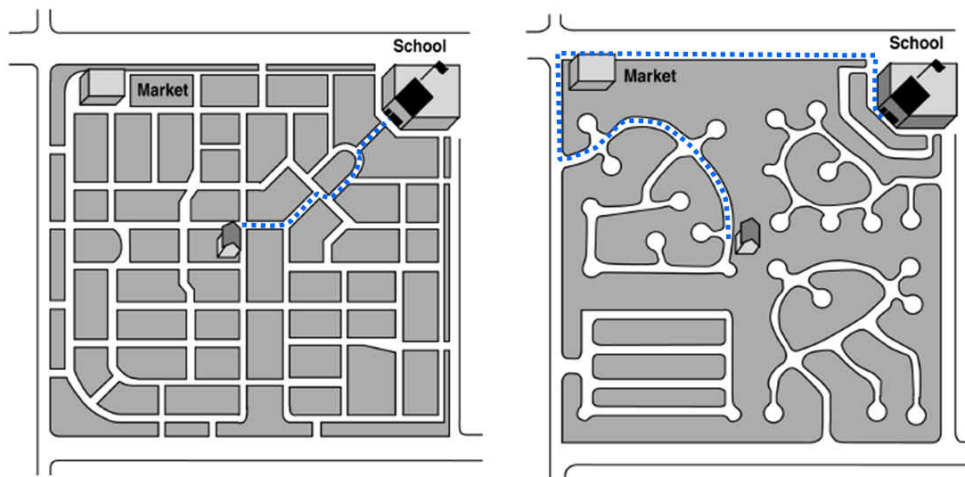
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Street Connectivity Zoning and Subdivision Model Ordinance



Prepared by
Division of Planning
Kentucky Transportation Cabinet

March 2009



Street Connectivity Zoning and Subdivision Model Ordinance

Background & Purpose

The term “street connectivity” suggests a system of streets with multiple routes and connections serving the same origins and destinations. Connectivity not only relates to the number of intersections along a segment of street, but how an entire area is connected by the transportation system. A well-designed, highly-connected network helps reduce the volume of traffic and traffic delays on major streets (arterials and major collectors), and ultimately improves livability in communities by providing parallel routes and alternative route choices. By increasing the number of street connections or local street intersections in communities, bicycle and pedestrian travel also is enhanced. A well-planned, connected network of collector roadways allows a transit system to operate more efficiently.

Over the last forty to fifty years, residential and non-residential development patterns have been created that lack internal vehicular and pedestrian connectivity. The lack of connectivity has created a physical environment that lacks mobility options and pedestrian friendly features. Development trends during the 1960s and '70s encouraged building residential communities with few street connections and numerous cul-de-sacs. It was assumed that communities built with this type of street design had less traffic and fewer traffic delays on neighborhood streets. A recent Metro Portland study found these assumptions to be false. Residential subdivisions that are dominated by cul-de-sacs provide discontinuous street networks, reduces the number of sidewalks, provides few alternate travel routes and forces all trips onto a limited number of arterial roads.

Figure 1 illustrates a more traditional, interconnected development pattern compared to a disconnected, development pattern of the late 20th century.

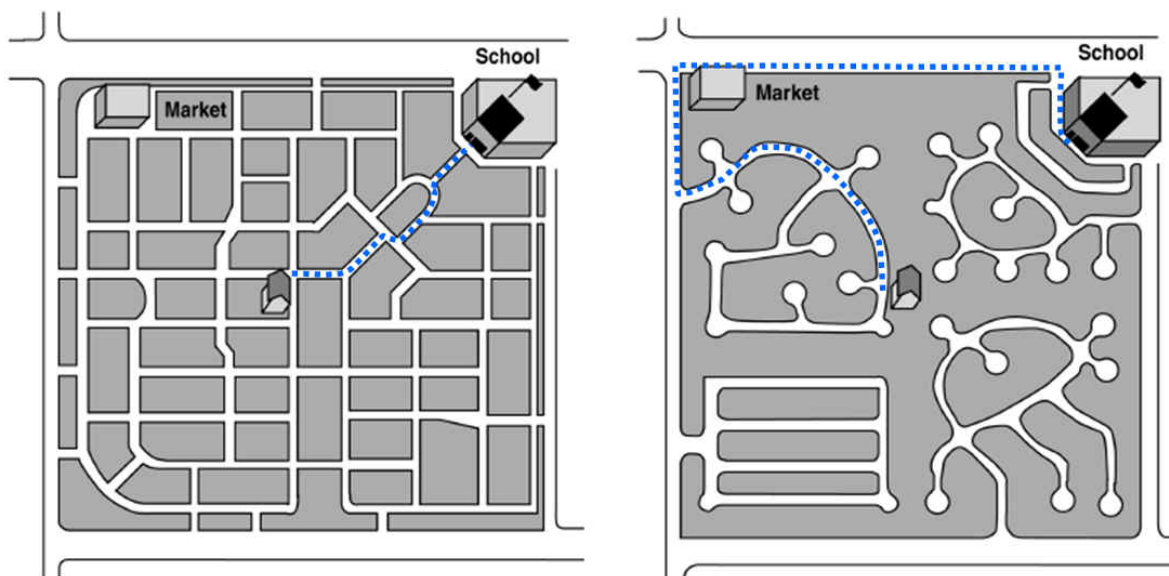


Figure 1: Shorter trip distance with connected network

The blue, dashed line represents the travel path a vehicle or pedestrian would have to take from home to school under the two different configurations. The path in the second scenario is two and a half times the length and requires travel on the major streets.

Local street connectivity provides for both intra- and inter-neighborhood connections to knit developments together, rather than forming barriers between them. The street configuration within each parcel must contribute to the street system of the neighborhood.

Research has shown that high roadway connectivity can result in:

- Reduction in travel distance (VMT) for drivers
- Reduction in travel times for drivers;
- Better and redundant emergency vehicle access;
- More efficient public services access (mail, garbage, transit)
- Improved bicycle and pedestrian routes and accessibility.
- Higher percentage mode share for transit, bicycling and walking
- Safer roads

A 2008 study of California cities compared “safe” road networks (fatal/severe rates less than 1/3 state average) to “less safe” networks (fatal/severe crash rates close to the state average). The results, shown in Table 1, demonstrate that with a higher intersection density i.e., higher connectivity, mode share for transit and non-motorized modes is higher while the fatality rate due to automobile crashes is much lower.

	Less safe	Safe
Average intersection density (#/square mile)	63	106
Walking/bicycling/transit mode share (%)	4	16
Fatality rate per 100,000 population	10.5	3.2

Table 1

In addition to the following connectivity ordinance, it is recommended that cities and counties plan their transportation network to have an acceptable roadway (arterials, collectors and sub-collectors) network density. It is recommended that through streets be spaced no more than ½ mile apart, although spacing of sub-collectors (through-streets that feed collectors typically with volumes less than 500 vehicles per day) at ¼ mile spacing is even better (Figure 2). Lower densities result in a higher strain on the existing highway system, often resulting in needed capacity improvements and inefficient operations.

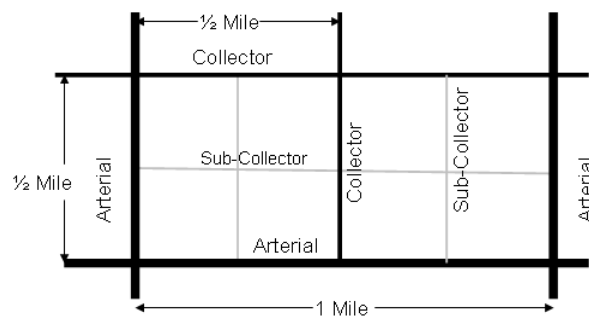


Figure 2: Arterial & collector road density

Connectivity Model Ordinance

The following model ordinance may be adopted in whole or amended to fit local conditions by a planning commission or local government. It consists of two primary components: the internal and external connectivity requirements. Both are critical to ensuring an efficient roadway system.

Purpose

The *[elected body]* hereby finds and determines that an interconnected street system is necessary in order to protect the public health, safety, and welfare in order to ensure that streets will function in an interdependent manner, to provide adequate access for emergency and service vehicles, to connect neighborhoods, to promote walking and biking, to reduce miles of travel that result in lower air emissions and wear on the roadway, and to provide continuous and comprehensible traffic routes.

General Standards

1. A proposed development shall provide multiple direct connections in its local street system to and between local destinations, such as parks, schools, and shopping, without requiring the use of arterial streets.
2. Each development shall incorporate and continue all collector or local streets stubbed to the boundary of the development plan by previously approved but unbuilt development or existing development.

Connectivity Index (Internal)

1. To provide adequate internal connectivity within a subdivision or planned development, the street network shall have a minimum connectivity index of *[1.40]*. The desired minimum connectivity index is *[1.60]*. The connectivity index is defined as the number of street links divided by the number of nodes and link ends (including cul-de-sacs and sharp curves with 15 mph design speed or lower).

Commentary: The higher the connectivity index, the more connected the road network. A connectivity index of 1.40 is a reasonable standard to ensure a connected roadway network; however, there are some cities that require a smaller index, sometimes as low as 1.20. Figures 3 and 4 demonstrate how to calculate the connectivity index.

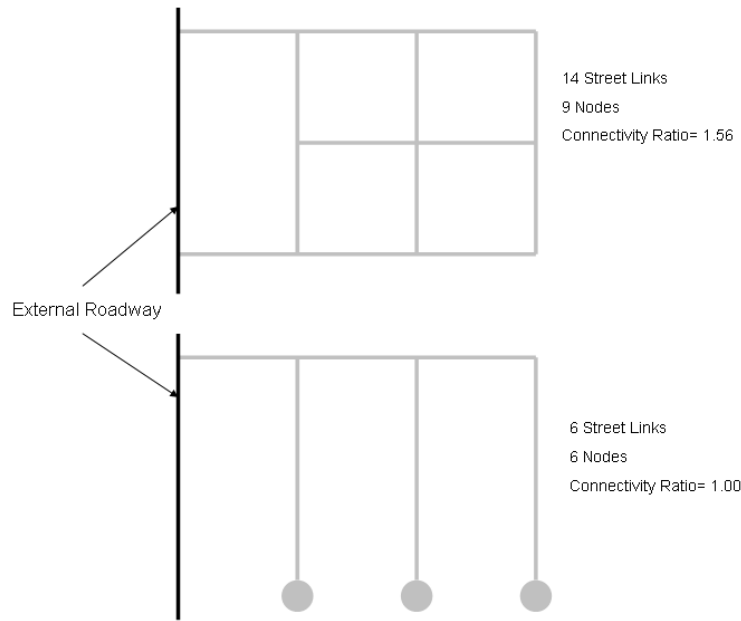


Figure 3: Example Connectivity Index Calculation

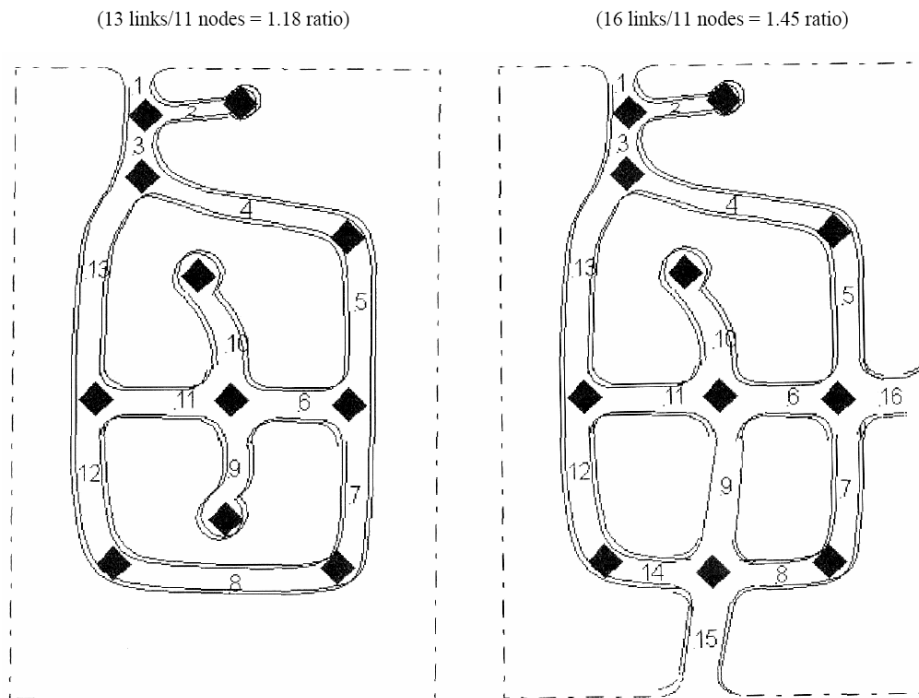


Figure 4: Example Connectivity Index Calculation

2. A link is defined as a segment of road between two intersections or from an intersection to a cul-de-sac/stub-out. This includes road segments leading from the adjoining highway network or adjacent development.
3. Nodes are defined as intersections and cul-de-sacs. They do not include the end of a stub-out at the property line or intersection with the adjoining highway network.
4. No dead-end streets shall be permitted except in cases where such streets are designed to connect with future streets on abutting land, in which case a temporary turnaround easement at the end of the street with a diameter of at least *[one hundred (100)]* feet must be dedicated and constructed.
5. Cul-de-sacs shall only be permitted if they are:
 - a. less than *[four hundred (400)]* feet in length (See Figure 5 on how to measure cul-de-sac length.) or
 - b. less than *[six hundred sixty (660)]* feet in length and have a pedestrian connection from the end of the cul-de-sac to another street. (See Figure 6.)

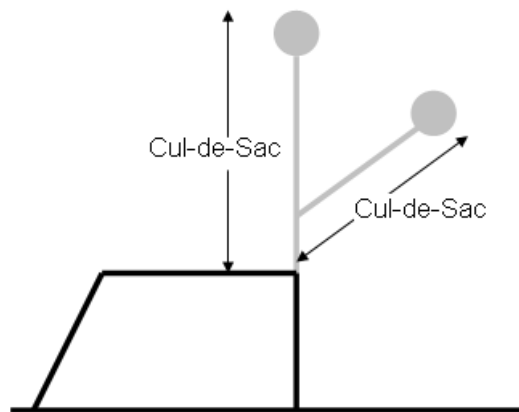


Figure 5: Measuring cul-de-sac length

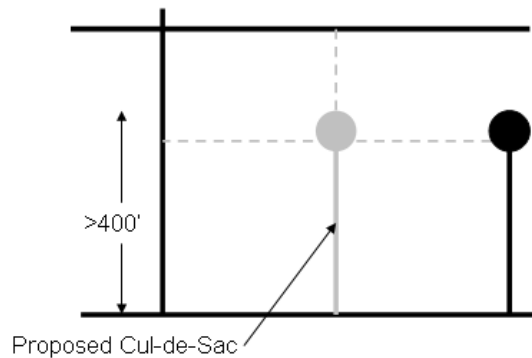


Figure 6: Providing pedestrian connections from cul-de-sac

Connectivity (External)

1. To ensure future street connections where a proposed development abuts unplatted land or a future development phase of the same development, street stubs shall be provided to provide access to all abutting properties or to logically extend the street system into the surrounding area. All street stubs shall be provided with temporary turn-around or cul-de-sacs and the restoration and extension of the street shall be the responsibility of any future developer of the abutting land.

Commentary: A street stub may either be a local road, collector, or frontage road. The planning director and developer should take into account the purpose of each stub and future traffic patterns that may exist once adjacent land develop occurs and a street connection is made. Cut-through traffic and speeding on local residential streets should be discouraged through proper location and inclusion of traffic calming measures. In contrast, collectors and frontage roads should have logical, direct routes that make cross parcel driving possible. This may include a road that traverses the land from one property line to the opposite property line.

2. Streets within and contiguous to the subdivision shall be coordinated with other existing or planned streets within the general area as to location, widths, grades, and drainage. Such streets shall be aligned and coordinated with existing or planned streets in existing or future adjacent or contiguous to adjacent subdivisions. All streets, alleys, and pedestrian pathways in any subdivision or site plan shall connect to other streets and to existing and projected streets outside the proposed subdivision or other development.
3. Street connections shall be spaced at intervals not to exceed [six hundred sixty (660)] feet (1/8 mile) along each boundary that abuts potentially developable or redevelopable land. Blocks longer than [four hundred (400)] feet in length shall have a mid-block pedestrian pathway connecting adjacent blocks. See Figure 7.

Commentary: Minimizing the block length of local streets allows better access for pedestrians, bicyclists and automobiles. The number may be changed to lower than 660 feet. The appropriate length may be determined based from a typical block length based on historical precedence in the area. It is common for American cities to have block lengths between 200 and 400 feet.

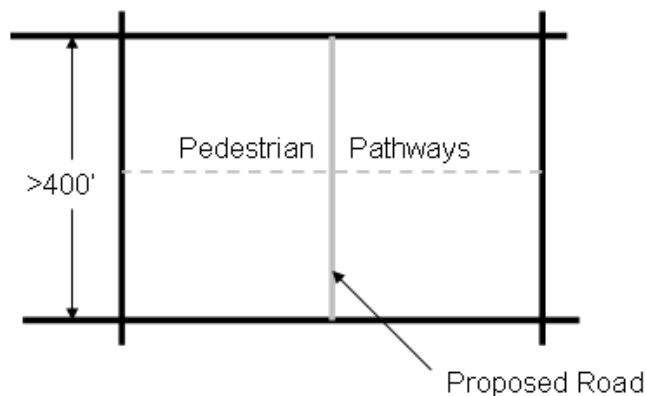


Figure 7: Mid-block pedestrian pathways

4. The *[City Engineer]* may require any limited movement collector or local street intersections to include an access control median or other acceptable access control device. The *[City Engineer]* may also allow limited movement intersection to be initially constructed to allow full movement access.

Commentary: Local and state access management regulations will regulate the minimum spacing and design. Full intersection access on an arterial should be between ¼ and ½ mile. Partial intersection access, controlled by a median, may be at shorter distances. More frequent access improves overall roadway connectivity but may impact the operations on an arterial roadway.

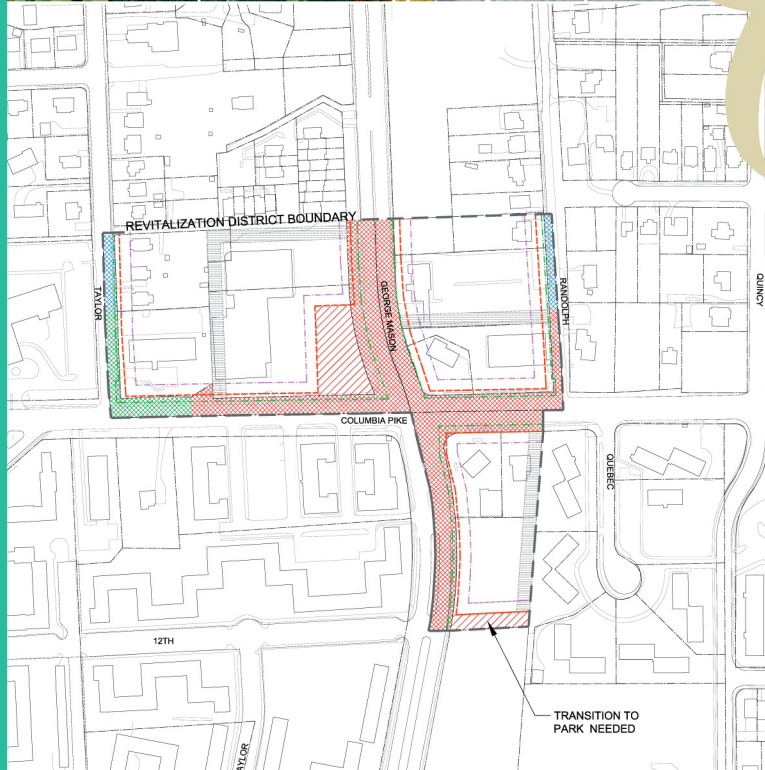
5. Gated street entryways into residential developments shall be prohibited.

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THE COLUMBIA PIKE SPECIAL REVITALIZATION DISTRICT FORM BASED CODE

ARTICLE 11.1 (APPENDIX A) OF THE ZONING ORDINANCE
“CP-FBC” COLUMBIA PIKE - FORM BASED CODE DISTRICTS



ADOPTED 25 FEBRUARY 2003
WITH AMENDMENTS THROUGH
18 OCTOBER 2016

DEPARTMENT OF
COMMUNITY PLANNING,
HOUSING AND DEVELOPMENT

PLANNING DIVISION

2100 CLARENDON BOULEVARD
ARLINGTON, VA 22201



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I. General Provisions

A. Title

This Code is known as the Columbia Pike Special Revitalization District Form Based Code (Columbia Pike Form Based Code, or Code).

B. Applicability

1. Properties that are zoned S-3A, RA14-26, RA8-18, RA7-16, RA6-15, C-1, C-2, C-3, C-O, or CP-FBC districts and are located in the Columbia Pike Special Revitalization District, as designated on the General Land Use Plan (GLUP), shall be eligible to develop in accordance with the Columbia Pike Special Revitalization District Form Based Code requirements. After such development all uses permitted in Appendix A of the Zoning Ordinance shall be permitted on the property, subject to all regulations in Appendix A.
2. Properties that are zoned R-6 and R-5 and located in the Columbia Pike Special Revitalization District, as designated on the General Land Use Plan (GLUP), shall be eligible to develop in accordance with the Columbia Pike Special Revitalization District Form Based Code requirements only after the County Board approves a rezoning to the CP-FBC district.
3. The Columbia Pike Special Revitalization District Form Based Code is an optional zoning tool and property owners retain the zoning rights under the existing zoning. Use of the Form Based Code is selected through the filing of an application for development under the Form Based Code. If this Code is used, development proposals shall comply with all provisions of this Code.

C. Purposes

This Columbia Pike Form Based Code is intended to implement the purpose and goals of the Columbia Pike Initiative Plan initially adopted by the County Board on March 12, 2002, the subsequent Columbia Pike Urban Design Charrette and citizen workshops held in September 2002, and other policies adopted by the County Board to:

1. Foster a vital main street for its adjacent neighborhoods through a lively mix of uses—with shop-fronts, sidewalk cafes, and other commercial uses at street level, overlooked by canopy shade trees, upper STORY residences and offices;
2. Create transit, pedestrian-, and bicycle-oriented development, which is dependent on three factors: density, diversity of uses, and design; and
3. Place greatest emphasis on design, or physical form, because of its importance in defining neighborhood character.

D. Other Applicable Regulations

Wherever there is a variation or conflict between the Columbia Pike Special Revitalization District Form Based Code, and other sections of the Arlington County Zoning Ordinance, the requirements set forth in this Code shall prevail. For development standards not covered by this Code, applicable sections of the Arlington County Zoning Ordinance shall be used as the requirement. Similarly, all development must comply with all Federal, State or local regulations and ordinances including, but not limited to, Chesapeake Bay Ordinance and other environmental regulations.

E. Minimum Requirements

The provisions of the Code are the minimum requirements for development under this Code.

F. Severability

Should any provision of this Code be decided by the courts to be unconstitutional or invalid, that decision shall not affect the validity of the Code other than the part decided to be unconstitutional or invalid.

G. Components of the Code

The Code is comprised of the following sections:

1. **Administration:** Section II. Administration covers the application and review processes for development plan approval, permits, amendments, and administrative changes.
2. **Regulating Plans:** The REGULATING PLAN provides specific information on the development parameters for each parcel and shows how each LOT or DEVELOPMENT PROJECT relates to public spaces (STREETS, CIVIC GREENS, PEDESTRIAN PATHWAYS, etc.) and the surrounding neighborhood. The REGULATING PLAN may identify additional regulations and/or special provisions for specific locations. The Columbia Pike Special Revitalization District is divided into four subareas, each of which is covered by an individual REGULATING PLAN. The REGULATING PLAN also includes general regulations pertaining to the arrangement of blocks and alleys, buildings, streetscape, parking, ground story uses, and historic preservation.
3. **Building Envelope Standards:** The BUILDING ENVELOPE STANDARDS (BES), establish basic parameters governing building form, including the envelope for building placement (in three dimensions) and certain permitted/required building elements as they frame the STREET or public realm. The BUILDING ENVELOPE STANDARDS establish both the boundaries within which things may be done and specific things that must be done to ensure that the buildings relate to each other and form a functioning and consistent block structure. The applicable standard(s) for a development project is determined by the BES frontage type designated on the REGULATING PLAN.
4. **Streetscape Standards:** The purpose of the Streetscape Standards is to ensure coherent STREETS and to assist developers and owners with understanding the relationship between the public realm and their own DEVELOPMENT PROJECT or building. These standards set the parameters for the placement of street trees, sidewalks, and other amenities or furnishings within the STREET as well as the basic configurations for other public spaces, including streets and sidewalks.
5. **Architectural Standards:** The Architectural Standards are used to achieve a coherent and high-quality building design that is complementary to the best local traditions. The Architectural Standards govern a building's exterior elements and set the parameters for allowable materials, configurations, and techniques.
6. **Definitions:** Certain terms in this Code are used in very specific ways, often excluding some of the meanings of common usage. Wherever a word is in ALL CAPITALS format, consult Section VII. Definitions for its specific and limited meaning within this Code. Words used in the Code, but not defined by the Code, but that are defined in the Arlington County Zoning Ordinance, shall have the meanings set forth therein

II. Administration

A. By-Right FBC Applications

The Zoning Administrator is authorized to approve applications for DEVELOPMENT PROJECTS smaller than 40,000 square feet, consisting only of new structures that are fully compliant with this Code, and where no modifications are requested under Section II.D.

B. Special Exception Use Permit Applications

The Special Exception Use Permit process will be required for DEVELOPMENT PROJECTS that meet any of the following criteria:

1. DEVELOPMENT PROJECTS larger than 40,000 square feet;
2. DEVELOPMENT PROJECTS with building floorplates larger than 30,000 square feet;
3. Request for a hotel that includes 7,500 square feet or more of conference room or banquet facility Gross Floor Area (GFA);
4. Request for approval of any special circumstances as set forth in Section II.C.
5. Request for approval of any modifications, as set forth in Section II.D.

C. Special Circumstances

In order to better incorporate HISTORIC STRUCTURES and HISTORIC FACADES shown on the REGULATING PLAN into DEVELOPMENT PROJECTS with redevelopment, the County Board may, subject to HALRB review, and approval of a Certificate of Appropriateness (CoA), as provided in Section II.E.4, and by use permit approval as provided in Section II.E.3.b, approve:

1. Modifications of the parking requirements set forth in Section III.B.4 for that portion of the project that includes the HISTORIC STRUCTURES and HISTORIC FACADES;
2. Modification of the following:
 - a. Utility undergrounding as provided in Section III.B.7; and
 - b. Provision of street furniture as provided in Section III.B.7 and Section V.
3. Up to two bonus stories with appropriate design and tapering, on the remainder of the site, provided that the overall building height is within the maximum (in feet) for the site.

For example, on a MAIN STREET SITE, the maximum height is 6 STORIES, the equivalent to 94 feet under the Form Based Code. (Maximum floor heights are 24 ft., 14 ft., 14 ft., 14 ft., 14 ft., 14 ft.) Thus, up to an additional two STORIES are permitted, but overall building height cannot exceed 94 feet.

D. Modifications

1. Purpose: The County Board may, through approval of a use permit, modify the provisions of this Code as set forth in Section II.D.2 upon a finding that, after the proposed modification, the subject development and where applicable, existing buildings, structures, HISTORIC STRUCTURES and HISTORIC FACADES to be retained, will better accomplish the purposes and intent of this Code and the goals of the Columbia Pike Initiative Plan than would the development without those modifica-

tions and that the proposed uses will neither: 1) adversely affect the health or safety of persons residing or working in the neighborhood of the proposed use; nor 2) be detrimental to the public welfare or injurious to the property or improvements in the neighborhood; nor 3) be in conflict with the purposes of the master plans of the County.

2. Allowable Modifications: In approving a use permit application, the County Board may modify only the following requirements of this Code:
 - a. Height of first floor relative to fronting sidewalk elevation;
 - b. Required Building Lines (RBLs) for the location of STREETS, for HISTORIC STRUCTURES AND HISTORIC FACADES, and for existing parking garages as of February 25, 2003;
 - c. Locations of alleys;
 - d. Breaks between buildings;
 - e. STREETSCAPE details;
 - f. Design issues related to the inclusion of existing buildings, HISTORIC STRUCTURES, HISTORIC FACADES or mature trees;
 - g. Parking ratios for hotels and/or associated conference/banquet facilities;
 - h. Signs, only as provided in Section VI.F and ACZO §13.3; and
 - i. Modifications associated with special circumstances as provided in Section II.C.

E. Applicant Requirements and Review Processes

1. Submission Requirements: Each preliminary and final application shall include all materials identified in Administrative Regulations 4.1.2, including by way of illustration, and not limitation, the following:
 - a. Plans and documentation indicating the proposed new development; the location, condition, and any renovation of existing buildings to be retained; and other site improvements;
 - b. A LEED scorecard, or equivalent scorecard for another green building standard system;
 - c. A Transportation Impact Analysis (TIA) for any development project with 100,000 square feet or more of gross floor area (GFA).
2. Preliminary FBC Applications:
 - a. For all DEVELOPMENT PROJECTS, Preliminary FBC Applications shall be submitted to the Administrative Review Team for review.
 - b. When a preliminary application has been determined by the Administrative Review Team to be compliant with the regulations set forth in this Code, except to the extent modifications are being requested through use permit approval:
 - i. The Administrative Review Team will forward the application to the Form Based Code Advisory Working Group (AWG) and schedule a review meeting with the AWG.
 - ii. Prior to the AWG meeting, applicants shall provide copies of the application to the Columbia

Pike Revitalization Organization (CPRO) and to the civic association (s) in which the subject property is located, and to any immediately adjacent civic associations, as specified in FBC Administrative Regulations 4.1.2.

- iii. When an application includes a request for a modification(s) to the REGULATING PLAN requirements, including a different placement or alignment of a new building, street or alley from what is depicted on the REGULATING PLAN, a joint meeting of a committee of the Planning Commission and the Form Based Code Advisory Working Group shall occur to review the proposed modification during the preliminary application phase in order to provide comment as to whether the proposed modification is consistent with the purposes and intent of this Code and the goals of the Columbia Pike Initiative Plan.
 - iv. The AWG will review the proposal and advise the Administrative Review Team as to whether it finds the preliminary application to be in compliance with this Code.
- c. The Final Application may be filed at the earlier of either: a) completion of requirements in Sections II.E.2.b.i-iv; or b) completion of requirements in Section II.E.2.b.i-iii provided that the review meeting with the AWG, specified in II.E.2.b.iv, has been scheduled for a date no more than 15 days after the final application submission.

3. Final FBC Applications:

a. By-Right Applications:

- i. Final By-Right FBC Applications shall be submitted to the Zoning Administrator for approval.
- ii. Final By-Right FBC Applications will be reviewed administratively for conformance with this Code within thirty (30) days of a Final Application Submission. Upon completion of such review, applicants will be notified in writing by the Zoning Administrator as to whether the submission is in compliance with the Form Based Code.
- iii. At the time of, or prior to filing, applicants shall provide copies of the application to the Columbia Pike Revitalization Organization (CPRO) and to the civic association (s) in which the subject property is located, and to any immediately adjacent civic associations, as specified in FBC Administrative Regulations 4.1.2.
- iv. Once an application is approved by the Zoning Administrator, the applicant may apply for construction permits consistent with the approved application. Applications that the Zoning Administrator determines do not comply with the requirements of this Code may be resubmitted for review as a revised application, or as a request for approval of a use permit, as set forth in ACZO §15.4 and Section II.E.3.b.

b. Special Exception Use Permit Applications

- i. Unless the Zoning Administrator determines that it is in the public interest to accept a later application, a Form Based Code Use Permit application shall be filed by the final deadline for special exception applications set by the Zoning Administrator, and no less than fifty-five (55 days) before the public hearing.
- ii. At the time of, or prior to filing, applicants shall provide copies of the application to the Columbia Pike Revitalization Organization (CPRO) and to the civic association(s) in which the subject property is located, and to any immediately adjacent civic associations, as specified in FBC Administrative Regulations 4.1.2.

iii. The County Board shall approve the DEVELOPMENT PROJECT if it finds that the DEVELOPMENT PROJECT meets the standards of this Code as modified by the County Board in accordance with this Code, and meets the standards set forth in ACZO §15.4.3.

iv. In approving a FBC use permit, the County Board may designate such conditions in connection therewith as will, in its opinion, assure that the use will conform to the requirements of this Code and that such DEVELOPMENT PROJECT will continue to do so.

4. Review by Historical Affairs and Landmark Review Board (HALRB)

DEVELOPMENT PROJECTS with buildings designated as HISTORIC STRUCTURES or HISTORIC FACADES shall be subject to review and approval of a Certificate of Appropriateness (CoA) by the HALRB, as follows:

a. As part of the preliminary application phase, an applicant shall submit its DEVELOPMENT PROJECT to the HALRB for two meetings (or more, if necessary) for review and comment (HALRB and/or DRC meetings in one month shall count as one meeting). The HALRB, and/or its Design Review Committee (DRC), shall review the DEVELOPMENT PROJECT to assess whether the application complies with Section III.6. Historic Preservation and ACZO §15.7.9.F.

b. Upon completion of its preliminary review, the HALRB will provide, in writing, its comments to the applicants stating how the DEVELOPMENT PROJECT does or does not comply with Section III.6. Historic Preservation and ACZO §15.7.9.F.

c. The applicant shall address the HALRB comments and return to the HALRB for one additional meeting for final review and comment.

d. HALRB shall approve a CoA for the DEVELOPMENT PROJECT where it finds the DEVELOPMENT PROJECT meets the intent and regulations of Section III.6. Historic Preservation and ACZO §15.7.9.F.

5. Preservation of HISTORIC STRUCTURES and HISTORIC FACADES

HISTORIC STRUCTURES and HISTORIC FACADES shall be preserved by either:

a. A preservation easement on the structure or façade and recorded for the benefit of Arlington County or the Northern Virginia Conservation Trust; or,

b. The site can be designated as a local historic district by the Arlington County Board.

6. Subdivision and Building Permits

a. The applicant shall not pursue development permits until such time that either a Letter of Approval by the Zoning Administrator or a Use Permit approval by the County Board has been obtained.

b. All development shall be consistent with the approved FBC DEVELOPMENT PROJECT.

c. Administratively-approved FBC applications, approved after September 24, 2016, will expire in 3 years from the date of the Zoning Administrator's Letter of Approval unless a Footing to Grade permit has been issued; however, the Zoning Administrator may extend the approval up to 3 years for a total of up to 6 years if he/she finds that the applicant has been actively working in good faith to pursue the Footing to Grade permit.

7. Major and Minor FBC Use Permit Amendments

a. Major FBC Use Permit Amendments: Any modification of the approved use permit which meets one or more of the following criteria is considered a major amendment and will require approval by the County Board:

I. Change to the principal use of the building in more than five percent of the total floor area of the building;

II. Change to the overall building height by more than 12 feet;

III. Change to the gross floor area of the ground story by more than 20 percent of the area of the ground story; or

IV. Any change which the Zoning Administrator determines is similar in significance to the above stated changes, including but not limited to, changes to materials, design, or appearance of the building from the original approval.

b. Minor FBC Use Permit Amendments: Any modification of the approved use permit that meets either of the following criteria is considered a minor amendment and will require approval by the County Board:

i. Any modification of the approved DEVELOPMENT PROJECT which is not considered a major amendment and which cannot be approved administratively;

ii. The subdivision of land involved in an approved DEVELOPMENT PROJECT, except that, if the following criteria are met, such subdivision may be approved as an administrative change by the Zoning Administrator:

(1) Uses and building form is consistent with the zoning and approved use permit;

(2) Parking is consistent with the zoning and the approved use permit;

(3) Public improvements are consistent with the zoning and approved use permit; and

(4) Clear evidence exists that all conditions of the approved use permit have been met or are bonded in a manner acceptable to the County Manager.

c. Processes for Major/Minor Amendments

I. When a major or minor use permit amendment is filed, the Zoning Administrator shall notify the applicant, as required in FBC Administrative Regulation 4.1.2, of the scheduled date of the County Board public hearing, which date will be up to 180 days after filing. Public hearings shall be the first regularly scheduled County Board meeting of each month, except the County Board may establish, on its own motion, another County Board meeting for the hearing.

II. When either a major or minor use permit amendment is filed, the Administrative Review Team and the FBC AWG shall review the preliminary application consistent with Section II.E.2.a-b.

III. After the Zoning Administrator has determined that the applicant has met the requirements of Section II.E.2.b, the application may be considered at a public hearing by the County Board on no less than 55 days after the AWG review meeting.

IV. The County Board shall approve an amendment only if it finds, after a duly advertised hearing, that the DEVELOPMENT PROJECT will not 1) adversely affect the health or safety or persons residing or working in the neighborhood of the proposed use; nor 2) be detrimental to the public welfare or injurious to the property or improvements in the neighborhood; nor 3) be in conflict with the purposes of the master plans of the County.

V. In approving a major or minor FBC use permit amendment, the County Board may designate such conditions in connection therewith as will, in its opinion, assure that the use will conform to the requirements of this Code and that such DEVELOPMENT PROJECT will continue to do so.

d. FBC Administrative Changes: Any minor adjustment to the approved DEVELOPMENT PROJECT elements below, and any other change that the Zoning Administrator determines is similar in significance and complies with the spirit of this Code, the Arlington County Zoning Ordinance, the intent of the County Board or the Zoning Administrator in its approval of the DEVELOPMENT PROJECT, and the general purpose of the Comprehensive Plan for the development of the area, may be approved by the Zoning Administrator:

I. Facade elevations, fenestration, and/or clear heights or story heights to address changes to the interior layout of the building;

II. Ground story finished floor elevations to address conflicts with site topography; or

III. On a limited basis, substitute comparable or better façade materials.

F. FBC Administrative Review Team Duties & Procedures

The Administrative Review Team is comprised of staff from several County Departments who are responsible to assist the Zoning Administrator in administering the Form Based Code.

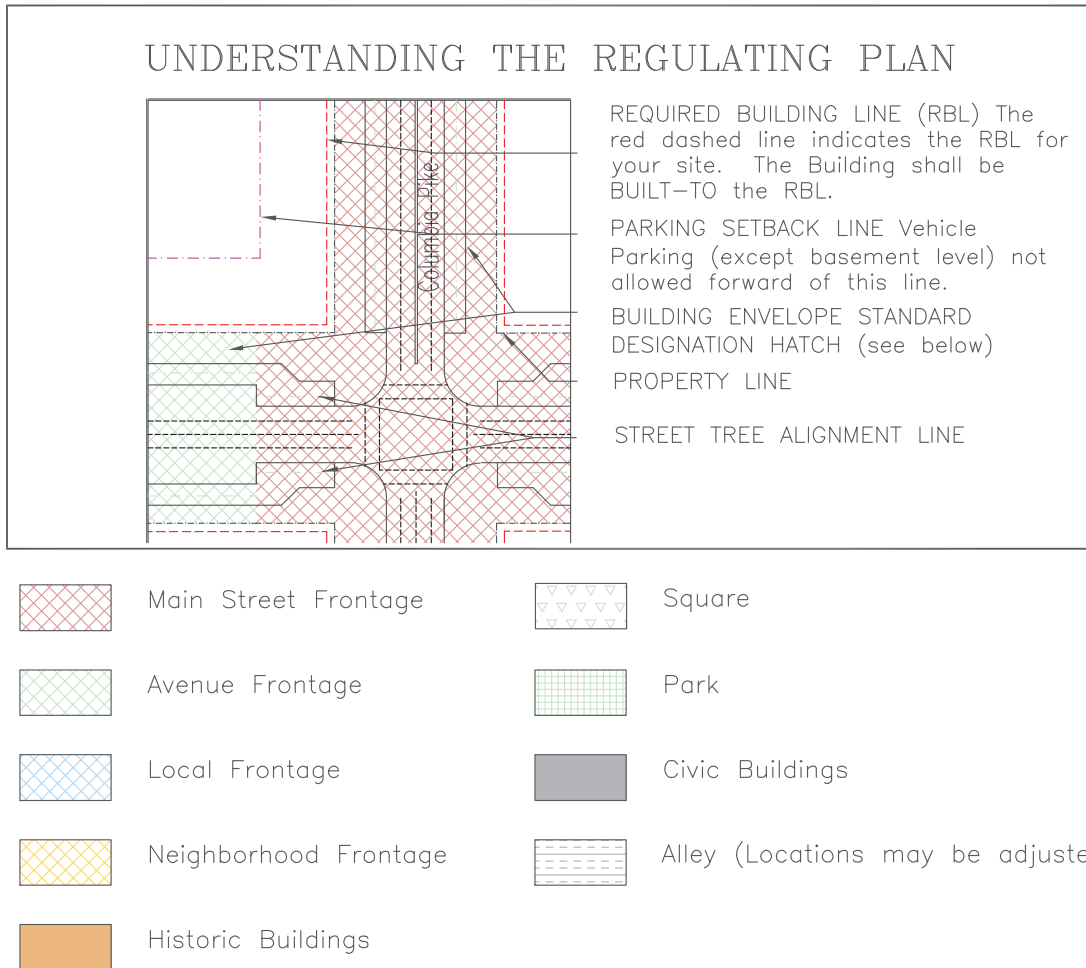
1. The Administrative Review Team shall review both By-Right and Special Exception Use Permit FBC applications for compliance with this Code. The Administrative Review Team shall administer the Administrative Regulations 4.1.2 which describe the review processes and submission requirements in further detail. The Administrative Review Team shall forward its recommendations regarding compliance or noncompliance to the Zoning Administrator for By-Right applications or the County Board, for Special Exception Use Permit applications.

2. In addition, the Administrative Review Team may be called upon as set forth in this Code or as requested by the Zoning Administrator to provide recommendations on interpretation of this Code. However, the Zoning Administrator is responsible for any final action taken under this Code on By-Right applications.

III. The Regulating Plans

A. Understanding the Regulating Plan

A REGULATING PLAN provides standards for the disposition of each property or LOT and how each relates to its adjacent properties and STREETS. Following the adoption of the *Columbia Pike Initiative—A Revitalization Plan* in March 2002 and the Columbia Pike Urban Design Charrette and citizen planning workshops held in September 2002 and any future addenda, REGULATING PLANS have been produced for the Columbia Pike Special Revitalization District in Arlington County.



Building Sites are Coded by Their BES Frontage Type

The key above explains the elements of the REGULATING PLAN and serves as a reference when examining the REGULATING PLAN.

The REGULATING PLAN is the principal tool for implementing the *Columbia Pike Special Revitalization District Form Based Code* and identifies the basic physical characteristics of each building site and the BUILDING ENVELOPE STANDARD (BES) assigned to it.

B. Rules for the Regulating Plan and New Development Plans

1. Blocks/Alleys

- a. All LOTS shall share a frontage line with a STREET.
- b. All LOTS and/or all contiguous LOTS shall be considered to be part of a BLOCK for this purpose. No BLOCK face shall have a length greater than 400 feet without an ALLEY, common access easement or PEDESTRIAN PATHWAY providing through-access to another STREET, ALLEY or common access easement, STREETS, or conservation restricted land. Individual LOTS with less than 75 feet of frontage are exempt from the requirement to interrupt the BLOCK face; those with over 250 feet of frontage shall meet the requirement within their LOT.
- c. ALLEYS shall provide access to the rear of all LOTS. ALLEY construction is required as part of the redevelopment project within the rear setback, unless an ALLEY already exists.
- d. Where an ALLEY does not exist and is not constructed at the time of redevelopment of any property, the developer is required to dedicate the ALLEY right of way within the rear setback to the County, and until the County builds the ALLEY, maintain the area within the rear setback by, at a minimum:
 1. Sodding and providing routine landscape maintenance to the area.
 2. Keeping the area clear of debris, stored materials, and vehicles.
- e. Curb Cuts shall be limited to no more than one per 200 feet of STREET FRONTAGE on MAIN STREET and AVENUE SITES.

2. Buildings

- a. The hierarchy of BUILDING ENVELOPE STANDARDS (BES), in descending order is: MAIN STREET SITES, AVENUE SITES, LOCAL SITES, NEIGHBORHOOD SITES.
- b. The maximum building floor-plate (footprint) is 30,000 square feet; beyond that limit a special exception is necessary. Large grocery stores may have a maximum GROUND FLOOR floorplate of 50,000 square feet.
 1. For each BLOCK, building(s) along the RBL shall present a complete and discrete vertical façade composition (e.g., a new façade design) at a maximum average STREET FRONTAGE length of 60 feet. Each façade composition shall include a functioning, primary STREET entry. (This may be satisfied through the use of shops for large floor-plate buildings.) Individual in-fill projects on LOTS with frontage of less than 100 feet are exempted from this requirement.
- c. Consistent BUILDING ENVELOPE STANDARD (BES) sites shall front one another across STREETS. When separated by a SQUARE, CIVIC GREEN or park, building types from adjacent levels (one level difference) may face one another, unless otherwise indicated on the REGULATING PLAN. For example, LOCAL SITES may face NEIGHBORHOOD SITES and/or AVENUE SITES across a CIVIC GREEN—but may not face MAIN STREET SITES, unless otherwise indicated on the REGULATING PLAN.
- d. When separated by an ALLEY, common access easement, COMMON LOT LINE and/or when fronting different STREETS (e.g., a corner LOT and its adjacent LOT), BUILDING ENVELOPE STANDARD types from any category may sit adjacent or share a COMMON LOT LINE, provided that they do not face across a STREET, unless otherwise indicated on the REGULATING PLAN.

- e. When the BUILDING ENVELOPE STANDARD designation changes along the STREET FRONTAGE or at the BLOCK CORNER within a development proposal, the applicant has the option of applying either BUILDING ENVELOPE STANDARD (BES) for a maximum additional distance of 50 along that STREET FRONTAGE or around that BLOCK CORNER. ¹⁰
- f. Publicly-owned CIVIC BUILDINGS and publicly owned PUBLIC ART are not subject to the BUILDING ENVELOPE STANDARD prescriptions of this Code. The County Board may modify all other provisions of this Code for publicly-owned CIVIC BUILDINGS, publicly- owned PUBLIC ART, and CIVIC BUILDINGS located on County property which house a significant amount of public CIVIC USES if it finds that the subject development has undergone a public review process and that, after the proposed modification(s), the subject development will better accomplish the purposes and intent of Article 11.1, and its corresponding Appendix A "CP-FBC," Columbia Pike – Form Based Code, of the Arlington County Zoning Ordinance than would the development without those modifications and that the proposed uses will not:
 - 1. Adversely impact the health or safety of persons residing or working in the neighborhood of the proposed use;
 - 2. Be detrimental to the public welfare or injurious to property or improvements in the neighborhood; and
 - 3. Be in conflict with the purposes or vision of the Columbia Pike Corridor as described in the Columbia Pike Initiative Plan Update (2005), as amended, or other master plans of the County.

^{5B}

3. Streetscape

- a. STREET TREES shall be planted at the time of development and spaced 25 to 30 feet on center. Where necessary, spacing allowances may be made to accommodate curb cuts, fire hydrants and other infrastructure elements.
- b. STREET LIGHTS poles shall be centered along the STREET TREE ALIGNMENT LINE where feasible and not in conflict with existing utilities. Where such location is not feasible due to existing or other required, underground or above ground structures in the right of way, STREET LIGHTS poles shall be located two (2) feet to four (4) feet behind the back of curb within the furniture zone (as defined below). STREET LIGHTS shall not be located within the clear zone or the shy zone (as defined below). At the time of development, the developer is only responsible for the installation of STREET LIGHTS on the side(s) of the STREET being developed. ^{16B}
- c. At the time of development, the developer is required to install sidewalks. Sidewalks shall not be constructed entirely of plain poured concrete. However, a "clear zone" of no less than 6 feet in width of smooth concrete sidewalk shall be constructed and maintained free of obstruction for pedestrians at all times. A variety of paving materials, textures, and colors are allowed outside of the clear zone. All paving materials shall be compliant with ADA accessibility guidelines and material selection should be sensitive to the needs of mobility impaired persons. In addition, a "shy zone" of at least 2 feet in width shall be included adjacent to the building face and a furniture zone of up to 6 feet in width shall be included behind the back of curb. Consistency of paving design is required within a project and within a BLOCK.^{16B}

5B - Columbia Pike Form Based Code Amendment adopted on April 19, 2008

10 - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

16B - Columbia Pike Form Based Code Amendment adopted on January 26, 2013

4. Parking

a. Parking goals:

- Enable people to park once at a convenient location and to access a variety of commercial enterprises in pedestrian-friendly environments by encouraging SHARED PARKING.
- Reduce diffused, inefficient, single-purpose RESERVED PARKING.
- Avoid adverse parking impacts on neighborhoods adjacent to redevelopment areas.
- Maximize on-street parking.
- Increase visibility and accessibility of parking.
- Provide flexibility for redevelopment of small sites and for the preservation of historic buildings.
- Promote early prototype projects using flexible and creative incentives.

b. There are no minimum parking requirements for the following: ^{23C}

1. DEVELOPMENT PROJECTS under 20,000 square feet in land area, except that on LOCAL sites of less than 20,000 square feet in land area and with more than two dwelling units per LOCAL STREET BUILDING, parking shall be provided for each dwelling unit, as required in Section III.B.4.C. ^{11B}
2. The portion of any DEVELOPMENT PROJECT that includes HISTORIC STRUCTURES or HISTORIC FACADES.

c. All other DEVELOPMENT PROJECTS not expressly covered by Section III.B.4.B. shall meet the following requirements: ^{18A}

1. A minimum of 1 and 1/8 parking spaces per residential dwelling unit, of which a minimum of 1/8 parking space per residential unit shall be provided as SHARED PARKING. There are no maximum limits on SHARED PARKING.
2. For all other uses except hotel uses, a minimum of one space per 1,000 square feet of non-residential Gross Floor Area (GFA) shall be provided as SHARED PARKING; there are no set maximum limits on SHARED PARKING. New on-street parking spaces created in conjunction with the development, which did not previously exist, may be counted toward the minimum requirement for SHARED PARKING. Any limitations on the SHARED PARKING (time limits or hours of the day) shall be subject to approval by the Zoning Administrator which shall be given upon a finding that at least 12 hours of public parking are provided in any 24-hour period and that at least 8 of those hours are provided during either business or nighttime hours depending on whether the Zoning Administrator determines that the primary public use will be for commercial or residential uses. ^{20B}
3. For hotel uses, a minimum of 0.5 space per hotel guest room shall be provided as RESERVED PARKING; there are no set maximum limits on SHARED PARKING. In addition, any hotel that includes 7,500 square feet or more of conference room or banquet facility GFA, shall provide additional parking at a rate of 1 space per 1,000 square feet of all conference room/banquet facility GFA.

11B - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

16B - Columbia Pike Form Based Code Amendment adopted on January 26, 2013

18A - Columbia Pike Form Based Code Amendment adopted on November 15, 2014

23C - Columbia Pike Form Based Code Amendment adopted on October 15, 2016

4. A maximum of one space per 1,000 square feet of non-residential GFA (excluding hotel uses), two spaces per residential dwelling unit, and a maximum of 0.7 space per hotel guest room may be made available for RESERVED PARKING, not counting the additional parking required by subsection 3, above, for hotels that include 7,500 square feet or more of conference rooms or banquet facilities.
5. RESERVED PARKING above the maximum may be provided upon payment to the County. The County Manager shall establish the amount of payment annually based on the approximate cost to build structured parking.

d. Achieving parking requirements:

1. Parking requirements may be met either on-site or within the parking zone in which the development is located.
2. In lieu of minimum parking requirements, the County may accept a one-time payment per each space of SHARED PARKING. The County Manager shall establish the amount of payment annually based on the approximate cost to build structured parking.
3. Incentives from the Tax Increment Public Infrastructure Fund (TIPIF) may be used, in accordance with approved TIPIF policy, for eligible projects to meet SHARED PARKING requirements.

e. Bicycle Parking:

1. Bicycle Parking shall be provided for all uses in accordance with the following standards, provided, where application of the requirements would result in a fractional space, any such fraction shall be counted as one space: ^{20B}

Use	Tenant/Employee	Customer/Visitor/Student
Office	1 per 7,500 GFA	1 per 20,000 GFA
Residential	1 per 3 units	1 per 50 units
Hotel	1 per 10 guest rooms	1 per 5,000 GFA
High School and Colleges	1 per 10 employees	1 per 10 students
Middle School	1 per 10 employees	1 per 15 students
Elementary School	1 per 10 employees	1 per 20 students
Governmental Facilities, Hospitals, and Daycare Uses	1 per 25,000 GFA	1 per 10,000 GFA
All Other Civic Uses	1 per 25,000 GFA	1 per 5,000 GFA
Retail Uses	1 per 25,000 GFA	1 per 5,000 GFA (first 50,000 GFA); 1 per each additional 12,500 GFA

2. All tenant and employee bicycle parking facilities are to be highly visible to intended users and shall be protected from rain and snow within a structure, meeting Class 1 secure standards as contained in the Arlington County Master Transportation Plan's Bicycle Element (July 2008) and as may be subsequently amended. Where tenant and employee bicycle parking cannot be accommodated within structured parking located on site, the design of the independent bicycle

20B - Columbia Pike Form Based Code Amendment adopted on December 15, 2015

parking facility, also to be located on site, shall be screened from view of pedestrians along a STREET and constructed using the same materials or materials appearing to be the same as those used on the primary building(s). The bicycle parking facilities shall not encroach on any area in the public right of way intended for use by pedestrians, nor shall they encroach on any required fire egress.

3. On-street bicycle parking spaces (as defined in Section V. B. Minimum Standards) may be counted toward the minimum customer/visitor bicycle parking requirement. ^{8B}

f. SHARED PARKING shall be designated by appropriate signage and markings as required by County policy.

5. Ground Story Uses ^{20B}

a. General Principles and Intent

Retail, service and commercial, or PUBLIC, CIVIC AND INSTITUTIONAL USES are required on the GROUND STORY of MAIN STREET Buildings, required to a lesser degree on the GROUND STORY of Local Street Buildings, and are allowed on the GROUND STORY of AVENUE Buildings. The intent of the requirement for uses on the GROUND STORY, combined with storefront design requirements, is to achieve a high level of pedestrian activity adjacent to the public sidewalk, interesting design, and transparency into the building.

b. Allowable GROUND STORY Uses

GROUND STORY uses allowed along Columbia Pike, include uses in the retail, service and commercial, PUBLIC, CIVIC AND INSTITUTIONAL, industrial and accessory use categories, as provided in Table 3.1. Other uses that can similarly provide visual interest and create an active street life may be allowed, if in ~~which~~ in the judgement of the Zoning Administrator, they are of the same general character as those listed in Table 3.1 and will not be detrimental to the Columbia Pike Special Revitalization District.

c. GROUND STORY Use Table

1. Use Categories and Specific Use Types

All of the use categories listed in the first column of the table below are described in ACZO §12.2. The second column lists the specific use types included within the respective use categories.

2. Permitted or Use Permit

a. A "P" indicates that a use is permitted by-right and may be approved administratively, provided that redevelopment conforms to the Form Based Code as adopted by the County Board (see ACZO §11.1.3).

b. A "U" indicates a special exception use that may be established subject to obtaining a use permit as provided in ACZO §15.4, use permits, for each such use, and provided that the property has been redeveloped pursuant to the Form Based Code. The Zoning Administrator may require a use permit for such use, whether the use is located in a building approved administratively or whether located in a building controlled by a use permit.

8B - Columbia Pike Form Based Code Amendment adopted on January 23, 2010

20B - Columbia Pike Form Based Code Amendment adopted on December 15, 2015

c. A blank cell (one without a “P” or “U”) in the use table indicates that a use is not allowed in the respective district. Uses not specifically listed may be allowed pursuant to the similar use determination procedure of ACZO §12.2.2.

3. Restricted on Principal Arterials per III.B.5.D

a. A “Yes” indicates that a use is subject to additional limitations when located on a Principal Arterial, as provided in III.B.5.D below.

b. A blank cell indicates that no additional limitations apply regardless of where the use is located.

4. ACZO Use Standards

Where applicable, the “ACZO Use Standards” column references specific use standards listed in ACZO §12, which always apply to the listed use.

Table 3.1: Form Based Code Ground Story Use Table

Use Category	Specific Use Types	Permitted (P) or Use Permit (U)	Restricted on Principal Arterials per III.B.5.D	ACZO Use Standards
Key: P = allowed by-right; U = requires use permit approval; Blank cell = not permitted				
Retail, Service and Commercial Use Categories				
Entertainment (see §12.2.5.A)	Theatres	P		
	All other entertainment uses	U		
Food Establishments (see §12.2.5.B)	Restaurant, general	P		§12.5.22
	Restaurant, limited	P		§12.5.23
	Catering establishment, small scale	P U on Principal Arterials	Yes	
	Food delivery service	U	Yes	
Recreation (see §12.2.5.F)	Miniature golf courses	U		
	All other indoor recreation uses	U		
Office (see §12.2.5.C)	Audio-visual production studio	U		
	College operated as a commercial enterprise	U	Yes	
	Financial Services	P		
	Office or clinic, medical or dental	P U on Principal Arterials	Yes	§12.5.16
	Offices, business and professional			
	All other office uses			

Use Category	Specific Use Types	Permitted (P) or Use Permit (U)	Restricted on Principal Arterials per III.B.5.D	ACZO Use Standards
Retail, Sales (see §12.2.5.G.2(a))	Drugstore	P		§12.5.5. §12.5.22
	Grocery store	P		§12.5.10 §12.5.22
	All other retail sales uses	P		§12.5.21
Retail, Personal-Service (see §12.2.5.G.2(b))	Animal care facilities, veterinary clinics, animal hospitals	P U on Principal Arterials	Yes	§12.5.2
	Mortuary or funeral home	U		§12.5.14
	Pawnshop	P		
	All other personal service retail uses	P		§12.5.20
Retail, Repair (see §12.2.5.G.2(C))	All retail repair uses	P		
Self-service storage uses (see §12.2.5.G)	Self-service storage facilities	U	Yes	§12.5.25
	All other self-service storage uses			
Vehicle Sales and Service (see §12.2.5.H)	Vehicle service establishment	U		§12.5.28
	Vehicle sales, rental, or leasing facilities	U	Yes	§12.5.29
	Other vehicle sales and service uses			
Key: P = allowed by-right; U = requires use permit approval; Blank cell = not permitted				
Public, Civic and Institutional Use Categories				
PUBLIC, CIVIC AND INSTITUTIONAL uses below are eligible for certain design relief as provided in VI.E.2.c, as part of the use permit approval for such use. For those uses otherwise allowed by-right (P), such design relief may also be approved subject to use permit approval for such use.				
Colleges (see §12.2.4.A)	Colleges/Universities (public; not-for-profit)	U	Yes	
Community Service (see §12.2.4.B)	Community Centers	U		
	Libraries	U		
	Museums and Art Galleries or Studios			
	Recreation Centers			
Religious Institutions (see §12.2.5.H)	Churches, mosques, synagogues and temples			
Governmental Facilities (see §12.2.5.I)	Fire and police stations	U		
Hospital	Hospitals	U		
Schools (see §12.2.5.I)	Schools, Elementary, Middle, or High	U		§12.4.7
Day Care (see §12.2.4.C)	All day care uses	U	Yes	

Use Category	Specific Use Types	Permitted (P) or Use Permit (U)	Restricted on Principal Arterials per III.B.5.D	ACZO Use Standards
Industrial Use Categories				
Light Industrial Service (see §12.2.6.A)	Carpet and rug cleaning (excluding dying)	U	Yes	
	Medical or dental laboratories	P U on Principal Arterials	Yes	
	Sign painting shop	P U on Principal Arterials	Yes	§12.6.9
	Printing, lithographing, or publishing	P U on Principal Arterials	Yes	
	Upholstery shop	U	Yes	§12.5.26
	All other light industrial uses			
Accessory Uses				
	Live entertainment	U		§12.9.12
	Drive-through facilities (restaurants only)	U		§12.9.7

d. GROUND STORY use limitations for Principal Arterials

Uses that include a Restricted (Yes) designation in Table 3.1 that are proposed along Principal Arterials designated in the Arlington County Master Transportation Plan (Columbia Pike, S. Walter Reed Drive, S. Glebe Road, S. George Mason Drive, and S. Four Mile Run Drive) shall be allowed only subject to use permit approval, as follows:

1. Where a use requiring a use permit (U) is proposed along a Principal Arterial, in addition to provisions in ACZO §15.4, the use shall be allowed if the County Board finds that the proposed use achieves a high level of pedestrian activity adjacent to the public sidewalk, interesting design, and transparency into the building.
2. Some uses, otherwise permitted by-right (P), will require a use permit if the use is proposed along a Principal Arterial and will be subject to the findings of III.B.5.D.1 above. Such uses are indicated in Table 3.1 with the designation "U on Principal Arterials" in the "Permitted or Use Permit" column. ^{20B}

6. HISTORIC PRESERVATION

Certain HISTORIC STRUCTURES and HISTORIC FACADES are viewed as integral to the current and future identity of Columbia Pike. These historic resources are to be preserved pursuant to Section II.E.5 through the use of local incentives, as well as Federal and/or State Historic Tax Credits.

HISTORIC STRUCTURES ^{17a}

Sites containing HISTORIC STRUCTURES may be redeveloped under the Code subject to any special provisions that apply to the site in the REGULATING PLAN and administrative review by the Arlington Historical Affairs and Landmark Review Board (HALRB). When located on any site that is redeveloped pursuant to this Code, HISTORIC STRUCTURES shall be preserved pursuant to Section II.E.5 in their entirety and shall not be subject to the BUILDING ENVELOPE STANDARD prescriptions of this Code.

The following properties are HISTORIC STRUCTURES:

- 2500-2530 Columbia Pike, Arlington Village Shopping Center
- 2624 Columbia Pike, Arlington Animal Hospital
- 2628 Columbia Pike, Birds N' Things
- 2900 Columbia Pike, Old Dominion Bank/Blanca's Restaurant
- 2903 Columbia Pike, Arlington Theater
- 3014 Columbia Pike, Charles Building
- 805 South Walter Reed Drive, Fillmore Gardens Apartments (The portion of the property south of 9th Street may be redeveloped, on the condition that preservation pursuant to Section II.E.5 is implemented for the portion north of 9th Street.)

HISTORIC FACADES ^{17A}

Sites incorporating HISTORIC FACADES may be redeveloped under the Code subject to any special provisions that apply to the site in the REGULATING PLAN or in this section and administrative review by the Arlington Historical Affairs and Landmark Review Board (HALRB). When located on any site that is redeveloped pursuant to this Code, HISTORIC FACADES shall be preserved pursuant to Section II.E.5 and shall not be subject to the BUILDING ENVELOPE STANDARD prescriptions of this Code.

The following properties contain HISTORIC FACADES:

- 2338-2344 and 2408 Columbia Pike, commercial buildings
- 2801-2811 Columbia Pike and 927 South Walter Reed, Elkins Building
- 900 block of South Walter Reed Drive, commercial buildings
- 2906-2922 Columbia Pike, Arlington Hardware

17A - Columbia Pike Form Based Code Amendments adopted on April 12, 2014

20B - Columbia Pike Form Based Code Amendments adopted on December 12, 2015

7. PUBLIC IMPROVEMENTS

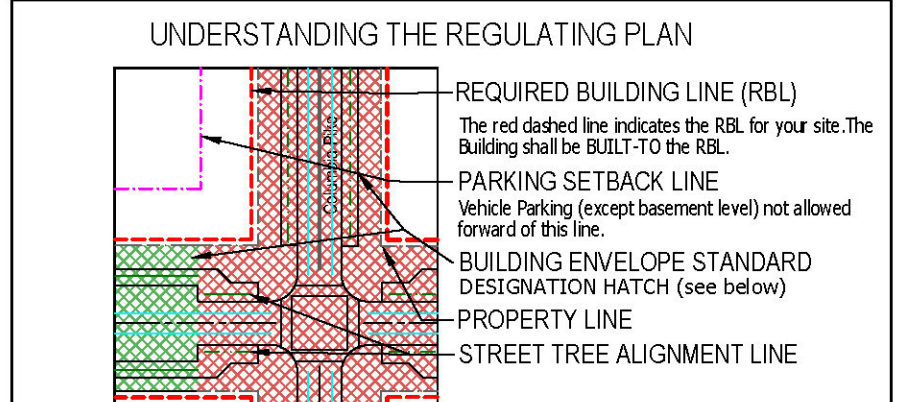
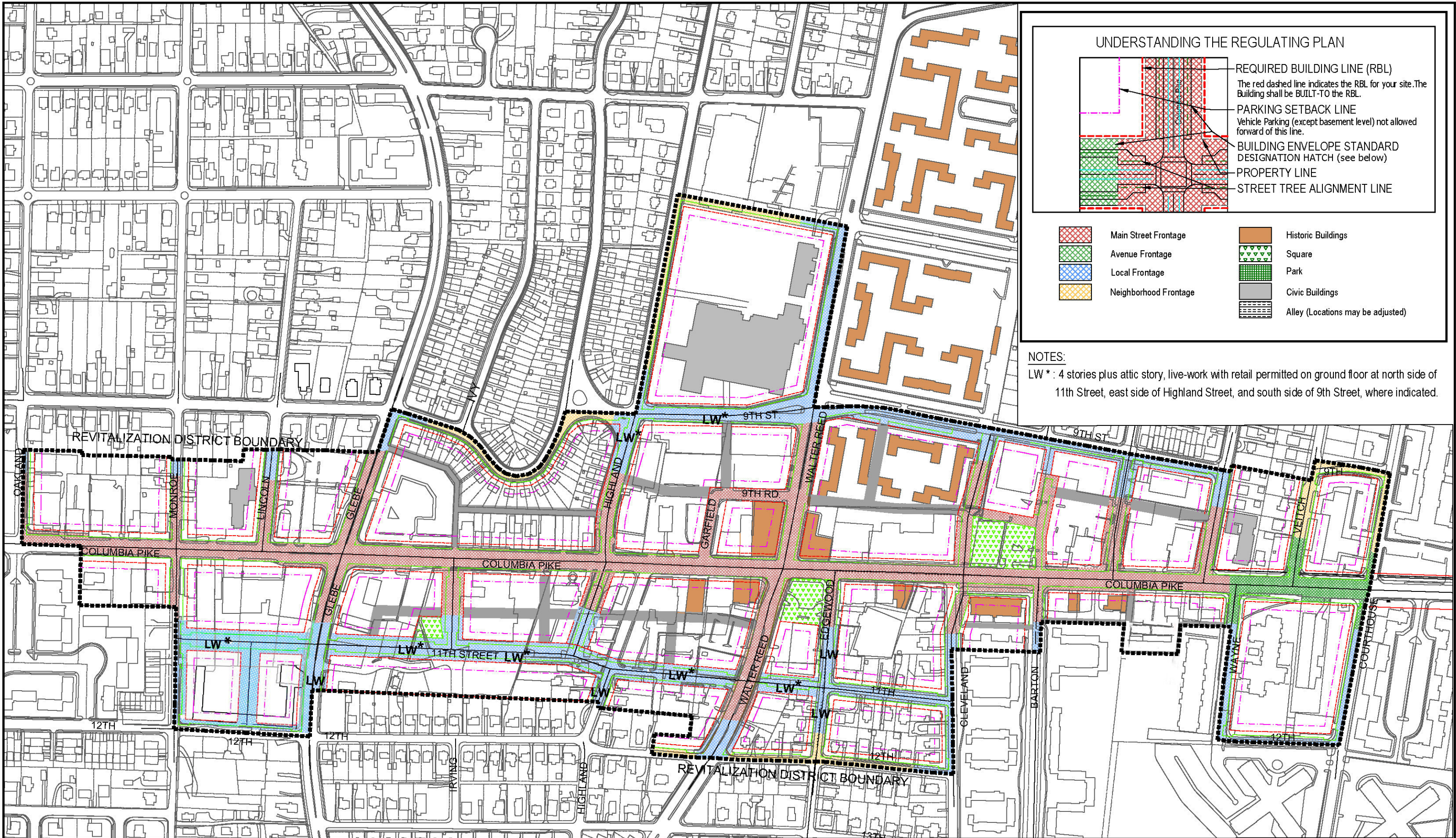
Within the Columbia Pike Special Revitalization District, the developer/property owner is required to construct and maintain all STREETScape improvements according to the Streetscape Standards in Section V. as part of the redevelopment project.

Examples of STREETScape improvements required as part of redevelopment include:

- Installing sidewalks, to include curbs and gutters, as indicated by the REGULATING PLAN and in the *Columbia Pike Street Space Planning Task Force Report*.
- Undergrounding utilities, where not already done.
- Installing street furniture: benches, trash receptacles, bicycle racks, etc..
- Installing STREET TREES and STREET LIGHTS as prescribed herein.
- Constructing other public spaces, such as GREENS and SQUARES or ALLEYS, where indicated on the REGULATING PLAN.
- Dedicating public access easements.
- Providing PUBLIC ART, as indicated in the *Public Art Master Plan*.

C. Regulating Plans

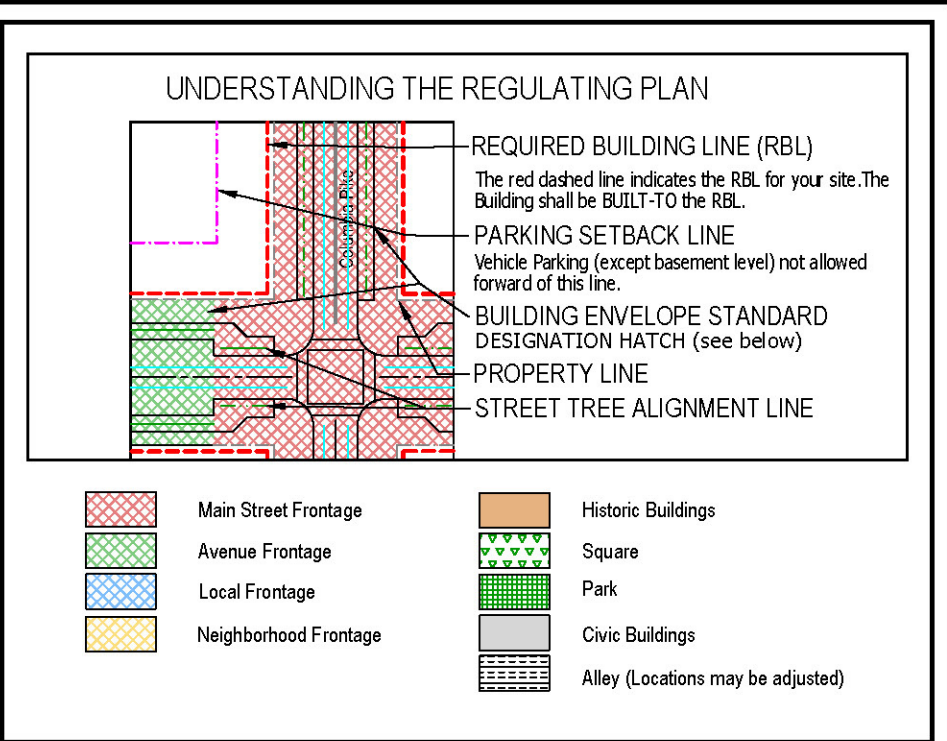
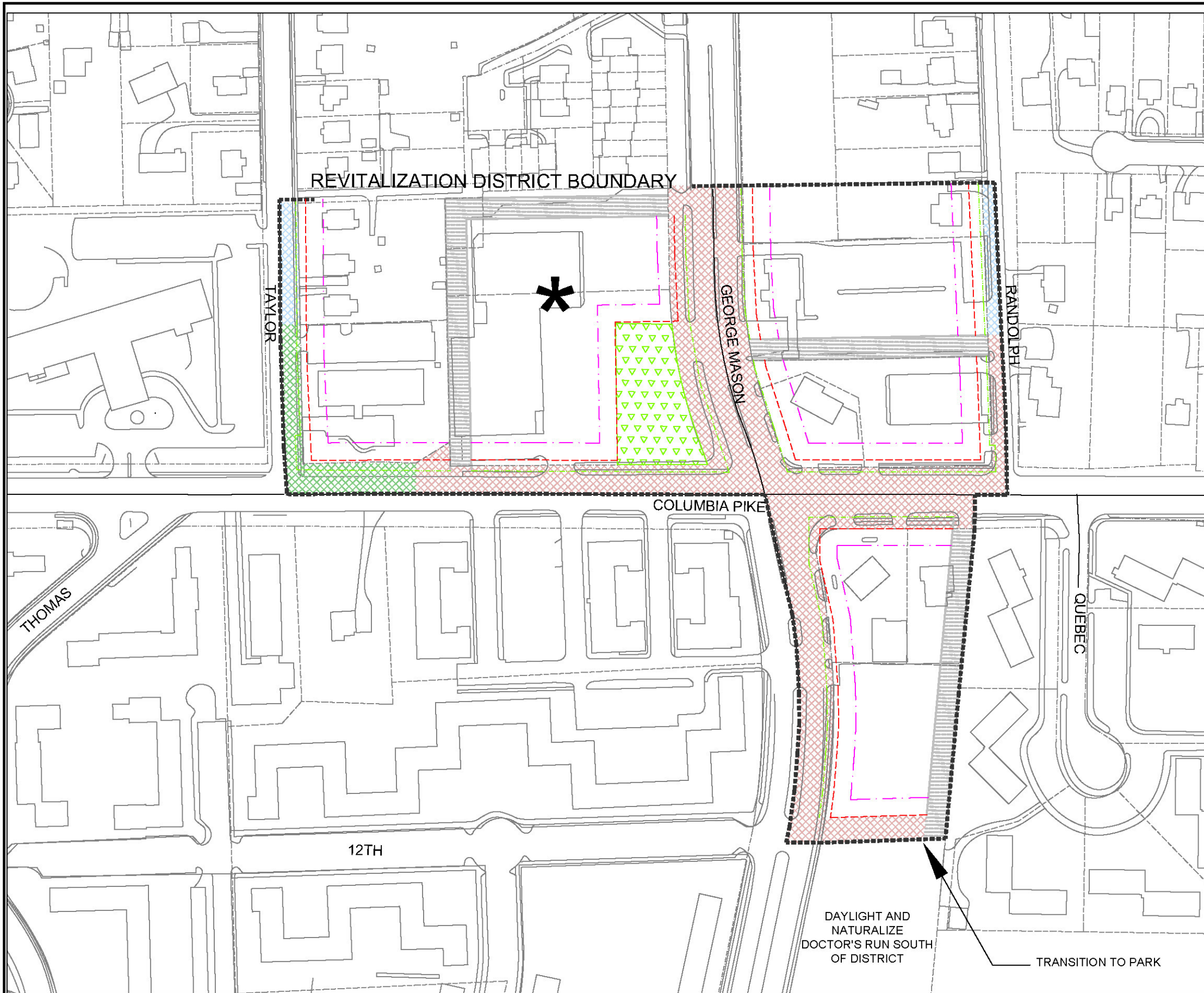
The following pages contain the REGULATING PLANS for the Columbia Pike Revitalization Districts.



- | | | | |
|--|-----------------------|--|-----------------------------------|
| | Main Street Frontage | | Historic Buildings |
| | Avenue Frontage | | Square |
| | Local Frontage | | Park |
| | Neighborhood Frontage | | Civic Buildings |
| | | | Alley (Locations may be adjusted) |

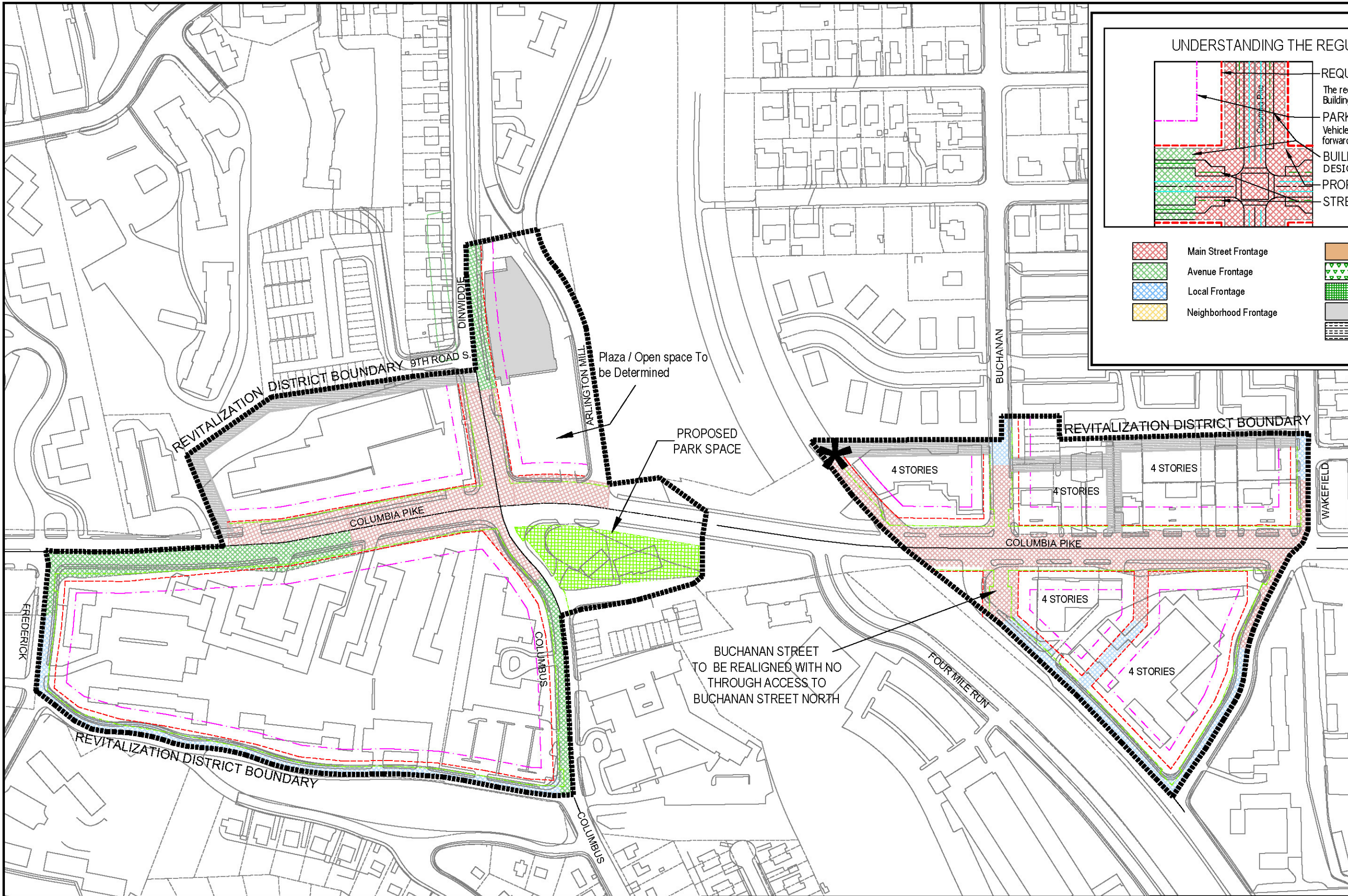
NOTES:
 LW*: 4 stories plus attic story, live-work with retail permitted on ground floor at north side of 11th Street, east side of Highland Street, and south side of 9th Street, where indicated.





NOTE :

* Main Street frontage within 200'-0" of Columbia Pike RBL limited to maximum height of 6 stories; structures greater than 200'-0" from Columbia Pike RBL limited to maximum height of 54'-0".



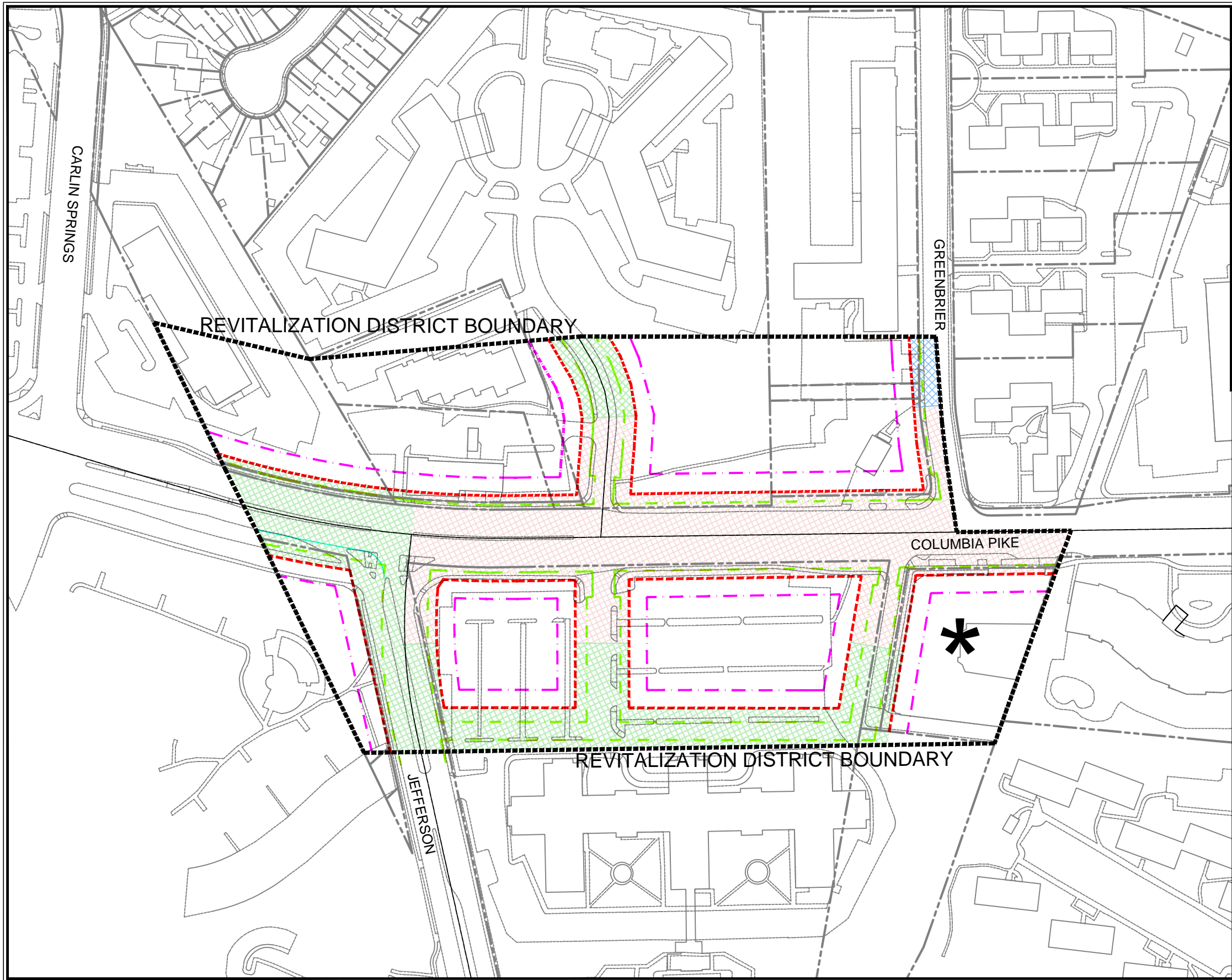
UNDERSTANDING THE REGULATING PLAN

- REQUIRED BUILDING LINE (RBL)**
The red dashed line indicates the RBL for your site. The Building shall be BUILT-TO the RBL.
- PARKING SETBACK LINE**
Vehicle Parking (except basement level) not allowed forward of this line.
- BUILDING ENVELOPE STANDARD DESIGNATION HATCH (see below)**
- PROPERTY LINE**
- STREET TREE ALIGNMENT LINE**

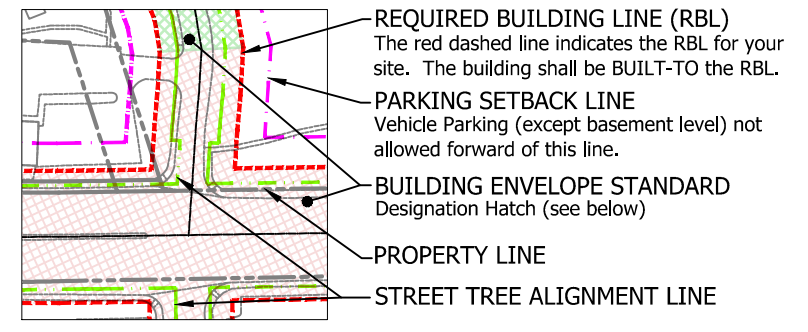
<ul style="list-style-type: none"> Main Street Frontage Avenue Frontage Local Frontage Neighborhood Frontage 	<ul style="list-style-type: none"> Historic Buildings Square Park Civic Buildings Alley (Locations may be adjusted)
--	---

NOTES :

- Main Street frontage limited to 4 stories between Four Mile Run and Wakefield Street.
- * Transition to park; location for outdoor activity and limited vehicular access.



UNDERSTANDING THE REGULATING PLAN



- | | | | |
|--|-----------------------|--|-----------------------------------|
| | Main Street Frontage | | Historic Buildings |
| | Avenue Frontage | | Square |
| | Local Frontage | | Park |
| | Neighborhood Frontage | | Civic Buildings |
| | | | Alley (Locations may be adjusted) |

NOTES

- * Maximum 10 stories but no greater than the height of the adjacent Carlyle Apartments building.

IV. Building Envelope Standards

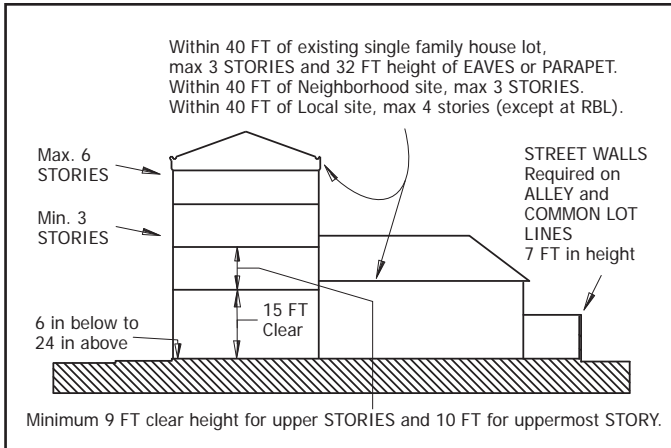
The REGULATING PLAN identifies the BUILDING ENVELOPE STANDARDS (BES) for all building sites within the Columbia Pike Revitalization District. The goal of the BUILDING ENVELOPE STANDARDS is the creation of a healthy and vital public realm through good STREET space. Deviations from the BUILDING ENVELOPE STANDARDS can be approved through a Special Exception Process as provided for in Section VII. Administration of this **Code** and in Article 11.1 and 15 of the Zoning Ordinance. The BUILDING ENVELOPE STANDARDS set the basic parameters governing building construction, including the building envelope (in three dimensions) and certain required/permitted elements, such as BALCONIES, STOOPS, and STREET WALLS.

A. General Guiding Principles

1. Buildings are aligned and close to the STREET.
Buildings form the space of the STREET.
2. The STREET is a coherent space, with consistent building forms on both sides of the STREET.
This agreement of buildings facing across the STREET contributes to a clear public space and community identity.
3. Buildings oversee the STREET (and SQUARE) with active fronts.
This overview of the STREET contributes to vital and safe public space.
4. Property lines are physically defined by buildings or STREET WALLS.
Land should be clearly public or private—in public view and under surveillance or private and protected.
5. Buildings are designed for towns and cities.
Rather than being simply pushed closer together, as in many suburban developments, buildings must be designed for the urban situation within towns and cities. Views are directed to the STREET and the garden/courtyard, not toward the neighbors.
6. Vehicle storage, garbage and mechanical equipment are kept away from the STREET.
7. Retail on the GROUND FLOOR (for MAIN STREET locations).
Retail helps to make the STREET active and interesting.
8. Parking (not including on-street parking) should be away from the STREETS and shared by multiple owners/users.
9. Historic Character.
Those structures that have historic character should be preserved in some manner or their elements incorporated in the redevelopment of their site.

B. BUILDING ENVELOPE STANDARDS: MAIN STREET SITES

1. Height Specifications



Building Height

1. Principal building height is measured in STORIES. These parameters preserve appropriate STREET-space and allow for greater variety in building height.

2. Each building shall be between 3 and 6 STORIES in height, except where otherwise noted here or in the REGULATING PLAN.

Parking Structure Height

No parking structure within the BLOCK shall exceed the EAVE height of any building (built after 2002) within 40 feet of the parking structure.

GROUND STORY Height

1. The GROUND STORY floor elevation shall be between 6 inches below and 24 inches above the sidewalk elevation at the front of the building. The maximum floor-to-floor STORY HEIGHT limit for the GROUND FLOOR is 24 feet.

2. The GROUND FLOOR shall have at least a 15 foot clear (floor to ceiling) height for at least 1/3 of its area contiguous to RBL frontage.

Upper STORIES Height

1. The maximum floor-to-floor STORY HEIGHT limit for STORIES other than the GROUND STORY is 14 feet.

2. At least 80 percent of the upper STORIES shall each have at least an 8 foot 10 inch clear (floor to ceiling) height and a minimum 10 foot clear height for the uppermost STORY.^{18B}

Mezzanines

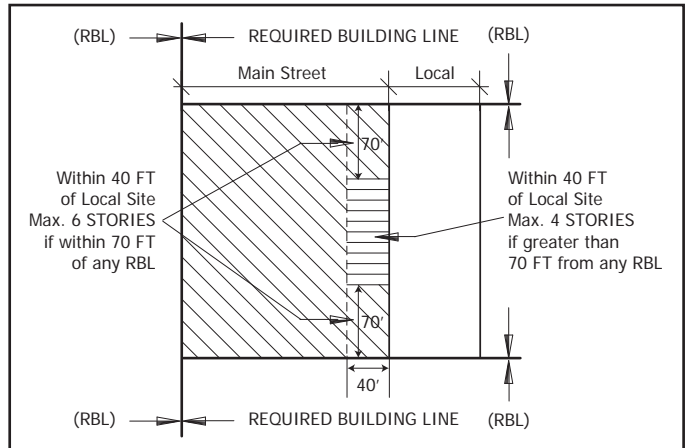
Mezzanines greater than 2/3 of the floor area footprint shall be counted as full STORIES.

STREET WALL Height

1. Any unbuilt ALLEY and/or COMMON LOT LINE frontage shall have a STREET WALL built along it, 7 feet in height.

2. STREET WALL heights are measured relative to the adjacent sidewalk or to the ground elevation when not fronting on a sidewalk.

1. Height Specifications (continued)^{12A}



Other^{12A}

Notwithstanding the provisions in Section III.A.6.1, except where a lower height is required by the Regulating Plan, where any portion of a Main street site is within 40 feet of:

1. A Local or LIVE-WORK site (excluding LIVE-WORK* sites), the maximum height for that portion is no more than 4 STORIES, unless that portion is also no more than 70 feet from an RBL, in which case the maximum height is no more than 6 STORIES.

2. A Neighborhood site, the maximum height for that portion is no more than 3 STORIES.

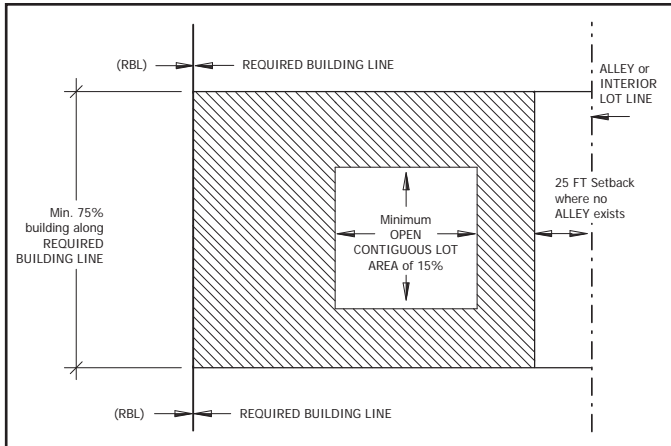
3. An existing single-family lot, the maximum height for that portion is 32 feet to the EAVES or PARAPET, and no more than 3 STORIES.

12A - Columbia Pike Form Based Code Amendment adopted on April 16, 2011

18B - Columbia Pike Form Based Code Amendment adopted on November 15, 2014

B. BUILDING ENVELOPE STANDARDS: MAIN STREET SITES

2. Siting Specifications



STREET Facade

1. The STREET facade shall be built to not less than 75 percent of the overall RBL. However, the GROUND FLOOR portions of the STREET facade within 7 feet of a BLOCK CORNER are exempt from this requirement in order to allow special corner treatments in these areas.
2. The STREET facade shall be composed as a simple plane (limited jogs less than 24 inches are considered a simple plane within this requirement) interrupted only by PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES.^{11C}

BUILDABLE AREA

Buildings shall occupy only the area of the LOT specified in the siting specifications of the BUILDING ENVELOPE STANDARDS as BUILDABLE AREA. No part of any building excepting overhanging EAVES and BES permitted BALCONIES, BAY WINDOWS, STOOPS, and shop fronts shall encroach into the STREET beyond the RBL. No part of any building (excepting overhanging EAVES, BALCONIES, STOOPS, and small and unroofed garden structures) shall occupy the remaining LOT area. The minimum OPEN CONTIGUOUS LOT AREA shall comprise at least 15% of the total BUILDABLE AREA of the site.

Side Lot Line

There are no required side LOT line setbacks unless shared with an existing single family house where an 8-foot setback is required.

Garage and Parking Entrances

1. Garage/parking entrances shall be no closer than 50 feet from any BUILDING CORNER or 100 feet from any BLOCK CORNER (except where otherwise designated on the REGULATING PLAN).
2. Designated GARAGE ENTRIES and ALLIES shall be the sole means of automobile access to a site.
3. Garage doors shall not face (be at an angle of less than 90 degrees from the RBL or right of way) the RBL. Vehicle parking areas (except where a STREET WALL exists or parking is enclosed within an ancillary building) on private property shall not be located within 25 feet of the RBL. These requirements are not applicable to on-STREET parallel parking.

ALLEYS

On sites with no ALLEY access, there shall be a 25-foot setback from the rear LOT line.

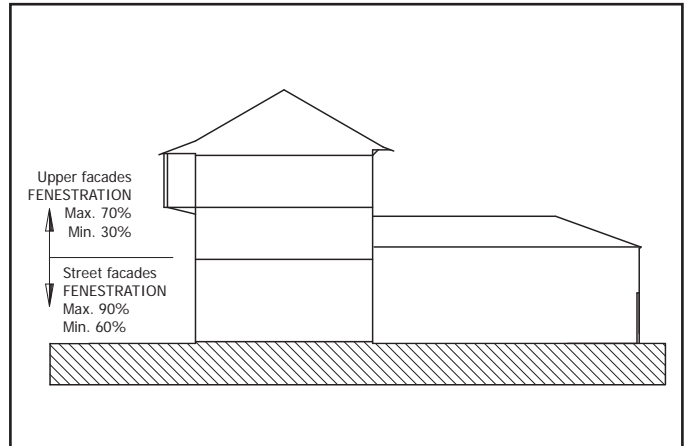
Corner LOTS

Corner LOTS shall be treated as having STREET FRONTAGE on both the front and side STREETS (or RBLs).

Unbuilt RBL and COMMON LOT LINE Treatment

Any unbuilt RBL shall have a STREET WALL along it, between 6 feet and 10 feet in height. STREET WALLS may also be constructed along any unbuilt COMMON LOT LINE.

3. Elements Specifications



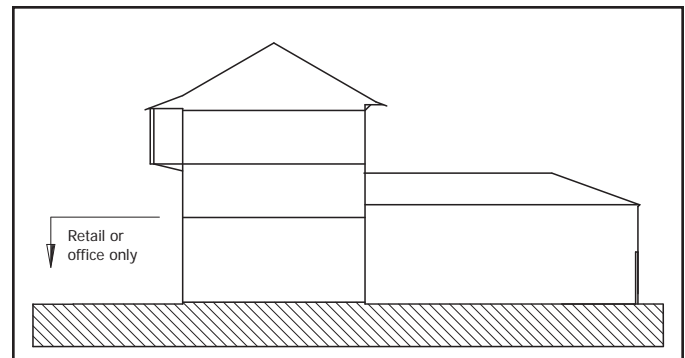
GROUND STORY-FENESTRATION

The GROUND STORY facade shall have between 60 percent and 90 percent FENESTRATION (measured as a percentage of the facade that is between 2 and 10 feet above the fronting sidewalk). AWNINGS and overhangs are encouraged (except where otherwise designated on the REGULATING PLAN).

Upper STORIES-FENESTRATION

Upper STORY facades shall have between 30 percent and 70 percent FENESTRATION (measured for each STORY as a percentage of the facade that is between 3 and 9 feet above the finished floor).

4. Use Specifications



GROUND STORY

1. The GROUND STORY shall house uses as provided in Table 3.1 as well as lobby and access for upper STORY uses.
2. There shall be functioning entry door(s) along the STREET facade at intervals not greater than 60 feet within any site. Provided, however, the County Board may modify the interval between functioning entry doors for civic uses identified in Table 3.1, subject to approval of a use permit as provided in ACZO 15.4, where it finds that the proposed modifications can be retrofitted to meet standard requirements when the subject use is discontinued and are otherwise consistent with the intent of the Form Based Code.^{20C}

Upper STORIES

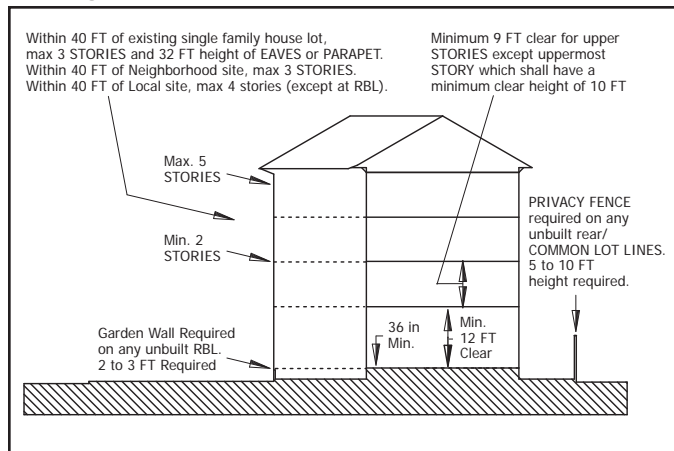
Uses identified in Table 3.1 are not permitted on the upper STORIES, except those of less than 900 square feet, restaurants of any size, and second STORIES as continuation of the GROUND STORY use that have direct Columbia Pike frontage. Otherwise, UPPER STORIES shall house residential, office, or hotel uses, or some combination thereof.^{20C}

11C - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

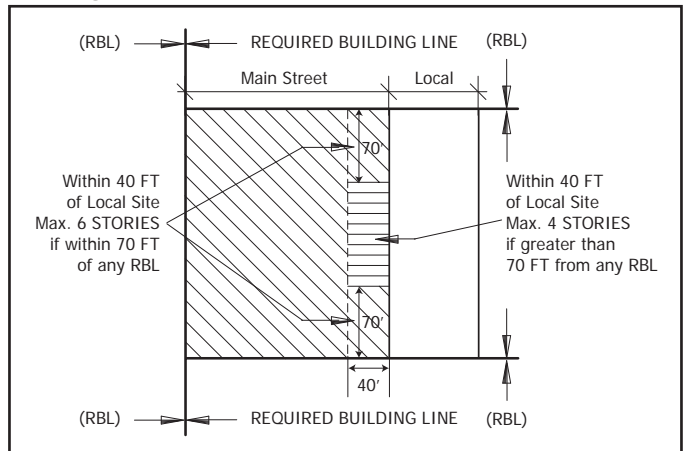
20C - Columbia Pike Form Based Code Amendment adopted on December 12, 2015

C. BUILDING ENVELOPE STANDARDS: AVENUE SITES

1. Height Specifications



1. Height Specifications (continued) ^{12B}



Building Height

1. Principal building height is measured in STORIES.
2. Buildings shall be between 2 and 5 STORIES in height, except where otherwise noted here or in the REGULATING PLAN.

Parking Structure Height

No parking structure within the BLOCK shall exceed the EAVE height of any building (built after 2002) within 50 feet of the parking structure.

GROUND STORY Height

1. The GROUND STORY finished floor elevation of any residential unit shall be no less than 36 inches above the fronting sidewalk.
2. The maximum floor-to-floor STORY HEIGHT limit for the GROUND FLOOR STORY is 24 feet.
3. No less than 80 percent of the GROUND FLOOR STORY shall have at least 12 feet in clear height.

Upper STORIES Height

1. The maximum floor-to-floor STORY HEIGHT limit for STORIES is 14 feet.
2. At least 80 percent of the upper STORIES shall each have at least an 8 foot 10 inch clear (floor to ceiling) height and a minimum 10 feet clear height for the uppermost STORY. ^{18B}

Mezzanines

Mezzanines greater than 1/3 of the floor area footprint shall be counted as full STORY.

Other ^{12B}

Notwithstanding the provisions in Section III.A.6.1, except where a lower height is required by the Regulating Plan, where any portion of a Main street site is within 40 feet of:

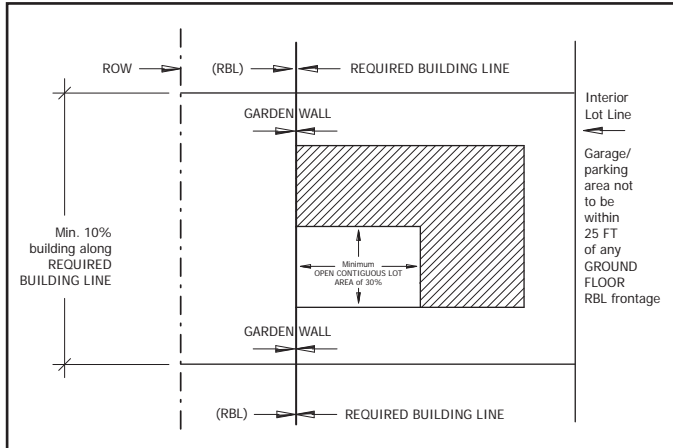
1. A Local or LIVE-WORK site (excluding LIVE-WORK* sites), the maximum height for that portion is no more than 4 STORIES, unless that portion is also no more than 70 feet from an RBL, in which case the maximum height is no more than 5 STORIES.
2. A Neighborhood site, the maximum height for that portion is no more than 3 STORIES.
3. An existing single-family lot, the maximum height for that portion is 32 feet to the EAVES or PARAPET, and no more than 3 STORIES.

12B - Columbia Pike Form Based Code Amendment adopted on April 16, 2011

18B - Columbia Pike Form Based Code Amendment adopted on November 15, 2014

C. BUILDING ENVELOPE STANDARDS: AVENUE SITES

2. Siting Specifications



STREET Facade

1. The STREET facade shall be built to the RBL not less than 10 percent of the overall RBL.
2. That portion of a facade that is required to be built to the RBL shall be composed as a simple plane (limited jogs less than 18 inches are considered a simple plane within this requirement) interrupted only by PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES. ^{11D}

BUILDABLE AREA

Buildings shall occupy only the area of the LOT specified in the siting specifications of the BUILDING ENVELOPE STANDARDS as BUILDABLE AREA. No part of any building excepting overhanging EAVES and BES permitted BALCONIES, BAY WINDOWS, STOOPS, and shop fronts shall encroach into the STREET beyond the RBL. No part of any building (excepting overhanging EAVES, BALCONIES, STOOPS, and small and unroofed garden structures) shall occupy the remaining LOT area. The minimum OPEN CONTIGUOUS LOT AREA shall comprise at least 30 percent of the total BUILDABLE AREA and can be located anywhere within the BUILDABLE AREA of the site.

Side Lot Line

There are no required side LOT line setbacks unless shared with an existing single family house where an 8-foot setback is required.

Garage and Parking Entrances

1. Any garage and/or parking areas for vehicles (autos, trailers, boats, etc.)-except where parking is located in an ancillary structure, enclosed in a rear-loading town-house garage, or in a below grade garage-on private property shall not be located within 25 feet from any RBL and shall be screened from the STREET by a STREET WALL.
2. Parking access shall be from an alley where present. Designated GARAGE ENTRIES and Alleys shall be the sole means of automobile access to a site unless otherwise approved by the Zoning Administrator with a recommendation from the ADMINISTRATIVE REVIEW TEAM.
3. Garage doors shall not face (be at an angle of less than 90 degrees from the RBL or right of way) the RBL.
4. These requirements are not applicable to on-street parallel parking.

ALLEYS

On sites with no ALLEY access, there shall be a 25-foot setback from the rear LOT line.

CORNER LOTS

CORNER LOTS shall be treated as having STREET FRONTAGE on both the front and side streets (or RBLs).

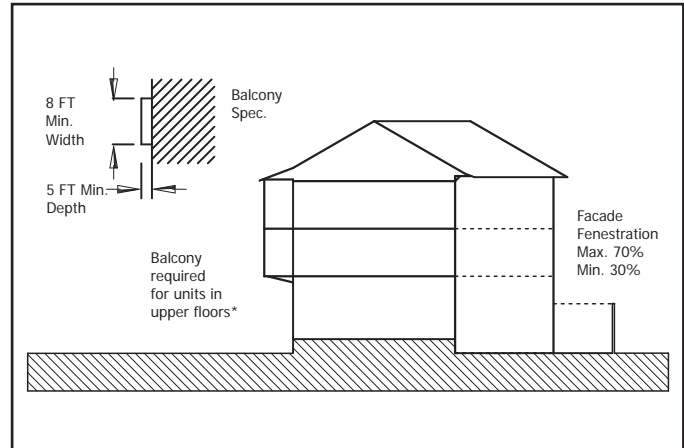
Unbuilt RBL, Rear, and/or COMMON LOT LINE Treatment

Any unbuilt RBL shall have a GARDEN WALL along it, between 2 feet and 3 feet in height. Any unbuilt rear or COMMON LOT LINE that is located more than 15 feet behind the RBL may have a PRIVACY FENCE along it that is 7 feet in height.

Other

The BUILDING ENVELOPE STANDARDS for Local Sites may be utilized on AVENUE SITES

3. Elements Specifications



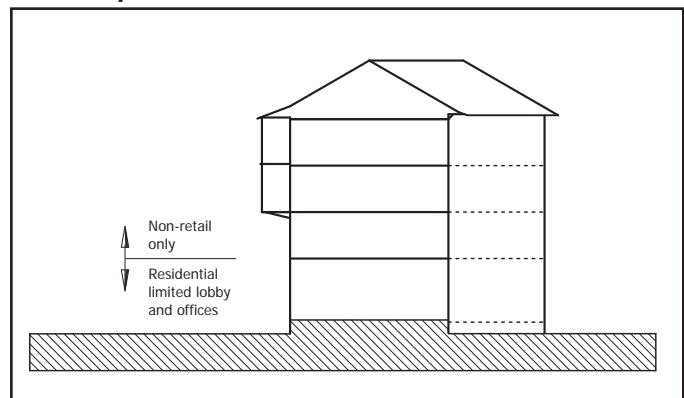
FENESTRATION

FENESTRATION shall be between 30 percent and 70 percent of all RBL building facades (when measured as a percentage of the area of each facade and STORY between 3 and 9 feet above the finished floor). Blank lengths of wall along any RBL facade of more than 20 linear feet are prohibited.

BALCONIES

When provided, BALCONIES are required to be a minimum of 5 feet deep and 8 feet wide (except where the RBL is within 8 feet of a right of way).

4. Use Specifications



GROUND STORY

A GROUND STORY may include residential uses and have small professional office, building lobby, or building manager's/maintenance offices (each less than 1,000 square feet). Uses identified in Table 3.1 are permitted on a GROUND STORY where the underlying zoning is "C" or "CP-FBC". ^{20C}

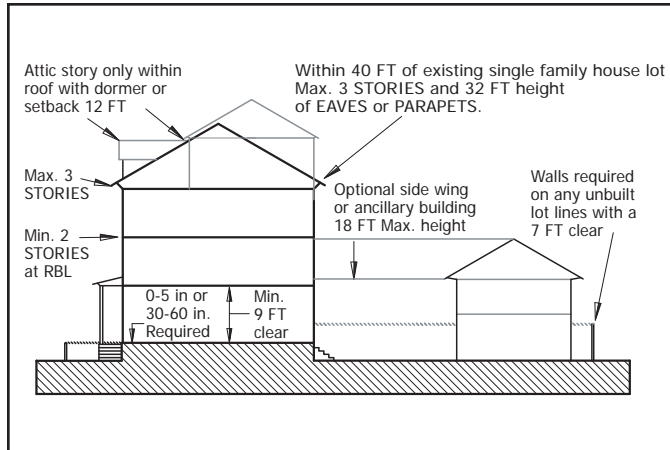
Upper STORIES

Retail uses are not permitted on the upper STORIES. However business and professional offices including medical, legal, insurance, philanthropic, real estate, banking and other offices which in the judgement of the Zoning Administrator with a recommendation from the ADMINISTRATIVE REVIEW TEAM are of the same general character as those listed above may be located on the second floor.

11D - Columbia Pike Form Based Code Amendment adopted on May 25, 2010
20C - Columbia Pike Form Based Code Amendment adopted on December 12, 2015

D. BUILDING ENVELOPE STANDARDS: LOCAL SITES

1. Height Specifications



Building Height

1. Principal building height is measured in STORIES.
2. Buildings shall be between 2 and 3 STORIES in height. Additionally, an attic STORY may be built. An attic or half STORY is any top STORY which achieves its minimum clear height between 8 and 12 feet behind the RBL. An attic or half-STORY may have DORMER windows which face the street.

GROUND STORY Height

1. The GROUND STORY finished floor elevation of each residential LOCAL STREET BUILDING shall be between 0 and 5 inches or 36 and 60 inches above the fronting sidewalk. The finished floor elevation for LIVE-WORK development shall be between 0 and 18 inches above the fronting sidewalk. ^{11E}
2. The maximum floor-to-floor STORY HEIGHT limit for the GROUND FLOOR is 14 feet.
3. The GROUND STORY shall have at least 8 foot 10 inch clear height for at least 80 percent of its area. The GROUND STORY of LIVE-WORK development shall have at least 12 feet clear height for a depth of at least 1/3 of its floor area contiguous to each frontage adjacent to an RBL. ^{11E, 18}

Upper STORIES Height

1. All STORIES shall have at least an 8 foot 10 inch clear height for at least 80 percent of their area. ^{11E, 18B}
2. The maximum floor to floor STORY HEIGHT limit for upper STORIES is 12 feet.

Mezzanines

Mezzanines greater than 2/3 of the floor area footprint shall be counted as a full STORY.

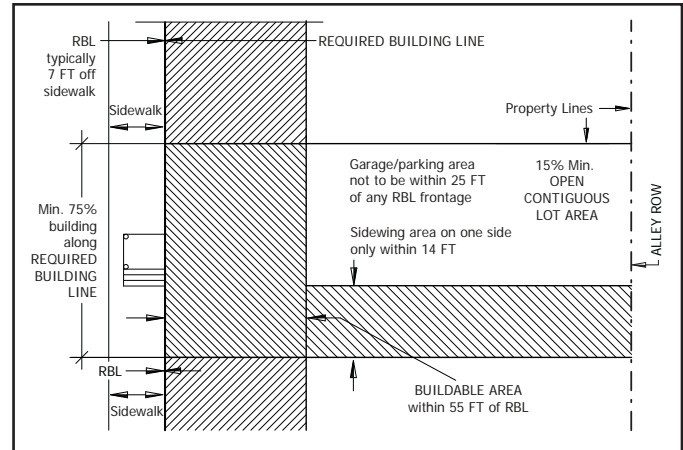
STREET WALL and fence height

1. Any unbuilt RBL shall have a STREET WALL built along it and any unbuilt COMMON LOT LINE shall have a PRIVACY FENCE along it, 7 feet in height.
2. STREET WALL heights are measured relative to the adjacent sidewalk or ground elevation when not fronting a sidewalk.

Other ^{12C}

Notwithstanding the provisions in Section III.A.6.1, where any portion of a Local site is within 40 feet of an existing single-family house lot, the maximum height for that portion is 32 feet and no more than 3 STORIES to the EAVES or PARAPET.

2. Siting Specifications



STREET Facade

1. The STREET facade shall be built-to not less than 75 percent of the overall RBL. However, at the GROUND FLOOR, portions of the STREET facade within 7 feet of a BLOCK CORNER are exempt from this requirement in order to allow special corner treatments in these areas.
2. That portion of a facade that is required to be built to the RBL shall be composed as a simple plane (limited jogs less than 18 inches are considered a simple plane within this requirement) interrupted only by PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES. ^{11E}

BUILDABLE AREA

Buildings shall occupy only the area of the LOT specified on the REGULATING PLAN as BUILDABLE AREA. No part of any building excepting overhanging EAVES and BES permitted BALCONIES, BAY WINDOWS, STOOPS, and shop fronts shall encroach into the STREET beyond the RBL. No part of any building (excepting overhanging EAVES, BALCONIES, STOOPS, and small and unroofed garden structures) shall occupy the remaining LOT area. The minimum OPEN CONTIGUOUS LOT AREA shall comprise at least 15 percent of the total BUILDABLE AREA and can be located anywhere within the BUILDABLE AREA of the site.

Side Lot Line

There are no required side LOT line setbacks unless shared with an existing single family house where an 8-foot setback is required.

Garage and Parking Entrances

1. Any garage and/or vehicle (autos, trailers, boats, etc.) parking areas - except where parking is located in an ancillary structure, enclosed in a rear-loading town-house garage, or in a below grade garage - on private property shall not be located within 25 feet from any RBL (except for basement garages) and screened from the STREET by a STREET WALL.
2. Parking access shall be from an ALLEY where present. Designated GARAGE ENTRIES and ALLEYS shall be the sole means of automobile access to a site unless otherwise approved by the ADMINISTRATIVE REVIEW TEAM.
3. Garage doors shall not face (be at an angle of less than 90 degrees from the RBL or right of way) the RBL.
4. These requirements are not applicable to on-STREET parallel parking.

ALLEYS

On sites with no ALLEY access, there shall be a 12 foot setback from the rear LOT line.

Corner LOTS

Corner LOTS shall be treated as having STREET FRONTAGE on both the front and side STREETS (or RBLs).

Lot/Dwelling Unit Width

The LOT/dwelling unit width shall be between 16 feet and 32 feet. No more than 1/3 of the LOCAL STREET BUILDINGS within a development proposal shall be less than 18 feet wide. A maximum of 7 LOCAL STREET

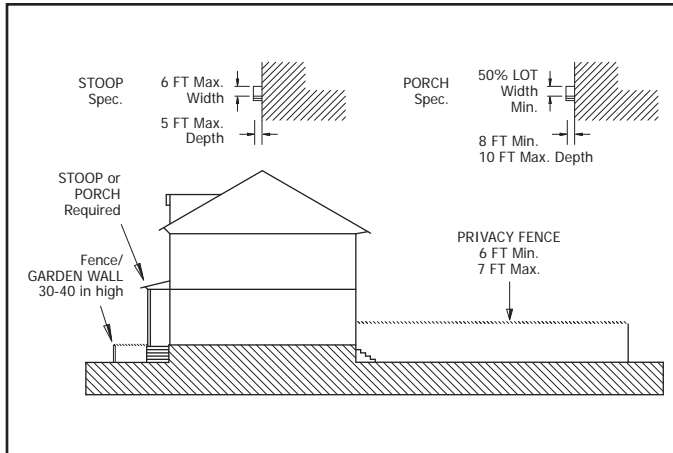
^{11E} - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

^{12C} - Columbia Pike Form Based Code Amendment adopted on April 16, 2011

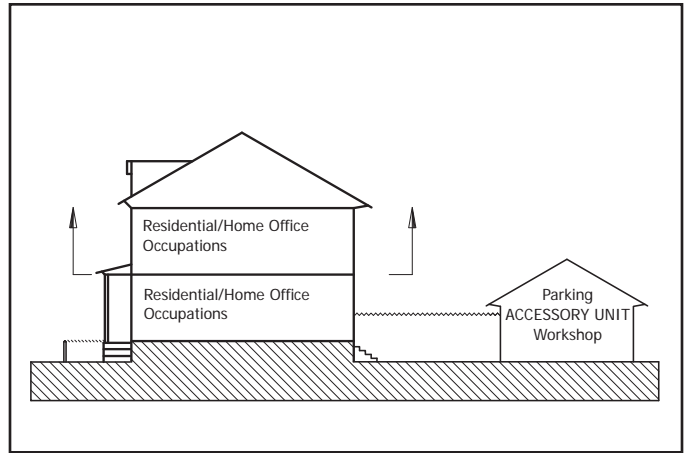
^{18B} - Columbia Pike Form Based Code Amendment adopted on November 15, 2014

D. BUILDING ENVELOPE STANDARDS: LOCAL SITES

3. Elements Specifications



4. Use Specifications



STOOPS

1. Each LOCAL STREET BUILDING shall include either no more than one STOOP of not more than 5 feet deep and 6 feet wide (plus steps) which is required to be built forward of the (RBL); or no more than one front PORCH, between 8 feet and 10 feet deep with a width not less than 50 percent of the RBL with the building facade placed an additional 2 feet back from the STREET/RBL. Provided, however, that when the finished floor elevation of the GROUND STORY is between 0 to 5 inches above the grade of the fronting sidewalk, a STOOP is not required, and at least 2 feet of the shy zone (the area adjacent to the building face, at least 2 feet in width) shall be distinguished from the sidewalk by a change in material, color, finish or landscaping when a PORCH is not provided.

2. No more than two entries per STOOP, PORCH or shy zone treatment as described above in STOOPS (1.) shall be permitted and the STOOP, PORCH or shy zone treatment as described above in STOOPS (1.) may provide access to a VESTIBULE. In addition, any LOCAL STREET BUILDING may include an entry on the RBL side of the building into an ENGLISH BASEMENT. No entries are permitted below the GROUND STORY on the RBL side of LOCAL STREET BUILDINGS with a GROUND STORY finished floor elevation of 0 to 5 inches above the fronting sidewalk.

Fences/GARDEN WALLS

A fence or GARDEN WALL, 30-40 inches in height, is permitted along the STREET FRONTAGE and along the COMMON LOT LINES of the front yard. Opaque ornamental fencing (not including chain link or any other roll type of fencing), between 6 and 7 feet in height may be placed along any unbuilt rear and COMMON LOT LINES.

FENESTRATION

FENESTRATION shall be between 30 percent and 70 percent of all RBL building facades (when measured as a percentage of the area of each facade and STORY between 3 and 8 feet above the finished floor). Blank lengths of wall along any RBL facade of more than 15 linear feet are prohibited.

GROUND STORY

A LOCAL FLOOR may have residential and home office uses. Where a site is designated LIVE-WORK, the GROUND FLOOR may additionally have small professional office, building lobby, building manager's office, ancillary retail grocery, and cafe uses (each less than 1,200 sf).

Upper STORIES

Upper STORIES shall be exclusively for residential and home occupations, as defined by the County. Where a site is designated LIVE-WORK on the REGULATING PLAN, the second STORY may include small professional office uses.

LOCAL STREET BUILDINGS ^{11E}

A LOCAL STREET BUILDING may include up to two dwelling units and an ENGLISH BASEMENT, provided that no stairway or corridor, except a VESTIBULE, shall serve as common access for multiple dwelling units.

ACCESSORY UNITS

1. Either one ENGLISH BASEMENT or one ACCESSORY UNIT is permitted, except that an ENGLISH BASEMENT is not permitted where the GROUND STORY finished floor elevation is less than 36 inches above the fronting sidewalk. ^{11E}

2. Parking and ACCESSORY UNIT (maximum 650 sf) uses are permitted in the building area at the rear of the LOT.

Garage/Parking

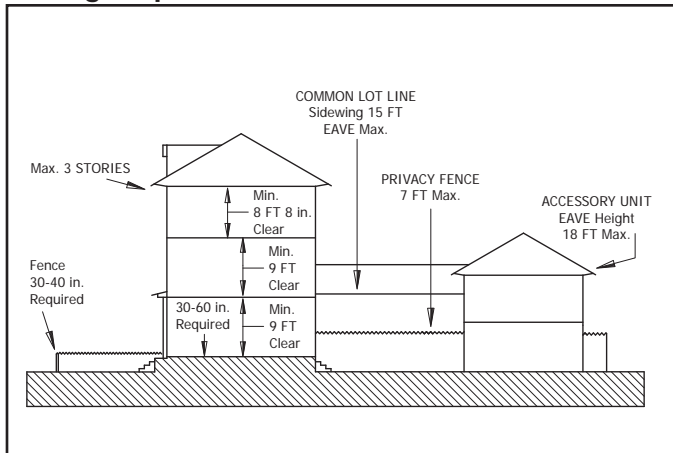
The garage/parking for vehicles (autos, trailers, boats, etc.) shall be located at least 25 feet away from any RBL (excepting basement garages).

The following requirements apply only to LIVE-WORK Designated Sites

1. There is no requirement for a STOOP, PORCH or shy zone treatment as described above in STOOPS (1.). ^{11E}
2. There is no front yard fence requirement.
3. The GROUND STORY finished floor elevation shall be between 0 and 18 inches above the adjacent sidewalk elevation and the GROUND STORY shall have a clear height of between 12 and 19 feet.

E. BUILDING ENVELOPE STANDARDS: NEIGHBORHOOD SITES

1. Height Specifications



Building Height

1. Principal building height is measured in STORIES.
2. The building shall be no more than 3 STORIES in height.
3. No accessory building shall be more than 18 feet to its EAVES.

GROUND FLOOR and Second STORY Height

1. The GROUND FLOOR finished elevation shall be between 30 and 69 inches above the average RBL elevation. ^{11F}
2. The maximum floor-to-floor STORY HEIGHT limit for the GROUND FLOOR STORY is 14 feet.
3. The GROUND FLOOR STORY and second STORIES shall have at least an 8 foot 10 inch clear height for at least 80 percent of the area of the particular STORY. ^{11F, 18B}

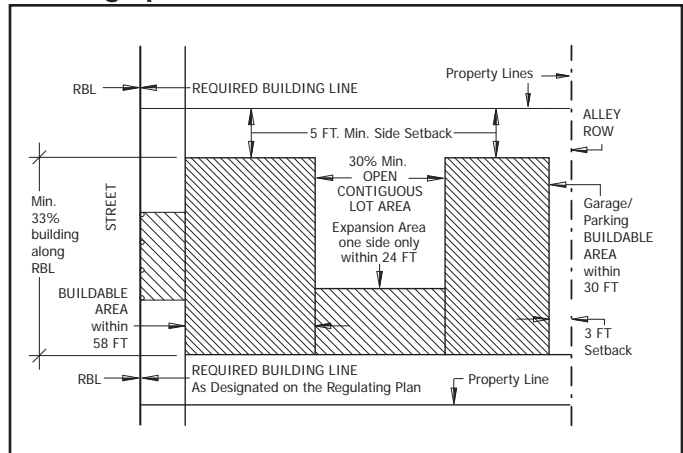
Upper STORIES Height

1. The maximum floor-to-floor STORY HEIGHT for upper STORIES is 10 feet.
2. Each STORY above the second STORY shall have at least 8 feet 8 inches in clear height for at least 80 percent of its area.

Mezzanines

Mezzanines greater than 2/3 of the floor area footprint shall be counted as full STORIES.

2. Siting Specifications



STREET Facade

1. The STREET facade shall be built to the RBL not less than 33 percent of the overall RBL.
2. That portion of a facade that is required to be built to the RBL shall be composed as a simple plane (limited jogs less than 18 inches are considered a simple plane within this requirement) interrupted only by PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES. ^{11F}

BUILDABLE AREA

Buildings shall occupy only the area of the LOT specified on the REGULATING PLAN as BUILDABLE AREA. No part of any building excepting overhanging EAVES and BES permitted BALCONIES, BAY WINDOWS, and STOOPS, shall encroach into the STREET beyond the RBL. No part of any building (excepting overhanging EAVES, BALCONIES, STOOPS, and small and unroofed garden structures) shall occupy the remaining LOT area. The minimum OPEN CONTIGUOUS LOT AREA shall comprise at least 30 percent of the total BUILDABLE AREA and can be located anywhere within the BUILDABLE AREA of the site.

Side LOT Line

The minimum side setback is 5 feet.

Garage and Parking Entrances

1. Designated GARAGE ENTRIES shall be the sole means of automobile access to a site, unless otherwise approved by the County.
2. Garage doors shall not face (be at an angle of less than 90 degrees from the RBL or street) the RBL. Vehicle parking areas (except where a STREET WALL exists or parking is enclosed within an ancillary building) on private property shall not be located within 25 feet of the RBL. These prohibitions are not applicable to on-STREET parallel parking.
3. Any garage or parking for vehicles (autos, trailers, boats, etc.) shall be kept within the area designated on the SITING SPECIFICATIONS diagram. Garage doors shall not face (be at an angle of less than 90 degrees from the RBL or right of way) the RBL.

ALLEYS

Where there is no ALLEY at the rear LOT line, there shall be a 12-foot setback.

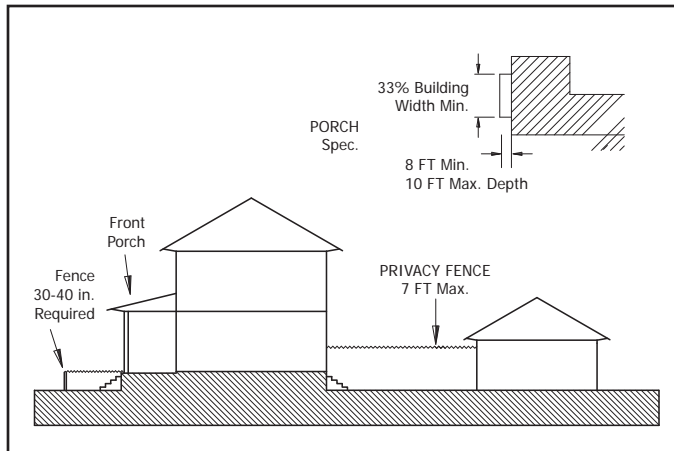
Corner LOTS

Corner LOTS shall be treated as having STREET FRONTAGE on both the front and side STREETS (or RBLs).

11F - Columbia Pike Form Based Code Amendment adopted on May 25, 2010
18B - Columbia Pike Form Based Code Amendment adopted on November 15, 2014

E. BUILDING ENVELOPE STANDARDS: NEIGHBORHOOD SITES

3. Elements Specifications



Fences

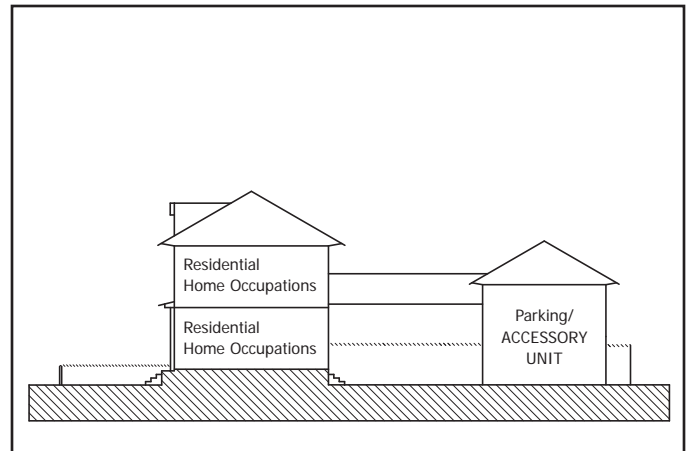
1. An ornamental front yard fence (not to be chain link or any other type of rolled fencing), 30 to 40 inches in height, is required along the STREET frontage and COMMON LOT LINES to at least 10 feet beyond the REQUIRED BUILDING LINE (RBL).

2. A PRIVACY FENCE 7 feet in height, may run the remainder of the rear and COMMON LOT LINES (except within the front yard area which shall have a fence as designated above).

Front Porch

A front porch, between 8 feet and 10 feet deep with a width equal to no less than 33 percent of the total building width, is required along and in front of the RBL. For designated LOTS (see the REGULATING PLAN) the front porch is optional.

4. Use Specifications



1. Within the primary building, permitted uses include: Home occupations as defined in the Zoning Ordinance (by-right with these exceptions: maximum 2 nonresident employees within the primary structure and/or maximum 1 nonresident employee within 1 accessory structure, for each LOT).

2. Either ENGLISH BASEMENT unit or one ACCESSORY UNIT is permitted. Conversion of primary structure single-family units for multiple family uses is prohibited. ^{11F}

3. Parking and ACCESSORY UNIT (maximum 650 square feet) uses are permitted in the building area at the rear of the LOT.

Note:

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V. Streetscape Standards

The Columbia Pike Special Revitalization District sites are coded to be “perimeter BLOCKS” with buildings placed at the STREET along the outer edge of their sites. The Streetscape Standards ensure the coherence of those STREETS. They also serve to assist building owners and operators with understanding the relationship between the STREET and their own LOTS. These standards also establish an environment that encourages and facilitates pedestrian activity. Native trees and plants contribute to privacy, noise reduction, maintenance of the natural habitat, and conservation of water. Furthermore, they require less maintenance than imported or exotic species.

A. General Principles and Intent

1. The Streetscape

- The STREET and building façade receives more attention than the rest of the building.
- STREETScape elements, such as brick pavers, benches and waste-bins, throughout the Columbia Pike Special Revitalization District must be consistent within a project and should be consistent from project to project within an activity node (i.e. Town Center).
- STREET TREES are part of an overall STREETScape plan designed to give special character to each STREET and coherence to each area. The desired aesthetic shall be achieved through the use of native/proven, hardy, adapted species where reasonable.
- PUBLIC ART shall be provided in accordance with the Arlington County PUBLIC ART policy and the *Public Art Master Plan*.

2. Fronts and Rears

- Building facades are the public "face" of every building. Owners are encouraged to place planters and window boxes with flowering plants and/or climbing vines along the area in front of their buildings within the “shy zone”, which is the area on the sidewalk within 2 feet of the building face.
- The private, rear portions of the LOTS (toward the ALLEY) allow commercial operators to utilize these spaces as efficient working environments unseen by the public and allow residents to have private and semi-private (for apartment and condominium buildings) open space.

B. Minimum Standards

1. The Streetscape

- Each STREET shall have canopy shade trees (STREET TREES). Wherever the REGULATING PLAN does not show specific STREET TREE placement, STREET TREES shall be planted along the STREET TREE ALIGNMENT LINE at an average spacing between 25 to 30 feet on center (measured per BLOCK face). Required tree planting area widths are specified on the typical street cross sections in the *Master Transportation Plan – Part I*. However, open soil surface area shall be not less than 60 square feet per isolated tree, and connected (tree strip) planting areas are encouraged. The planting area's minimum dimension shall be 5 feet or as indicated in Arlington County Landscape Standards, Section II.B. Tree Pit Size/Planting Strip Size. At planting, trees shall be at least 3.5 inches in diameter (4 feet above grade). Species shall be selected from the Columbia Pike Special Revitalization District Street Tree List. Consult the ADMINISTRATIVE REVIEW TEAM for the designated tree species for a particular STREET. ^{16C}
- Any unpaved ground area fronting the LOTS (to the curb) shall be planted with groundcover or flowering vegetation.
- STREET TREES shall be "limbed up" so as to not interfere with pedestrian or auto/truck travel (minimum 7 feet clear over the sidewalk and 14 feet over the travel lanes of the STREET).
- Low metal fencing or railing that is attractive and durable shall be installed around STREET TREE pit areas to prevent pedestrian damage to planting materials. Consistency of fencing design is required within a project and within a BLOCK face. (Tree fencing shall not be required in locations where the clear sidewalk area is less than 6 feet in width.)



2. Backs

- On LOCAL and NEIGHBORHOOD sites only, at least 1 canopy shade tree per 550 square feet of the required open (unpaved) area shall be planted in the rear LOT area and no closer than 5 feet to any COMMON LOT LINE. (See the Siting Requirement under the BUILDING ENVELOPE STANDARDS). Such trees shall be at least 3.5 inches caliper (4 feet above grade). Species shall be selected from the Columbia Pike Special Revitalization District Street Tree List. ^{16C}

16C - Columbia Pike Form Based Code Amendment adopted on January 26, 2013

3. Sidewalks

- Sidewalks not otherwise designated on the typical street cross sections in the *Master Transportation Plan – Part I*, are a minimum of 5 feet wide and shall be constructed to meet all County specifications.
- Where an area is unpaved, owners may place pavers and/or stepping stone walks between the curb and the sidewalk and between the sidewalk and entry/steps. Within the STREET the width of such walkways shall not exceed 6 feet and walkways shall not be located less than 8 feet from any STREET TREE.
- Sidewalks along Columbia Pike are to have 3 distinct zones; the shy zone (at least 2 feet in width), the clear zone (no less than 6 feet in width), and the furniture zone (up to 6 feet in width).
- The clear zone shall be constructed entirely of plain poured concrete. A variety of paving materials, textures and colors are encouraged in the shy and furniture zones. Consistency of paving design is required within a project and within each activity node.

4. Turf and Groundcover (WHERE VISIBLE FROM THE STREET and along the ALLEY)

- All turf grass must be solidly sodded at installation—not seeded, sprigged, or plugged (consult the ADMINISTRATIVE REVIEW TEAM).
- Groundcovers may be used in place of turf grass.
- In addition to the LOT, the owner must maintain the following areas:
 - The portion of the STREET between their LOT line(s) and the back of the curb.
 - The portion of the ALLEY between the LOT line(s) and the edge of pavement.

5. On-street Parking

- On-street parking nubs shall be incorporated into the sidewalk in a pattern consistent with the *Master Transportation Plan*.
 - The parking space/tree planting pattern may be interrupted by existing or proposed new driveways, STREETS, ALLEYS, and transit stops/stations.
 - Parking spaces shall be constructed in a manner that allows proper drainage (toward a valley gutter at the curb line)
 - Parking spaces shall be constructed according to County standards to ensure accessibility for street cleaning vehicles.

6. Street Furniture

- Benches - Benches shall have backs and arm rests.
 - Benches in the Columbia Pike corridor shall be the Victor Stanley "Streetsites" model # R-B 28 or equivalent.
 - Benches located in the furniture zone, and oriented perpendicular to the street, shall be 4 feet in length. Benches located in the furniture zone but not perpendicular to the STREET may be longer so long as their length does not conflict with the placement of other streetscape elements or obstruct necessary pedestrian movement.
 - Bench ratios provided below shall be used to calculate only the total number of required benches and may not necessarily determine the bench locations.
 - Where present, the amount of frontage dedicated to transit stops, as determined by the Department of Environmental Services (or its successor agency), may be subtracted from the overall building frontage when calculating the total number of required benches.
 - For each MAIN STREET or AVENUE site, one bench shall be provided for every 50 feet of STREET FRONTAGE.
 - For each LOCAL site that is built to a LIVE/WORK standard, one bench shall be provided for every 100 feet of STREET FRONTAGE. Local sites that are not built to a LIVE/WORK standard and Neighborhood sites are exempt from the bench requirement.
- Waste Bins - The standard waste bin for the Columbia Pike corridor is the Victor Stanley "Bethesda Series" model # S-42 or equivalent. At a minimum, one waste bin shall be provided at each BLOCK CORNER or BUILDING CORNER.
- Bike Racks – Bike racks (2-space capacity) for the Columbia Pike corridor shall be an inverted "U" in galvanized steel with a baked-on black paint finish.
 - Bike Racks (2-space capacity) shall be installed on both sides of the STREET, along the STREET TREE ALIGNMENT LINE or within the furniture zone (not to interfere with the placement of STREET TREE or STREET LIGHTS). At the time of the development, the developer is only responsible for the installation of bicycle racks on the side(s) of the STREET being developed.
 - Where feasible and not in conflict with other STREETScape elements, at least 50% of visitor/guest bike racks shall be located within 50 feet of the primary residential/office building entrance and shall be located in groups of two or more. In all other locations, bike racks shall be distributed within a project either as a single rack or in groups of two. ^{8C}
- Placement and model/type of all street furniture and fixtures, if different than the current standard, will be reviewed by the ADMINISTRATIVE REVIEW TEAM.

7. GENERAL NOTES ^{16C}

- All plant material (including trees) shall conform to the standards of the American Association of Nurserymen and shall have passed any inspections required under State regulations.
- Invasive exotic species found anywhere on the LOT shall be removed.
- Mechanical and electrical equipment including, but not limited to, air compressors, pumps, exterior water heaters, water softeners, private garbage cans (not including public sidewalk waste bins), and storage tanks may not be stored or located within any STREET. (Water pumps not visible are not included in this prohibition.)

8C - Columbia Pike Form Based Code Amendment adopted on January 23, 2010

16C - Columbia Pike Form Based Code Amendment adopted on January 26, 2013

C. Squares and Civic Greens

In addition to the above landscape requirements, SQUARES and CIVIC GREENS located within the Columbia Pike Special Revitalization District shall be designed, planted and maintained according to the following requirements.

SQUARES are generally active pedestrian centers. They should be designed appropriate to their high (pedestrian) traffic level with a higher percentage of paved surface area, underneath the canopy of shade trees. CIVIC GREENS are spaces intended for less intensive foot traffic. Pervious paving materials are encouraged in both SQUARES and CIVIC GREENS, and the percentage of impervious paving material shall be limited. The green plants and trees of SQUARES and CIVIC GREENS provide a landscape and civic architecture that complements the surrounding building architecture. A clear view through the public space is important for safety and urban design purposes.

1. Squares

- Surface treatment and materials (within the area back-of-curb to back-of-curb excluding any CIVIC BUILDING, PUBLIC ART or monument footprint).
 1. Minimum 30 percent pervious surface area (turf, groundcover, soil or mulch).
 2. The remaining balance may be any paved surface including a maximum 30 percent impervious paved surface.
 3. A PUBLIC ART project (as defined herein or in Arlington County PUBLIC ART policy) is required in these locations.
 4. Paved surfaces, including the cartway (where motorized vehicles travel), shall have a coordinated, distinctive pattern that calls attention to the pedestrian nature of the area.

2. Civic Greens

- Surface treatment and materials (within the area back-of-curb to back-of-curb excluding any CIVIC BUILDING, PUBLIC ART or monument footprint).
 1. Minimum 60 percent pervious surface area (turf, groundcover, soil or mulch).
 2. The remaining balance may be any paved surface including a maximum 30 percent impervious paved surface.
 3. A PUBLIC ART project (as defined herein or in Arlington County PUBLIC ART policy) is required in these locations.
 4. Paved surfaces, including the cartway, shall have a coordinated, distinctive pattern that calls attention to the pedestrian nature of the area.

3. Materials and Configurations

- Wherever the REGULATING PLAN does not show specific STREET TREE placement, STREET TREES shall be planted along the STREET TREE ALIGNMENT LINE at an average spacing not greater than 25 to 30 feet on center.

- The ground surface level elevation shall be between 0 and 18 inches above the top of the adjacent curb.
- Except for tree trunks, STREET LIGHTS, CIVIC BUILDINGS, PUBLIC ART or monuments, there shall be a clear view between 2 and 10 feet above grade. The foliage of newly planted trees may intrude into this area until the tree has sufficient growth to allow such a clear trunk height.
- Trees shall be selected from the Columbia Pike Special Revitalization District Street Tree List.
- Asphalt is prohibited on sidewalks, but may be incorporated in cartway design.
- Curb return radii on all BLOCK CORNERS shall be 15 feet, where possible.

D. Columbia Pike Special Revitalization District Street Tree List

The following list contains all species approved for use in the Columbia Pike Special Revitalization District. It contains native and acceptable adapted species. Other species may be used for planting within a LOT. Invasive exotic species may not be used anywhere on LOTS or other areas within the Columbia Pike Special Revitalization District. Species in bold type are specified (first preference) for placement along the STREET TREE ALIGNMENT LINE, as specified in the REGULATING PLAN. Species marked with an asterisk shall be used in limited areas such as larger open landscaped areas, rather than for street tree use. At the recommendation of the ADMINISTRATIVE REVIEW TEAM in coordination with the County’s urban forester, modifications to this list may be made at a future date.

**Columbia Pike Special Revitalization District
STREET TREE LIST**

- | | |
|---|---|
| <ul style="list-style-type: none"> ▪ Acer rubrum ▪ Celtis laevigata ▪ Ginko Biloba ▪ Gleditsia triacanthos inermis ▪ Gymnocladus dioicus
 ▪ Liquidambar styraciflua ▪ Nyssa sylvatica ▪ Platanus x acerifolia ▪ Platanus occidentalis ▪ Quercus phellos ▪ Quercus rubra ▪ Quercus velutina ▪ Taxodium disticum ▪ Tilia americana ▪ Tilia tomentosa ▪ Ulmus americana ▪ Ulmus parvifolia ▪ Zelkova serrata | <p>Red Maple (Town and Village Centers)</p> <ul style="list-style-type: none"> Sugar Hackberry * Ginko (male only) Thornless Honey Locust * Kentucky Coffeetree ‘Stately Manor’ or ‘Espresso’ (male only) Sweetgum * Tupelo Black Gum *
 London Planetree (Neighborhood Center) Sycamore
 Willow Oak (Western Gateway) Red Oak * Black Oak Bald Cypress American Basswood (American Linden) * Silver Linden American Elm (Valley Forge) Lacebark Elm Japanese Zelkova |
|---|---|

Note:

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VI. Architectural Standards

Buildings must be reviewed by the ADMINISTRATIVE REVIEW TEAM. The ADMINISTRATIVE REVIEW TEAM will also work with the developer and/or designer to show them how the Form Based Code will satisfy their site needs and other requirements.

A. General Principles and Intent

1. Tradition

- These standards favor an aesthetic that is traditional in a broad sense. They specify an architecture language of load-bearing walls and regional materials. The standards also specify certain details, such as column and pier spacing, window proportions, roof or cornice configurations, storefronts, and overhangs.
- The intent behind these standards is to utilize a discipline of form when designing new buildings in order to foster a coherent Columbia Pike aesthetic.
- All building materials to be used shall express their specific properties. For example, stronger and heavier materials (masonry) support lighter materials (wood).

2. Equivalent or Better

- While only materials, techniques, and product types prescribed here are allowed, equivalent or better practices and products are encouraged. They shall be submitted to the ADMINISTRATIVE REVIEW TEAM and may be added to the approved list after proper review by the County.

3. Energy Efficiency and Environmental Conservation

- LEED (Leadership in Energy and Environmental Design) standards, or an equivalent standard, should be incorporated into the building design including the submission of a LEED scorecard in the administrative review process.

4. Where Clearly Visible From The Street

- Many of these standards apply only in conditions WHERE CLEARLY VISIBLE FROM THE STREET. Note that the definition of STREET includes parks, CIVIC SQUARES, and CIVIC GREENS. These controls therefore concentrate on the public space/views from the public space and minimize interference in the private realm. For example, an architectural element that is visible only through an opening in a STREET WALL is not CLEARLY VISIBLE FROM THE STREET.

B. Building Walls (Exterior)

1. Intent And Guiding Illustrations For Building Walls

Building walls should reflect and complement the traditional materials and techniques of Arlington County's regional architecture. They should express the construction techniques and structural constraints of traditional, long-lasting, building materials. Simple configurations and solid craftsmanship are favored over complexity and ostentation in building form and the articulation of details. All building materials to be used shall express their specific properties. For example, heavier more permanent materials (masonry) support lighter materials (wood). The illustrations and statements on this page are advisory only. Refer to the Code standards below for the specific prescriptions of this section.



2. Standards For Building Walls (WHERE CLEARLY VISIBLE FROM THE STREET)

Materials: The following materials are permitted.

- Brick and tile masonry
- Stucco (cementitious finish)
- Native stone (or synthetic equivalent)
- Pre-cast masonry (for trim and cornice elements only)
- Gypsum Reinforced Fiber Concrete (GFRC—for trim elements only)
- Metal (for beams, lintels, trim elements and ornamentation only)
- Split-faced block (only for piers, foundation walls and chimneys)
- Wood lap siding
- Hardie-Plank™ equivalent or better siding

Configurations and Techniques: The following configurations and techniques are permitted.

- *Walls*
 - Wall openings shall not span vertically more than one STORY.
 - Wall openings shall correspond to interior space and shall not span across building structure such as the floor structural and mechanical thickness.
 - Wall materials shall be consistent horizontally (i.e. joints between different materials must be horizontal and continue around corners) except for chimneys and piers.
 - Material changes shall be made within a constructional logic—as where an addition (of a different material) is built onto the original building.
- *Wood Siding and Wood Simulation Materials*
 - Lap siding (horizontal) configuration
 - Smooth or rough-sawn finish (no faux wood grain)
- *Brick, Block and Stone*
 - Must be properly detailed and in appropriate load-bearing configurations.
- *Stucco (cementitious finish)*
 - Smooth or sand only, no “cake icing” finish.

C. Roofs and Parapets

1. Intent and Guiding Illustrations for Roofs and Parapets

Roofs and Parapets should demonstrate a commonsense recognition of the climate by utilizing appropriate pitch, drainage, and materials in order to provide visual coherence to the Columbia Pike Special Revitalization District. Consistent with Arlington’s commitment to green building technology, such technologies should be used to the maximum extent possible. The illustrations and statements on this page are advisory only. Refer to the Code standards below for the specific prescriptions of this section.



2. STANDARDS FOR ROOFS AND PARAPETS (WHERE CLEARLY VISIBLE FROM THE STREET)

Materials: The following materials are permitted.

- Clay or concrete (faux clay)
- Tile (barrel or flat roman)
- Slate (equivalent synthetic or better)
- Metal (standing seam 5-v crimp, equivalent or better)
- Dimensional Asphalt shingles
- Cornices and soffits may be a combination of wood, vinyl, and/or metal

Configurations and Techniques: The following configurations and techniques are permitted.

- *Pitched Roofs*
 - The primary ridge beam shall run parallel to the STREET (except NEIGHBORHOOD Sites).
- *Pitch (exclusive of roofs behind PARAPET walls)*
 - Simple hip and gable roofs shall be symmetrically pitched between 6:12 and 12:12.
 - Shed roofs, attached to the main structure, shall be pitched between 4:12 and 7:12.
- *Overhang*
 - Eaves must overhang at least 24 inches on the primary structure.
 - Rakes (gable end) must overhang at least 18 inches.
 - Eaves and rakes on accessory buildings, DORMERS, and other smaller structures must overhang at least 8 inches.
 - Open eaves and simple traditional soffits and fascia are allowed.
 - Soffits shall be placed perpendicular to the building wall, not sloping in plane with the roof (except for gable end rakes).
 - Timber eaves and BALCONY brackets must be a minimum of 5.5 inches in dimension.
- *PARAPET Roofs (Cornice, Entablature, and Coping Standards)*
 - Allowed for MAIN STREET and AVENUE Sites, and LIVE/WORK Sites where the roof material is not visible from any adjacent STREET only.
- *Cornices and Other Features*
 - Buildings without visible roof surfaces and overhanging Eaves may satisfy the overhang requirement with a cornice projecting horizontally between 6 and 12 inches beyond the building walls. For buildings three stories or taller, the cornice projection shall increase an additional 6 to 12 inches per STORY.
 - Skylights and roof vents are permitted only on the roof plane opposite the primary STREET or RBL or when shielded from STREET view by the building's PARAPET wall.
 - Overly elaborate, "postmodern" and/or "high-tech" designs are discouraged. However, ornamentation which contributes to the character of the building is encouraged. Consult the ADMINISTRATIVE REVIEW TEAM for appropriate configurations.
 - Green roof technologies are encouraged. Vegetative cover should be considered for flat roofs and solar panels should be considered for integration into pitched roof structures.

D. Street Walls

1. Intent And Guiding Illustrations For Street Walls

STREET WALLS establish a clear edge to the STREET where the buildings do not. The *Columbia Pike Special Revitalization District Form Based Code* requirements include masonry walls that define outdoor spaces and separate the STREET from the private realm (parking lots, trash cans, gardens, and equipment). All STREET WALL facades shall be as carefully designed as the building façade, with the finished side out, i.e. the “better” side facing the STREET. The illustrations and statements on this page are advisory only. Refer to the Code standards below for the specific prescriptions of this section.



2. Standards for Street Walls (WHERE CLEARLY VISIBLE FROM THE STREET)

Materials: The following materials are permitted.

- Native/regional stone and equivalent imitation stone
- Metal (wrought iron, welded steel and/or aluminum [black] for gates only)
- Brick
- Stucco on concrete block (or poured) only with brick or stone coping
- A combination of materials (e.g. stone piers with brick infill panels)

Configurations and Techniques: The following configurations and techniques are permitted.

- STREET WALLS along any unbuilt REQUIRED BUILDING LINE shall be built to a height of 7 feet above the adjacent ground.
- Stucco STREET WALLS shall have a hardy species of climbing vine planted along them.
- Metal work may additionally be treated to imitate a copper patina.
- Copings shall project between 1 inches and 4 inches from the face of the wall.

E. Windows and Doors

1. Intent And Guiding Illustrations For Windows And Doors

Windows shall be divided by multiple panes of glass. This helps the window “hold” the surface of the façade, rather than appearing like a “hole” in the wall (an effect produced by a large single sheet of glass). All windows and doors should be selected with their energy conservation value in mind so as to achieve the highest possible energy savings. The illustrations and statements on this page are advisory only. Refer to the Code standards below for the specific prescriptions of this section.



2. STANDARDS FOR WINDOWS AND DOORS (WHERE CLEARLY VISIBLE FROM THE STREET)

a. Materials: The following materials are permitted.

- Windows shall be of anodized aluminum, wood, clad wood, vinyl, or steel.
- Window glass shall be clear, with light transmission at the GROUND STORY at least 90 percent and for the upper stories 75 percent (modification as necessary to meet any applicable building code requirements). Specialty windows may utilize stained, opalescent, or glass block (one per façade maximum).
- Window screens shall be black or gray.
- Screen frames shall match window frame material or be dark anodized.
- Doors shall be of wood, clad wood, or steel.

b. Configurations and Techniques: The following configurations and techniques are permitted.

- The following requirements apply to all windows:
 - Windows may be ganged horizontally (maximum 5 per group) if each grouping is separated by a mullion, column, pier or wall section that is at least 7 inches wide.
 - Windows shall be no closer than 30 inches to BUILDING CORNERS (excluding BAY WINDOWS and where the BUILDING CORNER is also a BLOCK CORNER).
 - Exterior shutters, if applied, shall be sized and mounted appropriately for the window (one-half the width), even if inoperable.
- The following requirements apply to all upper-STORY windows:
 - Windows shall be double-hung, single-hung, awning, or casement windows.
 - Fixed windows are permitted only as a component of a system including operable windows within a single wall opening.
 - Residential buildings/floors: panes of glass no larger than 36 inches vertical by 30 inches horizontal.
 - The maximum pane size for office uses is 48 inches vertical by 40 inches horizontal.
 - Egress windows may be installed according to the appropriate building code.

c. Shopfront (GROUND FLOOR) Windows and Doors: ^{20C}

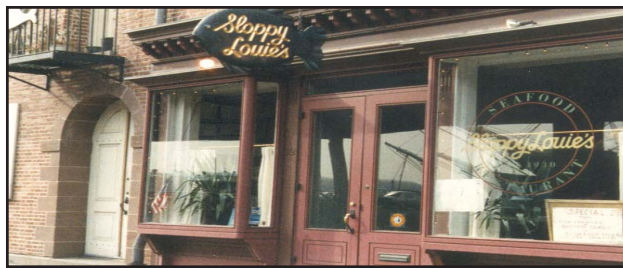
1. Single panels of glass not larger than 6 feet in height by 4 feet wide.
 2. GROUND FLOOR windows shall not be made opaque by window treatments (excepting operable sunscreen devices within the conditioned space) and shall allow a minimum 60 percent of surface view into the building for a depth of at least 20 feet. Provided, however, the County Board may modify this requirement for public, civic and institutional uses identified in Table 3.1, subject to use permit approval as provided in ACZO §15.4, where it finds that the proposed modifications can be retrofitted to meet standard requirements when the subject use is discontinued and are otherwise consistent with the intent of the Form Based Code.
 3. Shopfronts may extend up to 24 inches beyond the façade (RBL) into the STREET.
- Doors:
 - Double-height entryways (those that span more than one STORY) are not allowed.
 - Doors shall not be recessed more than 3 feet behind the shopfront windows and, in any case, shall have a clear view and path to a 45-degree angle past the perpendicular from each side of the door.
 - Roll-down security gates and doors are prohibited.

20C - Columbia Pike Form Based Code Amendment adopted on December 12, 2015

F. Signage ²²

1. INTENT AND GUIDING ILLUSTRATIONS FOR SIGNAGE

Signs along the Columbia Pike Special Revitalization District’s commercial frontages should be clear, informative to the public and should weather well. Appropriate signage is desirable for advertising Columbia Pike shops and offices, and decoration. However, signage that is glaring or large creates a distraction, intrudes into and lessens the Columbia Pike Special Revitalization District experience, and creates visual pollution. Blade type shop signs incorporating creative art, graphics or materials are encouraged for retail and office tenants. The illustrations and statements on this page are advisory only. Refer to the Code standards below for the specific prescriptions of this section.



22 - Columbia Pike Form Based Code Amendment adopted on June 18, 2016

2. Allowed Signs (WHERE CLEARLY VISIBLE FROM THE STREET) ^{6 15C}

Form Based Code projects may have the following signs provided they comply with the standards set forth in VI.F.3 below:

- a. Each building may have one building sign.
- b. Each retail or office tenant on the Ground Floor or Second Story may have the following signs:
 1. Unlimited AWNING signs and STREET address signs;
 2. One blade type shop sign per Street frontage;
 3. One graphic sign;
 4. Up to a total of three wall or window signs;
 5. One additional wall or window sign and one additional blade sign are permitted for tenants occupying retail or office spaces with more than one STREET FRONTAGE.
- c. Where there is SHARED PARKING within a structure, the following signs are allowed in addition to the signs allowed for the designated BES SITE in which the Shared Parking is located:
 1. One wall sign; and
 2. Unlimited blade signs meeting the standards for incidental signs as set forth in 13.7.8.

3. Signage Standards: ²²

a. Wall Signs

1. Wall signs for retail and office spaces are permitted either within the area above the GROUND STORY windows and below the second STORY windows, or on the vertical front of or on top of a CANOPY. All wall signs shall be placed within a horizontal band not to exceed two feet in height. This band shall not be located higher than 18 feet or lower than 12 feet above the adjacent sidewalk, unless placed on the front of or on top of a CANOPY. If placed on top of a CANOPY, the two-foot band shall not extend more than two feet beyond the top of the CANOPY. Wall signs shall not come closer than two feet to an adjacent COMMON LOT LINE or the boundary of the area permitted to be used by the retail or office tenant.
2. Wall signs allowed where there is SHARED PARKING within a structure may be placed only in a horizontal band not to exceed two feet in height. This band shall be located immediately above the entrance to be SHARED PARKING structure and shall not be higher than four feet from the top of the entrance opening.
3. Letters on all wall signs shall not exceed 18 inches in height or width and three inches in relief. Wall signs shall not exceed 20 feet in length.

6 - Columbia Pike Form Based Code Amendment adopted on April 25, 2009

15C - Columbia Pike Form Based Code Amendment adopted on July 24, 2012

22 - Columbia Pike Form Based Code Amendment adopted on June 18, 2016

b. Window Signs

1. Window signs are permitted to be placed or painted within GROUND FLOOR or second STORY office and retail windows and the entire window sign shall fit within a rectangle of eight square feet.
2. Window signs shall be allowed automatic changeable copy elements as set forth in ACZO 13.12.

c. Blade Type Shop Signs

1. Blade type shop signs shall be not more than six square feet
2. Blade type shop signs shall be located so that there is a minimum of nine feet clear height above the sidewalk and below the blade type sign. Blade signs may be hung from an overhang or AWNING.
3. Blade type shop signs shall not be internally illuminated and commercial messages may occupy no more than one-half of the square footage within the sign.

d. Graphic Signs

1. Graphic signs (a graphics sign is a sign designed to be read only from a distance of less than three feet away), such as, but not limited to restaurant menus or building directories, shall be located in a permanently mounted display box of not more than three square feet on the surface of the building adjacent to the entry. Graphics signs shall not be exposed to the elements.
2. Graphics signs shall not be exposed to the elements

e. Building Sign

A building sign may be: 1) a masonry or bronze plaque on any building; or 2) A wall or blade sign on a Main Street or Avenue building. Building signs shall meet all requirements set forth in the table below, and shall not cross from one vertical discrete facade composition to another.

Sign Type	Number of Stories	Placement	Maximum size of sign (in square feet)		
Masonry or bronze plaque	Any	In the building's cornice/PARAPET wall or under the eaves and above the upper STORY windows.	8		
Wall or blade sign	No more than 50% of the sign area shall be placed above the top of the STORY identified below.		< 70 feet of building frontage	70 - 150 feet of building frontage	> 150 feet of building frontage
	2	GROUND	35	35	50
	3 - 4	2 nd			70
	5	3 rd		50	100
	6	4 th			
	7	5 th			
	8	6 th			
	9	7 th			
10	8 th				

f. External lighting directed towards signage that is not internally illuminated is permitted. The energy efficiency of lighting should be considered.

g. Signs shall be further limited and regulated by the following provisions of the Arlington County Zoning Ordinance, which shall be incorporated as if fully set forth herein:

SECTION	TITLE
13.2	APPLICABILITY
13.3.1.A.1; 13.3.1.A.2(A) AND (B); 13.3.1.B	SPECIAL EXCEPTIONS
13.3.2	NO VARIANCES
13.4	SIGNS PROHIBITED IN ALL DISTRICTS
13.7.6	FLAGS (FOR ANY BES SITES)
13.7.8	INCIDENTAL SIGNS (FOR ANY BES SITES)
13.7.11	SIDEWALK SIGNS (FOR ANY ESTABLISHMENT DEVELOPED UNDER THIS CODE)
13.9.1.H	NEIGHBORHOOD SIGNS
13.9.2	SIGN SYSTEMS
13.11	STANDARDS FOR LIGHTED SIGNS
13.12	FLASHING, MOVING AND CHANGEABLE COPY SIGNS
13.15	TEMPORARY SIGNS FOR CONSTRUCTION AND SALE/LEASING
13.16	GENERAL PROVISIONS
13.17	NONCONFORMING SIGNS
15.7.8	SIGNS REQUIRING A COA
15.8	SIGN PERMITS
17.4	CRIMINAL PENALTIES

AWNINGS/Overhangs:

Notwithstanding the foregoing, when an AWNING or overhang is incorporated into a building, the following requirements must be met:

- Minimum 10 feet clear height above sidewalk, minimum 6 feet depth out from the building façade (maximum to curb or tree-planting strip/furniture zone, whichever is closer).
- Canvas cloth or equivalent (no shiny or reflective materials), metal or glass.
- No internal illumination through the AWNING/Overhang.
- Except for wall signs permitted to be attached to CANOPIES, lettering and/or logos on AWNINGS and CANOPIES shall be limited to 5 inches tall on the vertically hanging fabric/face at the curb side of the AWNING or CANOPY.
- No one-quarter cylinder configurations. ⁶

6 - Columbia Pike Form Based Code Amendment adopted on April 25, 2009

G. Lighting and Mechanical Equipment

1. Intent And Guiding Illustrations For Lighting And Mechanical Equipment

Materials and equipment chosen for lighting fixtures should be durable, energy efficient and weather well. Appropriate lighting is desirable for nighttime visibility, crime deterrence, and decoration. However, lighting that is too bright or intense creates glare, hinders night vision, and creates light pollution. The illustrations and statements on this page are advisory only. Refer to the Code standards below for the specific prescriptions of this section



2. Standards for Lighting and Mechanical Equipment (WHERE CLEARLY VISIBLE FROM THE STREET)

Lighting:

- STREET LIGHTS shall meet the following, with street classifications determined by the categories assigned in the adopted Master Transportation Plan Street Element:
 - On principal arterial streets, STREET LIGHTS shall be double-globed Carlyle luminaires on 16 foot poles;
 - On minor arterial streets, STREET LIGHTS shall be single-globed Carlyle luminaires on 14 foot poles;
 - On principal and minor local streets, STREET LIGHTS shall be single-globed Carlyle luminaires on 12 foot poles.
- A photometric analysis will be submitted as part of the Form Based Code application by the developer. Such analysis will show that, with the spacing of street lights as shown by the developer on the lighting plan, the light levels will fall within recommended levels indicated in Arlington County's 2012 Traffic and Street Lighting Specifications, for the street type and location. ^{16D}
- At the front of the building, exterior lights shall be mounted between 6 feet and 14 feet above adjacent grade.
- All LOTS with ALLEYS shall have lighting fixtures within 5 feet of the ALLEY right of way. This fixture shall illuminate the ALLEY, shall be between 9 and 14 feet in height, and shall not cause glare in adjacent LOTS.
- Floodlights or directional lights (maximum 75-watt bulbs) may be used to illuminate ALLEYS, parking garages and working (maintenance) areas, but must be shielded or aimed in such a way that they do not shine into other LOTS, the STREET, or direct light out of the Columbia Pike Special Revitalization District.
- Floodlighting shall not be used to illuminate building walls (i.e. no up-lighting).
- Site lighting shall be of a design and height and shall be located so as to illuminate only the LOT. An exterior lighting plan must be approved as consistent with these standards by the ADMINISTRATIVE REVIEW TEAM.
- No flashing, traveling, animated, or intermittent lighting shall be visible from the exterior of any building whether such lighting is of temporary or long-term duration.
- Lighting for parking garages shall satisfy Crime Prevention Through Environmental Design (CPTED) standards.
- Traffic signal mast arms shall be the black Columbia Pike decorative model with a "tear drop" light fixture. The bell cover at the base shall not be installed in such a way as to infringe on the required clear zone within the sidewalk.

16D - Columbia Pike Form Based Code Amendment adopted on January 26, 2013

Mechanical Equipment:

- The following shall be placed away from any RBL, not be stored or located within any STREET, and be screened from view from the STREET:

Air compressors, mechanical pumps, exterior water heaters, water softeners, utility and telephone company transformers, meters or boxes, garbage cans, storage tanks, and the like may not be stored or located within any area considered a STREET under this Code.

- Roof mounted equipment shall be placed away from the RBL and be screened from view from the STREET.

Note:

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VII. Definitions

The following terms are defined for the purpose of the *Columbia Pike Special Revitalization District Form Based Code*, Article 11.1 of the Arlington County Zoning Ordinance. Terms not defined here may be defined elsewhere in the Zoning Ordinance. In such case, the definition contained in the Zoning Ordinance will be used. Certain terms in the Form Based Code are used in very specific ways, often excluding some of the meanings of common usage. Wherever a word is printed in SMALL CAPITAL LETTERS, it is being used as defined herein.

ACCESSORY UNIT

A building (maximum floor area of 650 square feet) that is not the primary structure located on a lot, that can be used as additional residential or home occupation space by the owner of the primary structure.

ADMINISTRATIVE REVIEW TEAM

The County staff that has been designated to review Form Based Code applications. The team will consist of representatives from the Department of Community Planning, Housing & Development, including Planning and Historic Preservation; the Department of Environmental Services; and, Arlington Economic Development. The Columbia Pike Coordinator will be designated as a Deputy Zoning Administrator and shall play the lead role on the ADMINISTRATIVE REVIEW TEAM. Additional staff resources from other departments and areas may also be involved as determined necessary by the County Manager or the ADMINISTRATIVE REVIEW TEAM. Designating the Columbia Pike Coordinator as a Deputy Zoning Administrator will provide the appropriate level of legal authority to the ADMINISTRATIVE REVIEW TEAM.

ALLEY

The public right of way for vehicles and pedestrians within a BLOCK that provides access to the rear of buildings, vehicle parking (e.g., garages), utility meters, and recycling and garbage bins.

AVENUE BUILDING

Building types as defined in the BUILDING ENVELOPE STANDARDS for AVENUE SITES.

AWNING

A cantilevered, projected or suspended cover over the sidewalk portion of the STREET, or a roof-like covering, usually of canvas, metal, or similiar material and often adjustable, placed over the sidewalk, windows, or doors to provide protection from sun and rain. It is distinguished from a CANOPY because it is not permanent, nor a structural portion or architectural feature of the building and does not support substantial weight. ^{15D}

BALCONY

An exterior platform attached to the front of a main building (on and forward of its REQUIRED BUILDING LINE or STREET side). BALCONIES, where required in the BUILDING ENVELOPE STANDARDS, must be roofed and enclosed by balustrades (railings) and posts that extend up to the roof. BALCONIES aligned vertically on adjacent floors may post up to one another and share a single roof element. BALCONIES may not project within 5 feet of a property line.

15D - Columbia Pike Form Based Code Amendment adopted on July 24, 2012

BAY OR BAY WINDOW

Generally, a U-shaped enclosure, extending the interior space of the building outward of the exterior BUILDING WALL/RBL (along its STREET side). Minimum interior clear width at main wall of 4 feet; projection not greater than 36 inches beyond the RBL; walls and windows shall be between 90 degrees (perpendicular) and 0 degrees (parallel) relative to the primary wall from which they project.

BLOCK

An increment of land comprised of LOTS, ALLEYS, and tracts circumscribed and not traversed by STREETS (PEDESTRIAN PATHWAYS excepted). BLOCKS shall be measured at the frontage LOT lines (along the REQUIRED BUILDING LINE).

BLOCK CORNER

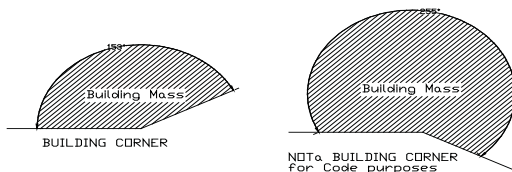
This refers to the outside corner of a BLOCK at the intersection of any two STREETS. Some of the requirements of the BUILDING ENVELOPE STANDARDS are specific to BLOCK CORNERS. Inside corners, where the resulting angle formed by the BLOCK face is less than 180 degrees (concave), are not considered BLOCK CORNERS for the purposes of this Code.

BUILDABLE AREA

The area of the LOT that building(s) may occupy. The BUILDABLE AREA sets the limits of the building footprint now and in the future—additions to structures must be within the designated area.

BUILDING CORNER

This refers to the outside corner of a building where the primary building mass is within an angle less than 180 degrees. Some of the prescriptions of the BUILDING ENVELOPE STANDARDS are specific to BUILDING CORNERS. Inside corners, where the exterior space of the building mass forms an angle of more than 180 degrees, are not considered BUILDING CORNERS for the purposes of this Code.

**BUILDING ENVELOPE STANDARDS (BES)**

The part of the Code that establishes basic parameters regulating building form, including the envelope, placement (in three dimensions) and certain permitted/required building elements, such as storefronts, BALCONIES, and STREET WALLS. The BUILDING ENVELOPE STANDARDS establish both the boundaries within which things may be done and specific things that must be done. The applicable BES for a site is determined by its STREET FRONTAGE as per the REGULATING PLAN. This produces a coherent STREET and allows the building greater latitude behind its STREET facade.

CANOPY

A cantilevered, projected or suspended cover over the sidewalk portion of the STREET, or a rooflike covering placed over the sidewalk, windows, or doors to provide protection from sun and rain. It is distinguished from an AWNING because it is a permanent, durable, structural portion of the building as opposed to a light covering of canvas, metal or other similar material. ^{15D}

15D - Columbia Pike Form Based Code Amendment adopted on July 24, 2012

CIVIC GREEN OR SQUARE

Public spaces located within the Columbia Pike Special Revitalization District as designated on the REGULATING PLAN. The term SQUARE is generally used to describe spaces that have more paved surface area. The term CIVIC GREEN is generally used to describe a formally configured, small public lawn or park that is primarily unpaved. Both shall have at least 60 percent of their perimeter fronting rights of way and both spaces should be surrounded by STREET TREES. Their dimensions shall be no narrower than a 1:4 ratio, and no SQUARE or CIVIC GREEN width or breadth dimension shall be less than 25 feet. Situated at prominent locations within the Columbia Pike Special Revitalization District and often dedicated to important events or citizens (with PUBLIC ART), CIVIC GREENS and SQUARES shall not include active recreation structures such as ball fields and courts, but may include temporary ice skating rinks. See the Streetscape Standards for the specific controls on SQUARES and CIVIC GREENS.

PUBLIC, CIVIC AND INSTITUTIONAL USES

Those uses as provided in ACZO §12.2.4. ^{20A}

CIVIC BUILDINGS

Those buildings that house CIVIC USES located on the sites designated on the REGULATING PLAN. CIVIC BUILDINGS and PUBLIC ART are situated at prominent locations within the Columbia Pike Special Revitalization District. ^{5A}

COMMON LOT LINES

LOT lines shared by adjacent private LOTS.

DEVELOPMENT PROJECT.

A property that is the subject of County approval for development ^{23F}

DORMERS

Small, roofed architectural features located within the main roof of a hipped or gabled roof. DORMERS shall not break the primary EAVES line. DORMERS shall not result in the creation of additional occupiable space above what is otherwise permitted by limits in the BUILDING ENVELOPE STANDARDS. DORMERS shall be individually less than 15 feet wide, and shall, collectively, occupy no more than 60 percent of the unit's REQUIRED BUILDING LINE facade. ²

EAVE HEIGHT

Where used to limit building height in the Code, EAVE HEIGHT shall be measured at the bottom of the top layer of roofing material at its outermost point from the building wall.

ENGLISH BASEMENT

A dwelling unit, with kitchen and bath, which is below the GROUND FLOOR of a building, partially below and partially above the grade of the fronting sidewalk, has its own separate entrance from the rest of the building and which may have internal access to the GROUND FLOOR dwelling unit. ^{11A}

2 - Columbia Pike Form Based Code Amendment adopted on November 16, 2005

5A - Columbia Pike Form Based Code Amendment adopted on April 19, 2008

11A - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

20A - Columbia Pike Form Based Code Amendment adopted on December 15, 2015

23F - Columbia Pike Form Based Code Amendment adopted on October 18, 2016

FENESTRATION

An opening in the building wall allowing light and views between interior and exterior. FENESTRATION is measured as glass area (excluding window frame elements with a dimension greater than 1 inch) for conditioned space and as open area for parking structures or other un-conditioned, enclosed space.

GARAGE ENTRY

An opening (with curb cut) in the building façade and/or STREET WALL where vehicles may enter into the BLOCK interior for general parking and business servicing. GARAGE ENTRIES (excluding those existing prior to December 31, 2002) shall not exceed 16 feet clear height and 24 feet clear width and shall not be sited within 100 feet of the BLOCK CORNER or another GARAGE ENTRY on the same BLOCK. GARAGE ENTRY portals may be set back up to 24 inches behind the surrounding façade.

GARDEN WALL

A masonry wall defining a REQUIRED BUILDING LINE, property line or delineating a private area. Shall be set back (or forward) not more than 8 inches from the alignment specified in the REGULATING PLAN or BES. A vehicle entry gate (opaque and maximum 12 feet wide) and a pedestrian entry gate (maximum 6 feet wide) are both allowed as limited substitutions within any required GARDEN WALL length.

GROUND FLOOR, GROUND STORY

The first level of a building where at least 80 percent of the finished floor elevation is within the finished floor elevation parameters established in the designated BES. The next STORY above the GROUND STORY is the second floor. ^{11A}

HISTORIC FACADES

The facades of buildings that have historic value as designated in this Code and/or are identified on the REGULATING PLAN or designated by the County as historic landmarks or structures pursuant to Section 31A of the Zoning Ordinance. HISTORIC FACADES shall be preserved.

HISTORIC STRUCTURES

Those buildings of historic value as designated in this Code and/or are identified on the REGULATING PLAN or designated by the County as historic landmarks or structures pursuant to Section 31A of the Zoning Ordinance. HISTORIC STRUCTURES shall be preserved.

LIVE/WORK

A structure that is specifically built (or altered) to accommodate retail or office commercial uses on the GROUND FLOOR and residential uses on the upper floors. Both the lower and upper levels may be occupied by the same user; however, it is not a requirement for this designation.

LOCAL STREET BUILDING

One of a series of attached similar buildings, as defined in the BUILDING ENVELOPE STANDARD for LOCAL STREET sites, separated by common party walls without openings extending from basement to roof. Each building may contain one or more dwelling units. ^{11A}

LOT

A designated parcel, tract or area of land having its principal frontage upon a STREET or a place permitted under the subdivisions ordinance and established by plat or subdivision or as otherwise permitted by law to be used, developed or built upon as a unit. (Ord. No. 90-14, 6-28-90)

11A - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

MAIN STREET BUILDING

Buildings as defined in the BUILDING ENVELOPE STANDARD for MAIN STREET SITES.

NEIGHBORHOOD STREET BUILDING

Buildings as defined in the BUILDING ENVELOPE STANDARD for NEIGHBORHOOD STREET SITES.

OPEN CONTIGUOUS LOT AREA

The contiguous area within the BUILDABLE AREA, that is accessible to all occupants of the particular building or site, open to the sky, not built-upon, and neither parked nor driven upon. For MAIN STREET sites, OPEN CONTIGUOUS LOT AREA may be located on top of the first STORY, but in no case can it be above the top of the second STORY. For AVENUE, LOCAL, and NEIGHBORHOOD sites, OPEN CONTIGUOUS LOT AREA shall be at grade (unenclosed decks shall not be construed to violate this provision). Areas within the OPEN CONTIGUOUS LOT AREA shall not be used for storage, trash collection, or placement of mechanical equipment. ^{1B}

PARAPET

Where used to limit building height in the Code, PARAPET height shall be measured at the top of the PARAPET, including any coping. An additional 3 feet in height by 12 feet in width (or 15 percent of the façade, whichever is greater) is permitted for a section of the PARAPET emphasizing the building's main STREET entry or a BLOCK CORNER. Any variations regarding building heights should be reviewed under the Use Permit Option with the County Board making the final determination.

PARKING, RESERVED

Parking not available to the public, but only to specifically identified users (either a single user per space or a set of users for a group of spaces), whether for free or at a fee, that shall not exceed the prevailing market rate.

PARKING, SHARED

Parking available to the public on an unreserved basis for free, or at the same fee for all users, which shall not exceed the prevailing market rate. Time limits may be imposed to ensure turn-over. Hours of public availability may also be restricted.

PEDESTRIAN PATHWAY

Interconnecting paved ways that provide pedestrian and bicycle passage through BLOCKS running from a STREET to either a STREET, ALLEY or an interior BLOCK parking area. The area within a PEDESTRIAN PATHWAY shall be a public access easement or public right of way. The easement width for these pathways shall not be less than 20 feet with a paved walkway not less than 10 feet wide, except where otherwise specified on the REGULATING PLAN, and shall provide an unobstructed view straight through their entire length.

PORCH

A covered platform on the RBL side of a building. A PORCH shall not be enclosed.^{11A}

PRIVACY FENCE

An opaque fence made of wood or masonry (not chain link or any other type of rolled fence) along ALLEYS and COMMON LOT LINES (where more than 10 feet away from the REQUIRED BUILDING LINE). PRIVACY FENCES shall be 7 feet tall, as measured from the adjacent ground.

1B - Columbia Pike Form Based Code Amendment adopted on September 17, 2005

11A - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

PUBLIC ART

Art that is visually or physically accessible to the public and that is acquired by County funds, donated to the County, or provided by a private entity as a community benefit. PUBLIC ART encompasses the broadest definition of visual art including the imaginative use and interplay of artistic disciplines.

REGULATING PLAN

Part of the Code that is the coding key for the BUILDING ENVELOPE STANDARDS that provides specific information for the disposition of each building site. The REGULATING PLAN also shows how each site relates to adjacent STREETS, the overall Columbia Pike Special Revitalization District, and the surrounding neighborhood.

REQUIRED BUILDING LINE (RBL)

The building shall be built to the REQUIRED BUILDING LINE (RBL) as shown on the REGULATING PLAN. The RBL is a requirement, not a permissive minimum as is a set-back. The RBL for each site is shown on the applicable REGULATING PLAN. The minimum length of building that is required to be built to the RBL is shown on the appropriate BUILDING ENVELOPE STANDARD.

SIDEWING

The portion of a building extending along a side LOT line toward the ALLEY or rear of the LOT.

STOOP

An entry platform on the RBL side of a building. STOOPS may be roofed, but they shall not be enclosed.

STORY, STORY HEIGHT

That space within a building, and above adjacent RBL elevation, that is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above. STORY HEIGHT parameters are as specified by the appropriate BUILDING ENVELOPE STANDARD.

STREET

Includes all public space (STREETS, SQUARES, PEDESTRIAN PATHWAYS, CIVIC GREENS, parks)—including any transit service operator passenger platform—but not GARAGE ENTRIES or ALLEYS.

STREET FRONTAGE

The LOT line coincident with the RBL or that portion of the building that is coincident with the RBL as required by the Code.

STREET LIGHT ^{16A}

A luminaire installed on either side of the STREET, along the STREET TREE ALIGNMENT LINE.

STREETSCAPE

Improvements to a property, including paving, tree and/or other decorative plantings, lighting, and the placement of street furniture, within the STREET.

STREET TREE

A deciduous canopy shade tree as required per the REGULATING PLAN and listed in the Form Based Code Street Tree List. STREET TREES shall be of a proven hardy and drought tolerant species, large enough to form a canopy with sufficient clear trunk to allow traffic to pass under unimpeded. STREET TREES shall be planted and spaced 25 to 30 feet on center. Where necessary, spacing allowances may be made to accommodate curb cuts, fire hydrants and other infrastructure elements. At no time may spacing exceed 45 feet on center.

16A - Columbia Pike Form Based Code Amendment adopted on January 26, 2013

STREET TREE ALIGNMENT LINE

A line along which STREET TREES are to be planted. The STREET TREE ALIGNMENT LINE is parallel with the STREET or SQUARE right of way and, unless otherwise specified in the appropriate REGULATING PLAN, is centered within the tree pit. (Existing trees are not required to be relocated by this requirement.)^{8A}

STREET WALL

A masonry wall set back (or forward) not more than 8 inches from the RBL or adjacent building façade and built to the height specified in the BUILDING ENVELOPE STANDARDS. A vehicle entry gate (opaque, maximum 18 feet wide) and a pedestrian entry gate (maximum 6 feet wide) are both allowed as limited substitutions within any required STREET WALL length.

VESTIBULE

An open or enclosed passage or hall, of not more than 30 square feet, between an exterior opening or door and the interior of a building.^{11A}

"WHERE CLEARLY VISIBLE FROM THE STREET"

Many requirements of the Code apply only where the subject is "CLEARLY VISIBLE FROM THE STREET." Note that the definition of STREET includes SQUARES, CIVIC GREENS, parks, and all public space except ALLEYS. A building element more than 30 feet from the RBL/STREET (such as items facing a COMMON LOT LINE more than 31 feet away from a RBL and/or STREET) is by definition NOT CLEARLY VISIBLE FROM THE STREET. Also common and/or party walls are by definition NOT CLEARLY VISIBLE FROM THE STREET.

8A - Columbia Pike Form Based Code Amendment adopted on January 23, 2010

11A - Columbia Pike Form Based Code Amendment adopted on May 25, 2010

VIII. Attachments

- A. Zoning Article 11.1. "CP-FBC" - Columbia Pike Form Based Code Districts
- B. Form Based Code Determinations
- C. Form Based Code Amendments (Regulating Plans)
- D. Form Based Code Amendments (Text and Regulating Plans)

Article 11. Overlay and Form Based Code Districts

§11.1. CP-FBC, Columbia Pike Form Based Code District

§11.1.1. Purpose

The purpose of the CP-FBC, Columbia Pike Form Based Code District (Form Based Code) is to provide an alternative means of development that promotes mixed-use development where the variety in retail, service, residential and office uses is intended to serve a broad-based community. The CP-FBC district provides for an expanded range of uses, greater density and more flexibility than the other service commercial and apartment districts while promoting mixed-use development which conforms to principles of good urban form. Specific requirements have been adopted to encourage and regulate mixed-use development in accord with the Form Based Code, including height, and building and site design elements which help ensure the provision of the desirable components of good public spaces.

§11.1.2. 11.1.2. Applicability

Properties zoned according to the S-3A, RA8-18, RA14-26, RA7-16, RA6-15, C-1, C-2, C-3, C-O or C-O-1.0 districts and that are located in the Columbia Pike Special Revitalization District (CP-FBC district), as designated on the General Land Use Plan, shall be eligible to develop in accordance with the CP-FBC district requirements. After such development all uses permitted in §11.1.4 shall be permitted on the property, subject to all regulations in §11.1.

§11.1.3. Form Based Code

All development pursuant to this §11.1 shall be governed by the requirements of the Form Based Code as adopted by the Arlington County Board (Appendix A of the Zoning Ordinance).

§11.1.4. Uses

A. Key to types of uses

The use tables are subject to the explanation set forth below.

1. Permitted uses

A "P" indicates that a use is permitted by-right and may be approved administratively, provided that redevelopment of the subject property or properties involves an increase in total developed space of at least 50 percent; and the proposed redevelopment conforms to the Form Based Code as adopted by the County Board of Arlington County (see §11.1.3). Properties within the Columbia Pike Special Revitalization District, which have not been redeveloped using the Form Based Code, shall be governed by all use limitations in the underlying zoning district.

(a) On sites of greater than 40,000 square feet in area, such uses are not permitted unless a special exception use permit has been approved as set forth in §11.1.8, Administration, below.

(b) [Reserved]

2. Use permit approval required

A "U" indicates a special exception use that may be established subject to obtaining a

use permit as provided in §15.4, use permits, for each such use, and provided that the property has been redeveloped pursuant to the Form Based Code. The Zoning Administrator may require a use permit for such use, whether the use is located in a building approved administratively or whether located in a building controlled by use permit.

3. Uses not permitted

A blank cell in the use table indicates that a use is not allowed in the respective district. See also §12.2.1.

4. Use standards

The “use standard” column on the use table (last column on the right) is a cross-reference to any specific use standard listed in Article 12, which apply to more than one district. Where use standards apply exclusively to a specific district(s), such standards are listed in the respective district(s) regulations.

5. Accessory and temporary uses

The regulations that apply to accessory and temporary uses are contained in §12.9 and §12.10.

B. Use classification

The first column of the use table lists some of the specific uses allowed in the respective districts. Uses not listed may be allowed pursuant to the similar use determination procedure of §12.2.1.

§11.1.5. Columbia Pike Form Based Code district principal use table

The following use table summarizes the principal use regulations of the CP-FBC district.

COLUMBIA PIKE FORM BASED CODE DISTRICT PRINCIPAL USE			
	Specific Use Types	CP-FBC	Use Standards
Household Living (See §12.2.3.A)	One-family detached	P	
	Multiple-family	P	
	Townhouses	P	
Group Living (See §12.2.3.B)	Boarding houses and rooming houses	U	§12.3.1
	Group homes	U	§12.3.6
	Dormitories	U	§12.3.3
	Fraternity and sorority houses;	U	§12.3.5
Public, Civic and Institutional Use Categories (§12.2.4)			
Colleges (§12.2.4.A)	Colleges and universities	U	§12.3.6
Community Service (See §12.2.4.B)	Community centers	P	
	Libraries	U	
	Museums and art galleries or studios	U	
	Publicly-operated recreation buildings, playgrounds, parks, and athletic fields	U	
	Recreation centers	U	§12.4.6
Day Care (See §12.2.4.C)	All day care uses	U	§12.4.1

COLUMBIA PIKE FORM BASED CODE DISTRICT PRINCIPAL USE			
	Specific Use Types	CP-FBC	Use Standards
Governmental Facilities (See §12.2.4.D)	Detention and correctional facilities	U	
	Fire and police stations	P	
Hospital (See §12.2.4.E)	Hospitals	P U	
	Cemeteries	U	
Parks and Open Space (See §12.2.4.F)	Country clubs and golf courses	U	
	Parks, playgrounds and playfields	U	
	Airports and aircraft landing fields	U	
Passenger Terminals and Services (See §12.2.4.G)	Bus, trolley, air, boat and rail passenger terminals	P	
	Churches, mosques, synagogues, and temples	P	
Religious Institutions (See §12.2.4.H)			
Schools (See §12.2.4.I)	Schools, elementary, middle and high	U	§12.4.1
Social Service Institutions (See §12.2.4.J)	All social service institutions	U	
Utilities, major (See §12.2.4.K)	All major utilities	P	
Utilities, minor (See §12.2.4.K)	Bus shelters; bike share stations	U	
	All minor utilities	P	
Retail, Service and Commercial Use Categories (See §12.2.5)			
Food Establishments (See §12.2.5.B)	Catering establishment, small scale	P	
	Food delivery service	U	
	Restaurant, general	P	§12.5.22
	Restaurant, limited	P	§12.5.23
Entertainment (See §12.2.5.A)	Theater or auditorium	P	
	Membership clubs and lodges	U	§12.5.13
	All other indoor entertainment	U	§12.5.7
Office (See §12.2.5.C)	Audio-visual production studio	U	
	College operated as a commercial enterprise	P	
	Financial services	P	
	Offices, business and professional	P	
	Office, federal, state and local.	U	
Overnight Accommodations (See §12.2.5.D)	Offices or clinics, medical or dental	P U	§12.5.16
	Bed and breakfasts	U	§12.5.3
Parking, Commercial (See §12.2.5.E)	Hotel or motel	P	
	All commercial parking uses		
Recreation, Indoor (See §12.2.5.F.2(a))	Bowling alleys	U	
	Swimming pool	P	
	Skating rink	P	
	All other indoor recreation	U	§12.5.19

COLUMBIA PIKE FORM BASED CODE DISTRICT PRINCIPAL USE			
	Specific Use Types	CP-FBC	Use Standards
Recreation, Outdoor (See §12.2.5.F.2(b))	Miniature golf course	U	
	Skating rink	P	
	Swimming pool	U	
Retail Sales (See §12.2.5.G.2(a)f)	Florist or gift shops	P	§12.5.8
	Grocery, fruit or vegetable stores	P	§12.5.10
	Nursery, flower or plant store	P	§12.5.15
	Open-air markets	U	§12.5.17.
	All other retail sales uses	P	
Retail, Personal Service (See §12.2.5.G.2(b))	Animal care facilities, veterinary clinics, animal hospitals	P	§12.5.2
	Dry-cleaning, laundry and laundromat	P	§12.5.6
	Mortuaries and funeral homes	U	§12.5.14
	Private postal service	P	§12.5.18
	All other personal service retail uses	P	§12.5.20
Retail, Repair-oriented (See §12.2.5.G.2(c))	Upholstery shops	P	§12.5.26
	All retail repair uses	P	
Self-service Storage (See §12.2.5.H)	All self-service storage uses	U	§12.5.25
Vehicle Sales and Service (See §12.2.5.I)	Vehicle body shop	U	§12.5.27
	Vehicle sales, rental or leasing facilities	P	§12.5.28.C
	Vehicle service establishment	U	§12.5.28
Industrial Use Categories (See §12.2.6)			
Light Industrial Service (See §12.2.6.A)	Carpet cleaning plants	U	
	Medical or dental laboratories	P	
	Printing, lithographing or publishing	P	
	Sign making shops	P	§12.6.9
	Recycling centers	U	
	Repair shop (small appliance, television, radio)	P	
Manufacturing and Production (See §12.2.4.B)	Plumbing or sheet metal shops	P	§12.6.6
	All other manufacturing and production uses		
Heavy Industrial (See §12.2.6.C)	All heavy industrial uses		
Warehouse and Freight Movement (See §12.2.6.D)	All warehouse and freight movement uses		
Waste-related Service (See §12.2.6.E)	All waste-related service uses		
Wholesale Trade (See §12.2.6.F)	All wholesale trade uses		
Other use categories (See §12.2.7)			
Agriculture (See §12.2.7.A)	All agricultural uses	P	§12.7.1

COLUMBIA PIKE FORM BASED CODE DISTRICT PRINCIPAL USE			
	Specific Use Types	CP-FBC	Use Standards
Resource Extraction (See §12.2.7.B)	All resource extraction uses		
Tele-communications Facilities (§12.2.6.C)	All telecommunications facilities	U	
Unclassified (See §12.2.7.D)	All unclassified uses		

§11.1.6. Columbia Pike Form Based Code districts accessory use table

Accessory uses in Columbia Pike Form Based Code districts shall include the following uses, activities and structures.

COLUMBIA PIKE FORM BASED CODE DISTRICTS ACCESSORY USE TABLE		
Use Types	CP-FBC	Use Standards
Commercial vehicle parking	P	§12.9.4
Crematoriums	U	§12.9.6
Drive-through facilities	U	§12.9.7
Family day care homes (six to nine children)	U	§12.9.9
Family day care homes (up to five children)	P	§12.9.9
Home occupations	P	§12.9.11
Live entertainment and/or dancing	U	
Mortuaries and funeral homes	U	§12.9.13
Swimming pools, private	P	§12.9.16
Outdoor café associated with a restaurant on private property	P	§12.9.14
Outdoor café associated with a restaurant on public right-of-way or easement for public use	U	§12.9.14
Recreational vehicle or trailer parking	P	§12.9.15
Vehicle maintenance and minor repairs, routine	P	§12.9.17
Vehicle, unlicensed and/or uninspected.	P	§12.9.18

§11.1.7. Use limitations

- A. There shall be no manufacturing, compounding, processing or treatment of products other than that which is clearly incidental and essential to a retail store or business and where all such products are sold at retail at these establishments.
- B. Steam exhausts for cleaning and laundering establishments shall be fully contained within the building that contains the cleaning and laundering establishment.

§11.1.8. Administration

A. Eligible sites

Only sites located within the Columbia Pike Special Revitalization District, as amended, are eligible to use the Form Based Code.

B. Review process

1. Properties of 40,000 square feet in area or less that are located within the Columbia Pike Special Revitalization District: Form Based Code proposals will be reviewed administratively for conformance with the Code within 30 days of submission of a complete proposal. Upon completion of such review, applicants will be notified as to whether their submission is in compliance with the Form Based Code. Applicants are required to provide a copy of the submission to the Columbia Pike Revitalization Organization and all affected civic associations at the time of submission.
2. Once a proposal is determined to be in conformance with the Form Based Code, the applicant may apply for construction permits, as provided for in §15.2, but only for actions consistent with a proposal that has been determined to be in compliance with the provisions of the Form Based Code.
3. Proposals that are determined to deviate from the Form Based Code requirements may not proceed with development, but may submit a revised proposal for review, or may seek approval of a use permit, as provided for in §15.4 and §11.1.8.C.
4. Properties larger than 40,000 square feet in area, and proposals that do not conform with the Form Based Code may be approved only by special exception use permit, as provided for in §15.4.
5. At the time of or prior to filing a special exception use permit application and any related material, applicants must provide a copy of the submission to the Columbia Pike Revitalization Organization and all affected civic associations. Applicants must provide written notice to all affected and abutting property owners, as well as those across the street from the subject site prior to the hearing as required by the Code of Virginia.
6. Applications for Form Based Code development approval shall comply with applicable portions of §15.5. Form Based Code use permit applications shall be filed no less than 55 days before the public hearings, which shall be the first regular meeting of the County Board each month. The County Board, on its own motion, may establish a different date for the public hearing.

C. Standards for review of use permits

1. Proposals that do not conform to the Form Based Code

(a) The County Board may modify the provisions of the Form Based Code upon a finding that, after the proposed modification, the subject development will better accomplish the purposes and intent of O than would the development without those modifications and that the proposed uses will not:

- (1) Affect adversely the health or safety of persons residing or working in the neighborhood of the proposed use;

FORM BASED CODE DETERMINATIONS

Form Based Code Determination No. 1 – Ground Floor Mezzanines on Main Street Sites (1/26/06)

Under Article 11.1 (Appendix A) of the Arlington County Zoning Ordinance Building Envelope Standards (Section IV., B., C., D. and E.) the ground floor of a Main Street site may include a mezzanine if the following criteria are met:

- The mezzanine uses correspond with permitted “retail” uses as defined in Section 20 of the Zoning Ordinance.
- The floor area of the mezzanine level is no greater than two-thirds of the floor area of the floor below.
- The maximum floor-to-floor story height for the ground floor is 24 feet.
- The distance between the top of the building slab marking the ground floor to the bottom of the building slab marking the floor of the mezzanine level shall be at least 15 feet for that portion of the ground floor within the one-third of the floor area contiguous with the RBL frontage.
- The mezzanine shall be physically connected to the first floor below, by being accessible either:
 - a. from within individual units of the first floor below, or
 - b. from a lobby on the first floor by visible and separate means, such as stairs or an escalator, with the mezzanine open to and/or visible from the lobby through the use of transparent and/or semi-transparent glass.

Form Based Code Determination No. 2 – Discrete Vertical Façade Composition (3/17/06)

The standard in Article 11.1 (Appendix A) of the Arlington County Zoning Ordinance [Section III. B.(2.) B.(1.)] that a building shall present a “discrete vertical façade composition” at a maximum average street frontage length shall be met if the proposal contains clearly different ground story façade composition elements (such as framing materials and window proportions), and at least three (3) of the following upper story criteria:

- Clearly different window shape or proportion (ratio of width to height),
- Clearly different façade composition (i.e. bay rhythm – “ABA” – “ABBA” – “BAAB” – “ABCBA”),
- Clearly different exterior wall materials,
- Clear change in fenestration percentage (minimum difference 12%), and
- Clear change in elevation of roofline, cornice line, or eaves.

Form Based Code Determination No. 3 – Open Contiguous Lot Area Requirements (03/02/11)

Under Article 11.1 (Appendix A) Columbia Pike - Form Based Code Districts of the Arlington County Zoning Ordinance, Section IV. (D.), The Regulating Plans, Local Sites and Neighborhood Sites, the property owner may comply with the Siting Specifications for the OPEN CONTIGUOUS LOT AREA* if either occurs:

- The 15% OCLA* requirement on Local sites (and 30% OCLA* requirement on Neighborhood sites) is calculated on and provided within the BUILDABLE AREA of each LOT*, when treating each individual lot as a “site”; or
- The 15% OCLA* requirement on Local sites (and 30% OCLA* requirement on Neighborhood sites) is calculated on the total Local or Neighborhood site’s BUILDABLE AREA* and is aggregated into one common space within said BUILDABLE AREA*.

* Indicates terms defined in the Columbia Pike Form Based Code.

FORM BASED CODE AMENDMENTS (REGULATING PLANS)

**1. Form Based Code Regulating Plans (Town Center and Village Center)
Amendment adopted on February 7, 2004**

Modification of the Form Based Code Regulating Plan for properties located on both sides of Columbia Pike within the "Town Center" and "Village Center," modification of the Form Based Code Streetscape Standards and adoption of the Columbia Pike Form Based Code for the Neighborhood Center and Western Gateway areas of Columbia Pike.

**2. Form Based Code Regulating Plans (Town Center and Village Center)
Amendment adopted on May 20, 2006**

Modification of Town Center Regulating Plan to show Required Building Lines that provide appropriate street space from face-of-building to face-of-building.

**3. Form Based Code Regulating Plans (Town Center and Village Center)
Amendment adopted on November 14, 2006**

Modification of Town Center Regulating Plan to adjust the width of the street space shown in the Regulating Plan for South Glebe Road and South Walter Reed Drive.

**4. Form Based Code Regulating Plans (Town Center and Village Center)
Amendment adopted on November 13, 2007**

Modification of Town Center Regulating Plan to show a revised alignment of the Required Building Lines along South Highland Street, between Columbia Pike and 11th Street South.

**5. Form Based Code Regulating Plans (Neighborhood Center)
Amendment adopted on December 15, 2007**

Modification of Neighborhood Center Regulating Plan to redraw the "Columbia Pike Special Revitalization District" boundary to include Arlington Mill Drive and the northern portion of the Arlington Mill property and to designate a portion of the Dinwiddie Street frontage as an Avenue Site.

**6. Form Based Code Regulating Plans (Neighborhood Center)
Amendment adopted on January 26, 2008**

Modification of Neighborhood Center Regulating Plan to adjust the distance between the Dinwiddie Street Required Building Lines from 91feet to 80 feet south of 9th Street South and 65 north of 9th Street South.

**7. Form Based Code Regulating Plans (Town Center)
Amendment adopted on April 16, 2011**

Modification of Town Center Regulating Plan to add a new north/south street between planned 11th and 12th Streets on the Rosenthal Dealership site, bounded by S. Glebe Road to the east and S. Monroe Street to the west. The new street frontage would be designated as Local Building Envelope Standard while including a typical 65-foot cross-section. *This amendment is also identified as FBC 13 in Attachment E of this document to match approved staff report*

**8. Form Based Code Regulating Plans (Town Center)
Amendment adopted on April 12, 2014**

Modification of Town Center Regulating Plan to adjust the Revitalization District boundary to follow the C-2 zoning district line between S. Barton Street and S. Wayne Street. The change would add the remainder of commercial properties in this area to the Revitalization District, thus slightly increasing the area eligible to redevelop using the Main Street Site designation. *This amendment is also identified as FBC 17 in Attachment E of this document to match approved staff report*

**9. Form Based Code Regulating Plans (Western Gateway)
Amendment adopted on March 12, 2016**

Modification of Western Gateway Regulating Plan to adjust the Required Building Lines between South Greenbrier Street and South Jefferson Street to reflect the transportation improvements proposed as part of the Columbia Pike Multi-Modal Street Improvements and to reflect the existing street condition and building placement of the 55 Hundred FBC project.

FORM BASED CODE AMENDMENTS (TEXT AND BUILDING ENVELOPE STANDARDS)

**1a. Form Based Code Building Envelope Standards (Main Street Sites)
Amendment adopted on September 17, 2005:**

Modify the Building Envelope Standards in Section IV. B. and C. of the Form Based Code to incorporate a new minimum floor-to-ceiling height requirement for all upper stories;

**1b. Form Based Code Section II. Definitions
Amendment adopted on September 17, 2005**

OPEN CONTIGUOUS LOT AREA

The contiguous area within the BUILDABLE AREA, that is accessible to all occupants of the particular building or site, open to the sky, not built-upon, and neither parked nor driven upon. For MAIN STREET sites, OPEN CONTIGUOUS LOT AREA may be located on top of the first STORY, but in no case can it be above the top of the second STORY. For AVENUE, LOCAL, and NEIGHBORHOOD sites, OPEN CONTIGUOUS LOT AREA shall be at grade (unenclosed decks shall not be construed to violate this provision). Areas within the OPEN CONTIGUOUS LOT AREA shall not be used for storage, trash collection, or placement of mechanical equipment.

**2. Form Based Code Section II. Definitions
Amendment adopted on November 16, 2005**

DORMERS

Small, roofed architectural features located within the main roof of a hipped or gabled roof ancillary structures with windows providing light and air to occupiable space within the roof. DORMERS are permitted and do not constitute a STORY so long as they do shall not break the primary EAVES line.; DORMERS shall not result in the creation of additional occupiable space above what is otherwise permitted by limits in the BUILDING ENVELOPE STANDARDS. DORMERS shall be are individually less than 15 feet wide, and shall, are collectively, occupy no not more than sixty (60 percent) of the unit's REQUIRED BUILDING LINE facade.

**3. Form Based Code Section III. Regulating Plans, B. Rules for the Regulating Plan and New Development Plans, 6. Historic Preservation
Amendment adopted on December 10, 2005:**

Optional exceptions:

1. Up to Two additional STORIES, with appropriate design and tapering, subject to HALRB review and approval, are permitted on the remainder of the site, provided overall building height is within the maximum (in feet) for the site.

For example, on a MAIN STREET SITE, the maximum height is 6 STORIES, the equivalent to 94 feet under the **Form Based Code**. (Maximum floor heights are 24 ft., 14 ft., 14 ft., 14 ft., 14 ft., 14 ft.) Thus up to an additional two STORIES are permitted, but overall building height cannot exceed 94 feet.

**4. Form Based Code Building Envelope Standards (Main Street and Avenue Sites)
Amendment adopted on February 25, 2006**

Modification of the Form Based Code to revise the Building Envelope Standards in section IV. B., C., D. and E. of the Form Based Code to delete the references to "podiums" and make minor editorial changes to eliminate inconsistencies and provide greater clarity.

**5a. Form Based Code Section II. Definitions
Amendment adopted on April 19, 2008**

CIVIC BUILDINGS

Those buildings that house CIVIC USES located on the sites designated on the REGULATING PLAN. CIVIC BUILDINGS and PUBLIC ART are situated at prominent locations within the Columbia Pike Special Revitalization District. ~~Publicly owned CIVIC BUILDINGS and publicly owned PUBLIC ART are not subject to the BUILDING ENVELOPE STANDARD PRESCRIPTIONS OF THIS CODE.~~

**5b. Form Based Code Section III. Regulating Plans, B. Rules for the Regulating Plan and New Development Plans, 2. Buildings
Amendment adopted on April 19, 2008:**

F. Publicly owned CIVIC BUILDINGS and publicly owned PUBLIC ART are not subject to the BUILDING ENVELOPE STANDARD prescriptions of this Code. The County Board may modify all other provisions of this Code for publicly-owned CIVIC BUILDINGS, publicly owned PUBLIC ART, and CIVIC BUILDINGS located on County property which house a significant amount of public CIVIC USES if it finds that the subject development has undergone a public review process and that, after the proposed modification (s), the subject development will better accomplish the purposes and intent of Section 20, and its corresponding Appendix A "CP-FBC," Columbia Pike – Form Based Code, of the Arlington County Zoning Ordinance than would the development without those modifications and that the proposed uses will not:

1. Adversely impact the health or safety of persons residing or working in the neighborhood of the proposed use;
2. Be detrimental to the public welfare or injurious to property or improvements in the neighborhood; and
3. Be in conflict with the purposes or vision of the Columbia Pike Corridor as described in the Columbia Pike Initiative Plan Update (2005), as amended, or other master plans of the County.

**6. Form Based Code Section VI. Architectural Standards, F. Signage
Amendment adopted on April 25, 2009:**

(Note: In addition to the following language, signs were also added to the list of Form Based Code requirements that can be modified by the County Board under Section VIII, Attachment A: Section 20.E.3 "CP-FBC" - Columbia Pike Form Based Code Districts)

STANDARDS FOR SIGNAGE (WHERE CLEARLY VISIBLE FROM THE STREET)

Signs that are permitted in Section 34.A.1, 34.A.4, 34.D.4, 34.E, 34.F.1, 34.F.5 and 34.J of the Zoning Ordinance are permitted on property developed under the Form Based Code.

General:

In addition, Form Based Code projects may have the following number of signs, provided they comply with the standards set forth below:

AWNING signs, 1 masonry or bronze plaque per building bearing an owner's or building's name and STREET address signs. In addition, 1 blade sign, 1 graphics sign and up to a total of 3 wall or window signs per tenant. One additional wall or window sign and 1 additional blade sign are permitted for tenants occupying retail or office spaces with more than one STREET FRONTAGE.

Signage Standards:

- Wall signs (placed against a wall) are permitted only within the area above the GROUND STORY windows and below the second STORY windows between the second story floor line and the first floor ceiling, within a horizontal band not to exceed 2 feet in height. In no case shall this band shall not be located higher than 18 feet or lower than 12 feet above the adjacent sidewalk.
- Letters on wall signs shall not exceed 18 inches in height or width and 6 3 inches in relief. Wall signs shall not come closer than 2 feet to an adjacent COMMON LOT LINE or the boundary of the area permitted to be used by the retail or office tenant and shall not exceed 20 feet in length.
- Company logos or names may be placed within the horizontal band or placed or painted Window Signs are permitted to be placed or painted within GROUND FLOOR or second STORY office and retail windows and . Company logos or names shall not be larger than the entire window sign shall fit within a rectangle of 8 square feet.
- A One masonry or bronze plaque bearing an owner's or building's name may be placed in the building's cornice/PARAPET wall or under the eaves, and above the upper STORY windows. Any such plaque shall be no larger than a rectangle of 8 square feet.
- STREET address signs may be placed at STREET entry doors using 6 to 8 inch tall, non-cursive type lettering. Such letters shall be located between 6 feet and 10 feet above grade.
- Blade type shop signs are encouraged, and shall be permitted for retail and office tenants. They shall be not more than (not more than 24 inches vertical by 3 feet horizontal 6 square feet and shall be located so that there is a minimum of 10 9 feet clear height above the sidewalk and below the blade type sign.) are encouraged Blade signs and may be hung from an overhang or AWNING. Blade signs shall not be internally illuminated and the company name or logo may occupy no more than one-half of the square footage within the blade sign. Creative art, graphics or materials are encouraged in the area of the blade sign not containing the company name or logo. Only one Blade sign shall be permitted in addition to the permitted square footage of signage affixed to the facade of the building. per tenant per STREET FRONTAGE and only for tenants occupying the GROUND FLOOR or second STORY.
- One graphics sign (a graphics sign is a sign designed to be read only from a distance of less than 3 feet away), such as, but not limited to restaurant menus or building directories, may be displayed in a permanently mounted display box of not more than 3 square feet on the surface of the building adjacent to the entry. Graphics signs shall not be exposed to the elements.
- Prohibited Signs: The following signs are prohibited unless otherwise permitted by the County Board by Special Exception: Billboards, canopy signs, marquees, any kind of animation, signs

located above a height of 35 feet except of masonry or bronze plaques as permitted above, roof, freestanding signs, and painted window signs other than described above, and signs painted on the exterior walls of buildings are prohibited. Under no circumstances shall No flashing, traveling, animated, or intermittent lighting be on the exterior of any building whether such lighting is of temporary or long-term duration, and under no circumstances shall the County Board permit: Portable or wheeled signs and advertising devices located outside any building, are not allowed, pursuant to County regulations. billboards, any kind of animation or signs specified in Section 34.C. of the Zoning Ordinance.

- External lighting directed towards signage that is not internally illuminated is permitted. The energy efficiency of lighting should be considered.

AWNINGS/Overhangs:

Notwithstanding the foregoing, When an AWNING or overhang is incorporated into a building, the following requirements must be met:

- Minimum 10 feet clear height above sidewalk, minimum 6 feet depth out from the building façade (maximum to curb or tree-planting strip/furniture zone, whichever is closer).
- Canvas cloth or equivalent (no shiny or reflective materials), metal or glass.
- No internal illumination through the AWNING/Overhang.
- Lettering and/or logo on AWNING limited to 5 inches tall on vertically hanging fabric at curb side of AWNING.
- No one-quarter cylinder configurations.

**7. Form Based Code Section III. Regulating Plans, B. Rules for the Regulating Plan and New Development Plans, 5. Retail
Amendment adopted on July 11, 2009:**

(Note: In addition to this citation, the following language was also added to Section VIII, Attachment A: Sections 20.A and 20.B "CP-FBC" - Columbia Pike Form Based Code Districts)

***The following uses are permitted with Special Exception Use Permit**

If any of the aforementioned uses provide classes or instruction to children and, either twenty (20) percent or more of the total number of students enrolled in classes and/or instruction are children under eighteen (18) years of age or the total number of children under eighteen (18) years of age enrolled in classes scheduled to be held at any one time is ten (10) or more, the use may only be established subject to obtaining a use permit.

**8a. Form Based Code Section II. Definitions
Amendment adopted on January 23, 2010:**

STREET TREE ALIGNMENT LINE

A line along which Street Trees are to be planted. The Street Tree Alignment Line is parallel with the Street or Square right of way and, unless otherwise specified in the appropriate Regulating Plan, is 4 feet from the back of the curb centered within the tree pit. (Existing trees are not required to be relocated by this requirement).

**8b. Form Based Code Section III. Regulating Plans, B. Rules for the Regulating Plan and New Development Plans, 4. Parking
Amendment adopted on January 23, 2010:**

E. Bicycle Parking:

1. For office development uses, the developer ~~must~~ shall provide 1 employee bicycle parking space rack or bicycle locker (2-bike capacity) per 7,500 square feet of GFA and 1 visitor/customer bicycle parking space rack (2-bike capacity) per 20,000 square feet of GFA.
2. For residential development uses, the developer ~~must~~ shall provide 1 tenant bicycle parking space rack or bicycle locker (2-bike capacity) per 3 units and 1 visitor bicycle parking space rack (2-bike capacity) per 50 units.
3. For retail development uses, the developer ~~must~~ shall provide 1 employee bicycle parking space rack or bicycle locker (2-bike capacity) per 5,000 square feet of GFA and 1 visitor/customer bicycle parking space rack (2-bike capacity) per 12,500 25,000 square feet of GFA.
4. For hotel uses, the developer shall provide 1 employee bicycle parking space per 10 guest rooms.
5. All tenant and employee bicycle parking facilities are to be highly visible to intended users and shall be protected from rain and snow within a secure structure, meeting Class 1 secure storage standards as contained in the Arlington County Master Transportation Plan's Bicycle Element (July 2008) and as may be subsequently amended. Where tenant and employee bicycle parking cannot be accommodated within structured parking located on site, the design of the independent bicycle parking facility, also to be located on site, shall be screened from view of pedestrians along a STREET and constructed using the same materials or materials appearing to be the same as those used on the primary building(s). The bicycle parking facilities shall not encroach on any area in the public right of way intended for use by pedestrians, nor shall they encroach on any required fire egress.
6. On-street bicycle parking spaces (as defined in Section V. B. Minimum Standards VI. G. Lighting and Mechanical Equipment) may be counted toward the minimum customer/visitor bicycle parking requirement.

**8c. Form Based Code Section V. Streetscape Standards, B. Minimum Standards
Amendment adopted on January 23, 2010:**

THE STREETScape

- Each STREET shall have canopy shade trees (STREET TREES). Wherever the REGULATING PLAN does not show specific STREET TREES placement, STREET TREES shall be planted along the STREET TREES ALIGNMENT LINE at an average spacing not greater than 25 to 30 feet on center (measured per BLOCK face). Required tree planting area widths are specified on the typical street cross sections in the Master Transportation Plan – Part I. However, open soil surface area shall be not less than 60 square feet (~~with a minimum of 5 feet in any direction~~) per isolated tree, and connected (tree strip) planting areas are encouraged. The planting area's minimum dimension shall be ~~not less than 5 feet~~ or as indicated in Arlington County Landscape Standards, Section II.B. Tree Pit Size/Planting Strip Size. At planting, trees shall be at least 4 to 4.5 inches in diameter (4 feet above grade) and at least 12 feet in overall height. Species shall be selected from the Columbia Pike Special Revitalization District Street Tree List. Consult the ADMINISTRATIVE REVIEW TEAM for the designated tree species for a particular STREET.

ON-STREET PARKING

- On-street parking nubs shall be incorporated into the sidewalk in a pattern consistent with the Master Transportation Plan.
- The parking space/tree planting pattern may be interrupted by existing or proposed new driveways, STREETS, ALLEYS, and transit stops/stations.
- Parking spaces shall be constructed in a manner that allows proper drainage (toward a valley gutter at the curb line)
- Parking spaces shall be constructed according to County standards to ensure accessibility for street cleaning vehicles.

STREET FURNITURE

- Benches - Benches will shall have backs and arm rests.
 - The current standard bench purchased with County funds for Columbia Pike is standard bBenches for in the Columbia Pike corridor shall be is the Victor Stanley "Steelsites Streetsites" model # R-B 28 or equivalent.
 - Benches located in the furniture zone and oriented perpendicular to the street shall be 4 feet in length.
 - Bench ratios provided below shall be used to calculate only the total number of required benches and may not necessarily determine the bench locations.
 - Where present, the amount of frontage dedicated to transit stops, as determined by the Department of Environmental Service (or its successor agency), transit may be subtracted from the overall building frontage when calculating the total number of of required benches.
 - For each Main Street or AVENUE site project, one (1) bench will shall be provided for every 30-50 feet of STREET FRONTAGE on a project.
 - For each Local site that is built to a LIVE/WORK standard, one bench shall be provided for every 100 feet of street frontage. Local sites that are not built to a LIVE/WORK standard and Neighborhood sites are exempt from the bench requirement.
- Waste Bins - The standard waste bin for the Columbia Pike corridor is the Victor Stanley "Bethesda Series" model # S-42 or equivalent. At a minimum, one (1) waste bin will shall be provided at each BLOCK CORNER or BUILDING CORNER.
- Bike Racks – Bike racks for the Columbia Pike corridor shall be an inverted "U" in galvanized steel with a baked-on black paint finish.
 - Bike racks (2-bike capacity) shall be installed on both sides of the Street, along the Street Tree Alignment Line or within the furniture zone at no more than 60' intervals (not to interfere with the placement of Street Trees or Street Lights), measured parallel to the Street. At the time of the development, the developer is only responsible for the installation of bicycle racks on the side(s) of the Street being developed.
 - Where feasible and not in conflict with other streetscape elements, at least 50% of visitor/guest bike racks shall be located within 50 feet of the primary residential/office building entrance and shall be located in groups of two or more. In all other locations, bike racks shall be distributed within a project either as a single rack or in groups of two.
- Placement and model/type of all street furniture and fixtures, if different than the current standard, will be reviewed by the ADMINISTRATIVE REVIEW TEAM.

GENERAL NOTES

- All plant material (including trees) shall conform to the standards of the American Association of Nurserymen and shall have passed any inspections required under State regulations.
- Invasive exotic species found anywhere on the LOT shall be removed.
- Mechanical and electrical equipment including, but not limited to, air compressors, pumps, exterior water heaters, water softeners, private garbage cans (not including public sidewalk waste bins), and storage tanks may not be stored or located within any STREET. (Water pumps not visible are not included in this prohibition.)
- STREET LIGHTING shall be placed along the STREET TREE ALIGNMENT LINE or within the furniture zone as shown in the Master Transportation Plan.

C. Squares and Civic Greens

MATERIALS AND CONFIGURATIONS

- Wherever the REGULATING PLAN or the Master Transportation Plan does not show specific STREET TREE placement, STREET TREES shall be planted along the STREET TREE ALIGNMENT LINE at an average spacing not greater than 25 to 30 feet on center.

STREET FURNITURE

- ~~Benches~~ Benches will have backs and arm rests.
- ~~The current standard bench purchased with County funds for Columbia Pike is the Victor Stanley "Steelsites" model # R-B-28 or equivalent.~~
- ~~For each project, one (1) bench will be provided for every 30 feet of STREET FRONTAGE on a project.~~
- ~~Waste Bins~~ The standard waste bin for the Columbia Pike corridor is the Victor Stanley "Bethesda Series" model # S-42 or equivalent. At a minimum, one (1) waste bin will be provided at each BLOCK CORNER or BUILDING CORNER.
- ~~Bike Racks~~ The standard bike rack for the Columbia Pike corridor is an inverted "U" ingalvanized steel with a baked on black paint finish.
- ~~Placement and model/type of all street furniture and fixtures, if different than the current standard, will be reviewed by the ADMINISTRATIVE REVIEW TEAM.~~

D. Columbia Pike Special Revitalization District Street Tree List

The following list contains all species approved for use in the Columbia Pike Special Revitalization District. It contains native and acceptable adapted species. Other species may be used for planting within a LOT. Invasive exotic species may not be used anywhere on LOTS or other areas within the Columbia Pike Special Revitalization District. Species in **bold type** are specified (first preference) for placement along the STREET TREE ALIGNMENT LINE, as specified in the REGULATING PLAN. Species marked with an asterisk shall be used in limited areas such as larger open landscaped areas, rather than for street tree use. At the recommendation of the ADMINISTRATIVE REVIEW TEAM in coordination with the County's urban forester, modifications to this list may be made at a future date.

**Columbia Pike Special Revitalization District
STREET TREE LIST**

- | | | |
|--------------------------|--------------------------------|--|
| <input type="checkbox"/> | Acer nigrum | Black Maple |
| <input type="checkbox"/> | Acer rubrum | Red Maple (Town and Village Centers) |
| <input type="checkbox"/> | Carya ovata | Shagbark Hickory |
| <input type="checkbox"/> | Celtis laevigata | Sugar Hackberry * |
| <input type="checkbox"/> | Fraxinus americana | White Ash |
| <input type="checkbox"/> | Ginko Biloba | Ginko (male only) |
| <input type="checkbox"/> | Gleditsia triacanthos inermis | Thornless Honey Locust * |
| <input type="checkbox"/> | Gymnocladus dioicus | Kentucky Coffeetree 'Stately Manor' or 'Espresso' (male only) |
| <input type="checkbox"/> | Liquidambar styraciflua | Sweetgum * |
| <input type="checkbox"/> | Nyssa sylvatica | Tupelo Black Gum * |
| <input type="checkbox"/> | Ostrya virginiana | Hophornbeam |
| <input type="checkbox"/> | Platanus x acerifolia | London Planetree (Neighborhood Center) |
| <input type="checkbox"/> | Platanus occidentalis | Sycamore |
| <input type="checkbox"/> | Quercus phellos | Willow Oak (Western Gateway) |
| <input type="checkbox"/> | Quercus rubra | Red Oak * |
| <input type="checkbox"/> | Quercus velutina | Black Oak |
| <input type="checkbox"/> | Taxodium disticum | Bald Cypress |
| <input type="checkbox"/> | Tilia americana | American Basswood (American Linden)* |
| <input type="checkbox"/> | Tilia tomentosa | Silver Linden |
| <input type="checkbox"/> | Ulmus americana | American Elm (Valley Forge) |
| <input type="checkbox"/> | Ulmus parvifolia | Lacebark Elm |
| <input type="checkbox"/> | Zelkova serrata | Japanese Zelkova |

* * *

8d. Form Based Code Section VI. Architectural Standards, G. Lighting and Mechanical Equipment | Amendment adopted on January 23, 2010:

**STANDARDS FOR LIGHTING AND MECHANICAL EQUIPMENT
(WHERE CLEARLY VISIBLE FROM THE STREET)**

* * *

~~On-Street Bicycle Parking:~~

~~Bicycle racks (2-bike capacity) shall be installed on both sides of the STREET, along the STREET TREE ALIGNMENT LINE or within the furniture zone at no more than 60-foot intervals (not to interfere with the placement of STREET TREES or STREET LIGHTS) measured parallel to the STREET. At the time of development, the developer is only responsible for the installation of bicycle racks on the side(s) of the STREET being developed.~~

**9a. Form Based Code Section III. Regulating Plans, B. Rules for the Regulating Plan and New Development Plans, 5. Retail
Amendment adopted on April 27, 2010:**

* * *

Secondary Retail

* The following uses are permitted with Special Exception Use Permit

Audio-visual production studio	Mortuary or funeral home
Automotive service station	Tire shop
Carpet and rug cleaning (excluding dying)	Upholstery shop
Food delivery service	Vehicle service establishment
Miniature golf course	

**9b. Form Based Code Section VIII. Attachments, A. Zoning Section 20. "CP-FBC" - Columbia Pike Form Based Code Districts
Amendment adopted on April 27, 2010:**

A. Uses Permitted

~~3154. Motor vehicle dealership, sales or rental lot, provided that the use complies with the standards identified in Section 26.C.4, and provided that indoor and/or outdoor display area(s) do not exceed 300 linear feet along Main Street or Avenue frontage. Motor vehicle dealerships, sales or rental lots are specifically prohibited on Neighborhood and Avenue Sites.~~

B. Special Exceptions

~~413. Automotive painting, upholstering, rebuilding, reconditioning, body and fender work, truck repairing or overhauling and the like Vehicle body shop, so long as such activities are conducted entirely within an enclosed structure building.⁹~~

~~314. Automobile service station, Vehicle service establishment, provided that any incidental vehicle repairs such as tube and tire repairing, battery charging and storage or merchandise and supplies shall be conducted wholly within a building, and that any lubrication or washing not conducted wholly within a building shall be permitted only if a masonry wall, seven (7) feet in height, is erected and maintained between such uses and any adjoining "R" District.~~

~~15. Tire shop.~~

**10. Form Based Code Section III. The Regulating Plans, B. Rules for the Regulating Plan and New Development Plans, 2. Buildings
Amendment adopted on May 25, 2010:**

* * *

E. When the BUILDING ENVELOPE STANDARD designation changes along ~~the a property frontage STREET FRONTAGE or at the BLOCK CORNER within a development proposal~~, the ~~property owner applicant~~ has the option of applying either BUILDING ENVELOPE STANDARD (BES) for a maximum additional distance of 50 feet ~~in either direction along that frontage STREET FRONTAGE or around that BLOCK CORNER~~.

* * *

**11a. Form Based Code Section II. Definitions
Amendment adopted on May 25, 2010:**

* * *

ENGLISH BASEMENT

A dwelling unit, with kitchen and bath, which is below the GROUND FLOOR of a building, partially below and partially above the grade of the fronting sidewalk, has its own separate entrance from the rest of the building and which may have internal access to the GROUND FLOOR dwelling unit.

* * *

GROUND FLOOR, GROUND STORY

The first level of ~~MAIN STREET and LIVE/WORK SITE~~ a building where at least 80 percent of the finished floor elevation is within ~~the finished floor elevation parameters established in the designated BES 18 inches of the adjacent fronting sidewalk level~~. The next STORY above the GROUND STORY is the second floor. ~~(When a residential use occupies the GROUND FLOOR it shall be 30 to 60 inches above the fronting sidewalk elevation, as indicated in the BUILDING ENVELOPE STANDARDS.)~~

* * *

LOCAL STREET BUILDING

~~Buildings as defined in the BUILDING ENVELOPE STANDARD for LOCAL STREET SITES. One of a series of attached similiar buildings, as defined in the BUILDING ENVELOPE STANDARDS for LOCAL STREET sites, separated by common party walls without openings extending from basement to roof. Each building may contain one or more dwelling units.~~

* * *

PORCH

A covered platform on the RBL side of a building. A PORCH shall not be enclosed.

* * *

VESTIBULE

An open or enclosed passage or hall, of not more than 30 square feet, between an exterior opening or door and the interior of a building.

* * *

**11b. Form Based Code Section III. The Regulating Plans, B. Rules for the Regulating Plan and New Development Plans, 4. Parking
Amendment adopted on May 25, 2010:**

B. Sites under 20,000 square feet in land area have no minimum parking requirements, except that on LOCAL sites of less than 20,000 square feet in land area and with more than two dwelling units per LOCAL STREET BUILDING, parking shall be provided for each dwelling unit, as required in Section III.B.4.C.

C. ~~Sites over 20,000 square feet in land area and~~ All other sites not expressly covered by Section III.B.4.B. shall meet ~~have~~ the following requirements:

1. A minimum of 1 and 1/8 parking spaces per residential dwelling unit, of which a minimum of 1/8 parking space per residential unit shall be provided as SHARED PARKING. There are no maximum limits on SHARED PARKING.
2. A minimum of one space per 1,000 square feet of non-residential Gross Floor Area (GFA) shall be provided as SHARED PARKING; there are no set maximum limits on SHARED PARKING. New on-street parking spaces created in conjunction with the development, which did not previously exist, may be counted toward the minimum requirement for SHARED PARKING. Any limitations on the SHARED PARKING (time limits or hours of the day) shall be subject to approval by the Zoning Administrator which shall be given upon a finding that at least 12 hours of public parking are provided in any 24-hour period and that at least 8 of those hours are provided during either business or nighttime hours depending on whether the Zoning Administrator determines that the primary public use will be for commercial or residential uses.
3. A maximum of one space per 1,000 square feet of non-residential GFA or two spaces per residential dwelling unit may be made available for RESERVED PARKING.
4. RESERVED PARKING above the maximum may be provided upon payment to the County. The County Manager shall establish the amount of payment annually based on the approximate cost to build structured parking.

**11c. Form Based Code Section IV. Building Envelope Standards B. Main Street Sites Amendment
adopted on May 25, 2010:**

2. Siting Specifications

STREET Facade

1. The STREET facade shall be built-to not less than 75 percent of the overall RBL. However, the GROUND FLOOR portions of the STREET facade within 7 feet of a BLOCK CORNER are exempt from this requirement in order to allow special corner treatments in these areas.

2. The STREET facade shall be composed as a simple plane (limited jogs less than 24 inches are considered a simple plane within this requirement) interrupted only by ~~porches~~-PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES.

**11d. Form Based Code Section IV. Building Envelope Standards C. Avenue Sites
Amendment adopted on May 25, 2010:**

2. Siting Specifications

STREET Facade

1. The STREET facade shall be built-to the RBL not less than 10 percent of the overall RBL.
2. That portion of a facade that is required to be built to the RBL shall be composed as a simple plane (limited jogs less than 18 inches are considered a simple plane within this requirement) interrupted only by porches PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES.

**11e. Form Based Code Section IV. Building Envelope Standards D. Local Sites
Amendment adopted on May 25, 2010:**

1. Height Specifications

GROUND STORY Height

1. The ~~first~~ GROUND STORY finished floor elevation of ~~any each~~ residential unit LOCAL STREET BUILDING shall be between 0 and 5 inches or 36 and 60 inches above the fronting sidewalk. ~~Where The finished floor elevation for LIVE-WORK development shall be between 0 inches and 18 inches above the fronting sidewalk; and have at least 12 feet clear height for at least 1/3 of its area contiguous to RBL frontage.~~
2. The maximum floor-to-floor STORY HEIGHT limit for the GROUND FLOOR is 14 feet.
3. The ~~first~~ GROUND STORY shall have at least 9 feet 4 inches in clear height for at least 80 percent of its area. The GROUND STORY of LIVE-WORK development shall have at least 12 feet clear height for a depth of at least 1/3 of its floor area contiguous to each frontage adjacent to an RBL.

Upper STORIES Height

1. All STORIES shall have at least 9 feet 4 inches in clear height for at least 80 percent of their area.
2. The maximum floor to floor STORY HEIGHT limit for upper STORIES is 12 feet.

2. Siting Specifications

STREET Facade

1. The STREET facade shall be built-to not less than 75 percent of the overall RBL. However, at the GROUND FLOOR, portions of the STREET facade within 7 feet of a BLOCK CORNER are exempt from this requirement in order to allow special corner treatments in these areas.
2. That portion of a facade that is required to be built to the RBL shall be composed as a simple plane (limited jogs less than 18 inches are considered a simple plane within this requirement) interrupted only by porches PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES.

Lot/Dwelling Unit Width

The LOT/dwelling unit width shall be between 16 feet and 32 feet. No more than 1/3 of the LOCAL STREET BUILDINGS ~~units in any phase within a development proposal~~ shall be less than 18 feet wide. A maximum of 7 ~~units~~ LOCAL STREET BUILDINGS or 150 feet (whichever is greater) shall be contiguous as a single building

attached group of LOCAL STREET BUILDINGS. There shall be a 10 foot gap (gated) between multiple buildings groups of LOCAL STREET BUILDINGS.

3. Elements Specifications

STOOPS

1. Each LOT/unit LOCAL STREET BUILDING shall include a either no more than one STOOP of not more than 5 feet deep and 6 feet wide (plus steps) which is required to be built forward of the (RBL); or a no more than one front porch PORCH, between 8 feet and 10 feet deep with a width not less than 50 percent of the RBL –with the building facade placed an additional 2 feet back from the STREET/RBL. Provided, however, that when the finished floor elevation of the GROUND STORY is between 0 to 5 inches above the grade of the fronting sidewalk, a STOOP is not required, and at least 2 feet of the shy zone (the area adjacent to the building face, at least 2 feet in width) shall be distinguished from the sidewalk by a change in material, color, finish or landscaping when a PORCH is not provided.

2. No more than two entries per STOOP, PORCH or shy zone treatment as described above in STOOPS (1.) shall be permitted and the STOOP, PORCH or shy zone treatment as described above in STOOPS (1.) may provide access to a VESTIBULE. In addition, any LOCAL STREET BUILDING may include an entry on the RBL side of the building into an ENGLISH BASEMENT. No entries are permitted below the GROUND STORY on the RBL side of LOCAL STREET BUILDINGS with a GROUND STORY finished floor elevation of 0 to 5 inches above the fronting sidewalk.

4. Use Specifications

GROUND STORY

A GROUND FLOOR may have residential and home office uses. Where a site is designated LIVE-WORK, the GROUND FLOOR may additionally have small professional office, building lobby, building manager's office, ancillary retail grocery, and cafe uses (each less than 1,200 sf).

Upper STORIES

Upper STORIES shall be exclusively for residential and home occupations, as defined by the County. Where a site is designated LIVE-WORK on the REGULATING PLAN, the second STORY may include small professional office uses.

LOCAL STREET BUILDINGS

A LOCAL STREET BUILDING may include up to two dwelling units and an ENGLISH BASEMENT, provided that no stairway or corridor, except a VESTIBULE, shall serve as common access for multiple dwelling units.

ACCESSORY UNITS

1. Either One English basement ENGLISH BASEMENT unit or one ACCESSORY UNIT is permitted, except that an ENGLISH BASEMENT is not permitted where the GROUND STORY finished floor elevation is less than 36 inches above the fronting sidewalk. Conversion of primary structure single family units for multiple family uses is prohibited.

2. Parking and ACCESSORY UNIT (maximum 650 sf) uses are permitted in the building area at the rear of the LOT.

Garage/Parking

The garage/parking for vehicles (autos, trailers, boats, etc.) shall be located at least 25 feet away from any RBL (excepting basement garages).

The following requirements apply only to LIVE-WORK Designated Sites

1. There is no requirement for a front porch STOOP, PORCH or shy zone treatment as described above in STOOPS (1.) requirement.

2. There is no front yard fence requirement.

3. The GROUND STORY finished floor elevation shall be between 0 and 18 inches above the adjacent sidewalk elevation and the GROUND STORY shall have a clear height of between 12 and 19 feet.

**11f. Form Based Code Section IV. Building Envelope Standards E. Neighborhood Sites
Amendment adopted on May 25, 2010:**

1. Height Specifications

Building Height

1. Principal building height is measured in STORIES.
2. The building shall be no more than 3 STORIES in height.
3. No accessory building shall be more than 18 feet to its EAVES.

GROUND FLOOR and Second STORY Height

1. The first GROUND FLOOR finished elevation shall be between 30 and 69 inches above the average RBL elevation.
2. The maximum floor-to-floor STORY HEIGHT limit for the GROUND FLOOR STORY is 14 feet.
3. The GROUND FLOOR STORY and second STORIES shall have at least 9 feet 4-inches in clear height for at least 80 percent of the area of the particular STORY.

Upper STORIES Height

1. The maximum floor-to-floor STORY HEIGHT for upper STORIES is 10 feet.
2. Each STORY above the second STORY shall have at least 8 feet 8 inches in clear height for at least 80 percent of its area.

Mezzanines

Mezzanines greater than 2/3 of the floor area footprint shall be counted as full STORIES.

2. Siting Specifications

STREET Facade

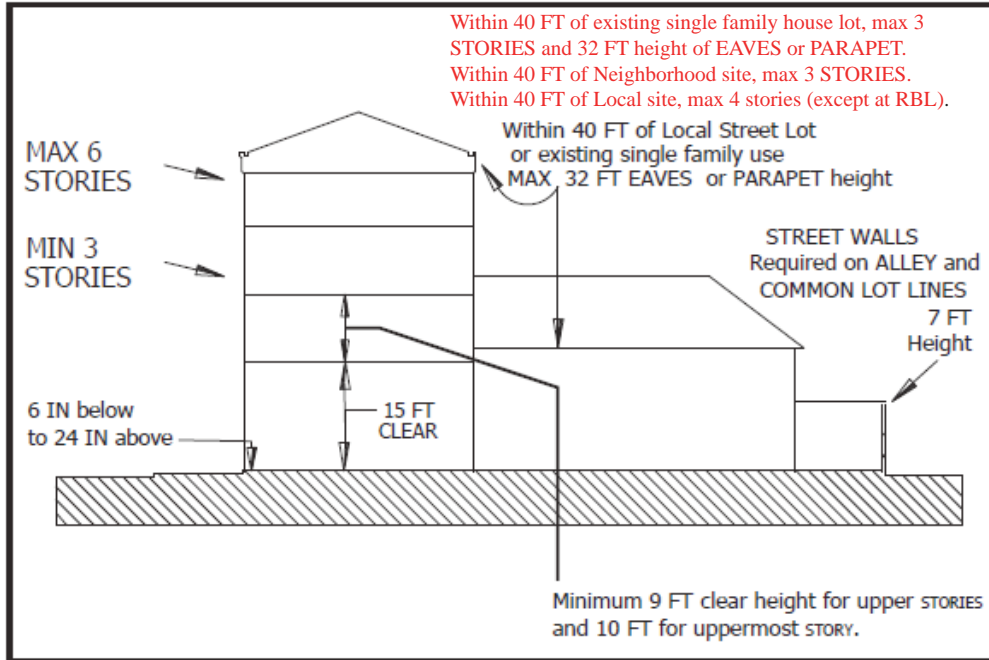
1. The STREET facade shall be built-to the RBL not less than 33 percent of the overall RBL.
2. That portion of a facade that is required to be built to the RBL shall be composed as a simple plane (limited jogs less than 18 inches are considered a simple plane within this requirement) interrupted only by porches PORCHES, STOOPS, BAY WINDOWS, shop fronts and BALCONIES.

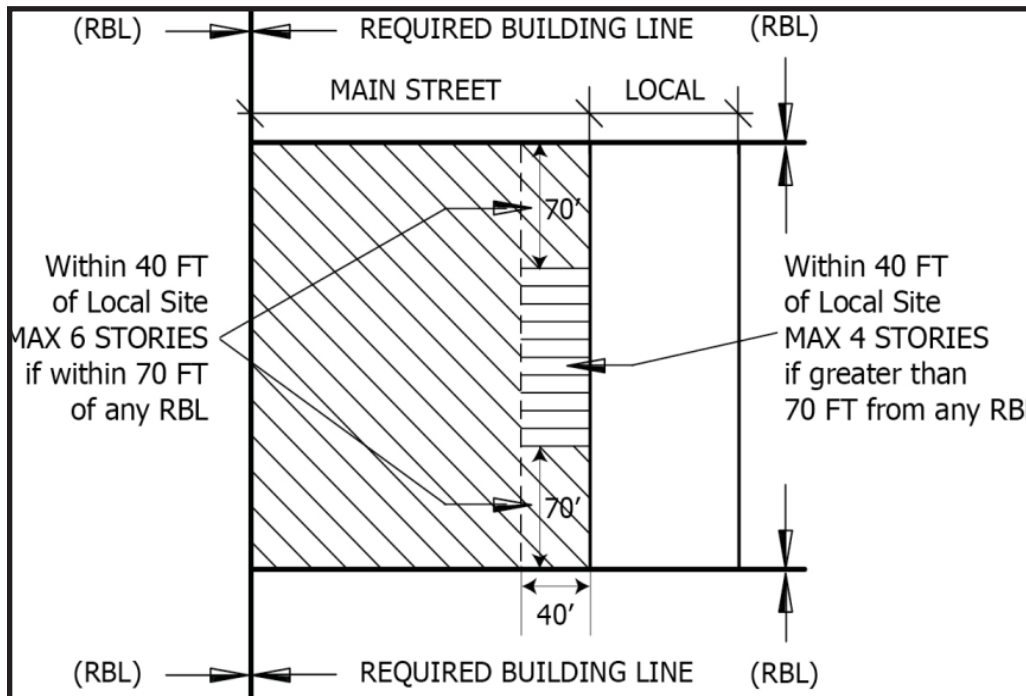
4. Use Specifications

1. Within the primary building, permitted uses include: Home occupations as defined in the Zoning Ordinance (by-right with these exceptions: maximum 2 nonresident employees within the primary structure and/or maximum 1 nonresident employee within 1 accessory structure, for each LOT).
2. ~~Either One English-basement~~ ENGLISH BASEMENT unit or one ACCESSORY UNIT is permitted. Conversion of primary structure single-family units for multiple family uses is prohibited.
3. Parking and ACCESSORY UNIT (maximum 650 square feet) uses are permitted in the building area at the rear of the LOT.

12a. Form Based Code Section IV. Building Envelope Standards B. Main Street Sites Amendment adopted on April 16, 2011:

1. Height Specifications





Building Height

1. Principal building height is measured in STORIES. These parameters preserve appropriate STREET-space and allow for greater variety in building height.
2. Each building shall be between 3 and 6 STORIES in height, except where otherwise noted here or in the REGULATING PLAN.

* * *

Other

Where a MAIN STREET site is within 40 feet of a LOCAL site, NEIGHBORHOOD site or a single family home, the maximum height for that portion is 32 feet to the EAVES or PARAPET.

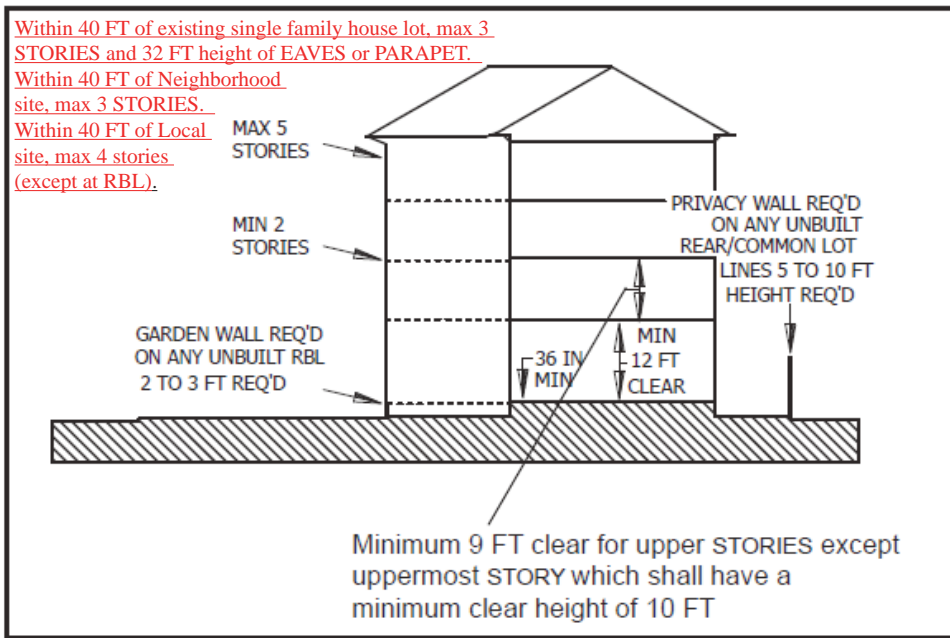
Notwithstanding the provisions in Section III.A.6.1, except where a lower height is required by the Regulating Plan, where any portion of a Main Street site is within 40 feet of:

1. A Local or Live/Work site (excluding Live/Work* sites), the maximum height for that portion is no more than 4 STORIES, unless that portion is also no more than 70 feet from an RBL, in which case the maximum height is no more than 6 STORIES.
2. A Neighborhood site, the maximum height for that portion is no more than 3 STORIES.
3. An existing single-family lot, the maximum height for that portion is 32 feet to the EAVES or PARAPET, and no more than 3 STORIES.

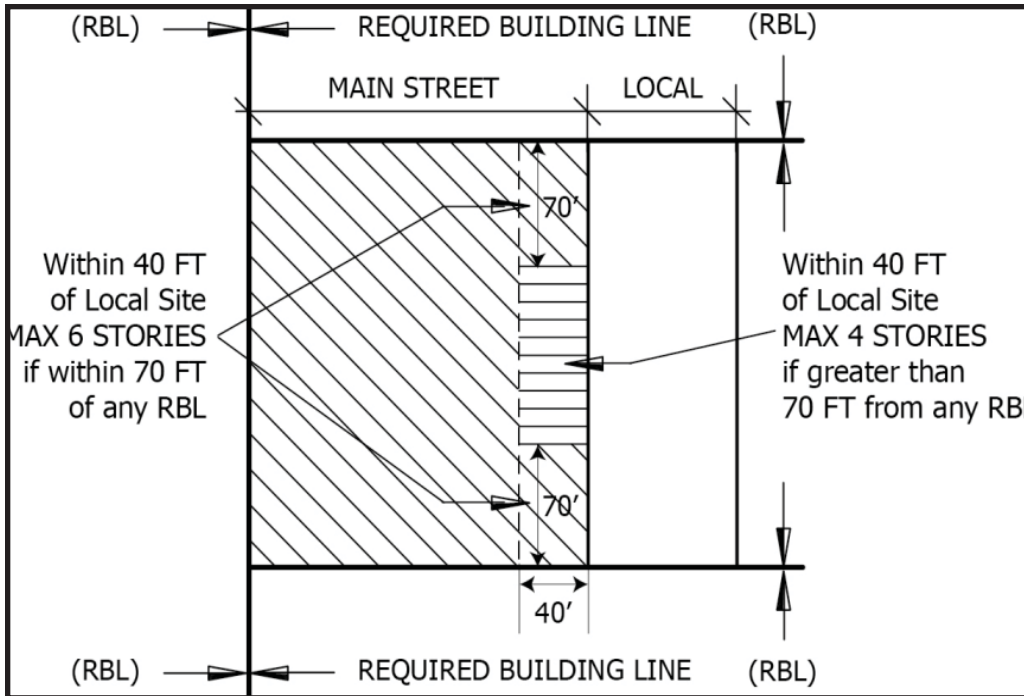
* * *

12b. Form Based Code Section IV. Building Envelope Standards C. Avenue Sites Amendment adopted on April 16, 2011:

1. Height Specifications



* * *



Building Height

1. Principal building height is measured in STORIES.
2. Buildings shall be between 2 and 5 STORIES in height, except where otherwise noted here or in the REGULATING PLAN.

* * *

Other

Where any part of an AVENUE site is within 40 feet of a LOCAL STREET (or lesser) site or an existing single family use dwelling, the maximum height for that portion is 32 feet to the EAVES or PARAPET.

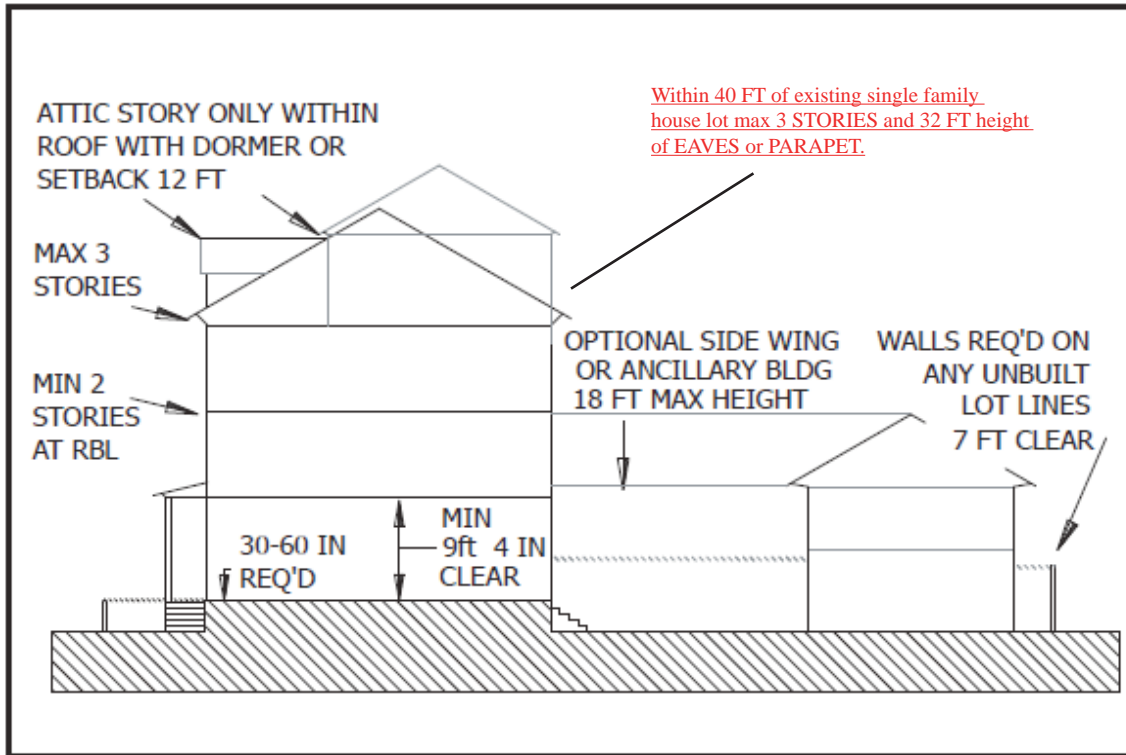
Notwithstanding the provisions in Section III.A.6.1, except where a lower height is required by the Regulating Plan, where any portion of an AVENUE site is within 40 feet of:

1. A Local or Live/Work site (excluding Live/Work* sites), the maximum height for that portion is no more than 4 STORIES, unless that portion is also no more than 70 feet from an RBL, in which case the maximum height is no more than 5 STORIES
2. A Neighborhood site, the maximum height for that portion is no more than 3 STORIES.
3. An existing single-family lot, the maximum height for that portion is 32 feet as measured to the EAVES or PARAPET, and no more than 3 STORIES

* * *

12c. Form Based Code Section IV. Building Envelope Standards D. Local Sites Amendment adopted on April 16, 2011:

1. Height Specifications



Building Height

1. Principal building height is measured in STORIES.
2. Buildings shall be between 2 and 3 STORIES in height. Additionally, an attic STORY may be built. An attic or half STORY is any top STORY which achieves its minimum clear height between 8 and 12 feet behind the RBL. An attic or half-STORY may have DORMER windows which face the street.

* * *

Other

Where a part of a LOCAL site is within 40 feet of a NEIGHBORHOOD site existing single family use dwelling, the maximum height for any structure on that portion of the site is 32 feet to the EAVES or PARAPET.

Notwithstanding the provisions in Section III.A.6.1, where any portion of a Local site is within 40 feet of an existing single-family house lot, the maximum height for that portion is 32 feet and no more than 3 stories to the EAVES or PARAPET

* * *

13. Form Based Code Regulating Plans (Town Center) Amendment adopted on April 16, 2011

Please refer to the FBC Amendment No. 7 to the Regulating Plan within Attachment D of this document.

* * *

**14. Form Based Code Section VIII. Attachments A. Zoning Ordinance 20. "CP-FBC" -
Columbia Pike Form Based Code Districts
Amendment adopted on June 11, 2011:**

* * *

B. Special Exceptions.

* * *

10. Nightclubs and restaurants providing live entertainment, including dance halls.
11. Open-air markets are permitted subject to obtaining a use permit. The use shall be regulated by all conditions placed on the use permit by the County Board at the time of approval including but not limited to conditions governing customer and vendor parking , landscaping, maintenance, impact on neighboring residential areas, management of trash, management of noise, times and days of the week of operation, including the number of vendors that would be permitted under the use permit. In addition, any open-air market shall meet the following requirements:
- a. No open-air market shall be located within one thousand (1,000) feet of another open-air market. However, the County Board may modify this requirement as part of the use permit review process, if it finds that the location of the open-air market will not have a substantial adverse impact on surrounding neighborhoods;
 - b. No open-air market shall be located within one hundred (100) feet of the boundary of any "R" zoning district. However, the County Board may modify this requirement as part of the use permit review process, if it finds that the location of the open-air market will not have a substantial adverse impact on surrounding neighborhoods; and
 - c. An application for a use permit for an open-air market shall include a parking plan that is drawn to scale, showing the number and location of customer and vendor parking spaces. Customer and vendor parking identified as available for market use shall be sufficient to not have a substantial adverse impact on the surrounding neighborhoods.
112. Outdoor swimming pool.
123. Public storage facilities.
134. Vehicle body shop, so long as such activities are conducted entirely within a building. ^{9B}
145. Vehicle service establishment, provided that any vehicle repairs and storage or merchandise and supplies shall be conducted wholly within a building, and that any lubrication or washing not conducted wholly within a building shall be permitted only if a masonry wall, seven (7) feet in height, is erected and maintained between such uses and any adjoining "R" District. ^{9B}
156. Any other use otherwise permitted in this district with a drive-through window, provided that the drive-through operation has no more than two lanes. Drive-through access may not be from Main Street frontage.

* * *

**15a. Form Based Code Section VIII. Attachments A. Zoning Ordinance 20. "CP-FBC" - Columbia Pike Form Based Code Districts
Amendment adopted on July 24, 2012:**

* * *

E. Administration

* * *

b. Pursuant to a use permit application, the County Board may modify only the following requirements of the Form Based Code: Provided, however, that after such modifications, the County Board is still able to make the finding called for in subsection 3.a. above.

- (1) Height of first floor relative to fronting sidewalk elevation;
- (2) RBLs for the location of new alleys or streets, for historic buildings and for existing parking garages;
- (3) Breaks between buildings;
- (4) STREETScape details;
- (5) Design issues related to the inclusion of existing or historic buildings or mature trees;
- (6) ~~Signs.~~

* * *

**15b. Form Based Code Section VII. Administration
Amendment adopted on July 24, 2012:**

* * *

B. Special Exception/Use Permit Option

* * *

The Use Permit process will give the opportunity for appropriate deviations from the **Code** that are consistent with the County's goals and plans to revitalize Columbia Pike as detailed in the Columbia Pike Initiative that was recently adopted by the County Board. Examples of these deviations may include problems related to topography or STREET grade, the location of ALLEYS and STREETS, breaks and passages between buildings, signs, STREETScape details, design issues related to the inclusion of existing buildings or mature trees as part of a development proposal. Where properties of less than 40,000 square feet have such difficulties, they too, could seek a use permit to gain approval of their development with needed variations.

* * *

**15c. Form Based Code Section VI. Architectural Standards, F. Signage
Amendment adopted on July 24, 2012:**

* * *

2. STANDARDS FOR SIGNAGE (WHERE CLEARLY VISIBLE FROM THE STREET)

~~Signs that are permitted in Section 34.A.1, 34.A.4, 34.D.4, 34.E, 34.F.1, 34.F.5 and 34.J of the Zoning Ordinance are permitted on property developed under the Form Based Code.~~

In addition, Form Based Code projects may have the following number of signs, provided they that comply with the standards set forth below:

- A. Building signs: 1 sign per building which may be a masonry or bronze plaque, or alternatively, a wall or blade type building sign;
- B. Signs for retail and office spaces; AWNING signs; 1 sign per building which may be a masonry or bronze plaque, or alternatively, a wall or blade type building sign; per building bearing an owner's or building's name and STREET address signs. In addition, 1 blade sign; 1 graphic sign; and up to a total of 3 wall or window signs per tenant. One additional wall or window sign and 1 additional blade sign are permitted for tenants occupying retail or office spaces with more than one STREET FRONTAGE.
- C. Signs for SHARED PARKING within a structure: 1 wall sign meeting the standards below; and blade signs meeting the standards for incidental signs are set forth in 34.7.H.

Signage Standards:

- Wall signs for retail and office spaces (placed against a wall) are permitted either only within the area above the GROUND STORY windows and below the second STORY windows, or on the vertical front of or on top of a CANOPY. All wall signs shall be placed within a horizontal band not to exceed 2 feet in height. This band shall not be located higher than 18 feet or lower than 12 feet above the adjacent sidewalk, unless placed on the front of or on top of a CANOPY. If placed on top of a CANOPY, the 2-foot band shall not extend more than 2 feet beyond the top of the CANOPY. Wall signs shall not come closer than 2 feet to an adjacent COMMON LOT LINE or the boundary of the area permitted to be used by the retail or office tenant.
- Wall signs for SHARED PARKING within a structure shall be placed in a horizontal band not to exceed 2 feet in height. This band shall be located immediately above the entrance to be SHARED PARKING structure and shall not be higher than 4 feet from the top of the entrance opening.
- Letters on all wall signs shall not exceed 18 inches in height or width and 3 inches in relief. Wall signs shall not come closer than 2 feet to an adjacent COMMON LOT LINE or the boundary of the area permitted to be used by the retail or office tenant and shall not exceed 20 feet in length.
- Window Signs are permitted to be placed or painted within GROUND FLOOR or second STORY of office and retail windows and the entire window sign shall fit within a rectangle of 8 square feet. Window signs shall be allowed automatic changeable copy elements as set forth in 34.12.
- One masonry or bronze plaque bearing an owner's or building's name may be placed in the building's cornice/PARAPET wall or under the eaves, and above the upper STORY windows. Any such plaque shall be no larger than a rectangle of 8 square feet.
- STREET address signs may be placed at STREET entry doors using 6 to 8 inch tall, non-cursive type

lettering. Such letters shall be located between 6 feet and 10 feet above grade.

- Blade type shop signs are encouraged, and shall be permitted for retail and office tenants. Except for blade type building signs permitted as an alternative to the masonry or bronze plaque below, they shall be not more than 6 square feet and shall be located so that there is a minimum of 9 feet clear height above the sidewalk and below the blade type sign. Blade signs may be hung from an overhang or AWNING. Blade signs shall not be internally illuminated and the company name or logo may occupy no more than one-half of the square footage within the blade sign. Creative art, graphics or materials are encouraged in the area of the blade sign not containing the company name or logo. Only one blade sign shall be permitted per tenant per STREET FRONTAGE and only for tenants occupying the GROUND FLOOR or second STORY
- One graphics sign (a graphics sign is a sign designed to be read only from a distance of less than 3 feet away), such as, but not limited to restaurant menus or building directories, may be displayed in a permanently mounted display box of not more than 3 square feet on the surface of the building adjacent to the entry. Graphics signs shall not be exposed to the elements.
- One masonry or bronze plaque, or alternatively, on a MAIN STREET or AVENUE building, one wall or blade type building sign may be placed on a building as shown in the following table. Such wall or blade sign shall not cross from one vertical discrete facade composition to another.

<u>Sign Type</u>	<u>Number of STORIES</u>	<u>Placement</u>	<u>Maximum size of sign (in square feet)</u>		
<u>Masonry or bronze plaque</u>	<u>Any</u>	<u>In the building's cornice/PARAPET wall or under the eaves, and above the upper STORY windows.</u>	<u>8</u>		
<u>Wall or blade sign</u>	<u>No more than 50 % of the sign area shall be placed above the top of the STORY identified below</u>		<u><70 feet of building frontage</u>	<u>70-150 feet of building frontage</u>	<u>>150 feet of building frontage</u>
	<u>2</u>	<u>GROUND</u>	<u>35</u>	<u>35</u>	<u>50</u>
	<u>3-4</u>	<u>2ND</u>			<u>70</u>
	<u>5</u>	<u>3RD</u>			<u>100</u>
	<u>6</u>	<u>4TH</u>		<u>50</u>	<u>100</u>
	<u>7</u>	<u>5TH</u>			
	<u>8</u>	<u>6TH</u>			
	<u>9</u>	<u>7TH</u>			
	<u>10</u>	<u>8TH</u>			

- ~~■ Prohibited Signs: The following signs are prohibited unless otherwise permitted by the County Board by Special Exception: canopy signs, marquees, signs located above a height of 35 feet except of masonry or bronze plaques as permitted above, freestanding signs, painted window signs other than described above, and signs painted on the exterior walls of buildings. Under no circumstances shall flashing, traveling, animated, or intermittent lighting be on the exterior of any building whether such lighting is of temporary or long-term duration, and under no circumstances shall the County Board permit portable or wheeled signs and advertising devices located outside any building, billboards, any kind of animation or signs specified in Section 34.C. of the Zoning Ordinance.~~

- Signs shall be further limited and regulated by the following provisions in Section 34 of the Zoning Ordinance, which shall be incorporated as if fully set forth herein: 34.2, 34.3.A.1(a), 34.3.A.1(b) (1) and (2), 34.3.A.2, 34.3.B, 34.4, 34.7.F, 34.7.H, 34.7.K, 34.7.M, 34.9.A.8, 34.9.B, 34.11, 34.12, 34.13, 34.15, 34.16, 34.17, 31A.E.10. 37.F.
- External lighting directed towards signage that is not internally illuminated is permitted. The energy efficiency of lighting should be considered. ⁶

AWNINGS/Overhangs:

Notwithstanding the foregoing, when an AWNING or overhang is incorporated into a building, the following requirements must be met:

- Minimum 10 feet clear height above sidewalk, minimum 6 feet depth out from the building façade (maximum to curb or tree-planting strip/furniture zone, whichever is closer).
- Canvas cloth or equivalent (no shiny or reflective materials), metal or glass.
- No internal illumination through the AWNING/Overhang.
- Except for wall signs permitted to be attached to CANOPIES, Lettering and/or logo on AWNING and CANOPIES shall be limited to 5 inches tall on the vertically hanging fabric/face at the curb side of the AWNING or CANOPY.
- No one-quarter cylinder configurations. ⁶

15d. Form Based Code Section II. Definitions
Amendment adopted on July 24, 2012:

* * *

AWNING

A cantilevered, projected or suspended cover over the sidewalk portion of the STREET, ~~or a~~ Also, roof-like coverings, usually of canvas, ~~or metal, or similiar material~~ and often adjustable, placed over the sidewalk, windows, or doors to provide protection from sun and rain. It is distinguished from a CANOPY because it is not permanent, nor a structural portion or architectural feature of the building and does not support substantial weight.

* * *

CANOPY

A cantilevered, projected or suspended cover over the sidewalk portion of the STREET, or a rooflike covering placed over the sidewalk, windows, or doors to provide protection from sun and rain. It is distinguished from an AWNING because it is a permanent, durable, structural portion of the building as opposed to a light covering of canvas, metal or other similiar material.

* * *

16a. Form Based Code Section II. Definitions

Amendment adopted on January 26, 2013:

* * *

STREET LIGHT

A luminaire installed on either side ~~both sides~~ of the STREETS, along the STREET TREE ALIGNMENT LINE, ~~unless otherwise designated on the REGULATING PLAN, at intervals of no more than 60 feet, measured parallel to the STREET. STREET LIGHTS be between 9 and 16 feet above ground in height. Lighting standards for STREETS and ALLEYS should be developed to meet the minimum standards of the Illumination Engineering Society (with the design criteria giving equal weight to the lighting of the pedestrian areas and the automobile areas):~~

* * *

16b. Form Based Code Section III. Regulating Plans

Amendment adopted on January 26, 2013:

B. Rules for the Regulating Plan and New Development Plans

3. STREETScape

B. ~~STREET LIGHTS shall be installed on both sides of STREETS~~ poles shall be centered along the STREET TREE ALIGNMENT LINE where feasible and not in conflict with existing utilities. Where such location is not feasible due to existing or other required, underground or above ground structures in the right of way, STREET LIGHT poles shall be located two (2) feet to four (4) feet behind the back of curb within the furniture zone (as defined below). ~~and unless otherwise designated on the REGULATING PLAN, at no more than 60 foot intervals measured parallel to the STREET. STREET LIGHTS shall not be located within the clear zone or the shy zone (as defined below).~~ At the time of development, the developer is only responsible for the installation of STREET LIGHTS on the side(s) of the STREET being developed.

C. At the time of development, the developer is required to install sidewalks. Sidewalks shall not be constructed entirely of plain poured concrete. However, a six-foot-wide "clear zone" of no less than 6 feet in width of smooth concrete sidewalk shall be constructed and maintained free of obstruction for pedestrians at all times. A variety of paving materials, textures, and colors are allowed outside of the clear zone. All paving materials shall be compliant with ADA accessibility guidelines and material selection should be sensitive to the needs of mobility impaired persons. In addition, a "shy zone" of at least 2 feet in width shall be included adjacent to the building face and a furniture zone of up to 6 feet in width shall be included behind the back of curb. Consistency of paving design is required within a project and within a BLOCK.

16c. Form Based Code Section V. Streetscape Standards Amendment adopted on January 26, 2013:

B. Minimum Standards

1. THE STREETScape

- Each Street shall have canopy shade trees (STREET TREES). Wherever the REGULATING PLAN does not show specific STREET TREE placement, STREET TREES shall be planted along the STREET TREES ALIGNMENT LINE at an average spacing ~~between not greater than~~ 25 to 30 feet on center (measured per BLOCK face). Required tree planting area widths are specified on the typical street cross sections in the Master Transportation Plan – Part I. However, open soil surface area shall be not less than 60 square feet per isolated tree, and connected (tree strip) planting areas are encouraged. The planting area's minimum dimension shall be 5 feet or as indicated in Arlington County Landscape Standards, Section II.B. Tree Pit Size/Planting Strip Size. At planting, trees shall be at least ~~4 to~~ 4.53.5 inches in diameter (measured 4 feet above grade) ~~and at least 12 feet in overall height.~~ Species shall be selected from the Columbia Pike Special Revitalization District Street Tree List. Consult the ADMINISTRATIVE REVIEW TEAM for the designated tree species for a particular STREET.
- Any unpaved ground area fronting the LOTS (to the curb) shall be planted with groundcover or flowering vegetation.
- STREET TREES shall be "limbed up" so as to not interfere with pedestrian or auto/truck travel (minimum 7 feet clear over the sidewalk and 14 feet over the travel lanes of the STREET).
- Low metal fencing or railing that is attractive and durable shall be installed around STREET TREE pit areas to prevent pedestrian damage to planting materials. Consistency of fencing design is required within a project and within a BLOCK face. (Tree fencing shall not be required in locations where the clear sidewalk area is less than 6 feet in width.)

2. BACKS

On LOCAL and NEIGHBORHOOD sites only, at least 1 canopy shade tree per 550 square feet of the required open (unpaved) area shall be planted in the rear LOT area and no closer than 5 feet to any COMMON LOT LINE. (See the Siting Requirement under the BUILDING ENVELOPE STANDARDS). Such trees shall be at least ~~4 to~~ 4.53.5 inches caliper (measured 4 feet above grade) ~~and 10 feet in overall height.~~ Species shall be selected from the Columbia Pike Special Revitalization District Street Tree List.

7. GENERAL NOTES

- All plant material (including trees) shall conform to the standards of the American Association of Nurserymen and shall have passed any inspections required under State regulations.
- Invasive exotic species found anywhere on the Lot shall be removed
- Mechanical and electrical equipment including, but not limited to, air compressors, pumps, exterior water heaters, water softeners, private garbage cans (not including public sidewalk waste bins), and storage tanks may not be stored or located within any Street. (Water pumps not visible are not included in this prohibition.)
- ~~Street Lighting shall be placed along the Street Tree Alignment Line or within the furniture zone as shown in the Master Transportation Plan.~~

**16d. Form Based Code Section VI. Architecture Standards
Amendment adopted on January 26, 2013:**

G. Lighting and Mechanical Equipment,

2. STANDARDS FOR LIGHTING AND MECHANICAL EQUIPMENT

(Where Clearly Visible From The Street)

Lighting.

- ~~STREET LIGHTS: The single black 16-foot "Carlyle" luminaire, or other STREET LIGHTS as the County specifies, shall be used within the Columbia Pike Special Revitalization District. In order to minimize light pollution, light should be directed downward to the immediate area being lighted and away from any living quarters.~~
- ~~STREET LIGHTING: Lights shall be located 16 feet above grade with a maximum average spacing (per BLOCK face) of 60 feet on center located on the STREET TREE ALIGNMENT LINE or within the furniture zone on each side of the STREET and travel lanes (unless otherwise indicated on the REGULATING PLAN). shall meet the following, with street classifications determined by the categories assigned in the adopted Master Transportation Plan Street Element:~~
 - o On principal arterial streets, STREET LIGHTS shall be double-globed Carlyle luminaires on 16 foot poles;
 - o On minor arterial streets, STREET LIGHTS shall be single-globed Carlyle luminaires on 14 foot poles;
 - o On principal and minor local streets, STREET LIGHTS shall be single globed Carlyle luminaires on 12 foot poles.
- A photometric analysis will be submitted as part of the Form Based Code application by the developer. Such analysis will show that, with the spacing of street lights as shown by the developer on the lighting plan, the light levels will fall within recommended levels indicated in Arlington County's [2012 Traffic and Street Lighting Specifications](#), for the street type and location.

**17a. Form Based Code Section III. Regulating Plans
Amendment adopted on April 12, 2014:**

B. Rules for the Regulating Plans and New Development Plans

6. Historic Preservation

HISTORIC STRUCTURES

Sites containing HISTORIC STRUCTURES may be redeveloped under the **Code** subject to any special provisions that apply to the site in the REGULATING PLAN and administrative review by the Arlington Historical Affairs and Landmark Review Board (HALRB). When located on any site that is redeveloped pursuant to this **Code**, HISTORIC STRUCTURES shall be preserved (see HISTORIC PRESERVATION, Section II. Definitions) in their entirety and shall not be subject to the BUILDING ENVELOPE STANDARD prescriptions of this **Code**.

The following properties are HISTORIC STRUCTURES:

- ~~2338-2344 and 2408 Columbia Pike, commercial buildings~~
- 2500-2530 Columbia Pike, Arlington Village Shopping Center
- 2624 Columbia Pike, Arlington Animal Hospital
- 2628 Columbia Pike, Birds N' Things
- 2900 Columbia Pike, Old Dominion Bank/Blanca's Restaurant
- 2903 Columbia Pike, Arlington Theater
- 3014 Columbia Pike, Charles Building
- 805 South Walter Reed Drive, Fillmore Gardens Apartments (The portion of the property south of 9th Street may be redeveloped, on the condition that preservation (see HISTORIC PRESERVATION, Section II. Definitions) is implemented for the portion north of 9th Street.)

HISTORIC FACADES

Sites incorporating HISTORIC FACADES may be redeveloped under the **Code** subject to any special provisions that apply to the site in the REGULATING PLAN or in this section and administrative review by the Arlington Historical Affairs and Landmark Review Board (HALRB). When located on any site that is redeveloped pursuant to this **Code**, HISTORIC FACADES shall be preserved (see HISTORIC PRESERVATION, Section II. Definitions) and shall not be subject to the BUILDING ENVELOPE STANDARD prescriptions of this **Code**.

The following properties contain HISTORIC FACADES:

- ~~2338-2344 and 2408 Columbia Pike, commercial buildings~~
- 2801-2811 Columbia Pike and 927 South Walter Reed, Elkins Building
- 900 block of South Walter Reed Drive, commercial buildings
- 2906-2922 Columbia Pike, Arlington Hardware

17b. Form Based Code Regulating Plans (Town Center) Amendment adopted on April 16, 2011

Please refer to the FBC Amendment No. 8 to the Regulating Plan within Attachment D of this document.

18a. Form Based Code Section III. Regulating Plans Amendment adopted on November 15, 2014:

B. Rules for the Regulating Plans and New Development Plans

4. Parking

C. All other sites not expressly covered by Section III. B.4.B shall meet the following requirements:

2. For all other uses except hotel uses, Aa minimum of one space per 1,000 square feet of non-residential Gross Floor Area (GFA) shall be provided as SHARED PARKING; there are no set maximum limits on SHARED PARKING. New on-street parking spaces created in conjunction with the development, which did not previously exist, may be counted toward the minimum requirement for SHARED PARKING. Any limitations on the SHARED PARKING (time limits or hours of the day) shall be subject to approval by the Zoning Administrator which shall be given upon a finding that at least 12 hours of public

parking are provided in any 24-hour period and that at least 8 of those hours are provided during either business or nighttime hours depending on whether the Zoning Administrator determines that the primary public use will be for commercial or residential uses.

3. For hotel uses, a minimum of 0.5 space per hotel guest room shall be provided as RESERVED PARKING; there are no set maximum limits on SHARED PARKING. In addition, any hotel that includes 7,500 square feet or more of conference room or banquet facility GFA, shall provide additional parking at a rate of 1 space per 1,000 square feet of all conference room/banquet facility GFA.
4. A maximum of one space per 1,000 square feet of non-residential GFA (excluding hotel uses), two spaces per residential dwelling unit, and a maximum of 0.7 space per hotel guest room may be made available for RESERVED PARKING, not counting the additional parking required by subsection 3, above, for hotels that include 7,500 square feet or more of conference rooms or banquet facilities.

E. Bicycle Parking:

3. For retail uses, the developer must provide 1 employee bicycle parking space per ~~5,000~~ 25,000 square feet of GFA and 1 visitor/customer bicycle parking space per ~~25,000~~ 5,000 square feet of GFA for the first 50,000 square feet of retail GFA; and 1 additional visitor/customer space per each additional 12,500 square feet of retail GFA, or portion thereof.
4. For hotel uses, the developer shall provide 1 employee bicycle parking space per 10 guest rooms, or portion thereof, and 1 visitor space per 50 guest rooms, or portion thereof.

18b. Form Based Code Section IV. Building Envelope Standards Amendment adopted on November 15, 2014:

B. Building Envelope Standards: Main Street Sites

B.1. Upper STORIES Height

1. The maximum floor-to-floor Story Height limit for Stories other than the Ground Story is 14 feet.
2. At least 80 percent of the upper Stories shall each have at least an 98 foot 10 inch clear (floor to ceiling) height and a minimum 10 foot clear height for the uppermost Story.

C. Building Envelope Standards: Avenue Sites

C.1. Upper STORIES Height

1. The maximum floor-to-floor Story Height limit for Stories is 14 feet.
2. At least 80 percent of the upper Stories shall each have at least an 98 foot 10 inch clear (floor to ceiling) height and a minimum 10 foot clear height for the uppermost Story.

D. Building Envelope Standards: Local Sites

D.1. Ground STORY Height

3. The Ground Story shall have at least 98 feet 10 inch in clear height for at least 80 percent of its area. The

Ground Story of Live/Work development shall have at least 12 feet clear height for a depth of at least 1/3 of its floor area contiguous to each frontage adjacent to an RBL.

D.1. Upper STORIES Height

1. All Stories shall have at least an 98 feet 10 inch in clear height for at least 80 percent of their area.
2. The maximum floor to floor Story Height limit for upper Stories is 12 feet.

E. Building Envelope Standards: Neighborhood Sites

E.1. Ground Floor and Second Story Height

3. The Ground Floor Story and second Stories shall have at least an 98 feet 10 inch in clear height for at least 80 percent of the area of the particular Story.

18c. Form Based Code Section VII. Administration Amendment adopted on November 15, 2014:

B. Special Exception/Use Permit Option

The proposed Special Exception Use Permit process will be required for 1) sites over 40,000 square feet or with floorplates over 30,000 square feet and 2) hotels that include 7,500 square feet or more of conference room or banquet facility Gross Floor Area (GFA). Such sites will be required to meet the intent of the **Code** and will be evaluated in terms of how well they conform to the **Code** and meet other objectives of the *Columbia Pike Initiative—A Revitalization Plan*. The Use Permit process also provides the opportunity for community input as well as fine tuning of a development proposal to address issues that may not have been contemplated by the **Form Based Code**.

The Use Permit process will give the opportunity for appropriate deviations from the **Code** that are consistent with the County's goals and plans to revitalize Columbia Pike as detailed in the Columbia Pike Initiative that was recently adopted by the County Board. Examples of these deviations may include problems related to topography or STREET grade, the location of ALLEYS and STREETS, breaks and passages between buildings, STREETScape details, design issues related to the inclusion of existing buildings, or mature trees as part of a development proposal, and parking ratios for hotels and/or associated conference/banquet facilities. Where properties of less than 40,000 square feet have such difficulties, they too, could seek a use permit to gain approval of their development with needed variations.

**19. Form Based Code Section III. Regulating Plans
Amendment adopted on February 21, 2015 (ZOA-15-01):**

B. Rules for the Regulating Plan and New Development Plans

5. Retail

Use Category	Specific Use Types	Permitted (P) or Use Permit (U)	Primary (1) or Secondary (2)	Use Standards
Primary Retail				
Retail, Service and Commercial Use Categories				
<u>Entertainment</u>	<u>Indoor theatres</u>	P	1	
	<u>Amusements All other entertainment uses</u>	U	1	
<u>Food and Drinking Establishments (see §12.2.5.A)</u>	<u>Restaurant, general</u>	P	1	§12.5.23
	<u>Restaurant, limited Bakery</u>	P	1	§12.5.24
	<u>Coffee shop</u>	P		
	<u>Catering establishment, small scale</u>	P	2	
	<u>Food delivery service</u>	U	2	
<u>Recreation (see §12.2.5.B)</u>	<u>Bowling alley</u>	U	1	
	<u>Miniature golf courses</u>	U	2	
	<u>Amusements All other indoor recreation uses</u>	U	1	
<u>Office (see §12.2.5.C)</u>	<u>Audio-visual production studio</u>	U	2	
	<u>Business eCollege operated as a commercial enterprise</u>	U	1	
	<u>Office or clinic, medical or dental offices, clinics or laboratories</u>	P	2	§12.5.17
<u>Retail, Sales (see §12.2.5.F.2(a))</u>	<u>Art or antique shop, including art work, art supplies and framing materials</u>	P	1	
	<u>Clothing shop</u>	P	1	
	<u>Delicatessen</u>	P	1	
	<u>Book, stationery, or card store</u>	P	1	
	<u>Department, furniture, home furnishings, or household appliance store</u>	P	1	
	<u>Drugstore</u>	P	1	§12.5.5 §12.5.22
	<u>Dry goods or notion store</u>	P	1	
	<u>DVD/Video tape or record store</u>	P	1	
	<u>Electronics store</u>	P	1	
	<u>Florist or gift shop</u>	P	1	
	<u>Hardware, paint, or appliance store</u>	P	1	
	<u>Hobby or handcraft store</u>	P	1	
<u>Ice cream or confectionery store</u>	P	1		

Columbia Pike Special Revitalization District - Form Based Code

<u>Use Category</u>	<u>Specific Use Types</u>	<u>Permitted (P) or Use Permit (U)</u>	<u>Primary (1) or Secondary (2)</u>	<u>Use Standards</u>
	Interior decorating store (with incidental interior service)	P	±	
	Jewelry store	P	±	
	Leather goods/luggage	P	±	
	Meat or fish market	P	±	
	Newsstand	P	±	
	Nursery, flower, or plant store	P	±	
	Grocery, fruit, or vegetable store	P	1	§12.5.10 §12.5.22
	All other retail sales uses	P	1	§12.5.22
<u>Retail, Personal-Service (see §12.2.5.F.2(b))</u>	Day Spa	P	±	
	Animal care facilities, Animal hospital or veterinary clinics, animal hospitals within a fully enclosed structure	P	2	§12.5.2
	Mortuary or funeral home	U	2	§12.5.15
	Pawnshop	P	2	
	All other personal service retail uses Bank or other financial institution (including check cashing)	P	2	§12.5.21
	Automobile rental (retail functions only no auto servicing) or automobile accessories and supplies(excluding installation)	P	±	
	Barbershop or beauty salon	P	±	
	Blueprinting, photostatting, or photo copy service	P	±	
	Clothes cleaning or laundry establishment	P	±	
	Dance studio	P	±	
	Employment agencies	P	±	
	Film processing or film exchange	P	±	
	Health club	P	±	
	Insurance sales	P	±	
	Music conservatory or music instruction	P	±	
	Palmistry	P	±	
	Photo studio	P	±	
	Private postal service	P	±	
	Tax service	P	±	

<u>Use Category</u>	<u>Specific Use Types</u>	<u>Permitted (P) or Use Permit (U)</u>	<u>Primary (1) or Secondary (2)</u>	<u>Use Standards</u>
	Office (such as real estate broker, travel agency, medical, etc.)	P	2	
<u>Retail, Repair</u> (see §12.2.5.F.2(C))	All retail repair uses	P	2	
	Tailor or dressmaker	P	2	
	Locksmith	P	2	
	Shoe or small appliance repair shop	P	2	
<u>Self-service storage uses</u> (see §12.2.5.G)	Self-service storage facilities	U	1	§12.5.26
	All other self-service storage uses			
<u>Vehicle Sales and Service</u> (see §12.2.5.H)	Vehicle service establishment	U	2	§12.5.29
	Other other vehicle sales and service uses			
Industrial Use Categories				
<u>Light Industrial Service</u> (see §12.2.6.A)	Carpet and rug cleaning (excluding dyeing)	U	2	
	Medical or dental offices, clinics or laboratories	P	2	
	Sign painting shop	P	2	§12.6.9
	Printing, lithographing, or publishing	P	2	
	Upholstery shop	U	2	§12.5.27
	All other light industrial uses			
Accessory Uses				
<u>Live entertainment</u>	Nightclubs and restaurants with live entertainment/dancing	U	1	§12.9.12
<u>Drive-through facilities (restaurants only)</u>	Restaurant with drive-through window	U	1	§12.9.7
<p>*The following uses are permitted with Special Exception Use Permit If any of the aforementioned uses provide classes or instruction to children and, either twenty (20) percent or more of the total number of students enrolled in classes and/or instruction are children under eighteen (18) years of age or the total number of children under eighteen (18) years of age enrolled in classes scheduled to be held at any one time is ten (10) or more, the use may only be established subject to obtaining a use permit.</p>				
<p>*The following uses are permitted with Special Exception Use Permit If any of the aforementioned uses provide classes or instruction to children and, either twenty (20) percent or more of the total number of students enrolled in classes and/or instruction are children under eighteen (18) years of age or the total number of children under eighteen (18) years of age enrolled in classes scheduled to be held at any one time is ten (10) or more, the use may only be established subject to obtaining a use permit.</p>				

20a. Form Based Code Section II. Definitions
Amendment adopted on December 12, 2015:

~~CIVIC USE PUBLIC, CIVIC AND INSTITUTIONAL USES~~

~~Community uses including: meeting halls; libraries; schools; police and fire stations; post offices (retail operations only, no primary distribution facilities); places of worship; museums; cultural, visual and performing art centers; transit centers; government functions open to the public; and, other uses as determined by the Zoning Administrator. Those uses as provided in ACZO §12.2.4.~~

20b. Form Based Code Section III. The Regulating Plans
Amendment adopted on December 12, 2015:

B. Rules for the Regulating Plan and New Development Plans

4. Parking

C. All other sites not expressly covered by Section III.B.4.B. shall meet have the following requirements:

1. A minimum of 1 and 1/8 parking spaces per residential dwelling unit, of which a minimum of 1/8 parking space per residential unit shall be provided as SHARED PARKING. There are no maximum limits on SHARED PARKING.
2. For all other uses except hotel uses, a minimum of one space per 1,000 square feet of non-residential Gross Floor Area (GFA) shall be provided as SHARED PARKING; there are no set maximum limits on SHARED PARKING. New on-street parking spaces created in conjunction with the development, which did not previously exist, may be counted toward the minimum requirement for SHARED PARKING. Any limitations on the SHARED PARKING (time limits or hours of the day) shall be subject to approval by the Zoning Administrator which shall be given upon a finding that at least 12 hours of public parking are provided in any 24-hour period and that at least 8 of those hours are provided during either business or nighttime hours depending on whether the Zoning Administrator determines that the primary public use will be for commercial or residential uses.

E. Bicycle Parking:

1. For office uses, the developer shall provide 1 employee bicycle parking space per 7,500 square feet of GFA and 1 visitor/customer bicycle parking space per 20,000 square feet of GFA.
2. For residential uses, the developer shall provide 1 tenant bicycle parking space per 3 units and 1 visitor bicycle parking space per 50 units.
3. For retail uses, the developer must provide 1 employee bicycle parking space per 25,000 square feet of GFA and 1 visitor/customer bicycle parking space per 5,000 square feet of GFA for the first 50,000 square feet of retail GFA; and 1 additional visitor/customer space per each additional 12,500 square feet of retail GFA, or portion thereof.^{18A}

4. For hotel uses, the developer shall provide 1 employee bicycle parking space per 10 guest rooms, or portion thereof, and 1 visitor space per 50 guest rooms, or portion thereof. ^{18A}

1. Bicycle Parking shall be provided for all uses in accordance with the following standards, provided, where application of the requirements would result in a fractional space, any such fraction shall be counted as one space:

Use	Tenant/Employee	Customer/Visitor/Student
Office	1 per 7,500 GFA	1 per 20,000 GFA
Residential	1 per 3 units	1 per 50 units
Hotel	1 per 10 guest rooms	1 per 5,000 GFA
High School and Colleges	1 per 10 employees	1 per 10 students
Middle School	1 per 10 employees	1 per 15 students
Elementary School	1 per 10 employees	1 per 20 students
Governmental Facilities, Hospitals, and Daycare Uses	1 per 25,000 GFA	1 per 10,000 GFA
All Other Civic Uses	1 per 25,000 GFA	1 per 5,000 GFA
Retail Uses	1 per 25,000 GFA	1 per 5,000 GFA (first 50,000 GFA); 1 per each additional 12,500 GFA

52. All tenant and employee bicycle parking facilities are to be highly visible to intended users and shall be protected from rain and snow within a structure, meeting Class 1 secure standards as contained in the Arlington County Master Transportation Plan’s Bicycle Element (July 2008) and as may be subsequently amended. Where tenant and employee bicycle parking cannot be accommodated within structured parking located on site, the design of the independent bicycle parking facility, also to be located on site, shall be screened from view of pedestrians along a STREET and constructed using the same materials or materials appearing to be the same as those used on the primary building(s). The bicycle parking facilities shall not encroach on any area in the public right of way intended for use by pedestrians, nor shall they encroach on any required fire egress.

63. On-street bicycle parking spaces (as defined in Section V. B. Minimum Standards) may be counted toward the minimum customer/visitor bicycle parking requirement. ^{8B}

5. Retail Ground Story Uses

A. General Principles and Intent

Generally, ~~retail, service and commercial, or PUBLIC, CIVIC AND INSTITUTIONAL USES~~ are is required on the GROUND STORY of MAIN STREET SITES Buildings and, required to a lesser degree on the GROUND STORY of Local SITES Street Buildings, and are allowed on the GROUND STORY of AVENUE Buildings. The intent of the

requirement for uses on the GROUND STORY, combined with storefront design requirements, is to achieve a high level of pedestrian activity adjacent to the public sidewalk, interesting design, and transparency into the building. The inclusion of retail enlivens the Street and creates a purpose for being there.

B. Allowable GROUND STORY Uses

GROUND STORY uses allowed along Columbia Pike, include uses in the retail, service and commercial, PUBLIC, CIVIC AND INSTITUTIONAL, industrial and accessory use categories, as provided in Table 3.1. Unless otherwise noted, retail is an inclusive phrase that encompasses consumer comparison goods (general merchandise, apparel, furnishings and other types of similar merchandise — commonly referred to as GAFO categories in the retail industry — convenience goods, food/delis, gifts, drugstore items, personal care, cards/stationary), personal business services, professional offices, restaurants, grocery stores, and hotel, theatre, and other uses that provide visual interest and create active street life. Other uses that can similarly provide visual interest and create an active street life may be allowed, if in which in the judgement of the Zoning Administrator, they are of the same general character as those listed in Table 3.1 and will not be detrimental to the Columbia Pike Special Revitalization dDistrict in which it is to be located, may be allowed:

- Primary Retail Uses: Generally, uses that provide entertainment or leisure activities, — promote high walk-in customer counts, or are shopping destinations.
- Secondary Retail Uses: Generally, uses that provide personal or business services.

C. GROUND STORY Use Table

1. Use Categories and Specific Use Types

All of the use categories listed in the first column of the table below are described in ACZO §12.2. The second column lists the specific use types included within the respective use categories.

2. Permitted or Use Permit

- a. A "P" indicates that a use is permitted by-right and may be approved administratively, provided that redevelopment conforms to the Form Based Code as adopted by the County Board (see ACZO §11.1.3).
- b. A "U" indicates a special exception use that may be established subject to obtaining a use permit as provided in ACZO §15.4, use permits, for each such use, and provided that the property has been redeveloped pursuant to the Form Based Code. The Zoning Administrator may require a use permit for such use, whether the use is located in a building approved administratively or whether located in a building controlled by a use permit.
- c. A blank cell (one without a "P" or "U") in the use table indicates that a use is not allowed in the respective district. Uses not specifically listed may be allowed pursuant to the similar use determination procedure of ACZO §12.2.2.

3. Restricted on Principal Arterials per III.B.5.D

- a. A "Yes" indicates that a use is subject to additional limitations when located on a Principal Arterial, as provided in III.B.5.D below.
- b. A blank cell indicates that no additional limitations apply regardless of where the use is located.

4. ACZO Use Standards

Where applicable, the "ACZO Use Standards" column references specific use standards listed in ACZO §12, which always apply to the listed use.

Table 3.1: Form Based Code Ground Story Use Table

Use Category	Specific Use Types	Permitted (P) or Use Permit (U)	Primary-(1) or Secondary (2)	Restricted on Principal Arterials per III.B.5.D	ACZO Use Standards
Primary-Retail <u>Key: P=allowed by-right; U=requires use permit approval; Blank cell = not permitted</u>					
Retail, Service and Commercial Use Categories					
Entertainment (see §12.2.5.A)	Theatres	P	±		
	All other entertainment uses	U	±		
Food and-Drinking Establishments (see §12.2.5.B)	Restaurant, general	P	±		§12.5.22
	Restaurant, limited	P	±		§12.5.23
	Catering establishment, small scale	P U on Principal Arterials	2	Yes	
	Food delivery service	U	2	Yes	
Recreation (see §12.2.5.F)	Miniature golf courses	U	2		
	All other indoor recreation uses	U	±		
Office (see §12.2.5.C)	Audio-visual production studio	U	2		
	College operated as a commercial enterprise	U	±	Yes	
	<u>Financial services</u>	P			
	Office or clinic, medical or dental	P U on Principal Arterials	2	Yes	§12.5.16
	<u>Offices, business and professional</u>				
	<u>All other office uses</u>				
Retail, Sales (see §12.2.5.G.2(a))	Drugstore	P	±		§12.5.5 §12.5.22
	Grocery store	P	±		§12.5.10 §12.5.22
	All other retail sales uses	P	±		§12.5.21

Use Category	Specific Use Types	Permitted (P) or Use Permit (U)	Primary (1) or Secondary (2)	Restricted on Principal Arterials per III.B.5.D	ACZO Use Standards
Retail, Personal-Service (see §12.2.5.G.2(b))	Animal care facilities, veterinary clinics, animal hospitals	P <u>U on Principal Arterials</u>	2	Yes	§12.5.2
	Mortuary or funeral home	U	2		§12.5.14
	Pawnshop	P	2		
	All other personal service retail uses	P	2		§12.5.20
Retail, Repair (see §12.2.5.G.2(C))	All retail repair uses	P	2		
Self-service storage uses (see §12.2.5.G)	Self-service storage facilities	U	1	Yes	§12.5.25
	All other self-service storage uses				
Vehicle Sales and Service (see §12.2.5.H)	Vehicle service establishment	U	2		§12.5.28
	Vehicle sales, rental, or leasing facilities	<u>U</u>		Yes	§12.5.29
	Other other vehicle sales and service uses				
Public, Civic and Institutional Use Categories					
PUBLIC, CIVIC AND INSTITUTIONAL uses below are eligible for certain design relief as provided in VI.E.2.c, as part of the use permit approval for such use. For those uses otherwise allowed by-right (P), such design relief may also be approved subject to use permit approval for such use.					
Colleges (see §12.2.4.A)	Colleges/Universities (public; not-for-profit)	<u>U</u>		Yes	
Community Service (see §12.2.4.B)	Community Centers	<u>U</u>			
	Libraries	<u>U</u>			
	Museums and Art Galleries or Studios	<u>U</u>			
	Recreation Centers	<u>U</u>			
Religious Institutions (see §12.2.5.H)	Churches, mosques, synagogues and temples	P			
Governmental Facilities (see §12.2.4.D)	Fire and police stations	<u>U</u>			
Hospital	Hospitals	<u>U</u>			
Schools (see §12.2.5.I)	Schools, Elementary, Middle, or High	<u>U</u>			§12.4.7
Day Care (see §12.2.4.C)	All day care uses	<u>U</u>		Yes	
Industrial Use Categories					

Use Category	Specific Use Types	Permitted (P) or Use Permit (U)	Primary (1) or Secondary (2)	Restricted on Principal Arterials per III.B.5.D	ACZO Use Standards
Light Industrial Service (see §12.2.6.A)	Carpet and rug cleaning (excluding dyeing)	U	2	Yes	
	Medical or dental laboratories	P U on Principal Arterials	2	Yes	
	Sign painting shop	P U on Principal Arterials	2	Yes	§12.6.9
	Printing, lithographing, or publishing	P U on Principal Arterials	2	Yes	
	Upholstery shop	U	2	Yes	§12.5.26
	All other light industrial uses				
Accessory Uses					
	Live entertainment	U	±		§12.9.12
	Drive-through facilities (restaurants only)	U	±		§12.9.7

D. Ground Story use limitations for Principal Arterials

Uses that include a Restricted (Yes) designation in Table 3.1 that are proposed along Principal Arterials designated in the Arlington County Master Transportation Plan (Columbia Pike, S. Walter Reed Drive, S. Glebe Road, S. George Mason Drive, and S. Four Mile Run Drive) shall be allowed only subject to use permit approval as follows:

1. Where a use requiring a use permit (U) is proposed along a Principal Arterial, in addition to provisions in ACZO 15.4, the use shall be allowed if the County Board finds that the proposed use achieves a high level of pedestrian activity adjacent to the public side walk, interesting design, and transparency into the building.

2. Some uses, otherwise permitted by-right (P), will require a use permit if the use is proposed along a Principal Arterial and will be subject to the findings of III.B.5.D.1 above. Such uses are indicated in Table 3.1 with the designation "U on Principal Arterials" in the "Permitted or Use Permit" column.

**20c. Form Based Code Section IV. Building Envelope Standards
Amendment adopted on December 12, 2015:**

B. Building Envelope Standards: Main Street Sites

4. Use Specifications

Ground Story

1. The GROUND STORY shall house retail uses as provided in Table 3.1, defined in Section III.B.5 GROUND STORY RETAIL as well as lobby and access for upper STORY uses.
2. There shall be functioning entry door(s) along the STREET façade at intervals not greater than 60 feet within any site. Provided, however, the County Board may modify the interval between functioning entry doors for civic uses identified in Table 3.1, subject to approval of a use permit as provided in ACZO §15.4, where it finds that the proposed modifications can be retrofitted to meet standard requirements when the subject use is discontinued and are otherwise consistent with the intent of the Form Based Code.

Upper Stories

~~Retail uses identified in Table 3.1 are not permitted on the upper Stories, (except those of less than 900 square feet, restaurants of any size, and/or second Stories as an extension continuation of the GROUND STORY use and that have with direct Columbia Pike frontage). SECOND STORY restaurants do not violate this rule. Otherwise, Upper STORIES shall house residential, office, or hotel uses, or some combination thereof. Business and professional offices including medical, legal, insurance, philanthropic, real estate, banking, and other offices which in the judgement of the Zoning Administrator with a recommendation from the Administrative Review Team are of the same general character as those listed above may be located on all floors of Main Street sites.~~

C. Building Envelope Standards: Avenue Sites

4. Use Specifications

Ground Story

A GROUND STORY GROUND FLOOR may include residential uses and have small professional office, building lobby, or building manager's/maintenance offices (each less than 1,000 square feet). ~~{u}Uses identified in Table 3.1 are permitted on a GROUND STORY GROUND FLOOR where the underlying zoning is zoned commercial "C" or where properties are zoned "CP-FBC"}~~.

**20d. Form Based Code Section VI. Architectural Standards
Amendment adopted on December 12, 2015:**

E. Windows and Doors

2. Standards for Windows and Doors

a. Materials: The following materials are permitted

b. Configurations and Techniques: The following configurations and techniques are permitted.

c. Shopfront (Ground Floor) Windows and Doors:

- (1) Single panels of glass not larger than 6 feet in height by 4 feet wide.
- (2) GROUND FLOOR ~~Ground Floor~~ windows shall not be made opaque by window treatments (excepting operable sunscreen devices within the conditioned space) and shall allow a minimum 60 percent of surface view into the building for a depth of at least 20 feet. Provided, however, the County Board may modify this requirement for Public, Civic and Institutional Uses identified in Table 3.1, subject to use permit approval as provided in ACZO §15.4, where it finds that the proposed modifications can be retrofitted to meet standard requirements when the subject use is discontinued and are otherwise consistent with the intent of the Form Based Code.
- (3) Shopfronts may extend up to 24 inches beyond the façade (RBL) into the Street.

**22. Form Based Code Section VI. Architectural Standards
Amendment adopted on June 18, 2016:**

F. SIGNAGE

1. INTENT AND GUIDING ILLUSTRATIONS FOR SIGNAGE

Signs along the Columbia Pike Special Revitalization District’s commercial frontages should be clear, informative to the public and should weather well. Appropriate signage is desirable for advertising Columbia Pike shops and offices, and decoration. However, signage that is glaring or large creates a distraction, intrudes into and lessens the Columbia Pike Special Revitalization District experience, and creates visual pollution. Blade type shop signs incorporating creative art, graphics or materials are encouraged for retail and office tenants. The illustrations and statements on this page are advisory only. Refer to the **Code** standards below for the specific prescriptions of this section.

2. ~~STANDARDS FOR SIGNAGE~~ ALLOWED SIGNS (WHERE CLEARLY VISIBLE FROM THE STREET) ^{6 15C}

Form Based Code projects may have the following signs provided they that comply with the standards set forth in VI.F.3 below:

- aA. Each bBuilding signs may have one building sign: 1 sign per building which may be a masonry or bronze plaque, or alternatively, a wall or blade type building sign.
- bB. Each retail or office tenant on the Ground Floor or Second Story may have the following sSigns for retail and office spaces:
 1. Unlimited AWNING signs and STREET address signs: In addition,
 2. 1One blade type shop sign per STREET frontage
 3. 1One graphic sign; and

4. ~~Up to a total of 3~~three wall or window signs per tenant.
5. One additional wall or window sign and ~~1~~one additional blade sign are permitted for tenants occupying retail or office spaces with more than one STREET FRONTAGE.

~~cC.~~ Where there is Signs for SHARED PARKING within a structure, the following signs are allowed in addition to the signs allowed for the designated BES SITE in which the SHARED PARKING is located:

1. ~~1~~One wall sign; ~~meeting the standards below and~~
2. Unlimited blade signs meeting the standards for incidental signs ~~are as set forth in 13.7.H8.~~

3. Signage Standards:

a. Wall signs

1. Wall signs for retail and office spaces are permitted either within the area above the GROUND STORY windows and below the second STORY windows, or on the vertical front of or on top of a CANOPY. All wall signs shall be placed within a horizontal band not to exceed ~~two~~2 feet in height. This band shall not be located higher than 18 feet or lower than 12 feet above the adjacent sidewalk, unless placed on the front of or on top of a CANOPY. If placed on top of a CANOPY, the ~~two~~2-foot band shall not extend more than ~~two~~2 feet beyond the top of the CANOPY. Wall signs shall not come closer than ~~two~~2 feet to an adjacent COMMON LOT LINE or the boundary of the area permitted to be used by the retail or office tenant.
2. Wall signs allowed where there is for SHARED PARKING within a structure shall ~~may~~ be placed only in a horizontal band not to exceed ~~two~~2 feet in height. This band shall be located immediately above the entrance to be SHARED PARKING structure and shall not be higher than ~~four~~4 feet from the top of the entrance opening.
3. Letters on all wall signs shall not exceed 18 inches in height or width and ~~three~~3 inches in relief. Wall signs shall not exceed 20 feet in length.

b. Window Signs

1. Window signs are permitted to be placed or painted within GROUND FLOOR or second STORY office and retail windows and the entire window sign shall fit within a rectangle of ~~eight~~8 square feet.
2. Window signs shall be allowed automatic changeable copy elements as set forth in ACZO 13.12.
 - ~~STREET address signs may be placed at STREET entry doors using 6 to 8 inch tall, non-cursive type lettering. Such letters shall be located between 6 feet and 10 feet above grade~~

c. Blade type shop signs

1. Blade type shop signs ~~are encouraged, and shall be permitted for retail and office tenants. Except for blade type building signs permitted as an alternative to the masonry or bronze plaque below, they shall be not more than~~ six~~6~~ square feet.
2. Blade type shop signs ~~and~~ shall be located so that there is a minimum of ~~nine~~9 feet clear height above the sidewalk and below the blade type sign. Blade signs may be hung from an overhang or AWNING.
3. Blade type shop signs shall not be internally illuminated and ~~the company name or logo~~ commercial messages may occupy no more than one-half of the square footage within the blade sign. Creative

~~art, graphics or materials are encouraged in the area of the blade sign not containing the company name or logo. Only one blade sign shall be permitted per tenant per STREET FRONTAGE and only for tenants occupying the GROUND FLOOR or second STORY~~

d. Graphics Signs

1. ~~One Ggraphics signs~~ (a graphics sign is a sign designed to be read only from a distance of less than ~~three3~~ feet away), such as, but not limited to restaurant menus or building directories, ~~may be displayed shall be located~~ in a permanently mounted display box of not more than ~~three3~~ square feet on the surface of the building adjacent to the entry.
2. Graphics signs shall not be exposed to the elements.

e. Building sign

~~One masonry or bronze plaque, or alternatively, on a MAIN STREET or AVENUE building, one wall or blade type building sign may be placed on a building as shown in the following table. Such wall or blade signs A building sign may be: 1) a masonry or bronze plaque on any building; or 2) A wall or blade sign on a Main Street or Avenue building. Building signs shall meet all requirements set forth in the table below, and shall not cross from one vertical discrete facade composition to another.~~

Sign Type	Number of Stories	Placement	Maximum size of sign (in square feet)		
Masonry or bronze plaque	Any	In the building's cornice/PARAPET wall or under the eaves and above the upper STORY windows.	8		
Wall or blade sign	No more than 50% of the sign area shall be placed above the top of the STORY identified below.		< 70 feet of building frontage	70 - 150 feet of building frontage	> 150 feet of building frontage
	2	GROUND	35	35	50
	3 - 4	2 nd			70
	5	3 rd		50	100
	6	4 th			
	7	5 th			
	8	6 th			
	9	7 th			
10	8 th				

- ~~Signs shall be further limited and regulated by the following provisions in Article 13 of the Zoning Ordinance, which shall be incorporated as if fully set forth herein: 13.2, 13.3.A.1, 13.3.1.A.2(a) and (b), 13.3.1.B, 13.3.2, 13.4, 13.7.6, 13.7.8, 13.7.11, 13.7.13, 13.9.1.H, 13.9.2, 13.11, 13.12, 13.15, 13.16, 13.17, 15.8.8, 15.9, 17.4.~~

- f. External lighting directed towards signage that is not internally illuminated is permitted. The energy efficiency of lighting should be considered. ⁶

g. Signs shall be further limited and regulated by the following provisions of the Arlington County Zoning Ordinance, which shall be incorporated as if fully set forth herein:

SECTION	TITLE
<u>13.2</u>	<u>APPLICABILITY</u>
<u>13.3.1.A.1; 13.3.1.A.2(A) AND (B); 13.3.1.B</u>	<u>SPECIAL EXCEPTIONS</u>
<u>13.3.2</u>	<u>NO VARIANCES</u>
<u>13.4</u>	<u>SIGNS PROHIBITED IN ALL DISTRICTS</u>
<u>13.7.6</u>	<u>FLAGS (FOR ANY BES SITES)</u>
<u>13.7.8</u>	<u>INCIDENTAL SIGNS (FOR ANY BES SITE)</u>
<u>13.7.11</u>	<u>SIDEWALK SIGNS (FOR ANY ESTABLISHMENT DEVELOPED UNDER THIS CODE)</u>
<u>13.7.13</u>	<u>TRAFFIC CONTROL SIGNS (FOR ANY BES SITE)</u>
<u>13.9.1.H</u>	<u>NEIGHBORHOOD SIGNS</u>
<u>13.9.2</u>	<u>BANNER SIGN SYSTEMS</u>
<u>13.11</u>	<u>STANDARDS FOR LIGHTED SIGNS</u>
<u>13.12</u>	<u>FLASHING, MOVING AND CHANGEABLE COPY SIGNS</u>
<u>13.15</u>	<u>TEMPORARY SIGNS FOR CONSTRUCTION AND SALE/LEASING</u>
<u>13.16</u>	<u>GENERAL PROVISIONS</u>
<u>13.17</u>	<u>NONCONFORMING SIGNS</u>
<u>15.7.8</u>	<u>SIGNS REQUIRING A COA</u>
<u>15.8</u>	<u>SIGN PERMITS</u>
<u>17.4</u>	<u>CRIMINAL PENALTIES</u>

23a. Form Based Code Section I. Components of the Code
Amendment adopted on October 18, 2016:

I. Components of the Code

The ~~*Columbia Pike Special Revitalization District Form Based Code*~~ is designed to foster a vital main street for its adjacent neighborhoods through a lively mix of uses—with shopfronts, sidewalk cafes, and other commercial uses at street level, overlooked by canopy shade trees, upper STORY residences and offices.—

Redevelopment within the Columbia Pike Special Revitalization District may be regulated by the ~~*Columbia Pike Special Revitalization District Form Based Code*~~, in order to achieve Arlington County's vision set forth in the ~~*Columbia Pike Initiative—A Revitalization Plan*~~, adopted by the County Board on March 12, 2002, the subsequent Columbia Pike Urban Design Charrette and citizen workshops held in September 2002, and any other future addenda.—

While the ~~*Columbia Pike Special Revitalization District Form Based Code*~~ provides a citizen-endorsed urban design for the improvement of all properties in designated areas, configurations shown for the Bus Rapid Transit/Light Rail Transit (BRT/LRT) systems are shown only for illustrative purposes and no

commitment has yet been made by Arlington County and/or a transit service operator.

The ~~**Columbia Pike Special Revitalization District Form Based Code**~~ (otherwise referred to herein as “the ~~**Form Based Code**~~” or “the ~~**Code**~~”) is a legal document that regulates land development, setting careful and clear controls on building form—with broad parameters on building use—to shape clear public space (good streets, neighborhoods and parks) with a healthy mix of uses. With proper urban form, a greater integration of building uses is natural and comfortable. The ~~**Form Based Code**~~ uses simple and clear graphic prescriptions and parameters for height, siting, and building elements to address the basic necessities for forming good public space.

Wherever there appears to be a conflict between the ~~**Columbia Pike Special Revitalization District Form Based Code**~~, Article 11.1 of the Arlington County Zoning Ordinance, and other sections of the Zoning Ordinance (as applied to a particular development), the requirements specifically set forth in the ~~**Form Based Code**~~ shall prevail. For development standards not covered by the ~~**Form Based Code**~~, the other applicable sections in the Arlington County Zoning Ordinance shall be used as the requirement. Similarly, all development must comply with all relative Federal, State or local regulations and ordinances including, but not limited to, the Chesapeake Bay Ordinance and other environmental regulations.

The ~~**Columbia Pike Special Revitalization District Form Based Code**~~ is comprised of: Definitions, the Regulating Plans, the Building Envelope Standards, the Streetscape Standards and the Architectural Standards.

Definitions

Certain terms in the ~~**Code**~~ are used in very specific ways, often excluding some of the meanings of common usage. Wherever a word is in SMALL CAPITAL LETTERS format, consult the Definitions for the specific meaning. Words used in the ~~**Form Based Code**~~, but not defined by the ~~**Form Based Code**~~, that are defined in the Arlington County Zoning Ordinance, shall have the meanings set forth therein.

The Regulating Plan

The ~~REGULATING PLAN~~ is the coding key for the Columbia Pike ~~**Form Based Code**~~ that provides specific information on permitted development for each building site. The ~~REGULATING PLAN~~ also shows how each ~~LOT~~ relates to public spaces (~~STREETS~~, ~~CIVIC GREENS~~, ~~PEDESTRIAN PATHWAYS~~, etc.) and the surrounding neighborhood. There may be additional regulations for ~~LOTS~~ in special locations/situations as identified in the ~~REGULATING PLAN~~.

The Building Envelope Standards

The ~~BUILDING ENVELOPE STANDARDS~~ establish basic parameters governing building form, including the envelope for building placement (in three dimensions) and certain permitted/required building elements, such as storefronts, ~~BALCONIES~~, and ~~STREET WALLS~~. The ~~BUILDING ENVELOPE STANDARDS~~ establish both the boundaries within which things may be done and specific things that must be done. The applicable standard for a building is determined by its ~~STREET FRONTAGE~~ contained in the ~~REGULATING PLAN~~. This produces a coherent ~~STREET~~ and allows the building greater latitude behind its ~~STREET~~ facade.

The intent of the ~~BUILDING ENVELOPE STANDARDS~~ is to shape a vital public space (Columbia Pike and its adjoining ~~STREETS~~) through placement and envelope controls on private buildings. They aim for the minimum level of control necessary to meet that goal.

The Streetscape and Architectural Standards

~~The purpose of the Streetscape Standards is to ensure coherent STREETS and to assist builders and owners with understanding the relationship between the public space of Columbia Pike and their own building. These standards set the parameters for planting trees and/or other amenities on or near each building site.~~

~~The goal of the Architectural Standards is a coherent and pleasing architectural character that is complementary to the best local traditions. The Architectural Standards govern a building's architectural elements regardless of its BUILDING ENVELOPE STANDARD and set the parameters for allowable materials, configurations, and construction techniques. Equivalent or better products (as determined by the ADMINISTRATIVE REVIEW TEAM) than those specified are always encouraged and may be submitted for approval to the County.~~

I. General Provisions

A. Title

This Code is known as the Columbia Pike Special Revitalization District Form Based Code (Columbia Pike Form Based Code, or Code).

B. Applicability

1. Properties that are zoned S-3A, RA14-26, RA8-18, RA7-16, RA6-15, C-1, C-2, C-3, C-O, or CP-FBC districts and are located in the Columbia Pike Special Revitalization District, as designated on the General Land Use Plan (GLUP), shall be eligible to develop in accordance with the Columbia Pike Special Revitalization District Form Based Code requirements. After such development all uses permitted in Appendix A of the Zoning Ordinance shall be permitted on the property, subject to all regulations in Appendix A.
2. Properties that are zoned R-6 and R-5 and located in the Columbia Pike Special Revitalization District, as designated on the General Land Use Plan (GLUP), shall be eligible to develop in accordance with the Columbia Pike Special Revitalization District Form Based Code requirements only after the County Board approves a rezoning to the CP-FBC district.
3. The Columbia Pike Special Revitalization District Form Based Code is an optional zoning tool and property owners retain the zoning rights under the existing zoning. Use of the Form Based Code is selected through the filing of an application for development under the Form Based Code. If this Code is used, development proposals shall comply with all provisions of this Code.

C. Purposes

This Columbia Pike Form Based Code is intended to implement the purpose and goals of the Columbia Pike Initiative Plan initially adopted by the County Board on March 12, 2002, the subsequent Columbia Pike Urban Design Charrette and citizen workshops held in September 2002, and other policies adopted by the County Board to:

1. Foster a vital main street for its adjacent neighborhoods through a lively mix of uses—with shop-fronts, sidewalk cafes, and other commercial uses at street level, overlooked by canopy shade trees, upper STORY residences and offices;
2. Create transit, pedestrian-, and bicycle-oriented development, which is dependent on three factors: density, diversity of uses, and design; and
3. Place greatest emphasis on design, or physical form, because of its importance in defining neighborhood character.

D. Other Applicable Regulations

Wherever there is a variation or conflict between the Columbia Pike Special Revitalization District Form Based Code, and other sections of the Arlington County Zoning Ordinance, the requirements set forth in this Code shall prevail. For development standards not covered by this Code, applicable sections of the Arlington County Zoning Ordinance shall be used as the requirement. Similarly, all development must comply with all Federal, State or local regulations and ordinances including, but not limited to, Chesapeake Bay Ordinance and other environmental regulations.

E. Minimum Requirements

The provisions of the Code are the minimum requirements for development under this Code.

F. Severability

Should any provision of this Code be decided by the courts to be unconstitutional or invalid, that decision shall not affect the validity of the Code other than the part decided to be unconstitutional or invalid.

G. Components of the Code

The Code is comprised of the following sections:

1. Administration: Section II. Administration covers the application and review processes for development plan approval, permits, amendments, and administrative changes.
2. Regulating Plans: The REGULATING PLAN provides specific information on the development parameters for each parcel and shows how each LOT or DEVELOPMENT PROJECT relates to public spaces (STREETS, CIVIC GREENS, PEDESTRIAN PATHWAYS, etc.) and the surrounding neighborhood. The REGULATING PLAN may identify additional regulations and/or special provisions for specific locations. The Columbia Pike Special Revitalization District is divided into four subareas, each of which is covered by an individual REGULATING PLAN. The REGULATING PLAN also includes general regulations pertaining to the arrangement of blocks and alleys, buildings, streetscape, parking, ground story uses, and historic preservation.
3. Building Envelope Standards: The BUILDING ENVELOPE STANDARDS (BES), establish basic parameters governing building form, including the envelope for building placement (in three dimensions) and certain permitted/required building elements as they frame the STREET or public realm. The BUILDING ENVELOPE STANDARDS establish both the boundaries within which things may be done and specific things that must be done to ensure that the buildings relate to each other and form a functioning and consistent block structure. The applicable standard(s) for a development project is determined by the BES frontage type designated on the REGULATING PLAN.
4. Streetscape Standards: The purpose of the Streetscape Standards is to ensure coherent STREETS and to assist developers and owners with understanding the relationship between the public realm and their own DEVELOPMENT PROJECT or building. These standards set the parameters for the placement of street trees, sidewalks, and other amenities or furnishings within the STREET as well as the basic configurations for other public spaces, including streets and sidewalks.
5. Architectural Standards: The Architectural Standards are used to achieve a coherent and high-quality building design that is complementary to the best local traditions. The Architectural Standards govern a building's exterior elements and set the parameters for allowable materials, configurations, and techniques.

6. Definitions: Certain terms in this Code are used in very specific ways, often excluding some of the meanings of common usage. Wherever a word is in ALL CAPITALS format, consult Section VII. Definitions for its specific and limited meaning within this Code. Words used in the Code, but not defined by the Code, but that are defined in the Arlington County Zoning Ordinance, shall have the meanings set forth therein

* * *

23b. Form Based Code Section II. Definitions

Amendment adopted on October 18, 2016:

A. By-Right FBC Applications

The Zoning Administrator is authorized to approve applications for DEVELOPMENT PROJECTS smaller than 40,000 square feet, consisting only of new structures that are fully compliant with this Code, and where no modifications are requested under Section II.D.

B. Special Exception Use Permit Applications

The Special Exception Use Permit process will be required for DEVELOPMENT PROJECTS that meet any of the following criteria:

1. DEVELOPMENT PROJECTS larger than 40,000 square feet;
2. DEVELOPMENT PROJECTS with building floorplates larger than 30,000 square feet;
3. Request for a hotel that includes 7,500 square feet or more of conference room or banquet facility Gross Floor Area (GFA);
4. Request for approval of any special circumstances as set forth in Section II.C.
5. Request for approval of any modifications, as set forth in Section II.D.

C. Special Circumstances

In order to better incorporate HISTORIC STRUCTURES and HISTORIC FACADES shown on the REGULATING PLAN into DEVELOPMENT PROJECTS with redevelopment, the County Board may, subject to HALRB review, and approval of a Certificate of Appropriateness (CoA), as provided in Section II.E.4, and by use permit approval as provided in Section II.E.3.b, approve:

1. Modifications of the parking requirements set forth in Section III.B.4 for that portion of the project that includes the HISTORIC STRUCTURES and HISTORIC FACADES;
2. Modification of the following:
 - a. Utility undergrounding as provided in Section III.B.7; and
 - b. Provision of street furniture as provided in Section III.B.7 and Section V.
3. Up to two bonus stories with appropriate design and tapering, on the remainder of the site, provided that the overall building height is within the maximum (in feet) for the site.

For example, on a MAIN STREET SITE, the maximum height is 6 STORIES, the equivalent to 94 feet under the Form Based Code. (Maximum floor heights are 24 ft., 14 ft., 14 ft., 14 ft., 14 ft., 14 ft.) Thus, up to an additional two STORIES are permitted, but overall building height cannot exceed 94 feet.

D. Modifications

1. Purpose: The County Board may, through approval of a use permit, modify the provisions of this Code as set forth in Section II.D.2 upon a finding that, after the proposed modification, the subject development and where applicable, existing buildings, structures, HISTORIC STRUCTURES and HISTORIC FACADES to be retained, will better accomplish the purposes and intent of this Code and the goals of the Columbia Pike Initiative Plan than would the development without those modifications and that the proposed uses will neither: 1) adversely affect the health or safety or persons residing or working in the neighborhood of the proposed use; nor 2) be detrimental to the public welfare or injurious to the property or improvements in the neighborhood; nor 3) be in conflict with the purposes of the master plans of the County.
2. Allowable Modifications: In approving a use permit application, the County Board may modify only the following requirements of this Code:
 - a. Height of first floor relative to fronting sidewalk elevation;
 - b. Required Building Lines (RBLs) for the location of STREETS, for HISTORIC STRUCTURES AND HISTORIC FACADES, and for existing parking garages as of February 25, 2003;
 - c. Locations of alleys;
 - d. Breaks between buildings;
 - e. STREETSCAPE details;
 - f. Design issues related to the inclusion of existing buildings, HISTORIC STRUCTURES, HISTORIC FACADES or mature trees;
 - g. Parking ratios for hotels and/or associated conference/banquet facilities;
 - h. Signs, only as provided in Section VI.F and ACZO §13.3; and
 - i. Modifications associated with special circumstances as provided in Section II.C.

E. Applicant Requirements and Review Processes

1. Submission Requirements: Each preliminary and final application shall include all materials identified in Administrative Regulations 4.1.2, including by way of illustration, and not limitation, the following:
 - a. Plans and documentation indicating the proposed new development; the location, condition, and any renovation of existing buildings to be retained; and other site improvements;
 - b. A LEED scorecard, or equivalent scorecard for another green building standard system;
 - c. A Transportation Impact Analysis (TIA) for any development project with 100,000 square feet or more of gross floor area (GFA).
2. Preliminary FBC Applications:
 - a. For all DEVELOPMENT PROJECTS, Preliminary FBC Applications shall be submitted to the Administrative Review Team for review.
 - b. When a preliminary application has been determined by the Administrative Review Team to be compliant with the regulations set forth in this Code, except to the extent modifications are be-

ing requested through use permit approval:

- i. The Administrative Review Team will forward the application to the Form Based Code Advisory Working Group (AWG) and schedule a review meeting with the AWG.
 - ii. Prior to the AWG meeting, applicants shall provide copies of the application to the Columbia Pike Revitalization Organization (CPRO) and to the civic association (s) in which the subject property is located, and to any immediately adjacent civic associations, as specified in FBC Administrative Regulations 4.1.2.
 - iii. When an application includes a request for a modification(s) to the REGULATING PLAN requirements, including a different placement or alignment of a new building, street or alley from what is depicted on the REGULATING PLAN, a joint meeting of a committee of the Planning Commission and the Form Based Code Advisory Working Group shall occur to review the proposed modification during the preliminary application phase in order to provide comment as to whether the proposed modification is consistent with the purposes and intent of this Code and the goals of the Columbia Pike Initiative Plan.
 - iv. The AWG will review the proposal and advise the Administrative Review Team as to whether it finds the preliminary application to be in compliance with this Code.
- c. The Final Application may be filed at the earlier of either: a) completion of requirements in Sections II.E.2.b.i-iv; or b) completion of requirements in Section II.E.2.b.i-iii provided that the review meeting with the AWG, specified in II.E.2.b.iv, has been scheduled for a date no more than 15 days after the final application submission.

3. Final FBC Applications:

a. By-Right Applications:

- i. Final By-Right FBC Applications shall be submitted to the Zoning Administrator for approval.
- ii. Final By-Right FBC Applications will be reviewed administratively for conformance with this Code within thirty (30) days of a Final Application Submission. Upon completion of such review, applicants will be notified in writing by the Zoning Administrator as to whether the submission is in compliance with the Form Based Code.
- iii. At the time of, or prior to filing, applicants shall provide copies of the application to the Columbia Pike Revitalization Organization (CPRO) and to the civic association (s) in which the subject property is located, and to any immediately adjacent civic associations, as specified in FBC Administrative Regulations 4.1.2.
- iv. Once an application is approved by the Zoning Administrator, the applicant may apply for construction permits consistent with the approved application. Applications that the Zoning Administrator determines do not comply with the requirements of this Code may be resubmitted for review as a revised application, or as a request for approval of a use permit, as set forth in ACZO §15.4 and Section II.E.3.b.

b. Special Exception Use Permit Applications

- i. Unless the Zoning Administrator determines that it is in the public interest to accept a later application, a Form Based Code Use Permit application shall be filed by the final deadline for special exception applications set by the Zoning Administrator, and no less than fifty-five (55 days) before the public hearing.

- ii. At the time of, or prior to filing, applicants shall provide copies of the application to the Columbia Pike Revitalization Organization (CPRO) and to the civic association(s) in which the subject property is located, and to any immediately adjacent civic associations, as specified in FBC Administrative Regulations 4.1.2.
- iii. The County Board shall approve the DEVELOPMENT PROJECT if it finds that the DEVELOPMENT PROJECT meets the standards of this Code as modified by the County Board in accordance with this Code, and meets the standards set forth in ACZO §15.4.3.
- iv. In approving a FBC use permit, the County Board may designate such conditions in connection therewith as will, in its opinion, assure that the use will conform to the requirements of this Code and that such DEVELOPMENT PROJECT will continue to do so.

4. Review by Historical Affairs and Landmark Review Board (HALRB)

DEVELOPMENT PROJECTS with buildings designated as HISTORIC STRUCTURES or HISTORIC FACADES shall be subject to review and approval of a Certificate of Appropriateness (CoA) by the HALRB, as follows:

- a. As part of the preliminary application phase, an applicant shall submit its DEVELOPMENT PROJECT to the HALRB for two meetings (or more, if necessary) for review and comment (HALRB and/or DRC meetings in one month shall count as one meeting). The HALRB, and/or its Design Review Committee (DRC), shall review the DEVELOPMENT PROJECT to assess whether the application complies with Section III.6. Historic Preservation and ACZO §15.7.9.F.
- b. Upon completion of its preliminary review, the HALRB will provide, in writing, its comments to the applicants stating how the DEVELOPMENT PROJECT does or does not comply with Section III.6. Historic Preservation and ACZO §15.7.9.F.
- c. The applicant shall address the HALRB comments and return to the HALRB for one additional meeting for final review and comment.
- d. HALRB shall approve a CoA for the DEVELOPMENT PROJECT where it finds the DEVELOPMENT PROJECT meets the intent and regulations of Section III.6. Historic Preservation and ACZO §15.7.9.F.

5. Preservation of HISTORIC STRUCTURES and HISTORIC FACADES

HISTORIC STRUCTURES and HISTORIC FACADES shall be preserved by either:

- a. A preservation easement on the structure or façade and recorded for the benefit of Arlington County or the Northern Virginia Conservation Trust; or,
- b. The site can be designated as a local historic district by the Arlington County Board.

6. Subdivision and Building Permits

- a. The applicant shall not pursue development permits until such time that either a Letter of Approval by the Zoning Administrator or a Use Permit approval by the County Board has been obtained.
- b. All development shall be consistent with the approved FBC DEVELOPMENT PROJECT.

c. Administratively-approved FBC applications, approved after September 24, 2016, will expire in 3 years from the date of the Zoning Administrator's Letter of Approval unless a Footing to Grade permit has been issued; however, the Zoning Administrator may extend the approval up to 3 years for a total of up to 6 years if he/she finds that the applicant has been actively working in good faith to pursue the Footing to Grade permit.

7. Major and Minor FBC Use Permit Amendments

a. Major FBC Use Permit Amendments: Any modification of the approved use permit which meets one or more of the following criteria is considered a major amendment and will require approval by the County Board:

I. Change to the principal use of the building in more than five percent of the total floor area of the building;

II. Change to the overall building height by more than 12 feet;

III. Change to the gross floor area of the ground story by more than 20 percent of the area of the ground story; or

IV. Any change which the Zoning Administrator determines is similar in significance to the above stated changes, including but not limited to, changes to materials, design, or appearance of the building from the original approval.

b. Minor FBC Use Permit Amendments: Any modification of the approved use permit that meets either of the following criteria is considered a minor amendment and will require approval by the County Board:

i. Any modification of the approved DEVELOPMENT PROJECT which is not considered a major amendment and which cannot be approved administratively;

ii. The subdivision of land involved in an approved DEVELOPMENT PROJECT, except that, if the following criteria are met, such subdivision may be approved as an administrative change by the Zoning Administrator:

(1) Uses and building form is consistent with the zoning and approved use permit;

(2) Parking is consistent with the zoning and the approved use permit;

(3) Public improvements are consistent with the zoning and approved use permit; and

(4) Clear evidence exists that all conditions of the approved use permit have been met or are bonded in a manner acceptable to the County Manager.

c. Processes for Major/Minor Amendments

I. When a major or minor use permit amendment is filed, the Zoning Administrator shall notify the applicant, as required in FBC Administrative Regulation 4.1.2, of the scheduled date of the County Board public hearing, which date will be up to 180 days after filing. Public hearings shall be the first regularly scheduled County Board meeting of each month, except the County Board may establish, on its own motion, another County Board meeting for the hearing.

II. When either a major or minor use permit amendment is filed, the Administrative Review Team and the FBC AWG shall review the preliminary application consistent with Section II.E.2.a-b.

III. After the Zoning Administrator has determined that the applicant has met the requirements of Section II.E.2.b, the application may be considered at a public hearing by the County Board on no less than 55 days after the AWG review meeting.

IV. The County Board shall approve an amendment only if it finds, after a duly advertised hearing, that the DEVELOPMENT PROJECT will not 1) adversely affect the health or safety or persons residing or working in the neighborhood of the proposed use; nor 2) be detrimental to the public welfare or injurious to the property or improvements in the neighborhood; nor 3) be in conflict with the purposes of the master plans of the County.

V. In approving a major or minor FBC use permit amendment, the County Board may designate such conditions in connection therewith as will, in its opinion, assure that the use will conform to the requirements of this Code and that such DEVELOPMENT PROJECT will continue to do so.

d. FBC Administrative Changes: Any minor adjustment to the approved DEVELOPMENT PROJECT elements below, and any other change that the Zoning Administrator determines is similar in significance and complies with the spirit of this Code, the Arlington County Zoning Ordinance, the intent of the County Board or the Zoning Administrator in its approval of the DEVELOPMENT PROJECT, and the general purpose of the Comprehensive Plan for the development of the area, may be approved by the Zoning Administrator:

I. Facade elevations, fenestration, and/or clear heights or story heights to address changes to the interior layout of the building;

II. Ground story finished floor elevations to address conflicts with site topography; or

III. On a limited basis, substitute comparable or better façade materials.

F. FBC Administrative Review Team Duties & Procedures

The Administrative Review Team is comprised of staff from several County Departments who are responsible to assist the Zoning Administrator in administering the Form Based Code.

1. The Administrative Review Team shall review both By-Right and Special Exception Use Permit FBC applications for compliance with this Code. The Administrative Review Team shall administer the Administrative Regulations 4.1.2 which describe the review processes and submission requirements in further detail. The Administrative Review Team shall forward its recommendations regarding compliance or noncompliance to the Zoning Administrator for By-Right applications or the County Board, for Special Exception Use Permit applications.

2. In addition, the Administrative Review Team may be called upon as set forth in this Code or as requested by the Zoning Administrator to provide recommendations on interpretation of this Code. However, the Zoning Administrator is responsible for any final action taken under this Code on By-Right applications.

VII. Administration

The ~~*Columbia Pike Special Revitalization District Form Based Code*~~ process is intended to provide an incentive to property owners and developers who are willing to develop in a particular form. There are two review processes for the ~~**Form Based Code**~~ option: ~~By Right (administrative review) and Special Exception.~~ The Special Exception process is dependent upon site size and/or the need for minor variations to the ~~**Code**~~. Projects approved through the Special Exception process should nonetheless meet the intent of the ~~**Form Based Code**~~.

Article 11.1 of the Arlington County Zoning Ordinance sets forth the provisions for reviewing and approving development applications within the Columbia Pike Special Revitalization District, as amended, where a landowner or developer chooses to develop pursuant to the ~~**Form Based Code**~~. The intent is to ensure that all development occurring under the ~~**Form Based Code**~~ is consistent with the provisions of that ~~**Code**~~ as they pertain to height, siting, architectural standards, and building form. All five elements of the ~~**Form Based Code**~~—Definitions, the Regulating Plans, the Building Envelope Standards, the Streetscape Standards and the Architectural Standards—will be applied during review.

The Columbia Pike Initiative ~~ADMINISTRATIVE REVIEW TEAM~~, comprised of staff from the Department of Community Planning, Housing & Development, including Planning and Historic Preservation; the Department of Environmental Services; and, Arlington Economic Development, is charged with review of all Form Based Code proposals.

~~A. By-Right Option~~

Projects on smaller sites (less than 40,000 square feet) are able to build as a matter of right when they meet all of the standards of the ~~**Form Based Code**~~. The Columbia Pike Initiative ~~ADMINISTRATIVE REVIEW TEAM~~ will be responsible for reviewing development proposals within 30 days of submission of a completed application. Permits will not be issued for building activity until review is completed and a determination made that the proposal is consistent with the ~~**Form Based Code**~~. Applicants also will be required to provide copies of their proposal to the Columbia Pike Revitalization Organization and affected civic associations at the time of submission to the County. Up to two civic association representatives, who will be identified from each adjacent neighborhood, will participate in any administrative review affecting their neighborhood.

~~B. Special Exception/Use Permit Option~~

The proposed ~~Special Exception Use Permit~~ process will be required for 1) sites over 40,000 square feet or with floorplates over 30,000 square feet and 2) hotels that include 7,500 square feet or more of conference room or banquet facility Gross Floor Area (GFA). Such sites will be required to meet the intent of the ~~**Code**~~ and will be evaluated in terms of how well they conform to the ~~**Code**~~ and meet other objectives of the ~~*Columbia Pike Initiative A Revitalization Plan*~~. The Use Permit process also provides the opportunity for community input as well as fine tuning of a development proposal to address issues that may not have been contemplated by the ~~**Form Based Code**~~.

The Use Permit process will give the opportunity for appropriate deviations from the ~~**Code**~~ that are consistent with the County's goals and plans to revitalize Columbia Pike as detailed in the Columbia Pike Initiative that was recently adopted by the County Board. Examples of these deviations may include problems related to topography or ~~STREET~~ grade, the location of ~~ALLEYS~~ and ~~STREETS~~, breaks and passages between buildings, ~~STREETSCAPE~~ details, design issues related to the inclusion of existing buildings, mature trees as part of

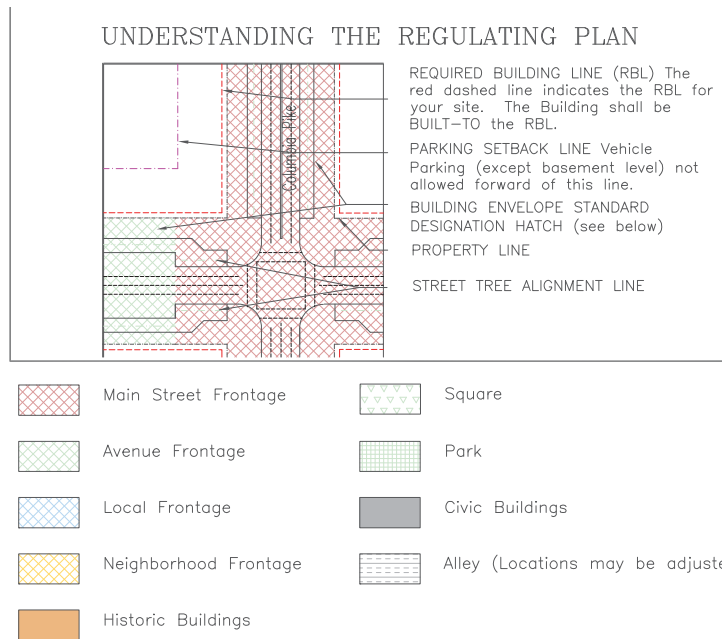
~~a development proposal, and parking ratios for hotels and/or associated conference/banquet facilities. Where properties of less than 40,000 square feet have such difficulties, they too, could seek a use permit to gain approval of their development with needed variations.~~ ^{15B, 18G}

~~As currently proposed, the Special Exception process would take approximately 55 days from acceptance of a completed application to public hearing by the Planning Commission and County Board. Applicants will be required to provide copies of their application to the Columbia Pike Revitalization Organization and all affected civic associations at the time of submission to the County. Applicants also will be required to perform property owner notification (affected, abutting and owners across the STREET) as required by the Code of Virginia. At the time an application is received, a Planning Commission representative will be designated and civic association representatives from the affected neighborhood will be contacted to begin coordinating community input on the project.~~

**23c. Form Based Code Section III. Regulating Plans
Amendment adopted on October 18, 2016:**

A. Understanding the Regulating Plan

A REGULATING PLAN provides standards for the disposition of each property or LOT and how each relates to its adjacent properties and STREETS. Following the adoption of the *Columbia Pike Initiative—A Revitalization Plan* in March 2002 and the Columbia Pike Urban Design Charrette and citizen planning workshops held in September 2002 and any future addenda, REGULATING PLANS have been produced for the Columbia Pike Special Revitalization District in Arlington County.



Building Sites are Coded by Their Street-Frontage BES Frontage Type

The key above explains the elements of the REGULATING PLAN and serves as a reference when examining the REGULATING PLAN.

4. PARKING

A. Parking goals:

B. There are no minimum parking requirements for the following:

1. Development Projects Sites under 20,000 square feet in land area ~~have no minimum parking requirements~~, except that on LOCAL sites of less than 20,000 square feet in land area and with more than two dwelling units per LOCAL STREET BUILDING, parking shall be provided for each dwelling unit, as required in Section III.B.4.C ^{11B}

2. The portion of any DEVELOPMENT PROJECT that includes HISTORIC STRUCTURES or HISTORIC FACADES.

C. All other DEVELOPMENT PROJECTS sites not expressly covered by Section III.B.4.B. shall meet ~~have~~ the following requirements: ^{18A}

1. A minimum of 1 and 1/8 parking spaces per residential dwelling unit, of which a minimum of 1/8 parking space per residential unit shall be provided as SHARED PARKING. There are no maximum limits on SHARED PARKING.
2. For all other uses except hotel uses, a minimum of one space per 1,000 square feet of non-residential Gross Floor Area (GFA) shall be provided as SHARED PARKING; there are no set maximum limits on SHARED PARKING. New on-street parking spaces created in conjunction with the development, which did not previously exist, may be counted toward the minimum requirement for SHARED PARKING. Any limitations on the SHARED PARKING (time limits or hours of the day) shall be subject to approval by the Zoning Administrator which shall be given upon a finding that at least 12 hours of public parking are provided in any 24-hour period and that at least 8 of those hours are provided during either business or nighttime hours depending on whether the Zoning Administrator determines that the primary public use will be for commercial or residential uses. ^{20B}
3. For hotel uses, a minimum of 0.5 space per hotel guest room shall be provided as RESERVED PARKING; there are no set maximum limits on SHARED PARKING. In addition, any hotel that includes 7,500 square feet or more of conference room or banquet facility GFA, shall provide additional parking at a rate of 1 space per 1,000 square feet of all conference room/banquet facility GFA.
4. A maximum of one space per 1,000 square feet of non-residential GFA (excluding hotel uses), two spaces per residential dwelling unit, and a maximum of 0.7 space per hotel guest room may be made available for RESERVED PARKING, not counting the additional parking required by subsection 3, above, for hotels that include 7,500 square feet or more of conference rooms or banquet facilities.
5. RESERVED PARKING above the maximum may be provided upon payment to the County. The County Manager shall establish the amount of payment annually based on the approximate cost to build structured parking.

6. HISTORIC PRESERVATION

Certain HISTORIC STRUCTURES and HISTORIC FACADES are viewed as integral to the current and future identity of Columbia Pike. These historic resources are to be preserved pursuant to Section II.E.5 (see HISTORIC PRESERVATION, Section II. Definitions) through the use of local incentives, as well as Federal and/or State Historic Tax Credits.

HISTORIC STRUCTURES ^{17a}

Sites containing HISTORIC STRUCTURES may be redeveloped under the **Code** subject to any special provisions that apply to the site in the REGULATING PLAN and administrative review by the Arlington Historical Affairs and Landmark Review Board (HALRB). When located on any site that is redeveloped pursuant to this **Code**, HISTORIC STRUCTURES shall be preserved pursuant to Section II.E.5 (see HISTORIC PRESERVATION, Section II. Definitions) in their entirety and shall not be subject to the BUILDING ENVELOPE STANDARD prescriptions of this **Code**.

The following properties are HISTORIC STRUCTURES:

- 2500-2530 Columbia Pike, Arlington Village Shopping Center
- 2624 Columbia Pike, Arlington Animal Hospital
- 2628 Columbia Pike, Birds N' Things
- 2900 Columbia Pike, Old Dominion Bank/Blanca's Restaurant
- 2903 Columbia Pike, Arlington Theater
- 3014 Columbia Pike, Charles Building
- 805 South Walter Reed Drive, Fillmore Gardens Apartments (The portion of the property south of 9th Street may be redeveloped, on the condition that preservation pursuant to Section II.E.5 (see HISTORIC PRESERVATION, Section II. Definitions) is implemented for the portion north of 9th Street.)

HISTORIC FACADES ^{17A}

Sites incorporating HISTORIC FACADES may be redeveloped under the **Code** subject to any special provisions that apply to the site in the REGULATING PLAN or in this section and administrative review by the Arlington Historical Affairs and Landmark Review Board (HALRB). When located on any site that is redeveloped pursuant to this **Code**, HISTORIC FACADES shall be preserved pursuant to Section II.E.5 (see HISTORIC PRESERVATION, Section II. Definitions) and shall not be subject to the BUILDING ENVELOPE STANDARD prescriptions of this **Code**.

The following properties contain HISTORIC FACADES:

- 2338-2344 and 2408 Columbia Pike, commercial buildings
- 2801-2811 Columbia Pike and 927 South Walter Reed, Elkins Building
- 900 block of South Walter Reed Drive, commercial buildings
- 2906-2922 Columbia Pike, Arlington Hardware

In order to better incorporate HISTORIC STRUCTURES and HISTORIC FACADES into redevelopment scenarios, the following are allowable modifications to the **Form Based Code** requirements. —

- — HISTORIC STRUCTURES and HISTORIC FAÇADE buildings have no minimum parking requirements (redevelopment is not required to obtain this exemption);
- — Redevelopment projects incorporating HISTORIC STRUCTURES and HISTORIC FACADES are exempt from the County's parking requirements for that portion of the project that includes the historic property.

- ~~Siting and element requirements of the BUILDING ENVELOPE STANDARDS can be modified for that portion of any redevelopment project that includes a HISTORIC STRUCTURE or HISTORIC FACADE that is preserved.~~

Optional exceptions:

1. ~~Up to two additional STORIES, with appropriate design and tapering, subject to HALRB review and approval, are permitted on the remainder of the site, provided overall building height is within the maximum (in feet) for the site.~~

~~For example, on a MAIN STREET SITE, the maximum height is 6 STORIES, the equivalent to 94 feet under the **Form Based Code**. (Maximum floor heights are 24 ft., 14 ft., 14 ft., 14 ft., 14 ft., 14 ft.) Thus up to an additional two STORIES are permitted, but overall building height cannot exceed 94 feet.³~~

2. ~~Developers are exempted from constructing certain STREETScape improvements, including:~~
 - ~~Utility undergrounding~~
 - ~~Provision of street furniture~~
 - ~~Provision of PUBLIC ART~~
 - ~~Provision of CIVIC GREENS and SQUARES~~

~~Developers are required to obtain a Certificate of Appropriateness from the Historical Affairs and Landmarks Review Board (HALRB) for projects involving the identified HISTORIC STRUCTURES and HISTORIC FACADES listed above prior to application submission. Such Certificates of Appropriateness shall be governed by the processes, standards, and rights of appeal as set forth in Section 31A of the Zoning Ordinance.~~

23d. Form Based Code Section IV. Building Envelope Standards **Amendment adopted on October 18, 2016:**

A. Introduction

~~The REGULATING PLAN identifies the BUILDING ENVELOPE STANDARDS (BES) for all building sites within the Columbia Pike Revitalization District. The goal of the BUILDING ENVELOPE STANDARDS is the creation of a healthy and vital public realm through good STREET space. The Building Envelope Standards (BES) establish both the limitations and specific requirements for building form and frontages. They aim for the minimum level of control necessary to meet that goal. The form and function controls work together to create the STREET-SPACE while allowing the building design greater latitude behind the facades. Deviations from the BUILDING ENVELOPE STANDARDS can be approved through a Special Exception Process as provided for in Section VII. Administration of this **Code** and in ACZO Article §11.1 and §15. of the Zoning Ordinance. ~~The BUILDING ENVELOPE STANDARDS set the basic parameters governing building construction, including the building envelope (in three dimensions) and certain required/permitted elements, such as BALCONIES, STOOPS, and STREET WALLS.~~~~

AB. General Guiding Principles

1. Buildings are aligned and close to the STREET.
Buildings form the space of the STREET.
2. The STREET is a coherent space, with consistent building forms on both sides of the STREET.
This agreement of buildings facing across the STREET contributes to a clear public space and community identity.

3. Buildings oversee the STREET (and SQUARE) with active fronts.
This overview of the STREET contributes to vital and safe public space.
4. Property lines are physically defined by buildings or STREET WALLS.
Land should be clearly public or private—in public view and under surveillance or private and protected.
5. Buildings are designed for towns and cities.
Rather than being simply pushed closer together, as in many suburban developments, buildings must be designed for the urban situation within towns and cities. Views are directed to the STREET and the garden/courtyard, not toward the neighbors.
6. Vehicle storage, garbage and mechanical equipment are kept away from the STREET.
7. Retail on the GROUND FLOOR (for MAIN STREET locations).
Retail helps to make the STREET active and interesting.
8. Parking (not including on-street parking) should be away from the STREETS and shared by multiple owners/users.
9. Historic Character.
Those structures that have historic character should be preserved in some manner or their elements incorporated in the redevelopment of their site.

23e. Form Based Code Section VI. Architectural Standards Amendment adopted on October 18, 2016:

A. Introduction

Buildings must be reviewed by the ADMINISTRATIVE REVIEW TEAM. The ADMINISTRATIVE REVIEW TEAM will also work with the developer and/or designer to show them how the **Form Based Code** will satisfy their site needs and other requirements.

AB. General Principles and Intent

1. TRADITION

- These standards favor an aesthetic that is traditional in a broad sense. They specify an architecture language of load-bearing walls and regional materials. The standards also specify certain details, such as column and pier spacing, window proportions, roof or cornice configurations, storefronts, and overhangs.
- The intent behind these standards is to utilize a discipline of form when designing new buildings in order to foster a coherent Columbia Pike aesthetic.
- All building materials to be used shall express their specific properties. For example, stronger and heavier materials (masonry) support lighter materials (wood).

2. EQUIVALENT OR BETTER

- ~~While only materials, techniques, and product types prescribed here are allowed, equivalent or better practices and products are encouraged. They shall be submitted to the ADMINISTRATIVE REVIEW TEAM and may be added to the approved list after proper review by the County.~~

While certain materials, techniques, and product types are prescribed in this section as being permitted, equivalent or better practices and products are encouraged. Alternatives may be proposed through submittal of technical specifications, samples, and case examples for proposed materials to the Zoning Administrator. The FBC Administrative Review Team and the Zoning Administrator will review the proposal and compare the use of the material, technique or product type and its durability and appearance with the permitted materials, to determine whether it is an equivalent or better material, technique, or product type. Once an alternative material, technique, or product type has been determined to be acceptable for use, it shall be added to a list maintained by the Zoning Administrator as acceptable in future applications.

3. ENERGY EFFICIENCY AND ENVIRONMENTAL CONSERVATION

- LEED (Leadership in Energy and Environmental Design) standards, or an equivalent standard, should be incorporated into the building design including the submission of a LEED scorecard in the administrative review process.

4. WHERE CLEARLY VISIBLE FROM THE STREET

- Many of these standards apply only in conditions WHERE CLEARLY VISIBLE FROM THE STREET. Note that the definition of STREET includes parks, CIVIC SQUARES, and CIVIC GREENS. These controls therefore concentrate on the public space/views from the public space and minimize interference in the private realm. For example, an architectural element that is visible only through an opening in a STREET WALL is not CLEARLY VISIBLE FROM THE STREET.

G. Lighting and Mechanical Equipment

2. STANDARDS FOR LIGHTING AND MECHANICAL EQUIPMENT

(WHERE CLEARLY VISIBLE FROM THE STREET)

Lighting:

- A photometric analysis will be submitted as part of the Form Based Code application by the developer. Such analysis will show that, with the spacing of street lights as shown by the developer on the lighting plan, the light levels will fall within recommended levels indicated in Arlington County's 2014 2012 Traffic and Street Lighting Specifications, as amended, for the street type and location.

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23f. Form Based Code Section VII. Definitions

Amendment adopted on October 18, 2016:

VII. Definitions

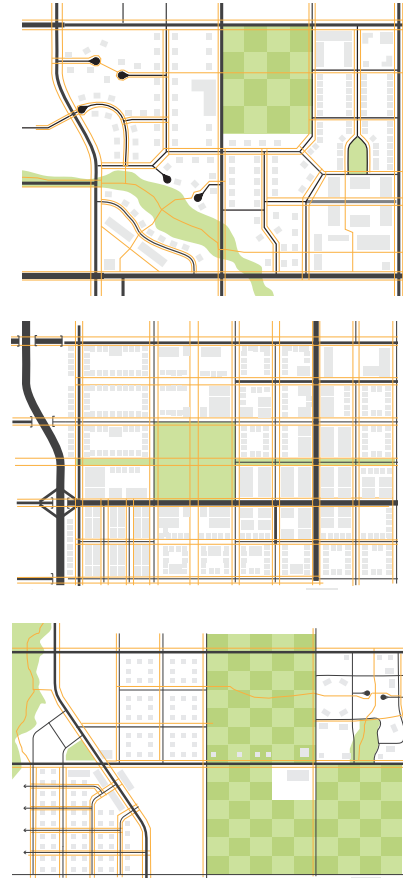
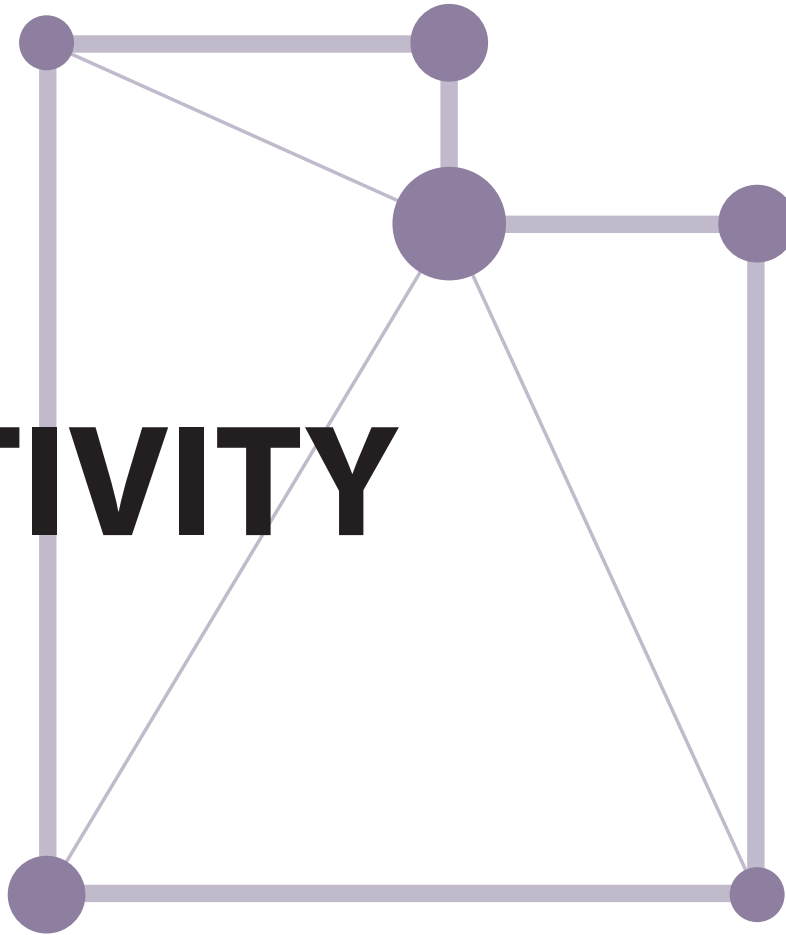
DEVELOPMENT PROJECT. A property that is the subject of County approval for development.

HISTORIC PRESERVATION

~~HISTORIC PRESERVATION can be conducted through two means: a preservation easement on the structure or façade can be recorded with the Northern Virginia Conservation Trust or the site can be designated as a local historic landmark by the Arlington County Board.~~

* * *

UTAH STREET **CONNECTIVITY** GUIDE



A RESOURCE FOR **WHAT** STREET CONNECTIVITY IS, **WHY** IT IS IMPORTANT - AND **HOW** TO INCREASE IT IN OUR COMMUNITIES

ACKNOWLEDGMENTS

The Utah Street Connectivity Guide was produced by a team of agencies, local jurisdictions, and inter-disciplinary consultants. Thank you to all who participated in the process of creating this study and document, including our Working Group, Consultant Team, and those who took our surveys and attended our open houses.

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LEHI'S STREET CONNECTIVITY STANDARDS

Lehi City recognized the importance of street connectivity and undertook 1.5-year process to create and adopt street connectivity standards.

In late 2014, staff began the process by researching connectivity metrics to determine the right fit for Lehi. Planning staff worked closely with Engineering to draft several versions of the ordinance until everyone agreed on a version that could be utilized during the subdivision approval process. Staff provided evidence to show the benefits of street connectivity and the Lehi City Council adopted the standards in April of 2016.

The adopted street connectivity ordinance utilizes a few primary metrics that resemble those used in the Utah Street Connectivity Study (USCS): a connectivity index (link-node ratio) and maximum block and cul-de-sac lengths. Minimum requirements for these metrics increase both connectivity and intersection density, the two basic aspects of street connectivity identified in the USCG. The adopted ordinance includes requirements and bonuses for pedestrian and trail connections between streets or at the end of cul-de-sacs. In practice, the connectivity standards have been effective in creating subdivisions that are more walkable, better disperse vehicular travel and increase accessibility for emergency response.

Section 37.050. Connectivity Standards

(New 04/26/16)

A. **Purpose.** These standards are intended to create a connected transportation system between neighborhoods and commercial areas within the City. The specific purposes of this Section include:

1. Promoting walkability through additional connections and shorter block lengths.
2. Improving emergency response time.
3. Increasing effectiveness of delivery access.
4. Providing better routes to schools and parks.
5. Reducing impacts of development on Master Planned arterial and collector roads by providing alternative routes.
6. Preventing isolated developments that increase dependency on automobiles.

B. Definitions.

1. **Block Length** – The distance along any given road frontage between two intersections with 3 or more connecting links (see Figure 25). Links that connect into a cul-de-sac shall not be considered the termination point of a block length.

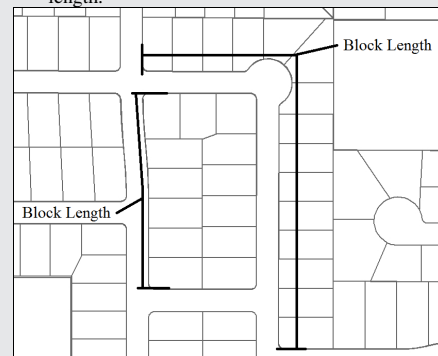


Figure 25. Example block length measurements.

2. **Chicane** – An extension of a curb typically on a local street to provide an element of traffic calming.
3. **Connectivity Index** – A ratio of roadway

links and nodes that serves as a metric for measuring the level of connectivity.

4. **Cul-de-sac Length** – The distance from the street intersection to the throat of the cul-de-sac bulb (see Figure 26).

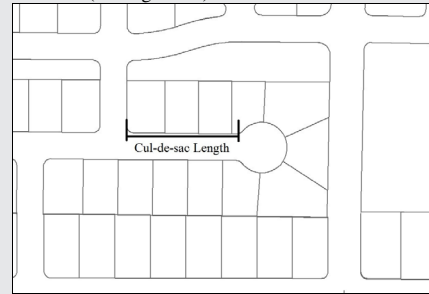


Figure 26. Example of cul-de-sac length measurement.

5. **Curb Extension** – An extension of a curb in a roadway to narrow the road at pedestrian crossings to provide additional safety for pedestrians and serves as a traffic calming measure.

6. **Links** – Streets that connect to nodes or external streets not included in the proposed development.

7. **Node** – Street intersection or cul-de-sac located within a proposed development. A street intersection exists where two or more named roads intersect.

C. **Circulation Plan.** A circulation plan shall be provided as part of a preliminary subdivision plat application.

1. The circulation plan must address street connectivity, pedestrian circulation, emergency access, and parking movements. In cases where cut-through traffic is likely, traffic calming measures such as curb extensions, chicanes, raised crossings, or other features may be required.
2. The circulation plan shall show the connectivity index, block length dimensions, cul-de-sac length dimensions, pedestrian facilities, and any proposed traffic calming features.
3. The circulation plan must take into account access and connectivity on adjacent parcels. On a case-by-case basis the Planning Director and City Engineer may require changes to stub road

locations if it will increase the connectivity within an adjacent property.

4. A circulation plan will be required for proposed developments with more than one acre in project size or with more than ten (10) units. The Planning Director and City Engineer may waive the requirement for a circulation plan on a case-by-case basis.

D. **Connectivity Index Calculation.** The required connectivity index is calculated by dividing the total number of links by the total number of nodes (see Figure 27).

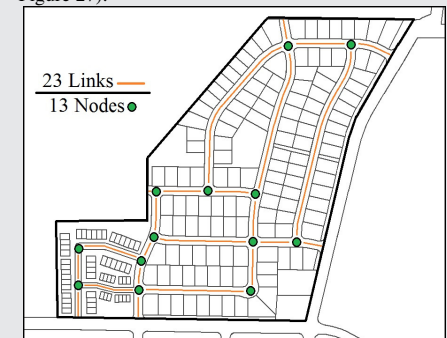


Figure 27. Example connectivity index calculation showing nodes and links. This example shows 23 links and 13 nodes which equates to a connectivity index of 1.77.

1. For the purposes of calculating the number of total links, one link beyond each node shall be included in the connectivity index calculation. Street stubs that provide future access to adjacent properties or streets that connect to existing streets are considered links.
2. An additional ½ link shall be included in the connectivity index calculation for each of the following:
 - (a) Hard surface pedestrian connection through a cul-de-sac with a minimum width of ten (10) feet including an additional two (2) foot soft shoulder on each side (see Figure 28);
 - (b) Hard surface master planned trail connection with a minimum width of (10) feet including an additional two (2) foot soft shoulder on each side (see Figure 29);
 - (c) Internal hard surface trail segment connecting two roads with a minimum width of ten (10) feet including an additional two (2) foot soft shoulder on each side (see figure 30).





Figure 28. Cul-de-sac with a pedestrian connection to allow access to an adjacent open space.



Figure 29. Pedestrian connection to a master planned trail.



Figure 30. Trails make pedestrian connections between multiple streets.

3. An additional ¼ link shall be included in the connectivity index calculation for each roadway segment where homes face an amenitized open space, park, or natural area (see Figure 31). The roadway segment shall have a minimum three hundred (300) feet of frontage along the said open space.



Figure 31. Park layout allows access from all sides with home fronts facing the park.

E. Residential Connectivity Standards. All new residential subdivisions with ten (10) or more units or more than one acre shall meet the following connectivity index, block length, and cul-de-sac length standards for public roads. Private roads shall be reviewed on a case-by-case basis; however, a public road may be required to prevent a private road in a subdivision from stubbing into a future or existing public road.

1. Required Connectivity Index. The minimum required connectivity index shall be required based on the project density as identified in the following table of minimum connectivity index scores:

Density	Minimum Index Score
0-2.5 DU/AC	1.5
2.6-4 DU/AC	1.6
4.1+ DU/AC	1.75

(a) Reduction in Required Connectivity Index. The required connectivity index may be reduced if the applicant provides clear and convincing evidence that it is impossible or impracticable to achieve due to the following limitations:

- i. Topography;
- ii. Natural features including lakes, rivers, designated wetlands;
- iii. Existing adjacent development;
- iv. Rail corridors;
- v. Limited access roadways.

Reductions in the required connectivity index will be reviewed on a case-by-case basis and must require recommendations from the

reviewing departments and Planning Commission and approval by the City Council.

The total allowed reduction to the required connectivity index will be based on an analysis of existing conditions that prevent connections. As part of the analysis, City staff will ensure the internal connectivity of the subdivision meets the required connectivity index and that connectivity is provided to adjacent properties where possible.

2. Maximum Block Lengths. Maximum block lengths allowed shall be required based on the project density as identified on the following table:

Density	Maximum Block Length
0-2.5 DU/AC	1,000 ft.
2.6-4 DU/AC	800 ft.
4.1+ DU/AC	600 ft.

(a) Increase in Block Length. The maximum allowed block length may be increased if the applicant provides clear and convincing evidence that it is impossible or impracticable to achieve due to the following limitations:

- i. Topography;
- ii. Natural features including lakes, rivers, designated wetlands;
- iii. Existing adjacent development;
- iv. Rail corridors;
- v. Limited access roadways.

Increases in block length will be reviewed on a case-by-case basis and must require recommendations from the reviewing departments and Planning Commission and approval by the City Council.

3. Cul-de-sac Length Standards. Maximum cul-de-sac lengths allowed shall be required based on the project density as identified on the following table:

Density	Maximum Cul-de-sac Length
0-2.5 DU/AC	400 ft.
2.6+ DU/AC	250

(h) Cul-de-sacs shall not be allowed in the R-2, R-2.5 or R-3 zones unless the applicant provides clear and convincing evidence that a cul-de-sac is necessary to develop the entire parcel due to the following limitations:

- i. Topography;

- ii. Natural features including lakes, rivers, designated wetlands;
- iii. Existing adjacent development;
- iv. Rail corridors;
- v. Limited access roadways.

Requests for cul-de-sac within the R-2, R-2.5, and R-3 zones will be reviewed on a case-by-case basis and must require recommendations from the reviewing departments and Planning Commission and approval by the City Council.

F. External Street Connectivity Standards. In addition to the internal street connectivity standards, external connectivity shall be maintained.

1. Cul-de-sacs. In cases where cul-de-sacs have one (1) or two (2) rows of lots between the end of the cul-de-sac and an external road, a hard surface pedestrian connection with a minimum width of ten (10) feet including an additional two (2) foot soft shoulder on each side shall be utilized to connect to the external street (see Figure 32).

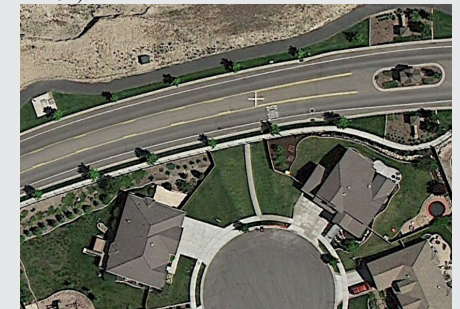


Figure 32. Sidewalk connection from cul-de-sac connects to an external collector road.

2. Pedestrian connections shall be utilized to connect proposed developments to master planned trails and adjacent existing or future developments where applicable. Connections shall be of a hard surface with a minimum width of ten (10) feet including an additional two (2) foot soft shoulder on each side.

2.2.3 Retrofit tools

Many Utah communities are built-out and lack good street connectivity. Yet, as with newly-built communities, improved street connectivity can help achieve many community goals in built-out communities as well. However, a different set of strategies is needed for this street connectivity retro-fitting.

PLANNING DOCUMENT GUIDANCE ON KEY CONNECTIONS

Planning documents, especially plans focusing on small areas or corridors, can identify key connections that will help make key destinations more accessible, improve walkability or bikeability, or distribute a neighborhood or district's traffic. If this connection is shown in an adopted planning document, it is easier for a community to require that it be made when a property is developed or if the community pursues it as a capital improvement.

COMPLETE STREETS

Making streets compatible with all modes improves connectivity in a few different ways. First, complete streets help ensure that street networks are complete for all users – not just vehicle traffic. Second, complete streets are also those that can be crossed by all modes, reducing barriers to the most vulnerable street users such as pedestrians.

The best ways to use complete streets to improve connectivity are to plan and build complete networks for all modes, and to identify key streets and corridors that are priorities for being complete streets. Both of these can be accomplished largely by retrofitting existing streets to serve all users.

PEDESTRIAN CROSSING IMPROVEMENTS

Similar to complete streets, pedestrian crossing improvements are a way to retrofit existing streets to improve the connectivity of the pedestrian network. Often, major streets pose the most challenging barriers for pedestrian connectivity in a community. In fact, a community may have small blocks and connected streets, but if a major street whose signalized pedestrian crossings are a quarter mile or half mile apart, the connectivity is poor for pedestrians.



An example of a high-visibility crosswalk in a neighborhood

There is a range of tools that can get pedestrians across a major street safely. Their use depends on pedestrian demand for the crossing, the traffic situation, and surrounding land use factors. These tools include full signals, mid-block half-signals activated by crossing pedestrians, hybrid beacon/stop signals, flashing beacons, grade-separated crossings, and high-visibility marked crosswalks.

CUL-DE-SAC CONNECTIONS – FULL STREET

Connecting the ends of cul-de-sacs to nearby streets or other cul-de-sacs is often the first strategy for retrofitting street connectivity that comes to mind. The elimination of a dead end and creation of a new intersection gets to the heart of our definition of street connectivity and likely helps people living on that street and in surrounding areas access destinations easier, especially on foot and on a bike. However, connecting cul-de-sacs is very difficult to do within most policy and community environments. Cul-de-sacs remain popular places to live, and connecting them, especially for a full street, usually involves property acquisition.

Situations exist where unbuilt lots at the end of cul-de-sacs exist; in those situations, connecting through can be slightly easier. However the best approach to cul-de-sacs is managing them and their effect on connectivity in the first place when a subdivision is planned, entitled, and built.

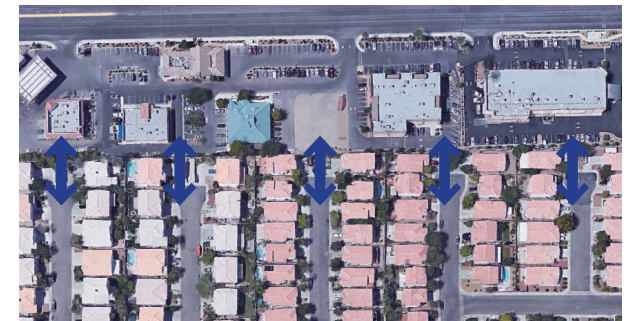
PEDESTRIAN PASS-THROUGHS TO ARTERIAL STREETS AND COMMERCIAL AREAS

A related type of connectivity retrofit strategy to the cul-de-sac connection is creating pedestrian pass-throughs from neighborhoods to commercial areas based on arterial corridors. Development patterns in many Utah communities have led to lack of access between residential street networks and adjacent arterial streets. In many cases, the potential exists to allow pedestrians to “pass through” the back of a commercial property to shorten the walk to a grocery store or other neighborhood store or business.

LARGE LAND USE PASS-THROUGHS AND ENTRIES

Many communities have large land uses that have limited entries. These land uses include shopping malls, office campuses, apartment complexes, and many others. These limited entries challenge the access to that land use but they also frustrate overall area connectivity. Allowing a connected network to run through these large land uses can improve overall neighborhood/district or even community-wide connectivity.

In the example on the right, residents of the neighborhood shown are very close to a commercial area, however due to the walled cul-de-sacs, they must travel a circuitous route to access these amenities. Simple connections through the dead ends can improve access to the commercial area.



CUL-DE-SAC CONNECTIONS – BIKE & PEDESTRIAN

Pedestrian and bike connections through existing cul-de-sacs present a more feasible alternative to full street connections. These active transportation connections require less width and do not present the traffic concerns that full street connections do. In addition, the Utah Street Connectivity Guide community survey found that 7 out of 10 respondents was generally comfortable with making active transportation connections through existing cul-de-sacs.

Making these connections benefits from planning ahead through the Planning Document Guidance on Key Connections described above. While less difficult than full street connections, even bike/pedestrian connections require significant effort and funds; targeting these efforts to connections that will gain the most connectivity improvements is important.



Sometimes streets dead end because of topographical barriers; pedestrian and bike paths can overcome these obstacles to connect communities.



Examples of pedestrian and bike connections through property barriers at the ends of cul-de-sacs or through a large block.

TRANSIT STOP AND DESTINATION TRAVEL-SHEDS

When the desire exists to improve connection to a specific destination such as a transit stop/station or other community or regional amenity, one way to prioritize potential improvements is to analyze the “travel-shed” of this destination – similar to the advanced metrics of this guide. Doing this analysis and exploring which connections create the biggest improvements in the size of the travel shed is one effective way to package a set of improvements.

LEVERAGE EASEMENTS FOR ACTIVE TRANSPORTATION

Easements exist throughout Utah communities – for canals, utilities, natural systems, Homeowners Associations, and many other uses. These easements are often sensitive and off-limits for other uses but there is sometimes the potential to run an active transportation trail.



The Murdock Canal trail uses a canal route to provide a valuable connection for walkers, cyclists, and other active transportation users.



QUICKNOTES

Annexation

Annexation is the primary means by which cities expand their boundaries. It is the process through which land is transferred from one unit of government to another (most commonly from a county to an incorporated city). Often, areas targeted for annexation are either areas that are growing rapidly or areas where future growth is projected.

Annexation can serve practical purposes, such as providing more efficient services, increasing municipal population and the local tax base, providing areas for future growth, or extending planning and zoning authority. However, it can often be a controversial and politically contentious process.

Background

Laws governing annexation authority and processes differ from state to state, but most states require a majority of landowners or residents in the proposed annexation area to consent to the annexation. The only common exception is in cases where the territory to be annexed is surrounded by an incorporated municipality. A few states, such as Texas, North Carolina, and Indiana, permit involuntary annexation. For example, in Texas home-rule cities may unilaterally annex any part of their extraterritorial jurisdictions.

Beyond consent, most states require annexation areas to be contiguous with the existing municipal boundary. This is to encourage orderly expansion and development and to discourage cities from “leapfrogging” contiguous, but less desirable, parcels to annex isolated, but more desirable, territory.

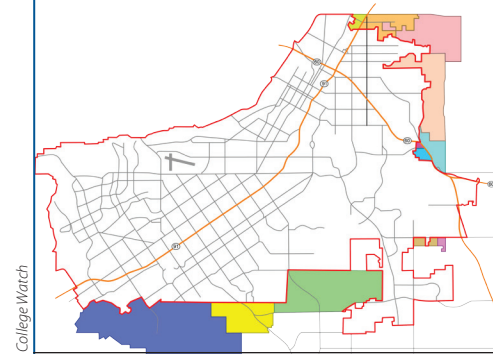
Reasons for Annexation

Growth and development often happens at the urban fringe. These areas may have more available and cheaper land, less restrictive zoning requirements, and lower property tax burdens, while still offering easy access to city services and amenities. Rural or semi-rural jurisdictions may encourage or incentivize this growth, which can increase their tax base and can be appealing to home owners who want to combine a rural lifestyle with access to urban amenities. Growth on the urban fringe has impacts on the adjacent city—for example, increased traffic congestion.

There are multiple reasons that a city may decide to annex. Two of the frequent reasons for pursuing annexation are to expand the local tax base and to extend regulatory authority, including planning and zoning authority. In some states, such as Washington, annexation may also be used as a tool for growth management.

Expanding the Tax Base. Annexation can be an effective tool for expanding the local tax base. A city may annex residential subdivisions, commercial or industrial areas, or undeveloped areas where growth is anticipated. Development in the annexed area can increase the property and commercial tax bases and generate additional revenue necessary to support city services and infrastructure development and maintenance, which residents of the city and its surrounding areas benefit from.

Extending Regulatory Authority. Annexation allows a jurisdiction to expand local regulatory authority. In many states, cities have limited authority in the surrounding jurisdictions (extraterritorial jurisdiction or sphere of influence), which may include zoning authority. Annexation allows a city to fully extend its regulatory authority, including planning and zoning, to the annexed area. Annexing rapidly growing areas can provide a city the opportunity to enact consistent zoning and development regulations. This can result in more logical patterns of growth and development.



College Watch

The red line on this map shows the municipal boundary of Riverside, California, and the colored polygons are potential annexation areas.



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Considerations of Annexation

It is important for a jurisdiction to fully consider the costs and benefits of pursuing annexation, as well as **how annexation aligns with the city's current goals for growth and development**. Annexation should not be haphazard, and the full range of considerations and potential impacts should be analyzed and taken into account. This includes analyzing growth trends, services and service needs, and revenue projections from the annexed area. It also includes looking at the potential political costs of annexation.

Analysis of Data and Growth Trends. For any municipality considering an annexation, it is important to document the existing population, land uses, and development within the proposed boundaries of the annexation. Furthermore, it is important to evaluate how annexation will likely affect the location and timing of new development, both within the annexation area and within the existing municipal boundaries.

Analysis of Services and Service Needs. Annexation involves providing city services to the annexed area. These **services may include public safety, such as police and fire protection; infrastructure, including road improvements, water mains, or sanitary sewers; and new facilities, such as libraries, parks, or recreation centers**. Any municipality considering an annexation should document existing services and project likely demand for new services within the proposed boundaries of the annexation. Beyond this, it is important to evaluate the costs of extending services necessary to meet the projected demand and to determine whether these services can be effectively and efficiently provided by the city to the annexed area.

Analysis of Revenue. Annexation may expand the local tax base and increase local tax revenue. However, in some cases the costs to provide services may exceed the increase in tax revenue generated by the annexed area. As a result, it is important to conduct a fiscal analysis of the annexation proposal. This involves comparing the likely property taxes, sales taxes from commercial establishments, business taxes, license fees, and any other sources of revenue associated with land use and development in the annexation area to the projected service costs. This fiscal analysis may also address how the jurisdiction now governing the area to be annexed will lose revenue due to the annexation.

Political Implications. Beyond studying the likely land-use and economic effects of an annexation proposal, it is also important for municipalities to consider the potential political challenges associated with annexation. Residents on both sides of the annexation may voice concerns. Residents in the area being annexed may have concerns about loss of community identity and character, higher taxes, and changes in local political representation. Residents of the city annexing land may be concerned that annexation will put additional pressure on city services and reduce the level of services they currently receive without sufficiently addressing challenges like traffic congestion.

Conclusion

There are a number of reasons for cities to annex adjacent land. Annexation provides a means for cities to expand their boundaries and their residential and commercial tax bases. It can also result in the more efficient provision of services, such as water and sewer, to development in the annexed area, while also allowing the jurisdiction to extend planning and zoning authority to areas that impact it. However, annexation can be a politically challenging process, and it is important for cities to fully consider the fiscal impacts and service needs related to annexation.

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FURTHER READING

1. APA Resources

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2. Other Resources

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