

CITY OF LEXINGTON BICYCLE AND PEDESTRIAN PLAN



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ACKNOWLEDGMENTS

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ABOUT GAP-TA

The following study was conducted under a Growth and Accessibility Planning (GAP) technical assistance grant. Administered by Virginia's Office of Intermodal Planning and Investment (OIP), GAP technical assistance projects seek to align infrastructure development with designated and emerging growth areas to improve efficiency and effectiveness. Visit vtrans.org/about/GAP-TA for information about the Growth and Accessibility Planning Technical Assistance program.

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GLOSSARY OR LIST OF ACRONYMS

AADT	Annual Average Daily Traffic
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
DCR	Virginia Department of Conservation and Recreation
DRPT	Virginia Department of Rail and Public Transportation
GAP	Growth and Accessibility Planning
GIS	Geographic Information Systems
OIPI	Office of Intermodal Planning and Investment
SRTS	Safe Routes to School
VDOT	Virginia Department of Transportation
TAP	Transportation Alternative Programs
UDA	Urban Development Area
VMI	Virginia Military Institute
W&L	Washington & Lee University

1-INTRODUCTION

The following study was conducted under a Growth and Accessibility Planning (GAP) technical assistance grant. Administered by Virginia's Office of Intermodal Planning and Investment (OIPI), GAP technical assistance projects seek to align infrastructure development with designated and emerging growth areas to improve efficiency and effectiveness. Organized under four program components, the City of Lexington applied for planning assistance to explore citywide bicycle and pedestrian improvements.

Study Area and Background

The study area encompasses the entirety of the City of Lexington. The City includes a historic downtown, two universities—Washington & Lee (W&L) and the Virginia Military Institute (VMI)—along with a variety of residential neighborhoods and outlying commercial development. Opportunities for new development in the City are limited by the availability of land. The City's reported 2020 population was 7,320, a figure which has remained relatively stable over the past 50 years.

Project Process and Activities

A virtual kick-off meeting was held on June 19, 2021 and virtual progress meetings for the project were held monthly thereafter with city staff. Project activities occurred in phases, with the first two phases happening concurrently: one, data collection in support of mapping and analyzing existing conditions, and two, stakeholder outreach. After this information was summarized, analysis and exploration of recommendations began, which included a 60 percent draft presentation to the City of Lexington Planning Commission on February 10, 2022. Modifications to the recommendations were made based on feedback received from the Planning Commission and city staff, and the final phase--development of a prioritization and implementation system--was begun. A draft plan was submitted and presented to Lexington's City Council on May 5, 2022.

Stakeholder Outreach

A series of stakeholder meetings was held between October 26 and December 21 of 2021 (see Appendix A). With the assistance of Lexington staff, a comprehensive list of potential stakeholders was developed who were broadly grouped into six categories: government, institutional and community services, historic district, other commercial, recreation, and tourism. Emails were sent directly to the contacts as well as advertised to the public at large. There

were nine total stakeholder meetings, including two meetings with specific stakeholder organizations (the City of Lexington Green Infrastructure Working Group and Live Healthy Rockbridge). The list of meetings and dates is as follows:

- October 26: Green Infrastructure Working Group
- November 9: Stakeholder Meeting 1
- November 15: Stakeholder Meeting 2
- November 16: Stakeholder Meetings 3 and 4
- November 17: Stakeholder Meetings 5 and 6
- November 18: Stakeholder Meeting 7
- December 21: Live Healthy Rockbridge

Online Survey

An online survey was made available during the outreach portion of this planning effort between September 23 and December 31, 2021. The tool allowed users to post pins on a virtual map of Lexington to delineate key destinations, safety concerns, desired pedestrian improvements, and desired bicycle improvements. Additionally, respondents could leave additional commentary and up-vote or down-vote others' suggestions. The website was promoted through social media and included with residents' utility bills.

Results of the online survey are seen in Appendix B.

2-EXISTING CONDITIONS

The development of this report relied on a wide variety of data sources drawn from the City of Lexington, VDOT, and primary data collected by the consultant team to understand the existing condition of bicycle, pedestrian, and automotive traffic in Lexington. The data sets included, among others:

- Future Land Use
- Key Destinations
- Roadway Dimensions
- Vehicular Traffic Volumes
- Sidewalk and Trail Infrastructure
- Existing Bicycle Infrastructure
- Bicycle and Pedestrian Crashes

This analysis of current conditions helps to identify potential types and locations of improvements and strengthens the connection between this plan and previous planning efforts.

Existing VTrans Needs

This project plans for appropriate bicycle and pedestrian infrastructure and improvements in the City of Lexington, which is subject to existing transportation needs identified in the 2021 VTrans Mid-Term Needs. Identified 2021 Mid-Term needs for

streets, intersections, and areas in or near the project area can be found in Table 1.

Review of Relevant Plans and Studies

The analysis included a review of previous plans and studies that addressed the area. This review identified many policies and prior findings that are relevant to multimodal planning for this area. Relevant studies that were reviewed included:

- Rural Small Area Study: Route 11 Pedestrian Improvements
- Washington and Lee Campus Master Plan
- Brushy Blue Greenway Master Plan
- Lexington Downtown Enhancement Plan
- VMI Post Facilities Master Plan Update
- Lexington Comprehensive Plan 2040
- Lexington Strategic Plan
- Jordans Point Park Master Plan
- Route 60 Corridor Study
- Rockbridge Area Outdoor Recreation and Trail Plan

As part of this review, relevant and consistent policy themes were identified from these prior studies that could serve to guide and direct the recommendations resulting from this planning process.

Table 1: Existing VTrans Needs

Route Segments	Identified Needs
E. Nelson St. (US 11 to Downtown)	Congestion Mitigation
E. Nelson St. (Spotswood Drive to Randolph St.)	Improved Reliability
US 11 (citywide)	Transportation Demand Management
E. Nelson St. (citywide)	Transportation Demand Management
Jefferson St. (citywide)	Transportation Demand Management
Main St. (citywide)	Transportation Demand Management
Areas	Identified Needs
City of Lexington Urban Development Area (UDA)	Urban Development Area needs, including: Roadway capacity, roadway operations, intersection design, street grid, safety features, traffic calming, signage/wayfinding, transit frequency, transit operations, transit capacity, transit facilities, bicycle infrastructure, complete streets, sidewalks, on-street parking, and off-street parking

Land Use & Key Destinations

The analysis examined Lexington’s existing land uses and planned Future Land Use as expressed in the City’s Comprehensive Plan, a document last updated in 2020. The community’s land use patterns determine which areas generate the most activity and how residents will travel to and from these places. This, in turn, determines which corridors will feature the most automobile traffic, and which may be most suitable to bicycle and pedestrian travel.

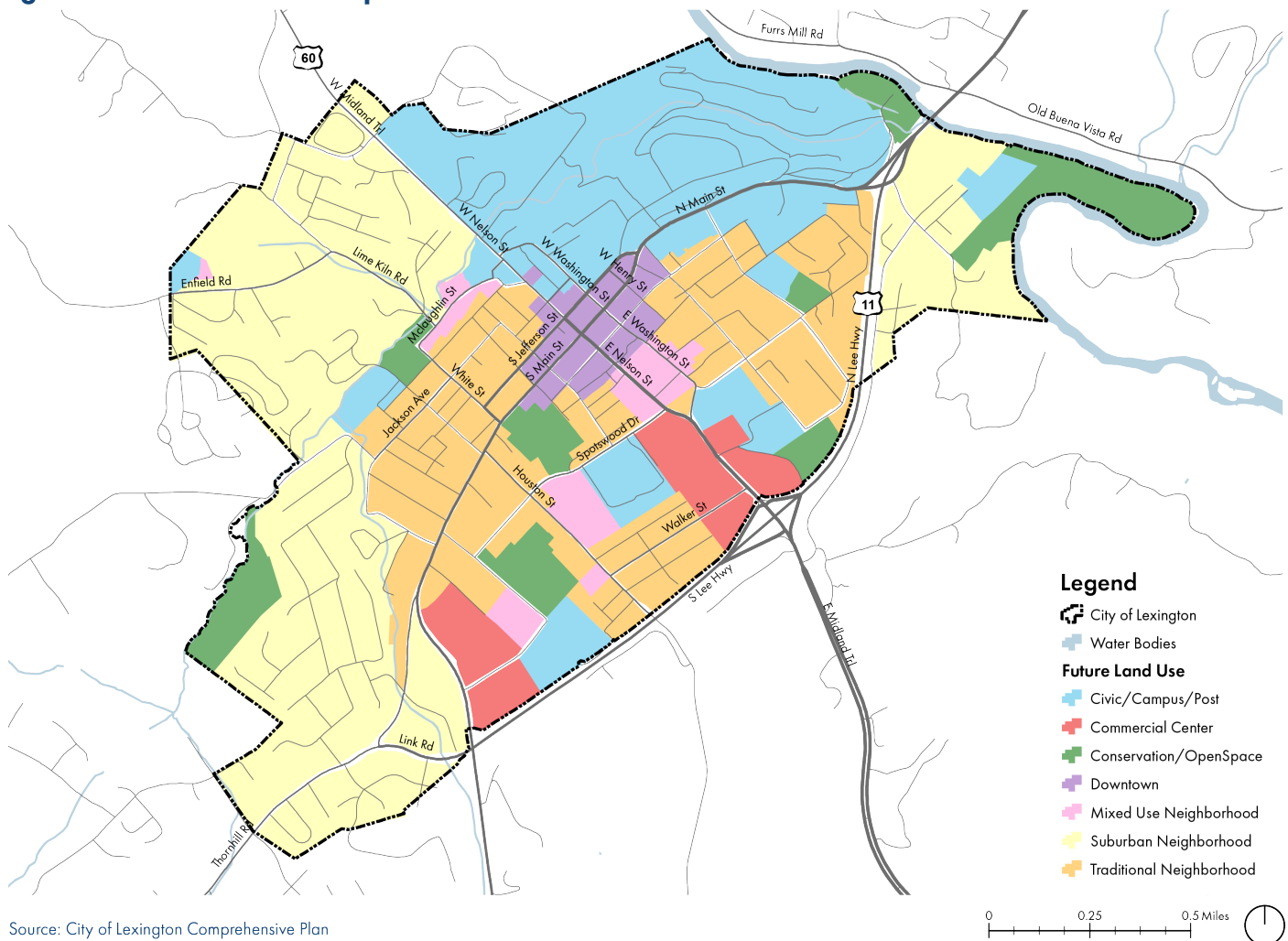
In general terms, the City of Lexington is characterized by a historic downtown commercial core surrounded by institutional, commercial, and residential zones. Two major universities are found on adjacent campuses north and west of the downtown core. Residential neighborhoods nearest the downtown are typically higher density and are more likely to include pedestrian infrastructure, while neighborhoods nearer the City’s east and west edges are more suburban in character. Areas of suburban-style commercial development can be found in areas near Lee Highway (Route 11) along East Nelson and South Main Streets.

Future growth in Lexington is limited by a lack of available building sites. Potential growth is most likely to occur on infill and redevelopment sites, on the few available development sites near the City’s edges, or on sites in Rockbridge County near Lexington’s borders. The potential future growth of Lexington’s two universities will remain a significant factor in the City’s future.

Key destinations for bicycle and pedestrian travel are Lexington’s downtown core, with a variety of commercial and governmental activity generators, as well as VMI and Washington and Lee, whose student populations may be eager bicyclists or pedestrian, and which are major employment centers for Lexington residents.

Additional destinations include local public schools, including both City schools – Waddell Elementary and Lylburn Downing Middle – whose students come from City neighborhoods, and County schools – Central Elementary and Maury River Middle – whose students are residents of the surrounding county. Bicycle and pedestrian access to local recreation at Brewbaker Fields and Jordans Point Park will be desirable, as well as access to commercial development along East Nelson and South Main Streets.

Figure 1: Future Land Use Map



Source: City of Lexington Comprehensive Plan

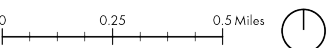
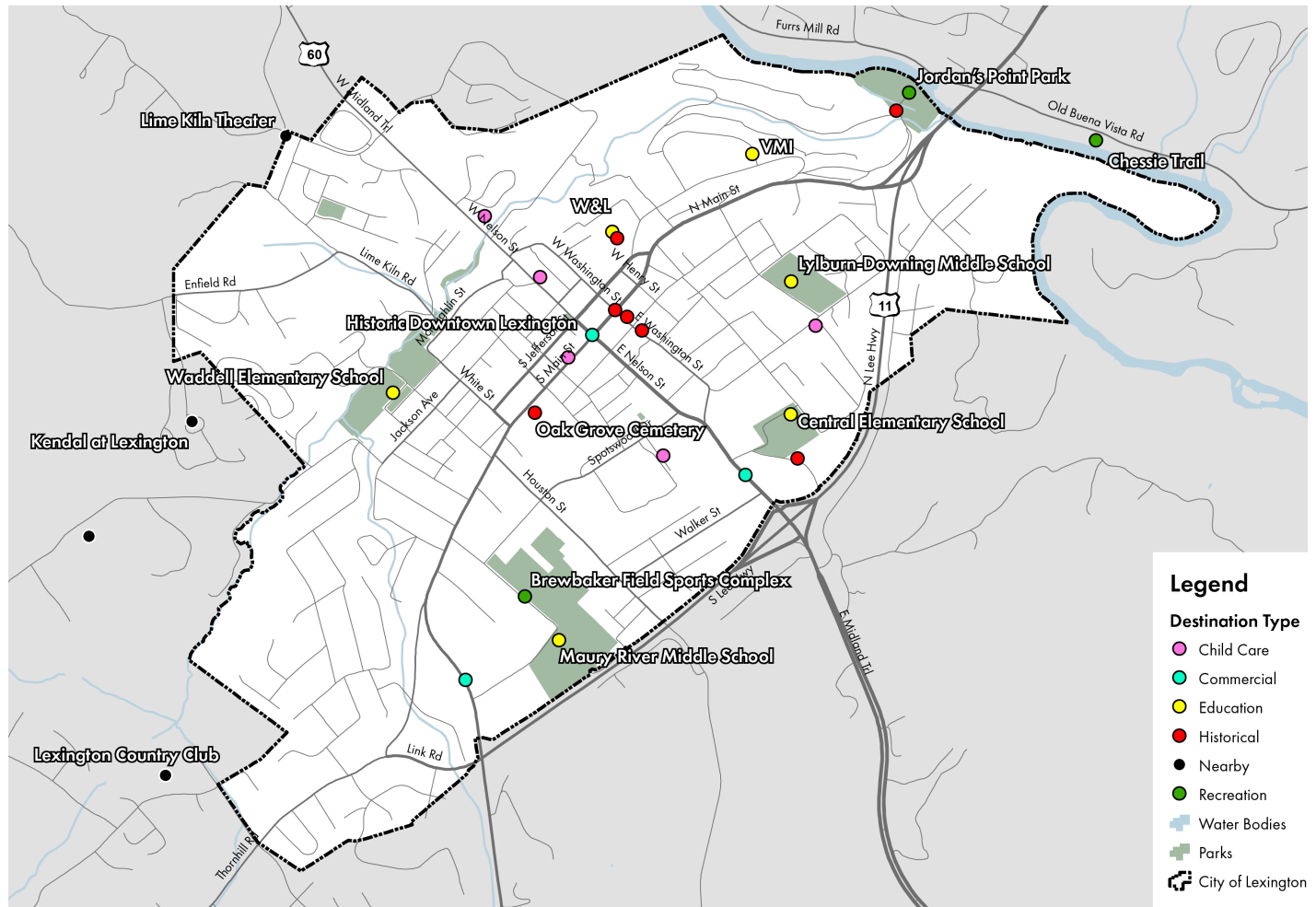
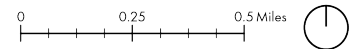


Figure 2: Key Destinations in and around Lexington



Source: City of Lexington Staff



The recommendations found in this study represent bicycle and pedestrian accommodations that can be provided in and around activity centers, as well as to activity centers from residential neighborhoods within biking or walking distance.

Roadway Conditions

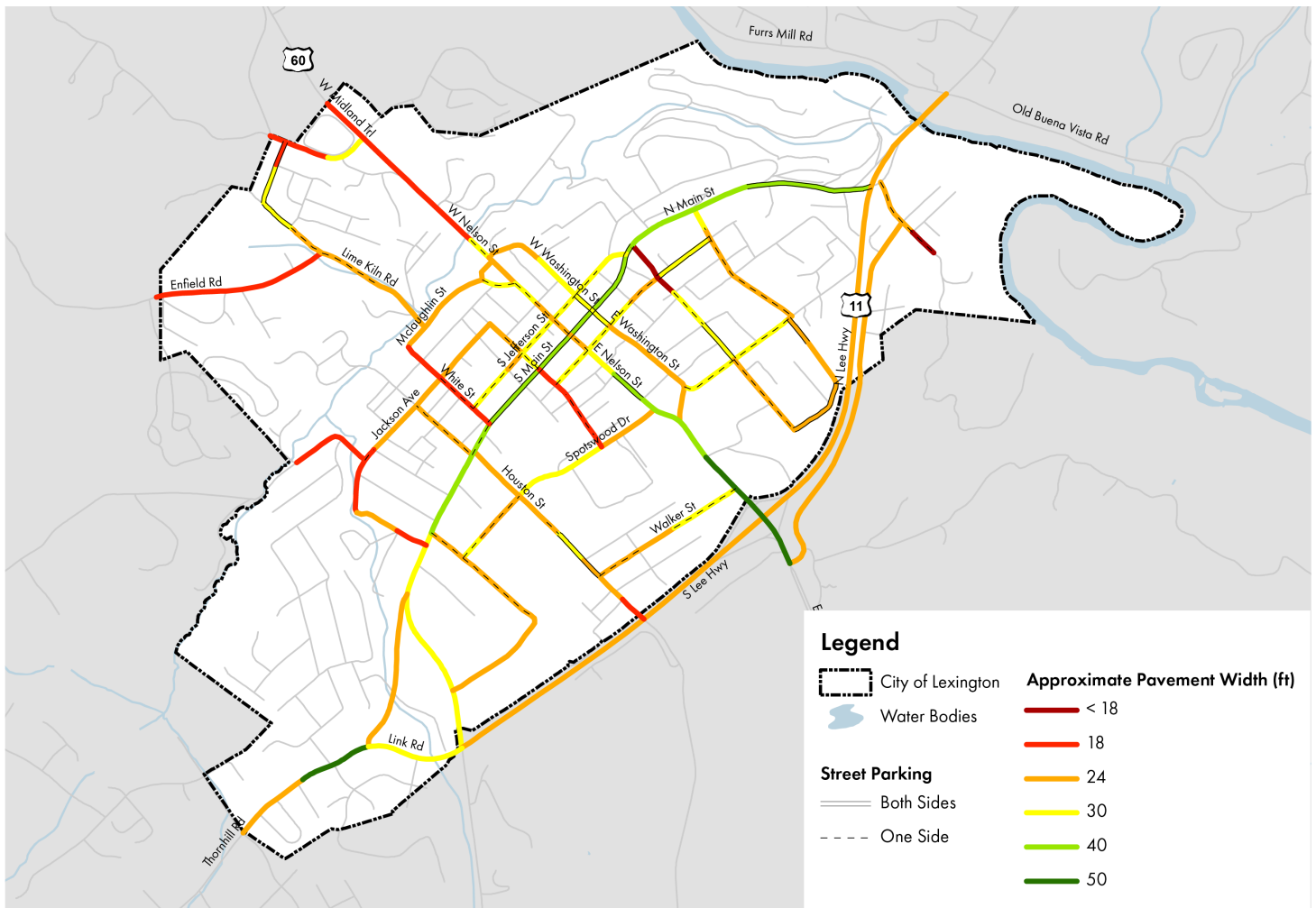
Largely due to the City’s historic nature, most road corridors in Lexington are narrow two-lane streets with paved travelway widths of 30 feet or less. Notable exceptions to this are North and South Main Streets, where widths of 40 feet or more provide some pavement area flexibility, and East Nelson Street, whose 50-foot width represents the City’s transition into the more suburban or rural corridor character of the surrounding county.

The provision of on-street parking is an important factor in pavement width, where parking on one of both sides of existing streets is provided in the downtown and in older residential neighborhoods. In some cases, parking is not signed or marked but vehicles are often parked informally on smaller neighborhood streets.

VDOT reported traffic volumes generally correspond with roadway widths and capacities. Route 11, North Main Street and East Nelson Street see the City’s highest traffic volumes, while South Main, West Nelson, and several downtown streets also see volumes between 3,000 and 6,000 trips per day.

This inventory of existing roadway conditions helps identify where bicycle and pedestrian accommodations could be added or enhanced most easily, as well as identifying locations where traffic volumes are high that may need special treatments for multimodal accommodation.

Figure 3: Pavement Width and Street Parking



Source: EPR, P.C.

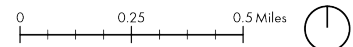
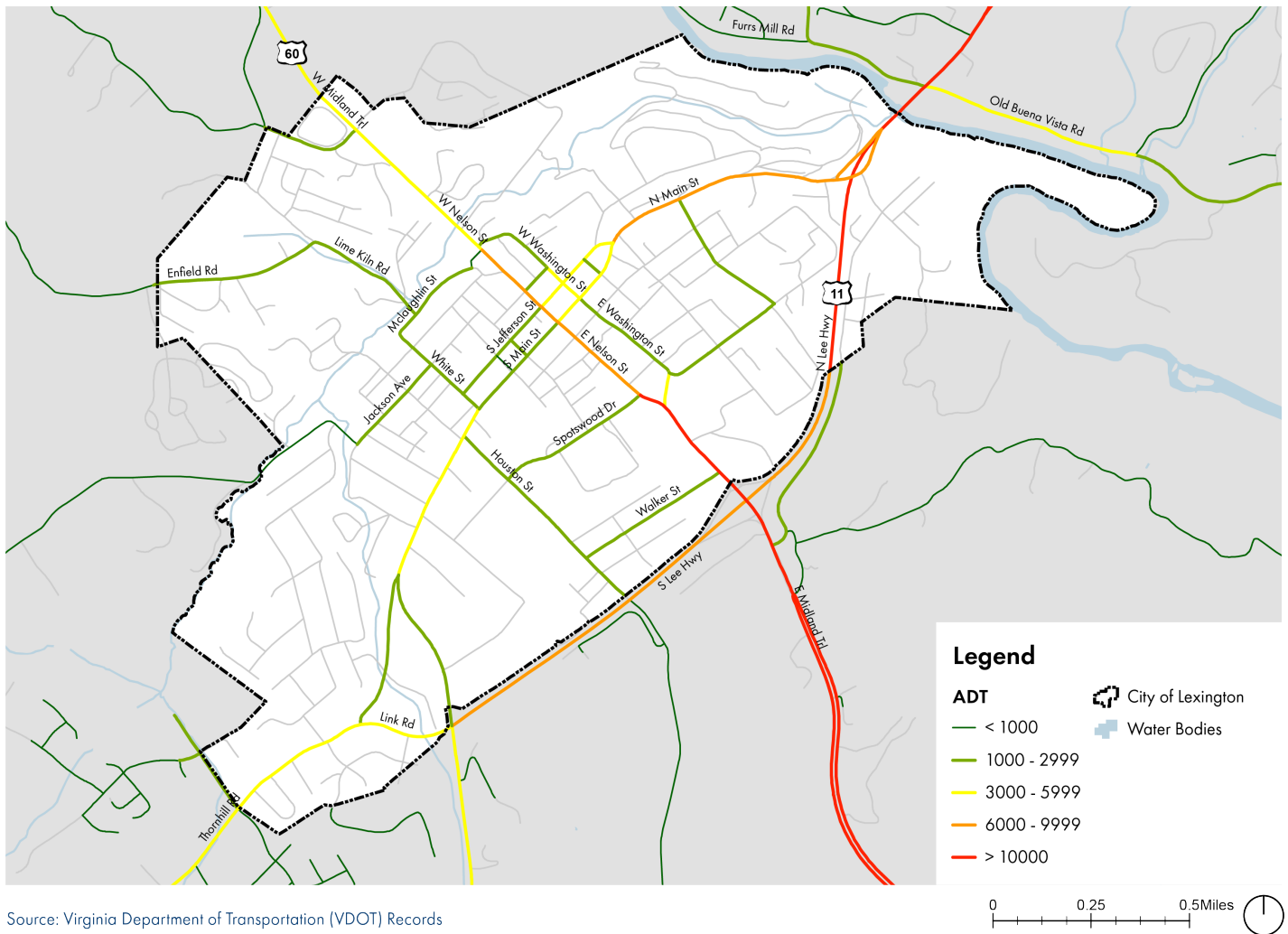


Figure 4: Average Daily Traffic (ADT)



Source: Virginia Department of Transportation (VDOT) Records

Bicycle, Pedestrian, and Transit Infrastructure

This analysis also collected information about bicycle, pedestrian, and transit infrastructure. A complete inventory of existing Lexington sidewalks was one output of this study, using impervious surface data provided by the City.

Sidewalks can be found along many streets in Lexington outside of outer residential areas, although in many areas sidewalks may be provided on only one side of the street. As expected, sidewalk coverage is most complete in the City's downtown core.

Off-road trails also play a key role in Lexington. The successful Woods Creek Trail follows a stream corridor across the north and west side of Lexington with an unpaved path. There is a long-term desire to extend the Woods Creek Trail farther east to access the City's outlying Brushy Hill nature area and other destinations. The Uncas Trail provides a walk through a preserved woodland area in

the far eastern portion of the City, while the very popular Chessie Trail just outside of Lexington to the east is an important recreation destination.

Existing bicycle infrastructure, by contrast, is very limited in Lexington. No bicycle lanes are currently provided, although sharrows are marked on a portion of South Main Street. A planned project will bring bicycle lanes to North Main Street in the future.

This inventory can help identify important gaps in the City's existing multimodal infrastructure as well as identify opportunities that can be expanded to build a stronger multimodal network and foster greater use of alternative modes of transportation.

Figure 5: Existing Sidewalks and Trails

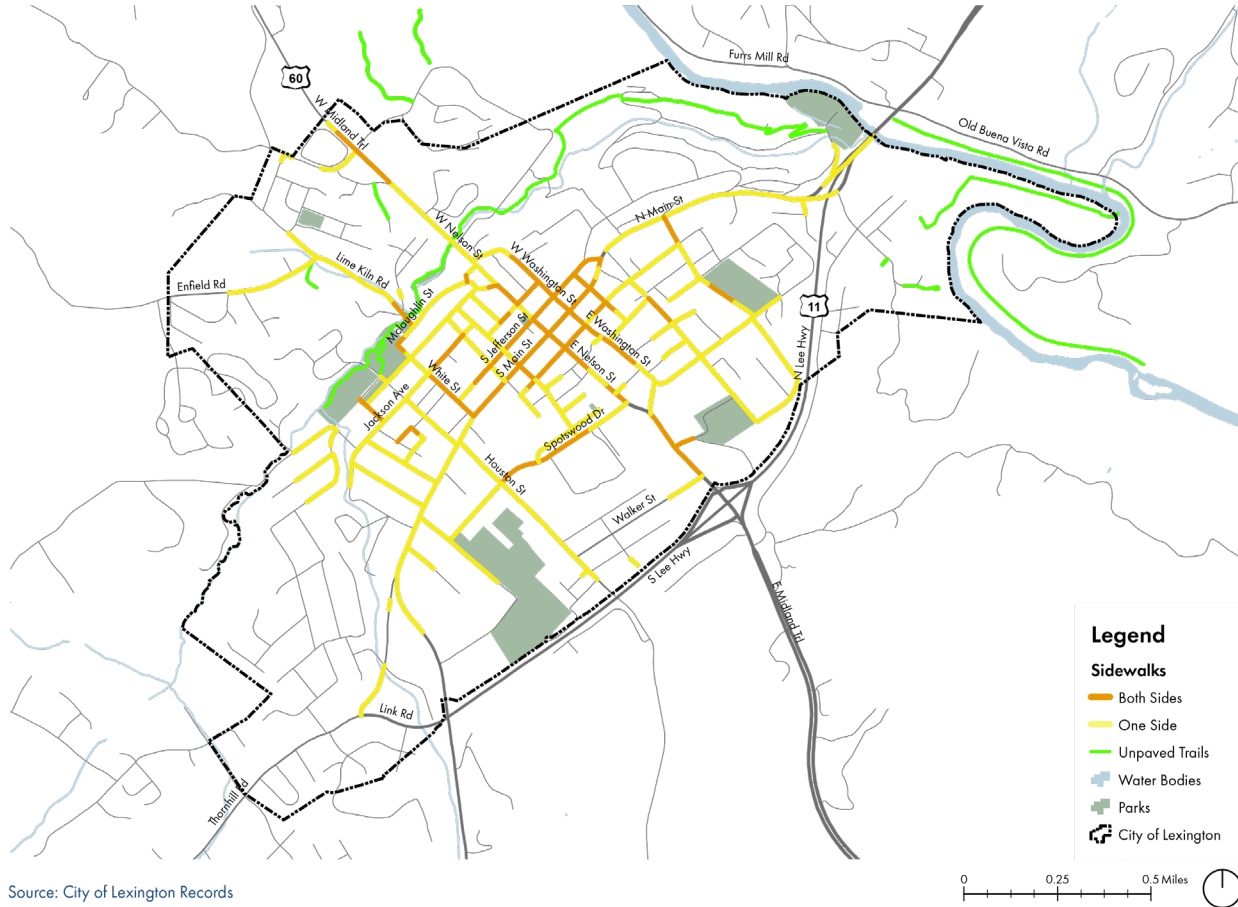
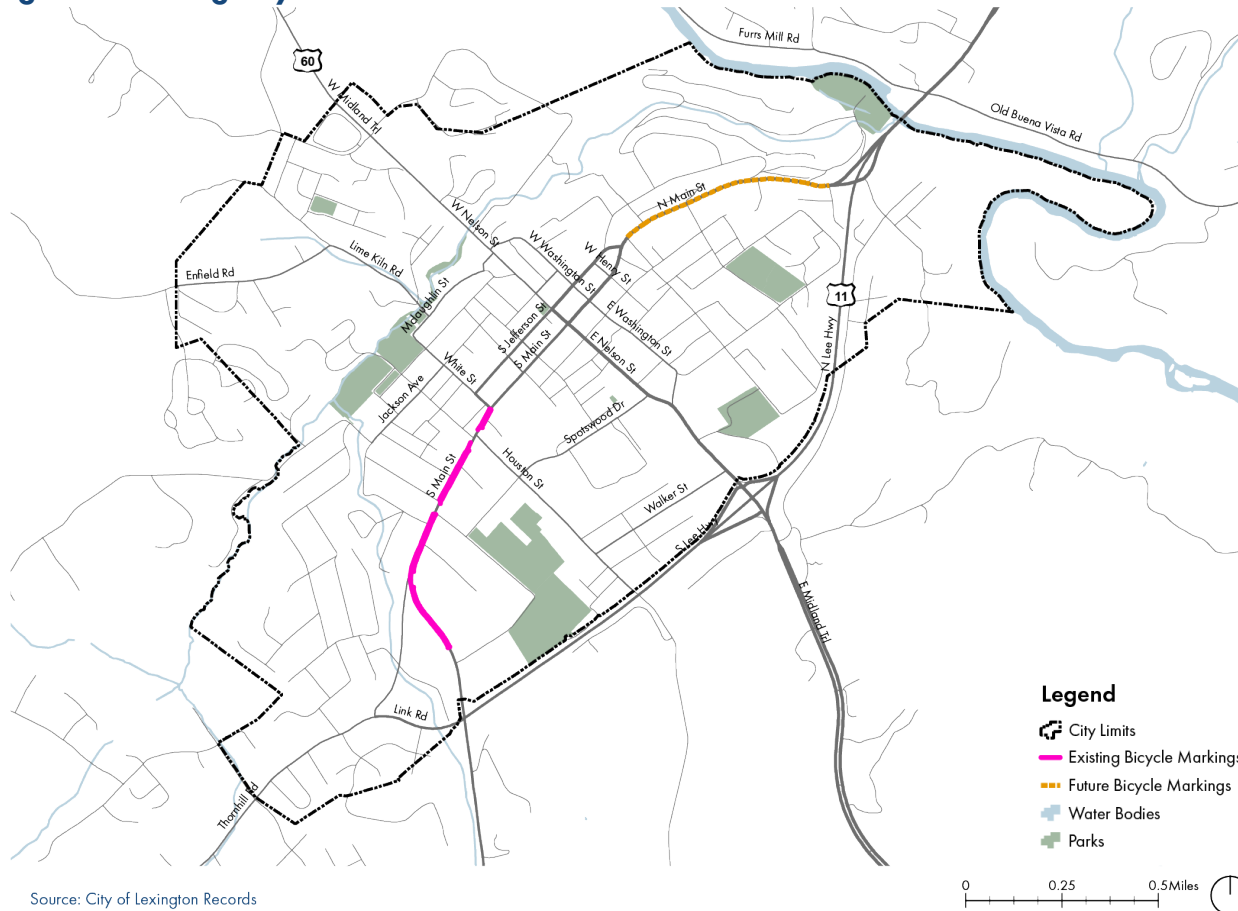


Figure 6: Existing Bicycle Accommodations



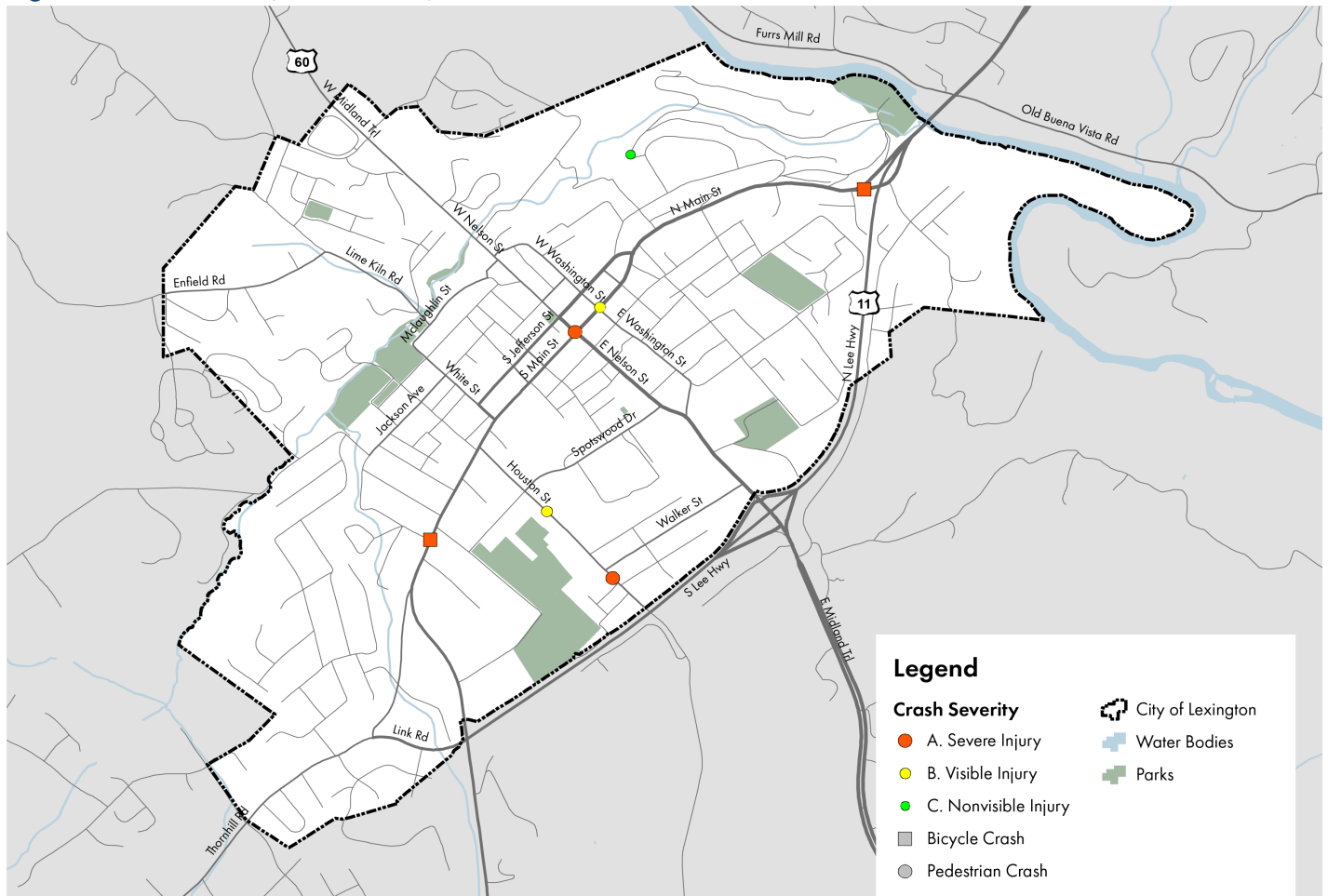
Crash Data

The analysis also considered bicycle and pedestrian safety data. This information was provided by the VDOT Crash Analyst Tool. The database used by this tool offers the location of all reported crashes and accidents in the period from 2016-2021. During the reported period, several bicyclist or pedestrian-related accidents were reported in the City. Two bicycle accidents were recorded on North

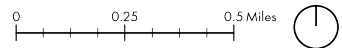
and South Main Streets, both involving severe injuries. Pedestrian accidents were recorded in locations including Houston Street and downtown, with injuries ranging from non-visible to severe.

Accident data of this kind can be used to identify locations that pose a particular danger to bicyclists and pedestrians and highlight the existing operational and infrastructure factors that can lead to safety issues.

Figure 7: Crash Data (2016 - 2021)



Source: Virginia Department of Transportation (VDOT) Records



3-RECOMMENDATIONS

The GAP technical assistance for Lexington has considered a variety of factors in recommending and prioritizing potential bicycle and pedestrian infrastructure improvements in the City. Consultants reviewed existing long-range planning documents, conducted a map-based survey and topical focus groups for resident input, and incorporated a wide variety of transportation network data, including nodes of activity, traffic, speed, facility design, right-of-way, population density, employment density, and safety criteria, among others.

Taken together, the steps of this process identify individual routes and projects to form future bicycle and pedestrian networks in Lexington (see Appendix D).

Identifying Bicycle and Pedestrian Recommendations

To identify desirable bicycle and pedestrian routes, the analysis began with destinations or nodes of activity contributed through survey responses and the input of local staff. Identified nodes include elements of Lexington's downtown, other commercial areas, residential neighborhoods, schools, recreation sites, and others.

Routes connecting key nodes of activity were identified as potential bicycle or pedestrian corridors and further considered based on network data, including the presence of existing sidewalks or bicycle markings, available pavement width, traffic volume (AADT) and posted speed limit. In all cases, further field survey of physical characteristics will be required for the full design of improvements.

Some recommended solutions have been drawn directly from public input, while others have been developed by consultants and City staff. In all cases, these recommendations aim to provide access to desired destinations and increase the scope of bicycle and pedestrian networks while working within the very limited street width and available right-of-way found throughout Lexington. This analysis recommends the following types of solutions for application to mapped locations in Lexington:

Sidewalks

Sidewalks are the most typical and most familiar method of incorporating pedestrian infrastructure into the transportation network. Lexington has a substantial inventory of existing sidewalks, varying widely in their design. For the purposes of this analysis a modern standard of five-foot minimum sidewalk width is assumed, meeting requirements of the Americans with Disabilities Act (ADA) to allow circulation for a wide range of users. Wider

sidewalks may be appropriate in areas with expectations of heavy pedestrian use, including established commercial areas. While in some areas sidewalks may be separated from the street curb by a landscaped buffer, the realities of Lexington's narrow streets and rights-of-way will make adding sidewalks at the curb edge the most likely scenario. Sidewalks must be coordinated with crosswalks in appropriate locations to create a safe and connected pedestrian network.

Crosswalks

Together with sidewalks, crosswalks form the most basic and typical elements of a pedestrian network. Crosswalks should be provided at all appropriate locations where sidewalks intersect with vehicle lanes. While a wide variety of crosswalk designs exist, this analysis recommends high-visibility crosswalks made up of wide, longitudinal stripes marked on the roadway at regular intervals. Lexington has already adopted high-visibility crosswalk designs for its most recent crosswalk installations in the downtown core. These high visibility markings provide a visual cue for vehicular traffic of where to expect crossing pedestrians. In addition to painted stripes, accessible curb ramps are required by the Americans with Disabilities Act (ADA) at all crosswalks. Where crosswalks must cross higher speed or higher volume roadways, signalized crosswalks are recommended. Signalized crossings may be activated by a pedestrian push button and coordinate pedestrian crossing timing along with the timing of traffic lights for vehicle travel.

Slow Streets

On many quiet neighborhood streets with low automobile traffic and speeds, it may be possible for pedestrians and vehicles to safely share the paved street surface. Improvements on these "Slow Streets" can help to reinforce the idea of a safe, shared space for both pedestrians and drivers. Slow Street improvements may include traffic calming measures such as speed bumps or speed tables, additional signage advising drivers of the presence of pedestrians, or painted pedestrian zones on the street surface in areas where separate sidewalks are not feasible due to lack of right-of-way or other limitations.

Bike Lanes

A bicycle lane is a portion of the roadway that has been designated by striping, signage, and pavement markings for the exclusive use of bicyclists. Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements between bicyclists and motorists. Bike lanes typically run in the same direction as traffic and are typically designated with painted

lines only, although physical barriers are used in some conditions. The configuration of a bike lane requires consideration of existing traffic levels and behaviors, adequate safety buffers to protect bicyclists from parked and moving vehicles, and enforcement to prohibit motorized vehicle encroachment and double-parking. Bike lanes may be distinguished using color, lane markings, signage, and intersection treatments. Typical bicycle lanes are five feet in width and may be allocated even more space on higher volume or higher speed streets to increase safety and comfort. While Lexington has no existing bicycle lanes, lanes are planned for North Main Street, along with other streetscape improvements and are taken into consideration in this analysis.

Sharrows

Shared lane markings, often called “sharrows”, are road markings used to indicate a shared lane environment for bicycles and automobiles on low traffic volume streets. Used in areas with low traffic volume and where no additional space is available for bicycle lanes, sharrows can help to make cyclists more visible to drivers. Among other benefits, shared lane markings reinforce the legitimacy of bicycle traffic on the street, recommend proper bicyclist positioning within the lane, and may be configured to offer directional and wayfinding guidance to cyclists. The shared lane marking is a standardized pavement marking with a variety of uses to support a complete bikeway network. Sharrows are already in use along South Main Street in Lexington.

Shared Use Paths

While sidewalks and bicycle lanes provide separate facilities for cyclists and pedestrians, in some places a shared space away from vehicle traffic may be used. Shared use paths are typically eight to ten feet in width, with a paved surface. The shared use path should be separated from the street to the maximum extent possible by a landscaped buffer.

Downtown Toolkit

As Lexington continues to support the vitality of its downtown core, a variety of improvements can make the area more attractive and comfortable for pedestrians, including decorative lighting and street furniture, wayfinding signage, and café space. Many such improvements are outlined in the separate Lexington Downtown Enhancement Plan. This analysis focuses on the pedestrian safety benefits of upgraded high-visibility crosswalks at downtown intersections.

Prioritization

The above section described how the recommendations for bicycle and pedestrian improvements were developed. Part of the scope for this project also required the development of a prioritization process

to identify high-priority recommendations. The purpose of this process is to sort recommendations through a data driven process, although additional priorities such as local support or funding feasibility may also enter into consideration as Lexington leaders advance projects for funding or construction.

Recommended projects are given priority scores in three categories; Traffic Level of Stress, Community Need, and Tactical Viability:

Traffic Level of Stress

The traffic level of stress evaluation is used to identify corridors where vehicular traffic creates the most hazardous travel conditions for bicyclists and pedestrians. Considerations include:

- Speed Limit
- Traffic Volume (AADT)
- Number of Travel Lanes
- Recorded Bike/Ped Crashes

Community Need

The community need evaluation is used to identify corridors where the built environment and demographic conditions are most suited for bicycle and pedestrian travel. Considerations include:

- Activity Centers
- Schools
- Population Density
- Employment Density
- Bike/Walk Score
- VTrans Equity Emphasis Areas

Project Viability

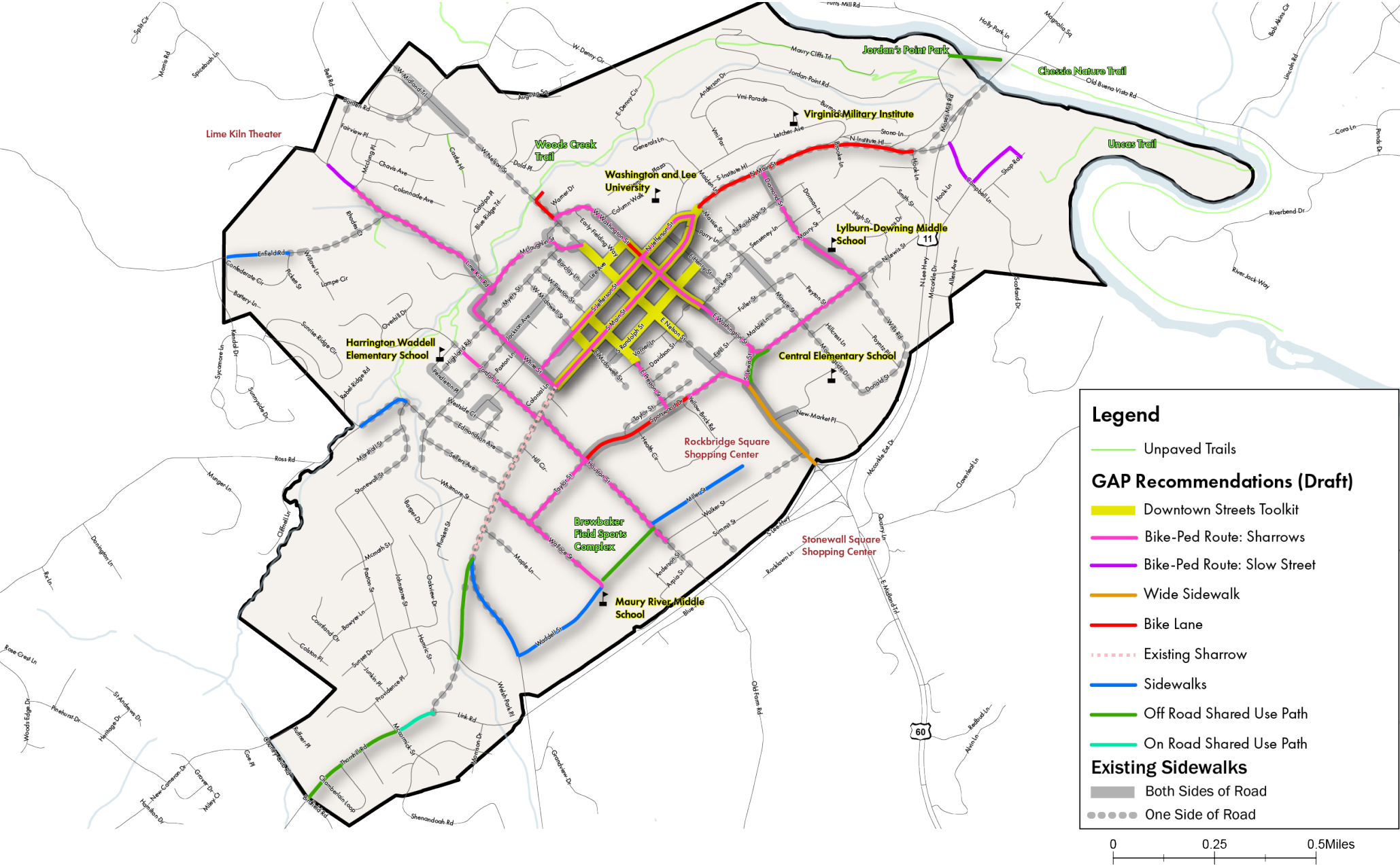
Project viability evaluation is used to identify corridors where additions or improvements are anticipated to be easiest to implement. Considerations include:

- Scale of Corridor
- Right-of-Way Needs
- Connectivity
- Project Readiness



The high-visibility crosswalk design the City of Lexington plans to use citywide (Source: City of Lexington)

Figure 8: Map of Recommendations



4-PRIORITIZATION AND IMPLEMENTATION

Prioritized Projects

The following is a list of high-priority projects based on the recommendations and prioritization criteria in Section 3.

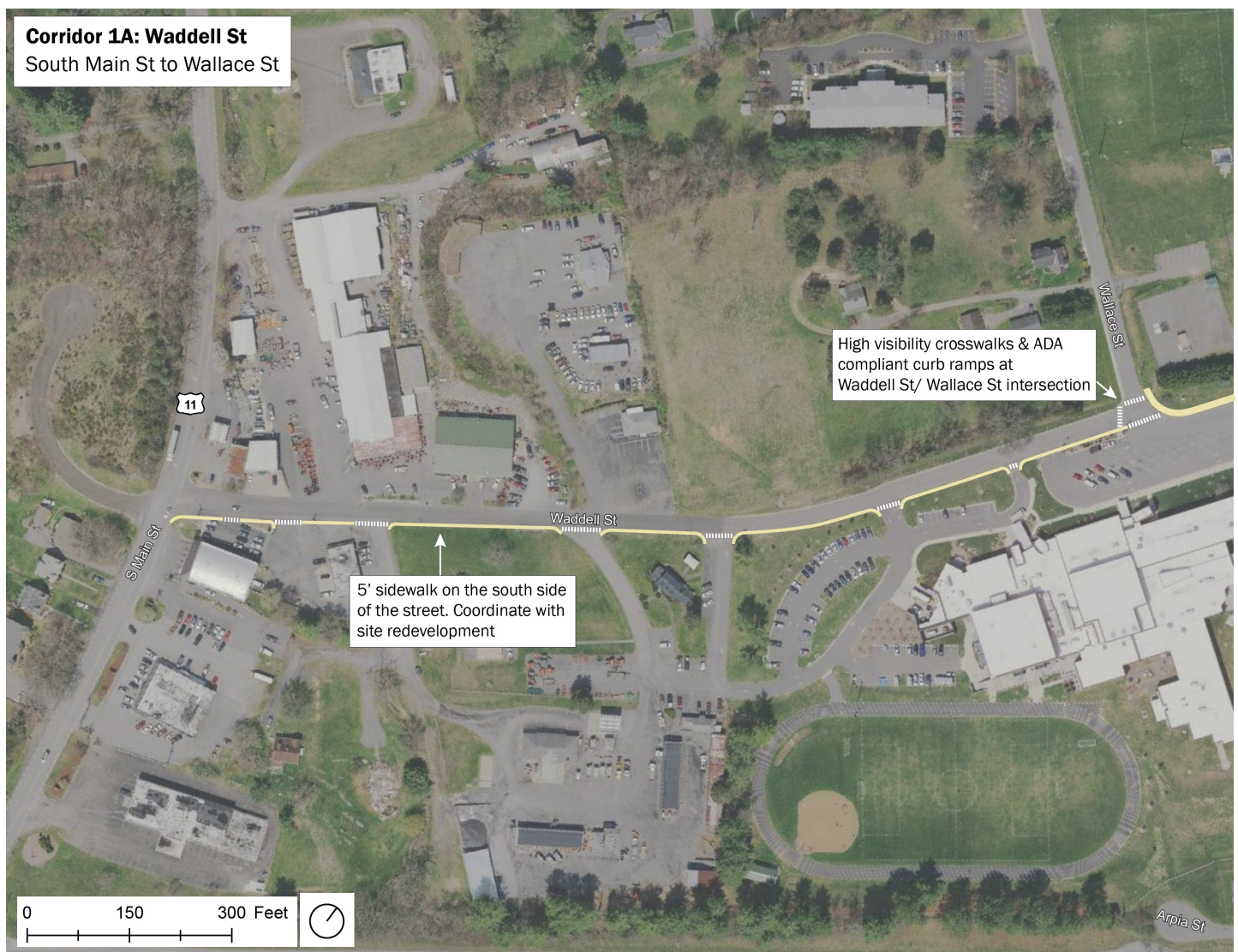
1-A: Waddell Street South Main Street to Wallace Street

Waddell Street forms one part of a potential pedestrian corridor for the southeast area of Lexington, connecting the South Main Street entrance corridor and commercial area to residential neighborhoods, Brewbaker Fields, and the City Pool. The former VDOT site south of Waddell also represents a potential future development site, one of few remaining in the City.

Recommended Improvements:

- Five-foot wide sidewalk on south side of Waddell Street, coordinating with any future development in this area.
- High-visibility pedestrian markings at all existing vehicle entrances. Future redevelopment should plan to reduce, combine, or narrow vehicle entrances.
- Provide high-visibility crosswalks, with appropriate curb ramps, at Waddell Street’s intersection with Wallace Street.

Figure 9: Waddell Street



1-B: Connection Path Wallace Street to Houston Street

Lexington’s Municipal Pool and Brewbaker Fields are key recreation assets for the City but lack a direct pedestrian connection from Houston Street and nearby homes in the area of Summit, Walker, and Miller Streets. While the City will be required to work with private property owners to establish this connection, it can provide a valuable link for the southeast area of Lexington.

Recommended Improvements:

- Ten-foot wide shared use path for pedestrians or bicycles along the border between the Municipal Pool site and Maury River Middle School.
- Five-foot wide sidewalk along the west edge of the Heritage Hall senior living property, recognizing that this will require cooperation with private property owners.
- High-visibility pedestrian markings at existing entrance to pool parking lot.

Figure 10: Connection Path



1-C: Miller Street Houston Street to Rockbridge Square Shopping Center

Miller Street offers an opportunity for pedestrian accommodation in an important southeast Lexington neighborhood, as well as a connection between commercial and recreation destinations. This recommendation looks at Miller Street as an alternative to the more heavily trafficked Walker Street. While a narrow street right-of-way presents challenges in this area, the City may choose sidewalk or on-street path options based on further survey of right-of-way and utility issues in this area.

Along with the recommended sidewalk on Waddell Street and path between Wallace and Houston, improvements on Miller Street can complete a pedestrian corridor across southeast Lexington, connecting commercial areas and entrance corridors at South

Main and East Nelson Streets to residential neighborhoods and recreation.

Recommended Improvements:

- Five-foot wide sidewalk along the north side of Miller Street, depending on right-of-way conditions.
- Alternatively, five-foot side painted walkway on existing road surface if right-of-way behind the curb does not exist or can not be acquired. Note that this alternative would require limiting on-street parking on one side of this street.
- Provide high-visibility crosswalks, with appropriate curb ramps, connecting to existing sidewalk on the south side of Houston Street to proposed improvements on the north side of Miller Street.
- Connect to, or further improve, the existing connection between the dead end of Miller Street to the Rockbridge Square Shopping Center.

Figure 11: Miller Street



2: Spotswood Drive Houston Street to East Nelson Street

Spotswood drive is a key cross-city connector between Houston and East Nelson Streets, as well as providing access to Carilion Hospital. Additionally, Spotswood contains an unbuilt property near Houston Street that may be the site of future development. The relatively wide street section on some portions of Spotswood, when compared to many other Lexington streets, offers flexibility in developing potential future bicycle and pedestrian improvements.

Recommended Improvements:

- Five-foot wide bicycle lanes on both sides of the street from Houston Street to East Preston Street.
- Shared lane markings, also called “sharrows”, on both sides of the narrower portion of Spotswood between East Preston and East Nelson Streets.

Figure 12: Spotswood Drive



3: East Nelson Street Walker Street to South Lewis Street

East Nelson Street is one of Lexington’s major entrance gateways. This area plays an important role in welcoming drivers to the City, as a commercial center, and as a transitions between highway corridor development in the county and Lexington’s historic core. While the grocery, retail, and fast-food uses along this portion of East Nelson are decidedly automobile-oriented, enhanced pedestrian accommodations in this area can help nearby residents to access these businesses safely on foot.

Recommended Improvements:

- Expand the existing five-foot sidewalk on the street’s north side to eight feet to accommodate higher volumes of commercial-area pedestrian traffic. Sidewalk widening is conditioned on the availability of existing public right-of-way or the ability of the City to acquire additional right-of-way.
- Install high-visibility crosswalks on all four legs of Nelson Street’s intersections with Walker Street and Central Road, including appropriate curb ramps and pedestrian-activated crossing signals coordinated with existing traffic lights. At present, both of these intersections have limited crosswalks, with signals, on two of four intersection legs.

Figure 13: Nelson Street



4: South Main Street Thornhill Road to Lee Highway

South Main Street is another of Lexington's major entrance corridors, along with being a center for commercial uses. On the portion of South Main nearest Lee Highway, wider right-of-way and larger setbacks to existing buildings provide greater flexibility in the development of bicycle and pedestrian improvements, while the portion of South Main nearer the historic core has a much narrower right-of-way. In both sections, drainage and topography will require careful consideration.

Recommended Improvements:

- Eight-foot wide paved multi-use trail along the east side of South Main from Lexington Fire Department to the extent of existing commercial development near Lee Highway. In this area wider right-of-way and larger setbacks to existing buildings provide room to separate the trail from the street. The location of this path relative to the street may vary to accommodate topography and drainage issues.
- High-visibility pedestrian markings at all existing vehicle entrances. Future redevelopment should plan to reduce, combine, or narrow vehicle entrances.
- Five-foot wide sidewalk along the east side of South Main Street from Lexington Fire Department to the existing sidewalk near Maple Street. This walk should be installed at the base of the existing rock retaining wall and will require restriping of South Main to narrow vehicle lanes.
- Alternatively, the City may work with property owners to install a sidewalk on top or behind the existing retaining wall.

Figure 14: Main Street



5: Main and Jefferson Streets (Downtown)

As Lexington’s historic core and cultural center, the downtown is already a vibrant pedestrian environment. The downtown is also home to dense development and narrow, historic streets. Development of any improvements outside of existing rights-of-way is unlikely, while expansion of sidewalks and the addition of bicycle lanes within the right-of-way would require the removal of on-street parking. While removal of parking may be a long-term consideration as the City develops alternative parking lots or structures, this analysis chooses to recommend improvements that can be made without significant changes to the structure and function of the downtown, and that can help to provide greater visibility and safety along shared street spaces for bicycles, pedestrians, and automobiles.

Recommended Improvements:

- High-visibility crosswalks at all street intersections, including appropriate curb ramps and pedestrian signals at existing signalized intersections and existing vehicle entrances. Future redevelopment should plan to reduce, combine, or narrow vehicle entrances.
- High-visibility mid-block crossing on South Main near Trinity Church, allowing an additional crossing on this long block and providing access to parking.
- Shared lane markings, also called “sharrows”, on Main and Jefferson Streets, matching the existing one-way direction of vehicle traffic.

Figure 15: Main Street/ Jefferson Street



Funding Considerations

These projects can be funded through a variety of sources and those sources can often be combined to ensure full project completion. The following section outlines potential sources of funding for bicycle and pedestrian projects and notes about each source.

SMART SCALE

SMART SCALE is one of the most prominent sources of funding for transportation projects in the Commonwealth of Virginia. As of 2022, the program is in its fifth round and it is administered through OIPI with the assistance of the VDOT and Department of Rail and Public Transportation (DRPT). It is a highly competitive program and projects are scored relative to other projects in the VDOT district (in Lexington's case, that is the Staunton District). There are a variety of factors that make projects competitive, but adding bicycle and pedestrian elements to other projects potentially improves their scoring. For example, if a locality would like to pursue SMART SCALE for intersection improvements, the addition of bicycle and pedestrian facilities identified in planning documents increases the multimodality of the project and may make it more competitive. Thus, Lexington can refer to this plan when considering larger transportation (intersection or corridor) projects for opportunities to fund bicycle and pedestrian infrastructure.

Transportation Alternatives Program

The Transportation Alternatives Program (TAP) provides for construction and design of bicycle and pedestrian facilities through a formula program administered by VDOT. The program is intended to help localities fund projects that expand non-motorized travel choices centered around cultural, historical, and environmental resources.

Safe Routes to School

VDOT also administers a Safe Routes to School (SRTS) program which has been an ongoing program since 2007. This program is aimed at facilitating better bicycling and pedestrian options between residential areas and schools. There are multiple programs under the SRTS umbrella, but the Infrastructure Grants program is aimed at improving sidewalks, crosswalks, bike lanes, and safety signage and would be ideal for projects around the schools both inside the City and in Rockbridge County attended by City residents.

Recreation-Oriented Grants

The Virginia Department of Conservation and Recreation (DCR) offers a number of grant programs but two programs that may assist in some of the off-road paths and trails is its Trail Access Grant program and the Recreational Trails Program. The former is a 100 percent reimbursement program for trail projects and projects that increase access to trails for individuals with disabilities. The latter is a matching program aimed at building and rehabilitating trails and acquiring land for trail corridors. These programs are potential funding options for connecting Jordans Point Park to the Chessie Trail or improving conditions on and access to the Uncas and Woods Creek trails.



The end of the Uncas Trail on the Maury River is just across the river from the Chessie Natural Trail (Source: Virginia Outdoors Foundation)

APPENDIX A: STAKEHOLDER MEETING SUMMARY

Stakeholder groups included local and regional government, economic and tourism agencies, green infrastructure, school and university representatives, small business owners, and staff from area groups with connections to biking and outdoor activities. The meetings were held over several weeks in the Fall of 2021 with the purpose of introducing the bicycle and pedestrian plan update process to Lexington stakeholders and gaining an understanding of current conditions and the interests of the community.

Meetings were held on the following dates:

- October 26, 2021: Green Infrastructure Working Group
- November 9, 2021: Stakeholder Meeting 1
- November 15, 2021: Stakeholder Meeting 2
- November 16, 2021: Stakeholder Meeting 3 and 4
- November 17, 2021: Stakeholder Meeting 5 and 6
- November 18, 2021: Stakeholder Meeting 7
- December 21, 2021: Live Healthy Rockbridge

Access & Safety

The following summarizes major themes across the input gathered from the stakeholder meetings.

Daily Needs and Commuting

- Should consider safety and access for both users accessing for daily needs/commuting & for recreation (this was mentioned in multiple meetings)
- To necessities that are hard to get to like Kroger and Food Lion (also had a suggestion to connect W&L to Kroger)
- Safe connections to and from public schools, especially the high school
- Safe access to Jordan's Point Park for multiple age groups – use 12 as a baseline, for mothers with small children, for people with dogs

Virginia Horse Center

- There is a desire to connect the horse center to downtown
- Center has 3-5 miles of trails – they are currently working on improving the trails to make them better for both horseback riding and bicycles
- They are also working on establishing a mounted police unit that will be based at the Therapeutics

Weatherburn Neighborhood

- Lots of interest from residents in walking but they do not feel safe
- Near country club is 'scariest' part of bike ride because of high traffic volumes
- Bike improvements in the area would be costly

Downtown Concerns

- According to census data, there is a donut around the city center where population is younger, more diverse, and most likely to face dangerous intersections, network gaps, etc.
- Tourists have a difficult time navigating downtown – signage improvements for flow of traffic may be a good idea
- Downtown lacks shade and the area is uncomfortably hot in the summer, however, plans to add trees for shade have been shot down because business owners do not want to lose on street parking spaces

Other Connections and Comments

- Near the TransAmerica trail (Thornhill Road)
- They have a group that is interested in the project and willing to volunteer for pushing any initiatives
- Connections to Thornhill Road/TransAmerica Bike Trail and US 11 were mentioned several times
- Route 60 an opportunity to create a more pleasant walking and cycling experience
- Connect towns and reduce commuter congestion
- Potential to use the US 11 bypass but there are safety concerns as it is a high-speed road, some bike/ped traffic already because it is a direct route – potential for a recommendation that includes a (grade) separated facility
- Woods Creek Trail is a significant community asset
- One suggestion asked for an extension through the country club
- Need to consider point to point discussion, connecting to destinations even if they are outside of the county and long-distance rides: TransAmerica Bike Trail, Chessie Trail
- Chesse Trail: Connects Lexington to Buena Vista
 - Trail offers scenic views, new bridge constructed on rail trail (Dec 10th ribbon-cutting)
 - Pedestrian bridge connecting trail to Jordan Point Park has been considered however funding was shifted to repair the rail bridge which had washed out
 - It is heavily used by citizens in the surrounding areas – a connection to Lexington has been discussed for yea
 - Connection to Main Street
 - Connection to Woods Creek Trail
- Need to focus on residents who are curious/interested in riding or walking but find it unsafe
- Stakeholders believe that downtown is a point of focus – more people would utilize downtown routes if they were safer for pedestrians
- Quality of the roadway - affects bicycle accidents
- Sidewalk quality
- Both infrastructure improvements and driver education programs aimed at increasing safety for non-motorized modes

- Require new developments to include sidewalks and bicycle infrastructure
- Coordination with utilities/contractors is an issue, roads have been left in disrepair because of the lack of coordination – this is a challenge for the City

University Partnerships

- VMI and W&L University are trying to get students back on campus which need safe bike/ped facilities
- W&L is working on the campus and has a focus on bike/ped improvements
- W&L University potentially looking to close Washington street to cars and open it up to walking and biking only
 - From Jefferson to Nelson (Not the entire length)
 - Will still need some vehicular access for truck delivery
 - Street has very high ped traffic from students on campus
 - This may not be under consideration anymore
- W&L Campus is currently being reconfigured which may help in the development of bike/ped facilities
- VMI Campus planner Dale Brown is a good partner, he was unable to attend the stakeholder meeting but should be included/informed/engaged in the process

Planning for All Modes

- Multimodal planning is key
- Take cars into account – separated lanes make it easier, for example
- Currently, walking is more prevalent than biking in the City
- Removal of on-street parking will likely not be supported
 - Consider Slow Streets design where bike lanes might not be feasible
 - Previous plans for planting trees have been scrapped do to protest from business owners who did not want to lose any on street parking (hot button issue, needs a solution that will serve everyone’s needs)
- Prioritize pedestrian network improvements over bicycle infrastructure – public concerns about the ped network are well-documented and there could be pushback if there is too much emphasis on bicycle amenities
- Walking is a public necessity in Lexington

Recreation and Health

- Give people a reason to get out of their cars
- Community health assessment (3-year assessment at the Carillion) shows need to promote physical activity
- Make it easy to choose healthy options
- Incorporate active options into everyday activities
- TransAmerica Trail
- Bicycle infrastructure often fosters interest in bicycling
- Tourism is important for the City

- Want to ensure that visitors feel safe walking and biking
- Would like to increase/promote bikeshare as a way to explore Lexington

Amenities

- Provide shade
- Improved access and complete networks
- Signage and wayfinding

Plan Policies and Equity

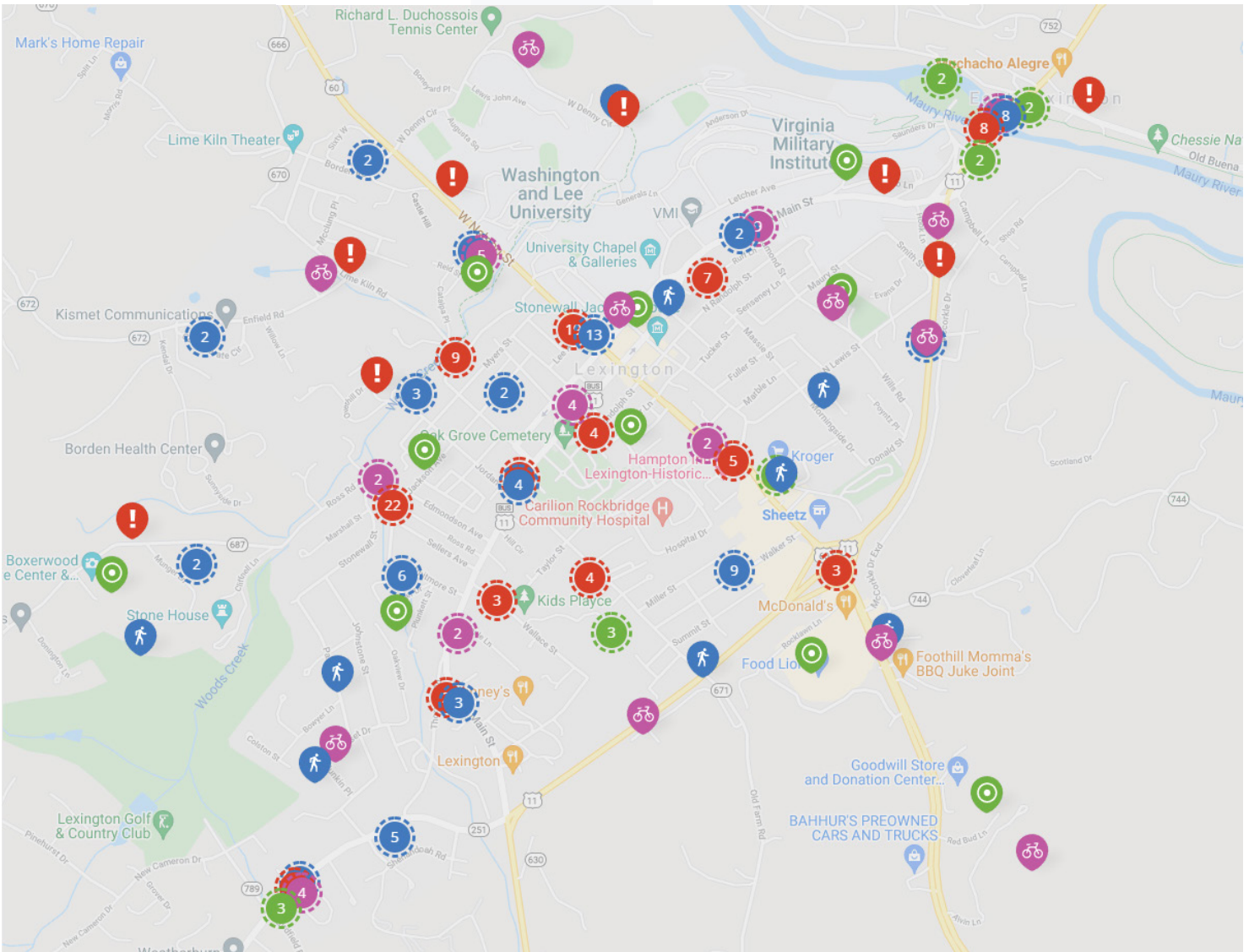
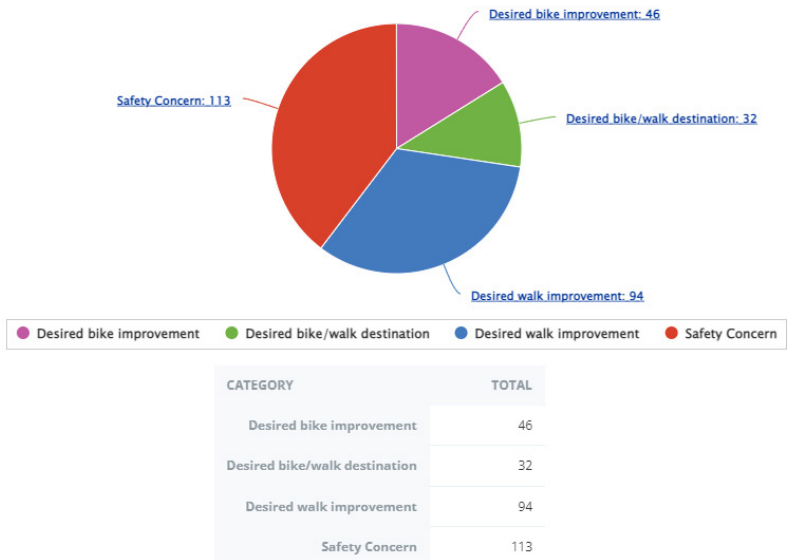
- Extending green benefits – egalitarian
- Access for all ages – from children going to parks or school to those with mobility challenges
- Lexington has an aging population
- Plan should be holistic
- Plan should include survey results – both a summary and the individual responses
- Situate City of Lexington as the central recreation hub of Rockbridge County
- Should have both an infrastructure and programmatic approach
- Create a bicycle friendly city
- Implement design based on context, land use, and activity (not a one-size fits all solution)
- Provide methods for before and after bicycle and pedestrian data collection
- Focus on both commuting and recreation
- Focus on access for disabled community

Funding Considerations

- They work with the public and VDOT to develop applications for grants and funding
- New infrastructure bill doesn’t have specifics for bike/ped but does slightly increase TAP funding that will hopefully trickle down to the state level so the likelihood of getting a particular project funded is potentially higher

APPENDIX B: ONLINE SURVEY RESULTS

Category Totals



APPENDIX C: PRIORITIZATION MATRIX

TRAFFIC LEVEL OF STRESS SCORE			
Element	Low (1 point)	Medium (2 points)	High (3 points)
Speed Limit	25 or lower	30-40	45 or Higher
AADT	Less than 2,500	2,500 to 7,499	7,500 or Higher
Vehicle Lanes	2 Lanes	3-4 Lanes	More than 4 Lanes
Safety	No reported bicycle or pedestrian crashes	Non-fatal or serious injury bicycle or pedestrian crash	Fatal or serious injury bicycle or pedestrian crash

COMMUNITY NEED SCORE			
Element	Low (1 point)	Medium (2 points)	High (3 points)
Activity Center	More than 0.5 miles from a VTRANS Activity Center or other primary community activity center	0.25-0.5 miles of a VTRANS Activity Center or other primary community activity center	Located within 0.25 miles of a VTRANS Activity Center or other primary community activity center
School	More than 0.25 miles from a school	Within 0.25 miles of a school	Located within 500 ft of a school
Population Density	Located in a Block Group that falls within the 4th or 5th quintile of population density for the community.	Located in a Block Group that falls within the 2nd or 3rd quintile of population density for the community.	Located in a Block Group that falls within the highest quintile of population density for the community.
Employment Density	Located within the 4th or 5th quintile of employment density for the community based on Census LEHD primary employment data.	Located within the 2nd or 3rd quintile of employment density for the community based on Census LEHD primary employment data.	Located within the highest quintile of employment density for the community based on Census LEHD primary employment data.
Bike Score/ Walk Score	Located in an area with a combined Bike Score + Walk Score of less than 50.	Located in an area with a combined Bike Score + Walk Score of 50 to 99.	Located in an area with a combined Bike Score + Walk Score of 100 or more.
Equity Emphasis Area (VTRANS)	Not located in an Equity Emphasis Area	Located in Equity Emphasis Area with an index score that is less than the average index score of all EEAs in the community.	Located in Equity Emphasis Area with an index score that is greater than the average index score of all EEAs in the community.

TACTICAL VIABILITY			
Element	Low (1 point)	Medium (2 points)	High (3 points)
Scale of Corridor	Corridor has a "Principal Arterial" functional classification.	Corridor has a "Minor Arterial" or "Collector" functional classification.	Corridor has a "Local" functional classification.
ROW Needs	Additional right of way is anticipated to be acquired from multiple properties.	Additional right of way is anticipated to be acquired from a single property.	No additional right of way is anticipated.
Connectivity	Improvements enhance existing bike/ped infrastructure or are not connected to existing bike/ped facilities.	Improvements extend existing bike/ped infrastructure network but do not connect discontinuous facilities.	Improvements establish a link between existing but discontinuous bike/ped infrastructure.
Project Readiness	Improvements will require a new project.	Improvements are part of or can be incorporated into a planned project.	Improvements are part of or can be incorporated into a committed project.

APPENDIX D: MATRIX OF ALL RECOMMENDATIONS

Segment	Start	End	Recommendation Bicycle/Pedestrian Addition	Traffic Stress	Community Need	Project Viability Rating	Notes
Campbell Ln	N Main St	Mccorkle Dr	Slow Street Improvements	low	low	high	Designated bike/ped connection to Uncas Trail
Diamond St	N Main St	N Lewis St	Bicycle Sharrows	low	med	med	
E Denny Cir	W Nelson St	Approx 100 ft.	Sidewalk	low	med	low	Sidewalk on west side to meet stairs to Woods Creek trail
E Nelson St	S Lewis St	N Lee Hwy	Wide Sidewalk	high	high	med	
E Nelson St	Spotswood Dr	S Lewis St	Bicycle Sharrows	med	med	med	
Enfield Rd	Pickett St	City Limit	Sidewalk	low	low	high	Sidewalk from end of existing to city limit - ideally connecting to Kendal Dr outside of city
Houston	S Main St	Walker St	Bicycle Sharrows	low	med	med	
Jefferson St	White st	N Main St	Bicycle Sharrows	low	high	high	
Jefferson St	White St	N Main St	Downtown Streets Toolkit	low	high	high	
Jordan St	Highland Rd	S Main St	Bicycle Sharrows	low	med	high	
Lee Ave	W Nelson St	W Washington St	Downtown Streets Toolkit	low	high	high	

Segment	Start	End	Recommendation Bicycle/Pedestrian Addition	Traffic Stress	Community Need	Project Viability Rating	Notes
Lewis St	E Nelson St	Diamond St	Bicycle Sharrows	low	med	med	
Lime Kiln Rd	Mclaughlin St	McClung Pl	Bicycle Sharrows	low	med	med	
Lime Kiln Rd	McClung Pl	Alum Springs Rd	Slow Street Improvements	low	low	med	
Main St	White st	N Jefferson St	Bicycle Sharrows	med	high	high	
Main St	White St	Massie St	Downtown Streets Toolkit	med	high	high	
Mccorkle Dr	Campbell Ln	Shop Rd	Slow Street Improvements	low	low	high	Designated bike/ped connection to Uncas Trail
McDowell St	S Main St	S Jefferson St	Downtown Streets Toolkit	low	med	high	
Mclaughlin St	White St	W Nelson St	Bicycle Sharrows	low	med	med	Designated bike/ped connection from Woods Creek Trail to downtown
Miller St	Houston St	(dead end)	Sidewalk	low	med	med	
N Main St	Massie St	Hook Ln	Bicycle Sharrows		high	high	Add bicycle lanes on N Main St as part of VDOT's Smart Scale project
Nelson St	Mclaughlin St	Davidson St	Downtown Streets Toolkit	med	high	high	

Segment	Start	End	Recommendation Bicycle/Pedestrian Addition	Traffic Stress	Community Need	Project Viability Rating	Notes
Off Road Path	N Lewis St	E Nelson St	Off Road Shared Use Path	low	med	low	Construct off-road shared use path along ridge between E Nelson St and N Lewis St with cooperation of Sigma Nu headquarters
Off Road Path	Waddell/Wallace	Houston St	Off Road Shared Use Path	low	med	low	Construct off-road shared use path between Houston St and Maury River Middle School/Brewbaker Field Sports Complex
Preston St	S Jefferson St	Spotswood Dr	Bicycle Sharrows	low	high	high	
Preston St	S Jefferson St	Varner Ln	Downtown Streets Toolkit	low	high	high	
Randolph St	E Preston St	E Henry St	Downtown Streets Toolkit	low	high	high	
Ross Rd	Stonewall St	Rebel Ridge Rd	sidewalk improvements	low	low	med	Connect to Kendal, eventually connect farther to Brushy Hills
S Main St	Lex. Fire Dept.	Maple Ln	Sidewalk	med	low	med	
S Main St	Waddell St	Lex. Fire Dept.	Off Road Shared Use Path	med	low	med	
Shared Use Path	Moses Mill Rd	N Lee Hwy	Off Road Shared Use Path	low	n/a	low	Establish off road shared use path connection from Jordan's Point Park to Chessie Nature Trail across Maury River
Spotswood Dr	Houston St	E Preston St	Bike Lane	low	med	med	
Spotswood Dr	E Preston St	N Nelson St	Bicycle Sharrows	low	med	med	

Segment	Start	End	Recommendation Bicycle/Pedestrian Addition	Traffic Stress	Community Need	Project Viability Rating	Notes
Taylor St	Wallace St	Houston St	Bicycle Sharrows	low	low	high	
Thornhill Rd	Welsh Park Pl	S Main St	Off Road Shared Use Path	low	low	low	Construct a shared use path (including on and off road segments) along Thornhill Rd from city limits to S Main St
Thornhill Rd	Link Rd	Welsh Park Pl	Bicycle Sharrows	low	low	low	
Thornhill Rd	McCormick St	Link Rd	On Road Shared Use Path	med	low	low	Construct a shared use path (including on and off road segments) along Thornhill Rd from city limits to S Main St
Thornhill Rd	Country Club Rd	McCormick St	Off Road Shared Use Path	med	low	low	Construct a shared use path (including on and off road segments) along Thornhill Rd from city limits to S Main St
Waddell	S Main St	Wallace St	Sidewalk	low	med	med	
Wallace St	S Main St	Waddell St	Bicycle Sharrows	low	med	high	Establish slow street and widen sidewalks on Wallace St
Washington St	W Nelson St	S Lewis St	Bicycle Sharrows	low	high	med	
Washington St	Lee Ave	Tucker St	Downtown Streets Toolkit	low	high	high	
White St	Mclaughlin St	S Main St	Bicycle Sharrows		med	med	Designated bike/ped connection from Woods Creek Trail to downtown

