



MEMORANDUM

TO: Frederick County Board of Supervisors

FROM: Candice E. Perkins, AICP, CZA, Assistant Director

RE: 2035 Comprehensive Plan Update – Including the Kernstown Area Plan and the Leonard Property CPPA Amendment (CPPA #01-16)

DATE: December 7, 2016

The five-year review and update of the 2030 Comprehensive Plan was initiated in the summer of 2015 with a three phase approach. The first phase was completed in September of 2015 and the second phase was concluded in March, 2016. Staff has recently completed phase three of this process - this phase wrapped up the public outreach aspect of the Plan update and the joint work session. Following the August 17, 2016 joint work session of the Frederick County Planning Commission and the Board of Supervisors and subsequent meetings, Staff has made additional changes to the draft 2035 Comprehensive Plan and the Kernstown Area Plan, based upon the input received. Staff would like to express its sincere thanks for all of the valuable input provided to date. Updates to the plan include:

- Removal of redundant and repeated text to further simplify the document;
- Change of Polices/Implementation to Goals/Strategies to allow for future flexibility in the interpretation and implementation of Plan policies;
- Formatting to ensure consistent terminology, formatting and organization;
- Updated facts, figures, and maps;
- Updates to the Kernstown Area Plan text;
- Inclusion of the Leonard property Sewer and Water Area (SWSA) Comprehensive Plan Amendment (CPPA #01-2016) to the Southern Frederick Area Plan.

The updated plans were presented to the Comprehensive Plans and Programs Committee (CPPC) at their October 2016 meeting. The CPPC endorsed the changes and the 2035 Comprehensive Plan Update, including the Kernstown Area Plan. The CPPC also endorsed the Leonard Property Sewer and Water Service Area (SWSA) Expansion request at their November 2016 meeting. The Planning Commission discussed the 2035 Comprehensive Plan update at their November 2, 2016 meeting, as well as, updates to the Transportation Chapter and the Leonard Property SWSA Expansion (CPPA #01-16) at their December 7, 2016 meeting.

Staff is seeking authorization from the Board of Supervisors to send the DRAFT 2035 Comprehensive Plan (including Appendix I, Appendix II, the Kernstown Area Plan and the Leonard Property SWSA Expansion CPPA #01-16) forward for public hearing.

Background

Phase 1 – Completed September 2015

July/August/September 2015 – CPPC review and update of Appendix II; Background Analyses and Supporting Studies.

- Overview & Demographic Analysis (July)
- Economic Analysis (August)
- Land Use Analysis; including SWSA needs analysis with FCSA strategies, and C&I analysis of the 25/75 Ratio throughout the County (September)

Phase 2 – Completed March 2016

October/November/December 2015 – CPPC and Blue Ribbon Group review and update of key sections of the Plan, including: Residential Development, Business Development, Transportation, and Natural Resources, Historical Resources, and Public Facilities.

Phase 3 – Completed October 2016

April/May/June 2016 – Planning Commission Review of 2035 Update (PC Retreat April 20, 2016), followed by Board of Supervisors direction to move forward with additional public outreach.

May/June 2016 –Public outreach and community meetings - During this phase, Staff conducted four community meetings and coordinated a web-based approach using the resources of the Public Information Officer. These meetings solicited input from the public on the plan in general, key sections of the plan, any significant issues and adjustments that have been identified to date by the Blue Ribbon Panels, and comments from the Board of Supervisors.

August 2016 – CPPC/PC/BOS Joint work session to review results of public input and any adjustments made to draft.

September/October 2016 – Additional editing to reduce the updated plan and the Kernstown Area Plan based on additional input.

Current/Future:

December 2016/January 2016 – Planning Commission and Board of Supervisors discussion/public hearing.

The Planning Commission discussed the 2035 Comprehensive Plan update at their November 2, 2016 meeting as well as updates to the Transportation Chapter and the Leonard Property SWSA expansion (CPPA #01-2016) at their December 7, 2016 meeting. Staff is seeking authorization from the Board of Supervisors to send the DRAFT 2035 Comprehensive Plan and the DRAFT Kernstown Area Plan forward for public hearing. Please find attached a clean copy of the DRAFT 2035 Comprehensive Plan and Appendix I and Appendix II – the Draft Kernstown Area Plan is located within Appendix I.

Attachments: 1. **2035 Comprehensive Plan – Including Appendix I (with the Kernstown Area Plan and the Leonard Property SWSA expansion CPPA #01-16) and Appendix II**
2. **Resolution**

2035 Comprehensive Plan

Frederick County, Virginia

Life at the Top



Recommended by the Frederick County Planning Commission

Adopted by the Frederick County Board of Supervisors

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INTRODUCTION

- PURPOSE OF THE PLAN
- CORE VALUES
- IMPLEMENTING THE PLAN

*“THE 2035 COMPREHENSIVE PLAN IS THE
GUIDE FOR THE FUTURE GROWTH OF
FREDERICK COUNTY.”*

PURPOSE OF THE PLAN

The 2035 Frederick County Comprehensive Plan (The Plan) addresses the future of Frederick County for its citizens, highlights its rich history, and strives to further this great community. The Plan is guided by the *Vision Statement* and *Core Values* crafted and adopted by the Frederick County Board of Supervisors.

The 2035 Comprehensive Plan is the guide for the future growth of Frederick County.

The chapters of The Plan address: **Urban Areas, Rural Areas, Residential Development, Business Development, Transportation, Public Facilities, Natural Resources, and Historic Resources.**

The Plan is supported by two Appendices: **Appendix I** includes the County's Area Plans, key land use planning documents which implement the policies of the Comprehensive Plan in specific, geographic areas of the County, and **Appendix II** provides background analysis and studies in support of The Plan.

The chapters of The Plan are simple, each describes where we are today and where we want to be in 2035, they provide goals and strategies of implementation, and they illustrate the benefits of the implementation of this focus for the future.

PUBLIC PARTNERSHIPS, INPUT, AND OUTREACH

The 2030 Comprehensive Plan was a significant and rewarding undertaking in 2010 and 2011, and provided a foundation for this 2035 Comprehensive Plan update. The County's 2035 Comprehensive Plan was guided by the Frederick County Planning Commission, through the efforts of the Comprehensive Plans and Programs Committee (CPPC), and with the assistance of the Blue Ribbon Panel and the Frederick County Department of Planning and Development Staff.

The public outreach for this project included: a project webpage, County social media which provided on-going updates, and traditional public input meetings and public hearings held in the June of 2016. The purpose of these meetings was to present elements of the Plan to the public for their information, and to seek additional public input and perspective. In addition to Staff, members of the Planning Commission and Board of Supervisors were in attendance to hear feedback first-hand and engage in a direct dialogue with citizens

INTRODUCTION

The Comprehensive Plans and Programs Committee (CPPC) members collaborated with a large group of citizen volunteers whose goal was to update the various chapters of the Comprehensive Plan. Following an initial kick-off meeting in June 2015, the working groups met frequently throughout the winter of 2015-2016. For the 2035 Plan update, the Frederick County Sanitation Authority (FCSA) was involved to provide additional input. A series of public informational and input meetings was held in June 2016 at various locations around the Community.

The purpose of these meetings was to present draft elements of the Plan to the public for their information, and to seek additional public input and perspective through a facilitated discussion using targeted questions and open dialogue. In addition to Staff, members of the Planning Commission and Board of Supervisors were in attendance to hear feedback first-hand. Public feedback was also solicited throughout the update through the project page on the County website. Online, citizens and stakeholders were also able to review draft documents, maps and respond to targeted questions regarding the future of their Community.

Based upon the work of all of the participants, the 2035 Comprehensive Plan was updated and presented to the Planning Commission and Board of Supervisors during a joint meeting in August 2016 and subsequently through the public hearing process in the fall of 2016.

The updated 2035 Comprehensive Plan will continue to guide the County as it seeks to implement the County's vision as expressed by the Board of Supervisors.

CORE VALUES

The Frederick County Board of Supervisors provided the framework for the 2035 Comprehensive Plan. The Plan's future focus, goals, and strategies were crafted to reflect the Vision Statement and Core Values of the Board of Supervisors, approved on December 9, 2009.

Board of Supervisors Vision Statement:

"Insuring the quality of life of all Frederick County Citizens by preserving the past and planning for the future through sound fiscal management."

Board of Supervisors Core Values:

- A government that is accountable and dedicated to providing responsible stewardship for County funds and to insure the citizens receive the best services possible for the funds expended.
- A government concerned with long range planning that protects our rural heritage and directs its future growth through planned infrastructure.
- A government concerned with expanding commercial and industrial tax base in order to insure a viable and thriving economy.
- A government that looks to the future and implements plans to insure that the quality of life for future generations is preserved.
- A government that emphasizes a quality education through a cooperative effort with the school board.
- A government that recognizes the importance of maintaining a highly trained public safety program to provide efficient services and protection to County citizens.
- A government that promotes the spirit of cooperation with its regional local government partners and, in particular, the City of Winchester.
- A government unit based on honesty, trust, integrity, and respect that understands the importance of clear communication and a willingness to listen.

IMPLEMENTING THE PLAN

Each of the chapters that make up the Plan have been structured to provide goals for where we desire the Community to be in 2035 and strategies that provide guidance on how to get there. The ultimate goal is to make the Plan implementable, and by extension, achieve the Community's vision for the future of Frederick County.

In determining the focus of the Plan, the stakeholder working groups evaluated the current conditions in their area of expertise, and then looked to the future; 2035. They evaluated potential community benefits of various approaches and revised goals and strategies accordingly.

Working with community partners and a variety of key stakeholders in the creation of the Plan has resulted in a well-crafted, insightful, and much improved Plan. The continued involvement of a variety of relevant community partners, key stakeholders, and the public in the future will ensure the successful implementation of the Plan.

The Area Plans, Appendix I of the 2035 Comprehensive Plan, will be a primary implementation tool and will be instrumental in future planning efforts of the County. Developed over the past couple of decades, the individual Area Plans have helped to guide the growth and development of areas of the County experiencing growth pressures. In the future, the Area Plans will be used as a guide in making land use decisions that meet anticipated growth demands, assure a viable community, and maintain a high quality of life for its citizens.

SUPPORTING PLANNING DOCUMENTS

In addition to the comprehensive plan, other tools utilized to manage the County's growth and development include but are not limited to the Official Zoning Map, the Zoning Ordinance, Subdivision and Site Plan Regulations, and the Capital Improvement Plan (CIP).

Frederick County will utilize all of the planning tools available to it. In order to ensure that as new areas of urban uses are established, roads and public facilities of sufficient capacity are provided to serve the new urban areas. Rezoning requests should be evaluated to determine their potential impacts on transportation and public facilities. Applicants will be expected to contribute a reasonable portion of the costs of new or expanded infrastructure needed to serve their proposed development. Costs to the County should be estimated in terms of what impact the development, which could result from

the proposed rezoning, would have on public facilities and infrastructure. Such contributions can be in the form of cash, dedicated land, or constructed improvements or in any other manner consistent with the Code of Virginia.

Rezoning requests should not be approved unless the net impacts on public facilities are positive, or unless the negative impacts can be adequately mitigated through proffered contributions or other acceptable means. A request for rezoning may also be turned down even though all fiscal impacts appear to be addressed.

The Capital Improvements Plan (CIP) provides a list of capital projects planned for five years and is updated each year as projects are completed and new projects are added. The scheduling of projects needs to be coordinated with the 2035 Comprehensive Plan. The CIP helps to guide development, and to maintain a stable financial program. The Comprehensive Plan may be used as a tool to aid in determining priorities among projects, for estimating required funding, and for scheduling projects. Adopted annually, the Capital Improvements Plan becomes part of the 2035 Comprehensive Plan.

THE CODE OF VIRGINIA

The Code of Virginia requires that the Comprehensive Plan be reviewed every five years. The local Planning Commission is responsible for drafting and developing the plan, while the local governing body is required to adopt a Comprehensive Plan.

The Code calls for the comprehensive plan to be drafted for the purpose of

“guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants.”

Frederick County meets this requirement of the Code of Virginia and, further, believes that the planning process should be a continuous and evolving effort. The Comprehensive Plan may be revisited from time to time through the Comprehensive Policy Plan Amendment process or , as directed by the Board of Supervisors, through the individual Area Plans or specific studies.

Frederick County will continue to meet, and strives to exceed, those requirements of the Code of Virginia that pertain to Urban Development Areas; 15.2-2223.1. The Frederick County Board of Supervisors has reaffirmed that the 2035 Comprehensive Plan, and its supporting documents,

INTRODUCTION

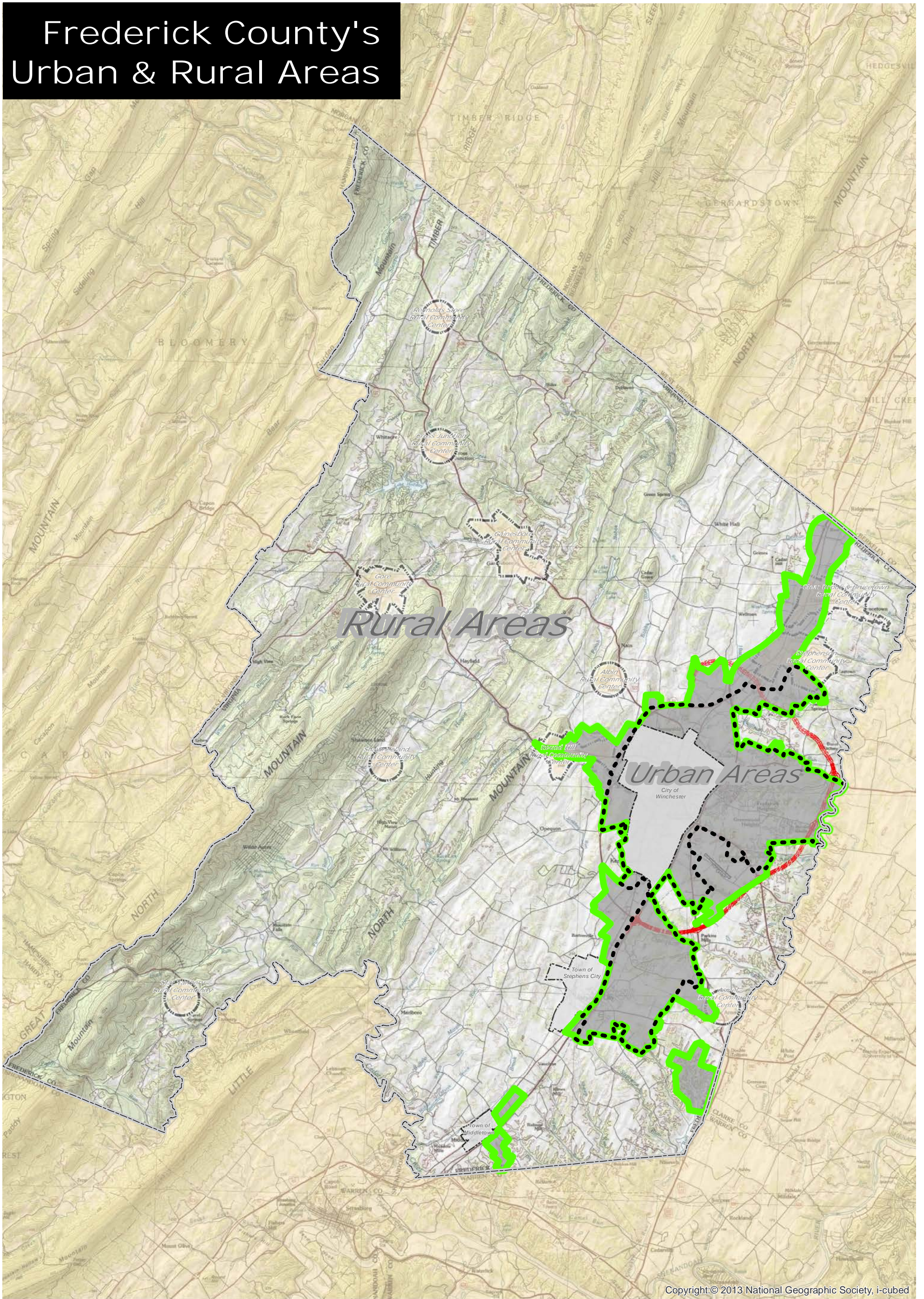
accommodates growth in a manner consistent with the requirements for Urban Development Areas as described in the Code of Virginia.

In addition, the transportation elements of the 2035 Comprehensive Plan have been reviewed by the Virginia Department of Transportation (VDOT) in accordance with 15.2-2222.1.

I. URBAN AREAS



Frederick County's Urban & Rural Areas



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-  Frederick County
-  Urban Development Area
-  Sewer and Water Service Area
-  Town and City Boundary
-  Future Rt 37 Bypass
-  Rural Community Center



URBAN AREAS

CURRENT CONDITIONS

The Urban Development Area (UDA) of Frederick County includes those areas anticipated for higher intensity development within and Sewer and Water Service Area (SWSA) designates the limit of where public sewer and water could be extended. The UDA and SWSA provide a clear boundary between the Urban Areas and the Rural Areas. Using the UDA and SWSA as urban growth boundaries, Frederick County seeks to focus growth in strategic areas where community facilities and public services are more readily available. It is expected that the land uses within the UDA and SWSA will be served by public water and sewer.

The UDA defines the general area in which more intensive forms of residential development will occur. Commercial, industrial, and institutional land uses are also encouraged within the UDA in designated areas. The SWSA is consistent with the UDA in many locations. However, the SWSA may extend beyond the UDA to promote commercial, industrial, and institutional land uses in areas where residential land uses are not desirable.

Future land uses are depicted on the various Area Plans which are compiled in Appendix I. These Area Plans have been created over time, through a Community planning process, and have been incorporated as part of the Comprehensive Plan. The aim of the Area Plans is to provide a detailed land use guide for the designated area. As a whole, the individual Area Plans make up the Eastern Frederick County Long Range Land Use Plan.

Historically, the average gross residential density within the UDA has been between two (2) to three (3) units per acre. More recently, the densities of development in Frederick County have been increasing. The County should continually monitor the intensity and density of new development and its associated impacts. Residential densities higher than those previously experienced in the UDA would be appropriate within specifically designated areas within the UDA, known as strategic growth areas (further described on page 4).

Frederick County established the initial UDA boundary in 1987. In 2007, recognizing the importance of utilizing urban growth boundaries such as the UDA, the Virginia General Assembly adopted legislation requiring certain larger and higher growth jurisdictions to incorporate UDA's into their Comprehensive Plans. Frederick County continues to meet the requirements of the Code of Virginia that pertain to Urban Development Areas.

The boundary of Frederick County's UDA should be examined regularly to ensure that it is adequately sized to accommodate future growth, and offers a diversity of housing types. The size of the Urban Areas (both UDA and SWSA) will also be affected by the ability to provide water and sewer service to accommodate future development.

URBAN AREAS

Historically, Frederick County has sought to achieve a balanced ratio between commercial, industrial and residential growth in terms of both available areas of land use and taxable value of the land uses. The target ratio for the Urban Area shall be 25 percent commercial/industrial within the Urban Areas to 75 percent residential and other land uses throughout the County as a whole. The purpose of this target is to achieve fiscal balance through land use planning. Maintaining a healthy and balanced ratio will help the County maintain its low tax rate, while continuing to enhance the services provided to residents. To encourage commercial and industrial uses to help achieve the targeted ratio, Frederick County has designated certain areas solely for commercial and industrial type uses such as the Route 11 North corridor, Kernstown area, Round Hill, and in the vicinity of the Winchester Regional Airport.

FOCUS FOR THE FUTURE

The UDA Study of 2006 for Frederick County evaluated current land use patterns, comprehensive plan language, development trends, and contemporary planning practices. Using the UDA Study, Frederick County has identified locations which promote higher urban densities and a more compact form of development. These strategic growth areas within the Urban Areas are known as Neighborhood Villages and Urban Centers. Neighborhood Villages and Urban Centers will be the building blocks of the urban fabric of Frederick County's urban areas.

Neighborhood Villages

Neighborhood Villages are envisioned to be compact centers that focus and complement the surrounding neighborhoods, are walkable, designed at a human scale, and supported by existing planned road networks.

Urban Centers

The Urban Center is larger than the Neighborhood Village and is envisioned to be a more intensive, walkable urban area with a larger commercial core, higher densities, and designed around some form of public space or focal point. Urban Centers should be located in close proximity to major transportation routes and intersections.

Future development within the Urban Areas will be based upon the following:

- Mix and integration of a variety of uses and housing opportunities
- Increased density, walkability and connectivity
- High quality architecture, community focal points, enhanced urban design and planning

URBAN AREAS

- Environmental quality
- Transportation policies for all users

The application of these development principles throughout the Urban Areas, and most importantly within strategic growth areas, seeks to ensure that the UDA of the County will be made up of walkable, mixed-use neighborhoods. These areas should feature a variety of housing choices, high quality retail, community facilities as focal points, employment opportunities, and provide for land uses that are connected by an attractive, efficient, transportation system designed for all users. The mixing of uses provides a greater choice in mobility. Further, focusing development around walkable centers affords people the opportunity to work, live, shop, and play in locations that are near each other.

In order for new areas of urban uses to be established within the Urban Areas, adequate roads and public facilities with sufficient capacities to accommodate the new uses should be provided. For any proposed rezoning to be approved, applicants will be expected to contribute a reasonable portion of the costs, relative to the scale of the development, of new or expanded public facilities and infrastructure needed to serve the proposed development. It is important that anticipated impacts of proposed developments are mitigated to ensure that they are not placing an undue burden on the Community and to further implement the goals of the Comprehensive Policy Plan.

COMMUNITY BENEFITS

The benefits of focusing new growth within the urban areas are numerous. When residential growth occurs outside of the designated growth boundaries and into the rural areas, the County has to extend public services such as schools and emergency services. These expanded service areas increase the costs of operation while decreasing effectiveness. Focused growth limits development pressures within the rural areas, thereby helping to preserve the environment and promote agribusiness and tourism.

Incorporating Neighborhood Design principles such as those identified in this chapter will help to improve the sense of community and promote close knit, walkable communities where residents have greater opportunities to live, work, and play in the same area. The transportation systems encouraged by this plan de-emphasizes the automobile, allowing residents to walk or bike to destinations.

Dedicated areas for commercial and industrial development helps to ensure a strong tax base to provide public services and community facilities and also provide for retail opportunities for the benefit of local residents.

In general, these principles are more efficient, more viable and ultimately more economical for the Community.

URBAN AREAS

GOALS/STRATEGIES

GOAL: AS FREDERICK COUNTY CONTINUES TO GROW, IT IS ESSENTIAL THAT THE VISION OF THE COMPREHENSIVE PLAN FOR THE URBAN AREAS BE IMPLEMENTED IN ORDER TO ACCOMMODATE GROWTH IN A VIABLE MANNER. GROWTH SHOULD PRIMARILY BE FOCUSED WITHIN THE URBAN AREAS.

STRATEGIES:

- Focus new residential growth within the Urban Development Area (UDA).
- Monitor size of UDA and the Sewer and Water Service Area (SWSA) to ensure appropriate land area is made available to accommodate residential growth as well as commercial and industrial opportunities.
- Ensure adequate water and sewer service capacity is available to accommodate new residential and commercial/industrial growth.
- Provide for various densities within the Urban Areas to encourage concentrated growth while also accommodating consumer choice for a variety of housing options.

GOAL: PROMOTE THE NEIGHBORHOOD DESIGN PRINCIPLES AS IDENTIFIED IN THIS CHAPTER WITHIN THE URBAN AREAS.

STRATEGIES:

- Ensure land use applications incorporate the principles of Neighborhood Design identified in this chapter where appropriate.
- Further develop the Neighborhood Village and Urban Center concepts which promote strategic growth areas within the Urban Areas. Community Area Plans could be utilized to identify potential locations for these concepts.
- Promote the location of community facilities as focal points within identified strategic growth areas.

GOAL: PROVIDE FOR TRANSPORTATION OPPORTUNITIES FOR ALL USERS WITHIN THE URBAN AREAS.

STRATEGIES:

- Ensure the Bicycle Plan included as part of the Comprehensive Plan provides for trail facilities in the desired locations.

URBAN AREAS

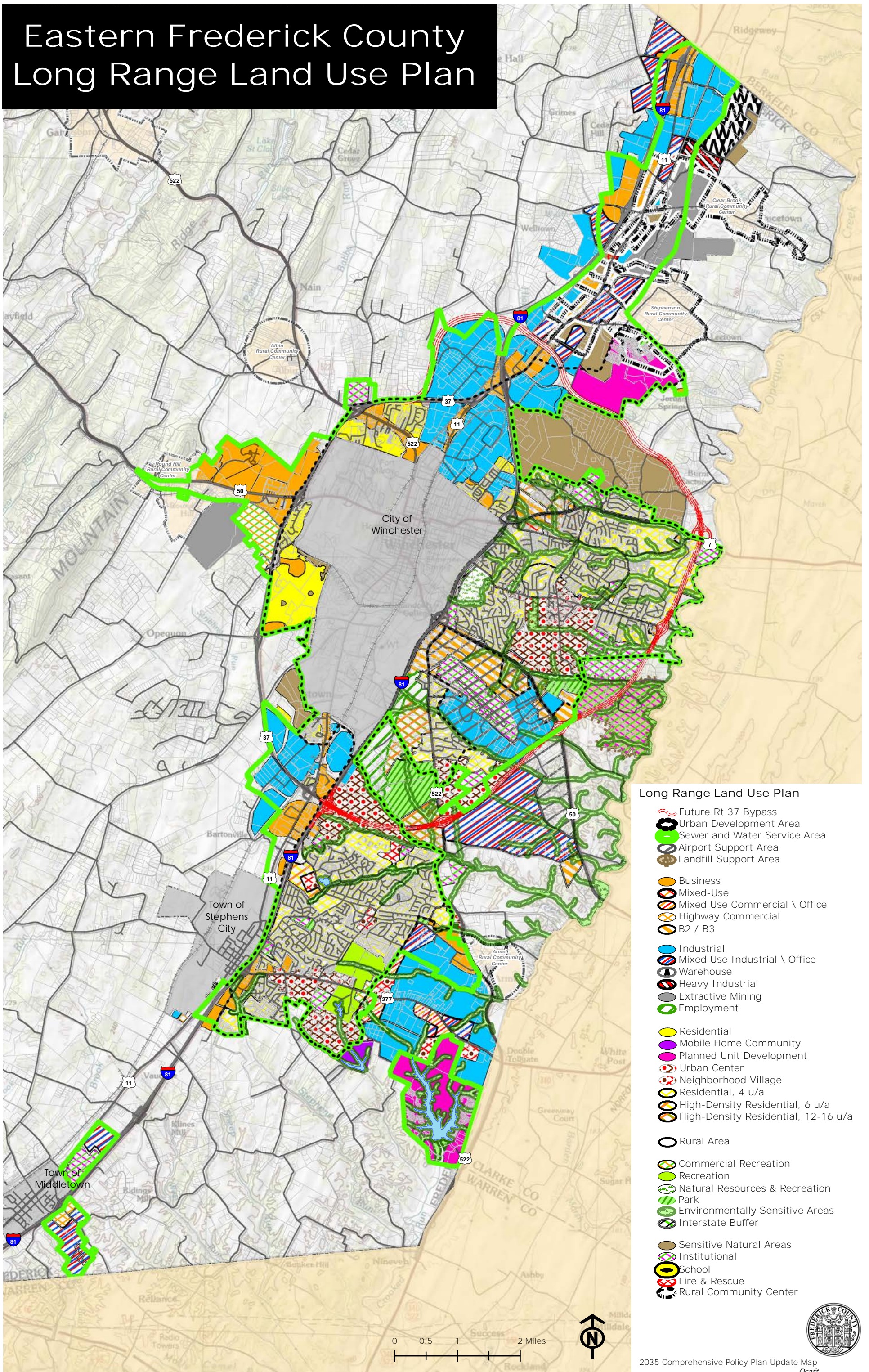
- Encourage new developments to provide interconnected trail networks and on street shared travel ways.
- Connect “missing links” across existing developments to the extent possible.

GOALS: **OBTAIN 25/75 RATIO OF COMMERCIAL & INDUSTRIAL USES TO RESIDENTIAL AND OTHER LAND USES WITHIN THE URBAN AREAS OF THE COUNTY.**

STRATEGIES:

- Ensure adequate services, including water and sewer infrastructure, are available to obtain target business users in a competitive market.
- Monitor location of SWSA and consider expansions when necessary to accommodate demand or a highly desirable business user, and to implement the Long Range Land Use Plan.
- Continue to evaluate the availability of land that will specifically accommodate desired amount of commercial and industrial land uses and incorporate sufficient acreage into Area Plans.
- Seek to attract uses that will generate the desired tax revenue and employment opportunities for the County.

Eastern Frederick County Long Range Land Use Plan

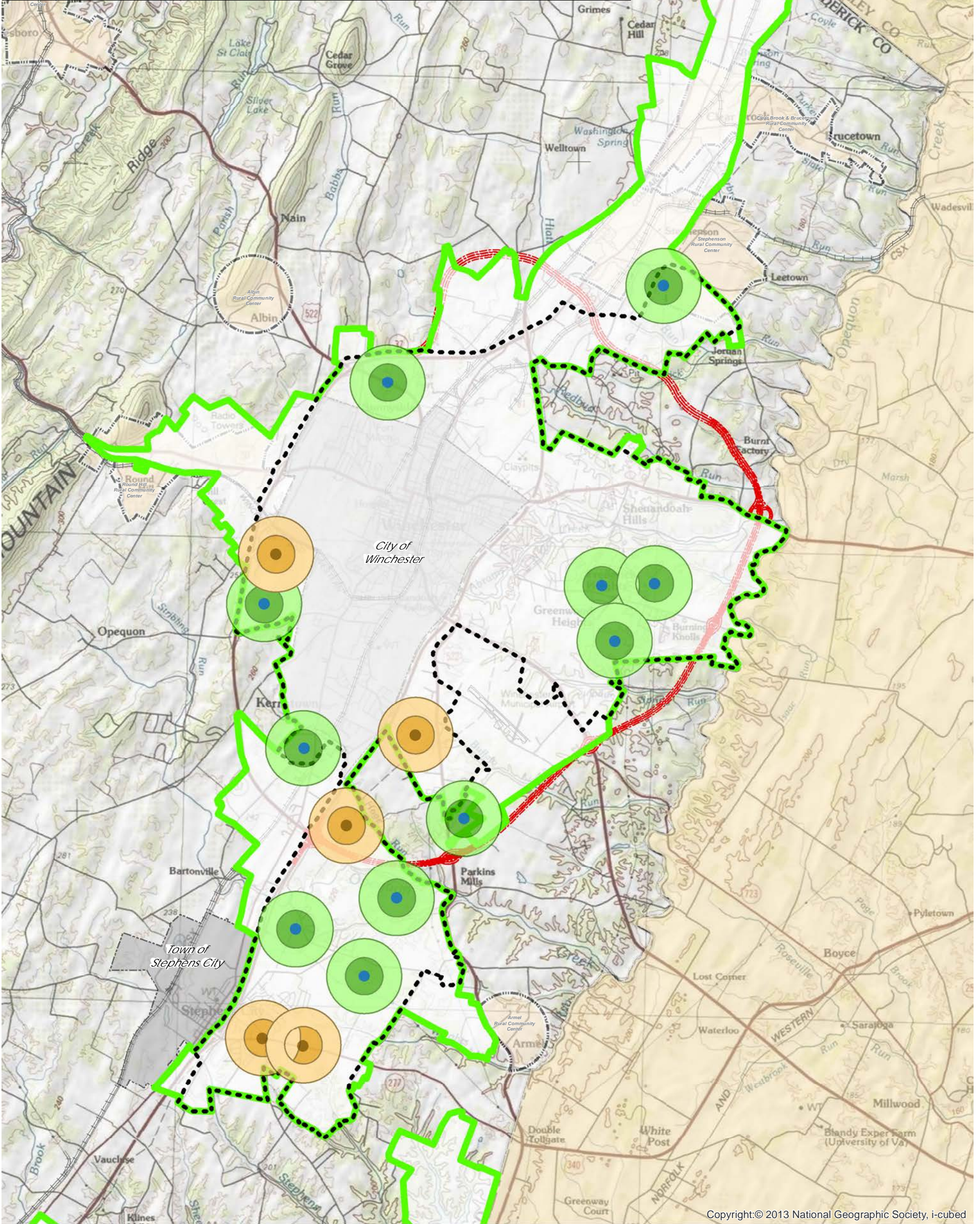


Long Range Land Use Plan




- Future Rt 37 Bypass
- Urban Development Area
- Sewer and Water Service Area
- Airport Support Area
- Landfill Support Area
- Business
- Mixed-Use
- Mixed Use Commercial \ Office
- Highway Commercial
- B2 / B3
- Industrial
- Mixed Use Industrial \ Office
- Warehouse
- Heavy Industrial
- Extractive Mining
- Employment
- Residential
- Mobile Home Community
- Planned Unit Development
- Urban Center
- Neighborhood Village
- Residential, 4 u/a
- High-Density Residential, 6 u/a
- High-Density Residential, 12-16 u/a
- Rural Area
- Commercial Recreation
- Recreation
- Natural Resources & Recreation
- Park
- Environmentally Sensitive Areas
- Interstate Buffer
- Sensitive Natural Areas
- Institutional
- School
- Fire & Rescue
- Rural Community Center



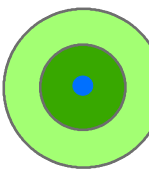
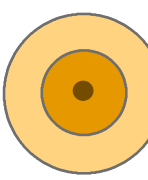
Potential Neighborhood Village & Urban Center Locations



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 Urban Development Area
  Sewer and Water Service Area
  Future Rt 37 Bypass

2035 Comprehensive Policy Plan Update Map
Draft

 Potential Neighborhood Villages (with Ped Sheds (.25 & .5 miles))
  Potential Urban Centers (with Ped Sheds (.25 & .5 miles))



0 0.5 1 2 Miles

II. RURAL AREAS



RURAL AREAS

CURRENT CONDITIONS

Most of Frederick County's land area is rural in character. Of the County's 266,000 acres, approximately 243,000 acres are rural and located primarily west of Interstate 81. The remaining acreage comprises the Urban Development Area (UDA) where the majority of the County's future growth is planned.

The Rural Areas best exhibit the nature, beauty, view sheds, and tranquility for which Frederick County is known. The primary land uses in the Rural Areas are agricultural and forestal operations. The Rural Areas of the County have traditionally seen about 30% of the County's new residential growth.

With the exception of the County's Rural Community Centers, further defined later in the chapter, the predominant new residential development pattern has been five (5) acre lots or two (2) acre clustered lots with dedicated preservation tracts, both of which are served by individual onsite sewage disposal systems and wells. It should also be noted that the band of prime agricultural soil which runs north-south west of Interstate 81 is the same area where a majority of new rural residential growth has been experienced.

To deal with increasing development pressures in the Rural Areas over the last decade, the Board of Supervisors established the Rural Areas Subcommittee in 2008. This Committee was tasked with identifying growth and development trends and related issues in the Rural Areas of the County, gathering ideas to address those issues and forwarding a recommendation for resolution. The Committee's final report, *The Rural Areas Report and Recommendations* was adopted by the Board of Supervisors on April 22, 2009 as a policy component of the Comprehensive Plan. One of the recommendations contained within the report was the creation of a Transfer of Development Rights (TDR) Program. In 2010, Frederick County adopted a Transfer of Development Rights (TDR) program which allows for dwelling unit rights to be transferred from parcels located in the rural areas to designated properties within the Urban Development Areas. This policy tool provides landowners within the rural areas the ability to obtain development value of their farm land without having to subdivide and sell the land. The density rights from the land can be severed and utilized within the Urban Development Area where community facilities and public services can be provided more efficiently.

The TDR Program joined other existing land use tools available to rural landowners to preserve land in the Rural Areas, including:

- Land use taxation (local)

RURAL AREAS

- Conservation easements (non-profit)
- Purchasable development rights (public)

Historically, the County has taken great care to allow residential land to co-exist with agriculture uses. Tools implemented by the County in recent years include buffering, clustering, and the promotion of Agricultural and Forestal Districts. All of these provide protections to both homeowners and farmers and enable equal use and enjoyment of the Rural Areas.

Within the Rural Areas of the County there are several established village-type developments called Rural Community Centers. There are currently twelve identified Rural Community Centers. These are:

GORE

REYNOLDS STORE

GAINESBORO

ROUND HILL

ARMEL

SHAWNEELAND/NORTH MOUNTAIN

STAR TANNERY

WHITACRE/CROSS JUNCTION

ALBIN

CLEARBROOK/BRUCETOWN

STEPHENSON

WHITEHALL

These centers consist of small lot residences and commercial uses typical of a village. There are currently no public utility services in these Communities. The Rural Areas Subcommittee recommended studying private utility systems to serve these Communities. In addition, four of the existing centers have been identified as potential receiving area for TDRs. Of the Rural Communities, Round Hill, has had a plan developed which incorporates the community village area and commercial uses adjacent to U.S. 50 west of its interchange with the Route 37 By-Pass (see Appendix II – Area Plans).

FOCUS FOR THE FUTURE

Frederick County has a recognizable Rural Area where agricultural operations are promoted, natural resources are respected and its beauty and heritage are preserved. While the County's agriculture industry is likely to evolve into operations of a very different scale and intensity than currently seen, the County should continue to support and encourage these operations. The Agribusiness Business Development section further promotes the evolution of agriculture in the County's Rural Areas.

The Rural Community Centers of Frederick County will continue to play a role as focal points for the Rural Areas, and small area land use plans for the centers should be created. Additionally, other types of rural residential development should take on patterns similar to these centers. The natural

RURAL AREAS

landscape should be used as the background of development with a greater emphasis placed on conservation design for growth within the rural areas. The inclusion of new recreational opportunities and the growth of existing ones within the rural areas are also encouraged.

COMMUNITY BENEFITS

The Rural Areas of the County provide benefits to the community in a number of ways. These areas not only contribute to the identity of Frederick County, they provide jobs, recreation and a way of life. Preserving and protecting the rural areas of Frederick County is important not only to ensure the economic viability of agricultural and forestal operations but to also guarantee that those lands are present for the use and enjoyment of future generations.

GOALS/STRATEGIES

GOAL: CLUSTER RESIDENTIAL DEVELOPMENT TO FURTHER HELP PRESERVE AGRULTURAL LAND.

STRATEGIES:

- Preserve the desired physical characteristics of the Rural Areas. Avoid prime soils, minimize land disturbance and grading, and minimize drainage changes.
- Maintain transition areas between radically different uses, most importantly, between the Rural and Urban Areas.
- Avoid, as applicable, Sensitive Natural Areas, Historic Districts, sending TDR areas, Recreational Overlays, and Agricultural and Forestal Districts.

GOAL: SUPPORT THE GROWTH OF THE COUNTY'S RURAL COMMUNITIES.

STRATEGIES:

- Further define the boundaries for each Rural Community Center and small area land use plans for each center. These centers should remain the focal point of the rural community and their character and scale should be preserved.
- Plan for improved services within the neighborhood centers (wastewater treatment, package treatment, fire and rescue, and satellite County offices, library).

RURAL AREAS

- Encourage appropriate mixes of residential, commercial and business uses within the Rural Community Centers.

GOAL: SUPPORT VOLUNTARY LAND PRESERVATION TOOLS AND THE LAND USE TAX DEFERRAL PROGRAM

STRATEGIES:

- Support Conservation Easement Authority (CEA), Transfer of Development Rights (TDR), Agricultural and Forestal Districts, and Purchase of Development Rights (PDR) programs, among others.
- Participate in state grant programs to the greatest extent possible.
- Follow changes to state code that would enable new land preservation tools.

GOAL: SUPPORT AGRICULTURAL OPERATIONS AND RURAL RECREATION

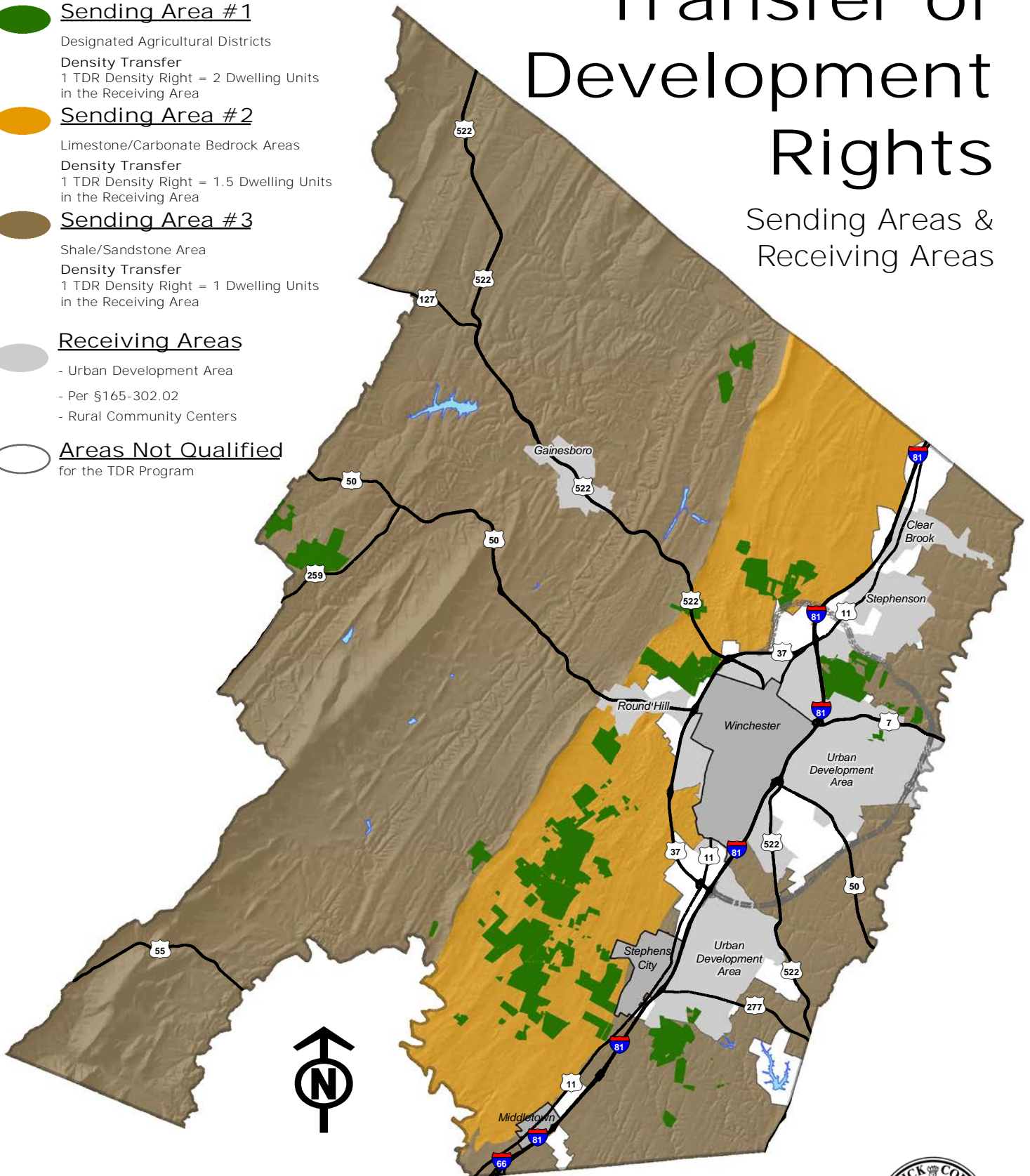
STRATEGIES:

- Support the agricultural economy in Frederick County and adapt to evolving practices and new agricultural opportunities#
- Identify and support local, regional, and national rural recreation opportunities within the County's Rural Areas.

Transfer of Development Rights

Sending Areas & Receiving Areas

- 
Sending Area #1
 Designated Agricultural Districts
 Density Transfer
 1 TDR Density Right = 2 Dwelling Units in the Receiving Area
- 
Sending Area #2
 Limestone/Carbonate Bedrock Areas
 Density Transfer
 1 TDR Density Right = 1.5 Dwelling Units in the Receiving Area
- 
Sending Area #3
 Shale/Sandstone Area
 Density Transfer
 1 TDR Density Right = 1 Dwelling Units in the Receiving Area
- Receiving Areas**
 - Urban Development Area
 - Per §165-302.02
 - Rural Community Centers
- 
Areas Not Qualified
 for the TDR Program



III. RESIDENTIAL DEVELOPMENT



RESIDENTIAL DEVELOPMENT

CURRENT CONDITIONS

Over the past two decades, the amount of residential development in Frederick County increased at a relatively consistent rate of approximately three (3) percent a year. Supporting this growth was a period of significant expansion in the County's commercial and industrial base. According to the 2010 Census and more recent studies performed by the Economic Development Authority (EDA), Frederick County remains primarily an in-commute location. However, this Plan acknowledges Frederick County is also home to a large population of residents that commute out of the County for employment. The main contributor to the population growth was the migration of people inside the Washington Metropolitan Statistical Area (WMSA) to Frederick County for a higher quality of life including lower housing costs and a lower tax rate. Frederick County, because of its location and excellent access to Northern Virginia and Washington, DC, has become a place of choice to live for those commuters. Frederick County has also become an attractive place to live for retirees.

Residential opportunities exist in both the County's Urban and Rural Areas. In recent years Frederick County has seen approximately two thirds of its new residential growth constructed in the Urban Development Area (UDA) and one third in the Rural Areas, including the Residential Recreational Communities (such as Lake Holiday, Lake Frederick, and Shawneeland).

The Rural Areas are home to the agricultural, forestal and open spaces of the County. Within the rural areas, the predominant types of residential unit are single family dwellings with a density of one house per five acres. In addition to the traditional five acres lots seen in the past, dwellings at the same density can be clustered using a two acre lot size with the remainder being preserved through a 60% preservation tract. Older rural communities exist throughout the rural areas and are typically found within one of the County's Rural Community Centers. These community centers typically have smaller lot sizes, higher densities and some commercial uses. Residential developments located in the Rural Areas, including Rural Community Centers are typically on private individual water and sewer systems.

The Urban Development Area (UDA) is the portion of the County which has been identified as the area where more intensive forms of residential development will occur and to accommodate the anticipated residential growth within the Community. While the UDA currently consists of primarily suburban residential types of development, with some multifamily and retirement units, it is planned to accommodate a more intensive mix of land uses and residential housing opportunities. The UDA is designed to accommodate increased residential densities because it is adjacent to or in

RESIDENTIAL DEVELOPMENT

the near proximity to the necessary infrastructure and public facilities, such as public water and sewer, schools, emergency services and a transportation network. To further encourage residential development in the Urban rather than Rural Areas, the County adopted a Transfer of Development Rights Program (TDR) in the spring of 2010. More information on the County's TDR Program can be found in the Rural Areas chapter.

FOCUS FOR THE FUTURE

Future residential growth in Frederick County is anticipated to continue and expand. The County must ensure that land use policies are established to adequately direct and shape that growth. While new residential growth is expected in both the Rural and the Urban Areas, new residential growth should be focused primarily within the Urban Development Area (UDA).

The County should continue to establish policies which result in attractive and welcoming residential neighborhoods which are able to accommodate a growing population and expanding workforce. Such residential development should be comprised of a mixture of housing types and lot sizes to provide options for a range of lifestyles and incomes, such as retiree's, millennials and younger families. The land use policies of the Urban Areas will further guide this residential development and community growth.

COMMUNITY BENEFITS

Proactive planning efforts are essential in both the Urban and Rural Areas to ensure that the County is able to deal with its future residential growth in a cost-effective and attractive manner.

Proper planning and land use policies enable the County to identify where future residential growth should be accommodated. It enables the County to plan for and provide infrastructure and services in defined areas where they can reach the majority of the population. By directing growth and services to the urban areas, the County can develop community facilities that become focal points to the residential areas.

GOALS/STRATEGIES

GOAL: NEW RESIDENTIAL DEVELOPMENT SHOULD BE FOCUSED WITHIN THE URBAN DEVELOPMENT AREA (UDA).

RESIDENTIAL DEVELOPMENT

STRATEGIES:

- The Urban Development Area should allow for housing that will meet the needs of first time buyers, retiree's, move-up residences, and seniors.
- Higher density residential development is encouraged in close proximity to or mixed with commercial areas to enhance walkable access to employment, shopping, and entertainment. The County's strategic growth areas, the Urban Centers and Neighborhood Villages, are the most desirable locations for this type of development.
- Residential housing types and design guidelines should be flexible to accommodate evolving demographic trends, and to ensure that housing choices are maximized.

GOAL: NATURAL SYSTEMS AND OPEN SPACES SHOULD BE INCORPORATED INTO NEW RESIDENTIAL DEVELOPMENT

STRATEGIES:

- When new development occurs in the rural areas, the rural preservation option should be encouraged as the preferred subdivision form and design to preserve natural and environmental features should be implemented.
- New residential neighborhoods will include open space amenities, active, passive, and natural, located in close proximity to all dwellings, with an emphasis on the provision of usable open space for resident use and enjoyment.

GOAL: ENCOURAGE NEW AND INNOVATIVE HOUSING CHOICES, THAT ALSO ACCOMMODATE A FULL RANGE OF AFFORDABILITY.

STRATEGIES:

- Ensure that adequate housing options are available to the development community through the Zoning Ordinance.
- Rural Community Centers should be enhanced as viable and desirable places to live, as they can serve an important role as a location with lower development costs, thus reducing the housing costs.
- Promote the completion of land use plans for the Rural Community Centers and provide incentives to increase the viability of these neighborhoods.

IV. BUSINESS DEVELOPMENT

- **OFFICE AND INDUSTRIAL**
- **RETAIL**
- **TOURISM**
- **AGRIBUSINESS**



BUSINESS DEVELOPMENT

INTRODUCTION

The Comprehensive Plan Business Development chapter focuses on four areas that are all integral to the economy of Frederick County. These areas are:

- **OFFICE AND INDUSTRIAL**
- **RETAIL**
- **TOURISM**
- **AGRIBUSINESS**

Frederick County's attractiveness as a residential community will continue to expand our population and our opportunities for business growth. Each new residence within the Winchester-Frederick County area generates approximately 50% of the taxes needed to offset the service burden created by the residence; the goal of planning for new business development is to attract businesses that will balance the tax base and jobs.

The opportunity for local residents to have an expanded employment base affords not only an enhanced quality of life and increased income, but also results in increased local spending and therefore increased sales tax collections.

CURRENT CONDITIONS

Highway accessibility, proximity to major markets, an impressive skilled **talent pool, and commitment to business are a few of Frederick County's** strategic economic cornerstones. These, in combination with outstanding public education institutions and top ranking healthcare facilities, provide **additional confidence to businesses about Frederick County's economic** environment.

Multiple four-lane highways (which can reach over 40% of the U.S. population in one day), quick access to three international airports (Washington-Dulles International Airport, Baltimore-Washington International Airport, and Ronald Reagan Washington National Airport), and daily intermodal connection via the Virginia Inland Port are just a few of the reasons businesses like operating in Frederick County, Virginia.

BUSINESS DEVELOPMENT

Geographically, Frederick County is strategically placed in the Mid-Atlantic region of the United States and along major North/South and East/West transportation routes. This is a valuable asset to companies serving the North American and European markets.

In addition to the outstanding geographic reach, Frederick County employers enjoy a workforce pool of more than 200,000, with approximately 30,000 ready and available for business service and manufacturing operations. Funding programs exist to help with specific training.

Frederick County prides itself as a vibrant, pro-business community with an immense commitment to business. In fact, Frederick County, Virginia, has employed an award winning, proactive model for ongoing support of our businesses for more than 30 years. Onsite visits, quarterly business forums, and assistance in locating and obtaining available workforce training funds are just a few examples of our commitment. Frederick County, Virginia's, **consistent economic** success provides businesses with assurance that their investment will grow.

Frederick County currently has a consistent and competitive real estate tax rate in comparison to neighboring communities. Supported **by a proactive Economic Development Authority (EDA), the area's** workforce has a high work ethic and a low turnover rate. The County has a population of 82,262 and over 42,000 residents in the workforce. Of that number 89% of county residents are high school graduates and 30% hold bachelors or more advanced degrees.

The largest employment sector in Frederick County, Virginia, is Manufacturing, (5,093 workers). The next-largest sectors in the region are Retail Trade (3,725 workers) and Educational Services (3,057). Sectors in Frederick County, Virginia with the highest average wage per worker are Management of Companies and Enterprises (\$74,902), Mining, Quarrying, and Oil and Gas Extraction (\$71,244), and Public Administration (\$63,215).

Regional sectors with the best job growth (or most moderate job losses) over the last 5 years are Manufacturing (+983 jobs), Finance and Insurance (+970), and Retail Trade (+862). Over the next 10 years, employment in Frederick County, Virginia is projected to expand by 6,145 jobs. The fastest growing sector in the region is expected to be HealthCare and Social Assistance with a +3.6% year-over-year rate of growth. The strongest forecast by number of jobs

BUSINESS DEVELOPMENT

over this period is expected for HealthCare and Social Assistance (+912 jobs), Retail Trade (+819), and Construction (+729).

Education opportunities abound in Frederick County which has a well-respected primary education system. In addition, higher education opportunities exist with a growing student base at the following establishments.

- Shenandoah University
- Lord Fairfax Community College (LFCC)
- Old Dominion University Satellite Office at LFCC

The Community has an excellent healthcare system which is centered around the Valley Health Systems. The rate of expansion in the County has increased significantly in the last 10 years. Facilities in the Winchester-Frederick County area now include:

- Winchester Medical Center
- Regional Referral Center
- Level II Trauma Center
- Heart and Vascular Center
- Cancer Center
- Diagnostic and Imaging Center
- Quick Care / Urgent Care Centers
- Health and Wellness Center

Frederick County provides a quality of living which is considered to be a factor in recruiting companies and maintaining a desirable workforce. The City of Winchester, with its successful downtown walking mall, is a resource for additional workforce and provides numerous retail and entertainment opportunities.

FOCUS FOR THE FUTURE

The Plan recognizes the changing nature of the social and economic environment and identifies potential adjustments to existing resource use.

In order to maintain a desirable and competitive real estate tax rate, the County strives to achieve ratio of 25/75 between commercial/industrial (C&I) land uses and residential uses in terms of their collective taxable value. The County seeks to achieve fiscal balance through land use planning.

To encourage C & I uses to Frederick County has designated certain areas solely for these type of uses such as the Route 11 North corridor, Kernstown area, Round Hill, the Route 277 Triangle area, and in the vicinity of the

BUSINESS DEVELOPMENT

Winchester Regional Airport. Future planning efforts will continue to identify opportunities to align land uses to promote business development.

COMMUNITY BENEFITS

Adequate amounts of land must be planned for and designated for both C & I uses and residential developments. Striking a balance of these land uses and ensuring that the tax rates remain low and that services are available to support these initiatives will help make Frederick County an economic engine within the region.

GOALS/STRATEGIES

GOAL: DEVELOP A STRATEGY THAT PROMOTES THE EXPANSION OF DESIRABLE BUSINESS AND INDUSTRIAL LAND USES.

STRATEGIES:

- Frederick County Economic Development Authority (EDA) targeted industries: (as of February 2016):
 - Light Industrial
 - Pharmaceutical & Medicine Manufacturing, Scientific Research & Development, and Lab Services
 - Business Services
 - Retail
- Additional Recommended Target Areas:
 - Federal & State Facilities
 - Healthcare & Health Services

OFFICE AND INDUSTRIAL

CURRENT CONDITIONS

Geographically, Frederick County is strategically placed in the Mid-Atlantic region of the United States and along major North/South and East/West transportation routes. This is a valuable asset to companies serving the North American and European markets.

The County's location places its businesses halfway between the markets of the north and south, within a one-day haul of 50% of the U.S. population. Over 60% of the goods manufactured in the United States are distributed from the 750-mile (1,207 kilometers) area.

In addition to being half way between Boston and Atlanta, Winchester-Frederick County is well positioned equidistant between Los Angeles and London. For national and international companies, being in the Eastern Time Zone maximizes their hours of operations, which helps to improve efficiencies.

Excellent road, rail, inland ocean port and the Dulles World Cargo Center provide access to the major markets in North America, Latin America, and globally.

Interstate 81 runs directly through the County. Several major airports are within 100 miles of Frederick County, including Washington-Dulles International Airport (IAD), Baltimore-Washington International Airport (BWI), and Ronald Reagan Washington National Airport (DCA). Frederick County is home to a growing regional general aviation airport. These assets **support access to Frederick County's** business development opportunities.

With the formation of the Washington-Baltimore Metropolitan Statistical Area after the 1990 US Census, the sixth largest USA market begins at the County Line. This close proximity to Washington D.C. also provides access to the unique opportunities associated with the Federal Government and the **County's location is supportive of those policies established for purposes of** Homeland Security.

In addition to the ideal geographic location of Frederick County, other significant strengths of the Frederick County market, particular to attracting new office and industrial development, include favorable tax rates, quality of life, numerous education options, nationally recognized healthcare provider, workforce, and a diverse current office and industrial community. Frederick County is currently the site of several government facilities, including, the Federal Emergency Management Agency (FEMA), the Army Corps of Engineers, and a recently selected site for a Federal Bureau of

BUSINESS DEVELOPMENT

Investigation (FBI) Records Storage facility.

Frederick County has a consistent and competitive real estate tax rate in comparison to neighboring communities. Supported by a proactive Economic Development Authority (EDA), the area workforce has a high work ethic and a low turnover rate.

Current office and industrial operations within the Community provide for diversity in current business markets. The economic strength of the area is further enhanced by the fact that the area is not linked to one major industry or employer. There is a redundancy in resources offered at certain business parks.

FOCUS FOR THE FUTURE

Frederick County should focus on targeted office and industrial business development opportunities over the next twenty years (as outlined in the Introduction).

No business development marketing strategy will be effective if sufficient acreage has not been designated to accommodate desired business uses in suitable key locations. Area Plans should continue to identify and incorporate ample areas of business and industrial land use.

Frederick County supports green initiatives in the field of economic development. Viable development initiatives should be recognized and their implementation encouraged. Such an example is rail access and transportation which will become more valuable and expected in industrial settings due to desire to operate effectively and efficiently. Frederick County should be proactive in ensuring the resources necessary for business development are planned for in a viable way and available to support identified office and industrial users.

With regards to water, waste water treatment, and electricity, manufacturers will require adequate supply and availability, but will also be interested in quality and service reliability. There is a finite capacity of these resources that must be managed accordingly.

COMMUNITY BENEFITS

The value of office and industrial business development to Frederick County is **immeasurable**. As part of the County's economic development effort, office and industrial growth is a key component for ensuring a broad selection of employment opportunities for the citizens of Frederick County.

BUSINESS DEVELOPMENT

The continuation of a low residential tax rate is a direct result of the expansion of the commercial and industrial tax. Currently commercial and industrial tax revenue accounts for approximately 13% of the County's tax base. The County's goal indicates this should be around 25% to ensure a balanced fiscal environment.

Tax revenue derived from the average single family residence is approximately fifty percent of the cost of service provided for that same residence. The County's fiscal survival is dependent upon recruiting office and industrial occupants which offset those residential costs.

Overall, a sound office and industrial business development strategy will result in the conservation of a variety of finite resources and promote a high quality of life for the citizens of Frederick County.

GOALS/STRATEGIES

GOAL: IDENTIFY AND RECOGNIZE AREAS IN THE COUNTY MOST STRATEGICALLY SUITED FOR OFFICE AND INDUSTRIAL DEVELOPMENT

STRATEGIES:

- Complete review of area land use plans to ensure sufficient acreage is designated for office and industrial uses.
- All infrastructure, such as voice and data fiber, electric, water, wastewater and natural gas, should be extended to areas identified for office and industrial uses and non-rural residential areas.
- The rezoning process should be examined and streamlined as appropriate in order to encourage landowners of properties identified in Area Plans (see Appendix I) to proceed with rezoning.

GOAL: PROACTIVELY ATTRACT DESIRED BUSINESS ENTITIES

STRATEGIES:

- Review and revise the office and manufacturing zoning districts to further encourage development of targeted industries.
- Continue to examine and fund business location marketing studies that build or modify the current business base, to help the County forward

BUSINESS DEVELOPMENT

its goal of increased income for its citizens and tax value for the County.

GOAL: **CONSIDER REGULATIONS ENCOURAGING AND/OR REQUIRING SERVICE REDUNDANCY IN OFFICE & INDUSTRIAL AREAS**

STRATEGIES:

- Create incentives for industrial site developers to implement service redundancy.

DRAFT

RETAIL

CURRENT CONDITIONS

The retail sales potential of any geographic market is based upon a mixture of many factors, a few of which are:

- The number of households within the market.
- The average disposable income of those households.
- The sophistication and depth of surrounding competing markets.
- The presence of a marketing effort for the area (as opposed to the marketing of an individual venue).

From a land use perspective as well as general business development retail needs to be viewed in at least 3 parts:

- National Retail
- Small Retail
- Meals Away from Home

FOCUS FOR THE FUTURE

Over the next twenty years, population growth in Frederick County and its environs will continue to fuel retail development and the opening of varied retailers throughout the area. Frederick County has already taken necessary steps to prepare. The establishment of the Frederick County Economic Development Authority (EDA) is an example. A locality has little impact on the decision of the "national" retailer to locate in an area unless items #1 and #2 (above under "Current Conditions") meet their individual business model. With a "small" retailer the driving factor is affordable available space.

Frederick County must strategically identify prime areas for commercial land use in key locations to capitalize on future commercial opportunities. In addition, Frederick County must continue to effectively market itself to the network of developers, national and regional retail trade organizations, retailers, and tenant-representation real estate agents and brokers that influence site selection decisions.

While the County's ability to attract national and regional developers and retailers to the area cannot be understated, the County must not underestimate the importance of supporting locally-owned and operated developments and retail establishments. The growth of such locally-owned **businesses within the market's retail mix will have a direct positive** impact to **the vitality of the market's retail profile and the quality** of life of local residents.

COMMUNITY BENEFITS

Successful growth of retail equates to an increase in sales tax revenue to support county services and capital improvements. A strong retail environment also plays a key role in the quality of life for the residents of any geographic area and thus plays an integral role in an individual family, a corporation, or other entity deciding to relocate to that area. Retail growth also equates to more jobs, both directly (with the retailers themselves) and indirectly (a strong retail environment plays a role in drawing employers to the area).

GOALS/STRATEGIES

GOAL: PROMOTE FREDERICK COUNTY AS A DYNAMIC, RETAIL MARKET.

STRATEGIES:

- Develop a unified marketing plan for the County.
- Strategically identify prime areas for commercial land use in key locations to capitalize on future commercial opportunities.

GOALS: FUTURE DEVELOPMENTS SHOULD BE OF A HIGH QUALITY.

STRATEGIES:

- Promote enhanced architectural/design requirements for future retail development, including structure appearance, landscaping, and signage.
- Encourage mixed use developments for future residential and commercial developments.
- Identify regulations that may require modification to support the inclusion of a limited retail component within residential developments.

TOURISM

CURRENT CONDITIONS

Frederick County and the surrounding areas play host every year to nationally recognized events such as the Shenandoah Apple Blossom Festival and Belle Grove Civil War living history reenactments. The area is home to the Museum of the Shenandoah Valley, the Cedar Creek and Belle Grove National Historic Park, the North-South Skirmish, various year-round live theater and performance centers, a revitalized and vibrant Old Town Winchester and other key assets such as orchards, farm markets, historic homes, battlefields, and natural resources that bring travelers and their tourism dollars to the area.

The County also supports a growing number of wineries and the potential for new craft breweries and distilleries, as well as outstanding outdoor recreational opportunities such as the Tuscarora hiking trail, an ATV trail, seasonal navigable waterways, and access to regional spots such as the Appalachian Trail, Shenandoah River, and the Shenandoah National Park.

As the economy improves and travel increases, it is critical that the County be poised to capitalize on the growth in travel and tourism. The Winchester – Frederick County Convention and Visitors Bureau, a city/county tourism marketing partnership, is a key component in developing the marketing strategy to attract additional visitors, and subsequent spending, to the area.

The economic impact of travel and tourism reaches every citizen of Frederick County (each household pays less each year in local & state taxes due to the revenue generated by tourism) by providing employment and tax revenues. Tourism also helps to support a diverse portfolio of local events, attractions and activities and thereby contributes to the quality of life for local residents.

FOCUS FOR THE FUTURE

First impressions often set the tone for a visitor’s experience, and the great majority of travelers arrive in Frederick County through its roadways. The character of Frederick County’s entrance corridors, especially in areas adjacent to the city of Winchester, is a key factor for the visitor’s experience and their decision to stay longer and hopefully return. Enhancing the aesthetics and traffic flow of these corridors will improve visitor impressions, and will benefit the quality of life for residents.

BUSINESS DEVELOPMENT

Frederick County should concentrate on strengthening its ability to attract an increasing number of overnight visitors –through targeted, strategic and collaborative branding and marketing efforts that focus on visitor experiences. The ultimate goal will be to enhance the visitor experience.

Agritourism

Agritourism takes place on a farm or ranch and may include the opportunity to assist with the day to day activities associated with running the farm or to participate in the use of these lands for outdoor related events or activities. The term *agritourism* has also been broadened now to include wineries, breweries and distilleries, which, combined, are the hottest trend in tourism product development in the Commonwealth. Agritourism is discussed at length in the following section of this chapter.

GOALS/STRATEGIES

GOAL: **RECOGNIZE DIVERSIFIED LAND USE FOR TOURISM RELATED ACTIVITIES**

STRATEGIES:

- Ensure that business owners are supported in their efforts to bring tourism activities to the local consumer market
- Continue to support rural agribusiness such as breweries, wineries and distilleries.

GOAL: **LINK THE AREA’S VISITOR ATTRACTIONS WITH A TRAIL NETWORK THAT FACILITATES NON-VEHICULAR MOVEMENT**

STRATEGIES:

- Work with the Northern Shenandoah Valley Regional Commission (NSVRC) and surrounding jurisdictions to update and improve the regional bicycle and pedestrian plan, “Walking and Wheeling in the Northern Shenandoah Valley”.
- Support the Redbud Run Greenway project to provide a trail network that will link natural areas, battlefields, including the existing five-mile trail on the Civil War Preservation Trust property, schools, and other facilities in the Redbud Run corridor.

BUSINESS DEVELOPMENT

GOAL: **PRESERVE AND ENHANCE THE HISTORIC CHARACTER OF FREDERICK COUNTY'S ROADWAYS**

STRATEGIES:

- Foster a compact community design that uses traditional building features to maintain Frederick County's unique historic character.
- Focus development in compact centers, using Neighborhood Design guidelines, and keeping the rural, agricultural landscape as part of the visitor experience in Frederick County.

AGRIBUSINESS

CURRENT CONDITIONS

Frederick County's rural character is a key component in its identity and one of the primary items that draw visitors and new residents to the area. Historically, these rural areas have supported a wide array of agricultural uses, which at one time was the primary industry in the County. Today those agricultural activities not only generate roughly \$30 million per year but they preserve close to 100,000 acres of rural land. While the number of farms and the amount of land dedicated to agricultural uses has declined in the last 20 years the market value of the products produced has actually increased. 'Farm to Table' trends, 'Buy Fresh, Buy Local' initiatives and the willingness for families to invest in higher quality, locally sourced and environmentally friendly produced groceries will continue to help drive additional market growth.

To protect the amount of land available for agricultural use, the County makes a variety of tools and programs available to land owners. The County continues to allow land owners to participate in the Land Use Tax Deferral Program which allows taxpayers to apply for specially reduced assessments, such as qualifying agricultural, horticultural, and forestry uses. Participation in **one of County's many Agricultural and Forestal Districts is available to County** property owners. As of 2016, there were eight Districts covering approximately 11,281 acres.

Over the past few years, Frederick County has worked on implementing new tools to not only help protect the agricultural lands in the County but at the same time also help the farmer capture value of the property without actually developing or selling the land. These programs include the Purchase of Development Rights Program and the Transfer of Development Rights Program. These programs are discussed further in the Rural Areas chapter.

FOCUS FOR THE FUTURE

Frederick County agriculture will evolve in a way that is likely to be more intensive and by necessity more diverse. While this will require less acreage than traditional farming activities, activities it is expected that income from agricultural operations will increase. As such the County should focus on implementing policies that seek to prioritize the protection of these rural areas as well as streamline the process for approving the diversified land uses as described within this section. Reduction in permit

BUSINESS DEVELOPMENT

fees and taxes generated from these new opportunities should be considered as well.

COMMUNITY BENEFITS

Once land is converted from agricultural use it is unlikely that it will ever be reclaimed. The rural economy of Frederick County plays a significant role in the life and livelihood of its inhabitants. In addition to providing food products for the region, agriculture is a revenue generator which requires very few local services. Agriculture contributes to Frederick County's extraordinary viewsheds while providing a living to its farmers, citizens, and a place of enjoyment for its visitors. Most importantly, an active, profitable agriculture operation reduces the amount of land converted to more dense uses. Diversification of land use for the agricultural not only generate notable income and drive more tourism dollars to the County, it can also offer future protection the land from conversion to residential uses.

GOALS/STRATEGIES

GOAL: THE COUNTY SHOULD CONTINUE TO SUPPORT ITS AGRICULTURAL INDUSTRIES WHILE ALSO RESPONDING TO CHANGES IN THE INDUSTRY.

STRATEGIES:

- Diversified uses on the farm site such as farm markets, alternative fuels, animal boarding, Pick-Your-Own operations, agritourism vineyards, wineries, distilleries and micro-breweries and specialty crops, etc., should be encouraged to help preserve farming and agricultural uses in Frederick County.
- The ordinances of Frederick County should be reviewed to reference and enable the full range of agriculturally related activities. Care must be taken to ensure that such activities are compatible in scale, size and intensity with surrounding land uses and the rural character.
- Value added processes and support businesses should be examined for location within the Rural Area. These processes currently are permitted in the business districts.
- Continue to allow and encourage the use of the Land Use Tax Deferral Program, Agricultural and Forestal Programs, Purchase of Development Rights Program and the Transfer of Development Rights Program.

V. TRANSPORTATION



TRANSPORTATION

CURRENT CONDITIONS

Frederick County has grown significantly in the past two decades in both population and economic development, placing a significant demand upon the transportation system. Current County policy follows State Code guidance to ensure that new development offsets its impacts to the transportation system. A significant portion of congested roadways in the County can be linked to by-right development that does not offset its transportation impacts since it is not required by the Code of Virginia. This has had the greatest impact upon Interstate 81 and the primary highways in the County. Primary Highways include Routes 37, 522, 50, 7, 277 and 11.

Based upon the most recent Virginia Department of Transportation (VDOT) data available (**2016**) Frederick County has **1,853** lane miles of roadway that are part of the state system. As of 2014, VDOT estimates that vehicles traveled **3,040,103** miles per day on Frederick County roadways. This is **an over 200%** increase since 1990. The vast majority of this travel is focused upon the Interstate and Primary systems.

Planning Activities

Transportation planning for Frederick County takes place in many ways. In addition to local comprehensive planning, Frederick County is a member of the WinFred Metropolitan Planning Organization. As part that organization the County participates in regional long range planning and has access to resources for numerous other planning studies. In addition, the County annually updates the Frederick County Interstate, Primary, and Secondary Road Plans which highlight key priorities. Finally, the County also regularly conducts small area plans such as the Northeast Land Use Plan and the 277 Triangle Land Use Plan which focus on smaller portions of the County. With the exception of a situation where the small area plan is more detailed, any discrepancy between the two plans will be resolved by the Eastern Road Plan.

Urban Areas

It is the County's policy to focus future growth in the Urban Areas, within the boundaries of the Urban Development Area (UDA) and Sewer and Water Service Area (SWSA). In addition, the County has recently taken additional steps for growth within the UDA by adopting a Transfer of Development Rights (TDR) ordinance which allows by-right residential development rights to be sold by landowners in the Rural Areas to landowners inside the UDA. Ultimately, while this results in increased traffic in the UDA, this is still a net financial benefit to the County. This allows the County and State to focus roadway improvements within the UDA as opposed to having to expand roadways throughout the entire County. The Eastern Road Plan is the guide to roadway development/improvements in and around the Urban Areas.

As of the year 2000 census, the urbanized portions of Frederick County,

TRANSPORTATION

Winchester, and Stephens City area reached the population threshold (50,000) that led to the federally required creation of a Metropolitan Planning Organization (MPO). In Frederick County the MPO boundary is concentrated around the development in the eastern section, and along Route 11 to West Virginia in the north, and to Stephens City in the South. Staffed by the Northern Shenandoah Valley Regional Commission, the MPO is responsible for creating a long range transportation plan that meets air quality standards. The MPO is currently operating under the 2035 Long Range Transportation Plan (LRTP); a planned update will be undertaken in 2016.

Rural Areas

Improvements to secondary roads in the more rural western portion of the County are focused on safety and maintenance as opposed to creating additional capacity. The possible exception to this would be areas where the Comprehensive Plan proposes the development of Rural Community Centers. Capacity and safety improvements to primary roadways in the rural areas will be addressed on an as needed basis.

Transportation funding for improvements in Frederick County has largely been accomplished through development proffers and the VDOT Revenue Sharing Program. Whenever possible, the County uses public-private partnerships to make improvements. The County is also active in the areas of rail access funding and economic development road access funding. The Commonwealth's role in transportation funding has been declining over the years and has now reached the point where some federal funds are being used for maintenance with very little new construction taking place. The State has been actively encouraging localities to take on maintenance of their road systems. However, roadway construction and maintenance in Frederick County primarily remains the responsibility of the State and Federal Government. How the County, State, and Federal governments work together to create a long term funding policy for transportation will have far reaching impacts on transportation systems in Frederick County.

Recent Transportation Legislation, the Smart Scale Program (formerly HB2) and HB1887, has significantly changed the process by which transportation projects will be funded within the Commonwealth. The stated purpose of the new system is to score transportation projects and remove politics from the decision making process. Based on Commonwealth Transportation Board (CTB) adopted criteria, economic development is the most influential factor in scoring criteria for Frederick County. The County will continue to coordinate with the Economic Development Authority (EDA) to highlight the economic development importance of key roadways and improvements. During the first round of the Smart Scale Program the County was successful on a number of applications, the most significant of which was Route 277 from I-81 Exit 307 to Double Church Road which includes widening, access management for safety and a realignment of the Aylor Road intersection away from the interchange.

FOCUS FOR THE FUTURE

In the next twenty to thirty years it is expected that a number of key transportation milestones will be reached. The issue of long-term road construction funding must be resolved, which will allow significant transportation system improvements to move forward. Most crucial is the completion of the Route 37 East bypass, which is critical for both residential and economic development traffic. Completion of this roadway has been a top priority for Frederick County for many years. The Eastern Road Plan will continue to guide road projects and will evolve to address the long range transportation needs of the County.

The County will work to insure that development and transportation agencies routinely design and operate the entire right-of-way to enable safe access for drivers, transit users and vehicles, pedestrians, and bicyclists, as well as for older people, children, and people with disabilities. This goal aims to balance the diverse needs of all users of the public right-of-way and promote an integrated, multi-modal (or multiple modes of transportation) transportation system. Simply put, this means that the County will consider all potential users of the transportation system when making improvements, working with development, or constructing new facilities. This goal will benefit Frederick County as it addresses important safety, health, and environmental considerations, and promotes growth and revitalization within the Community.

Over time, it is expected that private transit options will begin to play a larger role in Frederick County's transportation network. This would likely begin with demand type services for the special needs populations, elderly, and disabled.

As densities increase in the UDA and citizen preferences continue to shift, it is expected that bicycle and pedestrian accommodations will continue to increase in importance. The Frederick County School System has opened its first elementary school (Greenwood Mill Elementary) with a walk zone, and they plan to continue promotion of this type of school.

Finally, with the growth potential of the Virginia Inland Port in Warren County, Frederick County can expect a continuing increase in freight movement via rail and roadways. The development of the County's transportation infrastructure should continue to address transportation improvements that will further the economic growth of the Community. This would also include future growth of the Winchester Regional Airport.

COMMUNITY BENEFITS

The benefits to the Community of a healthy transportation system are immeasurable. An efficient transportation system leads to communities that are less stressed, healthier, less polluted, safer, and more attractive to economic development opportunities and new residents.

TRANSPORTATION

A policy that creates an interconnected system of bicycle and pedestrian facilities will lead to a healthier and fitter community as well as increased home values. Removal of cars from the roadway would reduce congestion and air pollution. The mixed use land use pattern promoted by New Urbanism and the Urban Center concept of this Plan further promotes these policies.

The transportation system is also a key consideration for business locations. An efficient transportation system will make the County more attractive to new businesses and will also keep existing businesses from looking to locate elsewhere. In addition, continued focus in intermodal opportunities (the transfer of goods between different transportation modes such as truck to rail or air) in the area will make the County more attractive to businesses looking to take advantage of rail sidings or locations near the airport. The County's willingness to support both road and rail access funding has already led to increased economic development interest. The result is more jobs for County citizens as well as a more valuable and diverse tax base.

As residential and commercial development continues, increasing demands will be placed upon the County's transportation infrastructure. Challenges will continue to be placed on the County by users of Interstate 81 and commuters through the area.

The role of Frederick County is to first plan the transportation system and then work with new and existing development to preserve corridor right-of- ways and implement construction needs. It is the role of the State and Federal government along with development to fund transportation improvements necessary to ensure the future health of the County's transportation network.

GOALS/STRATEGIES

GOAL: TO PROMOTE THE DEVELOPMENT OF NEW ROADWAYS AND THE REDEVELOPMENT OF EXISTING ROADWAYS IN A MANNER THAT MAKES THEM OPEN, AVAILABLE, AND SAFE TO ALL MODES OF TRANSPORTATION.

STRATEGIES:

- Match desired form of development to roadway classification to simplify the determination of which roadways receive which treatment. That is, different types of streets for different land uses. For example, while some roadways would require a separate bicycle and pedestrian trail in order to be more accessible to bicyclists and pedestrians. In rural areas a wider shoulder section may be more appropriate.
- Work with new development and redevelopment to implement this policy and the overall transportation plan. This may require analysis and modification of the existing subdivision ordinance.

TRANSPORTATION

- Work cooperatively with the School Board to identify school locations that meet both school and County goals of public access and safe walkability.
- Seek outside funding sources to fill in gaps in order to attach separate segments and create a fully interconnected system.

GOAL: IMPLEMENT THE ROADWAY PRIORITIES OF THE COUNTY AS OUTLINED ANNUALLY IN THE CAPITAL IMPROVEMENT PLAN, THE INTERSTATE, PRIMARY AND SECONDARY ROAD PLANS, AND THE EASTERN ROAD PLAN, AND PARTICULARLY ROUTE 37 EAST.

STRATEGIES:

- Work with new development and redevelopment to implement the Eastern Road Plan through construction and preservation of right-of-ways.
- Continue to work closely with VDOT, State and Federal representatives, and any other available revenue sources to increase transportation.
- In the absence of outside funding, continue to protect rights-of-way and move forward on planning transportation priorities.
- Coordinate with VDOT to make sure the required percentage of maintenance funds to be spent on other accommodations is used on County priorities.
- Maintain the character of the rural roadways in the County while addressing safety issues as they may arise.

GOAL: IMPROVE UPON EXISTING TRANSPORTATION SAFETY AND SERVICE LEVELS IN THE COUNTY.

STRATEGIES:

- Coordinate with VDOT in the scoping and review of Traffic Impact Analyses (TIA).
- Analyze VDOT Access Management standards and, when needed, adopt County standards that are stronger.
- Work with new development and redevelopment to ensure that trip generation and new movements do not degrade the transportation system, increase delays, or reduce service levels.

TRANSPORTATION

- Create an informal working group with Staff, VDOT, and law enforcement to identify and address safety concerns with coordination to be handled by Planning and Development and the Board's Transportation Committee (TC).

GOAL: FIND WAYS TO IMPLEMENT TRANSPORTATION NEEDS WHILE KEEPING THE COST OF INDUSTRIAL PROPERTY COMPETITIVE. WORK TO ENHANCE USE OF INTERMODAL FREIGHT MOVEMENT WHEREVER POSSIBLE.

STRATEGIES:

- Coordinate with local business to maximize the use of Economic Development Road Access funding, as well as Rail Access funding.
- Actively work with rail carriers through the Economic Development Authority to maximize the amount of material that is shipped into and out of Frederick County via rail.
- Perform a study to discern where opportunities to bring air freight into the regional airport may be available.
- Work to encourage and maximize opportunities presented by expansion of the Virginia Inland Port and the new multimodal facility coming to Martinsburg, WV.
- Make use of revenue sharing funds for development of industrial property when the Board of Supervisors determines that it is in the best interest of Frederick County.
- Incorporate the Airport Master Plan into the County planning efforts.

GOAL: IMPROVE THE BEAUTY OF TRANSPORTATION CORRIDORS AT THE COUNTY GATEWAYS AND ALONG COMMERCIAL ROADWAYS.

STRATEGIES:

- Work with VDOT to create roadway design plans that meet standards while beautifying local gateways and commercial corridors.
- Through the Transportation Committee, develop a plan and actively promote corridor beautification. This should include working with local institutions to create more attractive County entrances into their facilities.

TRANSPORTATION

GOAL: ENSURE SAFE OPERATION OF FIRE AND RESCUE VEHICLES AND SCHOOL BUSES.

STRATEGIES:

- Investigate the existence and potential removal of barriers between neighborhoods that lead to delays in response, particularly for the Greenwood and Millwood Companies.
- Promote the adoption of a uniform locking technology acceptable to the Fire and Rescue Department for use on gated and locked emergency access points.
- Analyze driving, road, and parking standards and actively seek the Fire and Rescue Department input for driveways and roads to ensure that all approved developments are accessible by fire equipment.

GOAL: PROVIDE COST-EFFECTIVE ALTERNATIVES TO AUTOMOBILE TRAVEL AS NEEDED, FOR THE ELDERLY, DISABLED, STUDENTS, AND WORK FORCE.

STRATEGIES:

- Coordinate with existing agencies such as the Shenandoah Area Agency on Aging (SAAA) and Access Independence to secure outside funding to enhance service to the elderly and disabled in the community.
- Make use of the Winchester-Frederick Metropolitan Planning Organization (MPO) resources to identify areas of most critical need.
- Monitor existing data source updates to determine areas of growing need.

STATE CODE COMPLIANCE

The Code of Virginia, Section 15.2-2222.1, states specific requirements for the development of a transportation plan as it relates to comprehensive plans:

- B.1. As part of the comprehensive plan, each locality shall develop a transportation plan that designates a system of transportation infrastructure needs and recommendations that include the designation of new and expanded transportation facilities and that support the planned development of the

TRANSPORTATION

territory covered by the plan and shall include, as appropriate, but not be limited to, roadways, bicycle accommodations, pedestrian accommodations, railways, bridges, waterways, airports, ports, and public transportation facilities. The plan shall recognize and differentiate among a hierarchy of roads such as expressways, arterials, and collectors. In developing the plan, the locality shall take into consideration how to align transportation infrastructure and facilities with affordable, accessible housing and community services that are located within the territory in order to facilitate community integration of the elderly and persons with disabilities. The Virginia Department of Transportation shall, upon request, provide localities with technical assistance in preparing such transportation plan.

- B.2. The transportation plan shall include a map that shall show road and transportation improvements, including the cost estimates of such road and transportation improvements from the Virginia Department of Transportation, taking into account the current and future needs of residents in the locality while considering the current and future needs of the planning district within which the locality is situated.

This chapter has been reviewed by VDOT officials and has been determined to meet the requirements outlined in state code.

PLANNING ASSUMPTIONS

While many factors impact changes in transportation needs and patterns, the most significant factors impacting the transportation system in Frederick County are population and employment growth. Desired patterns for that growth and policies and strategies to support those patterns are outline earlier in this chapter of the Comprehensive Plan. As noted in the WinFred MPO 2035 Long Range Transportation Plan, population in Frederick County which was 78,305 in 2010 is expected to reach 153,945 by 2035. Employment which was 23,499 in 2010 is expected to reach 26,960 by 2035. This growth, particularly the population is expected to add significant stress to the Frederick County transportation system.

NEEDS ASSESSMENT

A number of factors aid in determining near and long term needs in the County. While the most key input in determining needs and impacts is the modeling processes undertaken through the WinFred Metropolitan Planning Organization, many factors help in determining needs such as coordination with the Virginia Department of Transportation, safety concerns, maintenance needs, citizen concerns, and economic development. Shown below are the 2035 Projected Volumes and Volume/Capacity Ratio maps from the modeling work done with the WinFred Metropolitan Planning Organization. These modeling outputs are a significant tool in determining and vetting near term as well as long range transportation needs.

TRANSPORTATION

Some of the County's most immediate near term needs are as follows:

Route 37

Route 37 has long been the County's top priority and this continues to be true. The completion of the Route 37 loop around the eastern portion of the County will not only relieve congestion on numerous local routes that have become congested as the County has grown, but also offers relief on I-81 by helping to remove local trips from the interstate as well as offering an additional relief valve when there are incidents that lead to I-81 delays or closures. The segment of Route 37 that is of top priority is from I-81 exit 310 to Route 522. This segment offers important additional connectivity between I-81 and Route 522, which, in addition to significantly aiding local travel, will offer improved access to the Virginia Inland Port. This roadway is also expected to ease congestion on Route 277 and at Exit 313.

I-81 Exit 313 Bridge

The I-81 Exit 313 Bridge has been identified as in need of replacement by VDOT due to it reaching the end of the time where routine maintenance can adequately address bridge issues.

I-81 Exit 317 and Redbud Road

This project would realign the northbound exit ramp of I-81 onto Route 11 to the location where Redbud Road currently intersects Route 11. This would align the interstate ramps which are currently offset and allow the removal of a signal on Route 11 north. In addition this project would realign Redbud Road to a new intersection with Snowden Bridge Boulevard. This project is expected to aid congestion and improve safety at this area of Route 11 North as well as reduce stacking of traffic at the exit ramps.

Route 11 North Corridor Widening

Modeling of the expected development along the Route 11 North corridor indicates a need for widening and access management to the entire corridor with the corridor to become 6 lanes to Cedar Hill Road and 4 lanes to the West Virginia State line. The most immediate need is to widen from Route 37 to Old Charlestown Road.

Route 11 South

Route 11 South, particularly in the vicinity of Apple Valley Road, Commonwealth Court, and the interchange with Route 37 is becoming increasingly congested as surrounding area economic development has taken place.

Additional near term needs

Renaissance Drive from Prosperity Drive to Shady Elm

Valley Mill Road Realignment

Russell 150 Bridge over I-81

Airport Road Extension

TRANSPORTATION

Tevis Street Extension

Route 277 from Double Church Road to Warrior Drive

Jubal Early Drive Extension and Interchange with Route 37

Intersection of Crestleigh and Senseny Roads

Fox Drive/Route 522 Intersection Improvements

Papermill Road/Route 522 Intersection Improvements

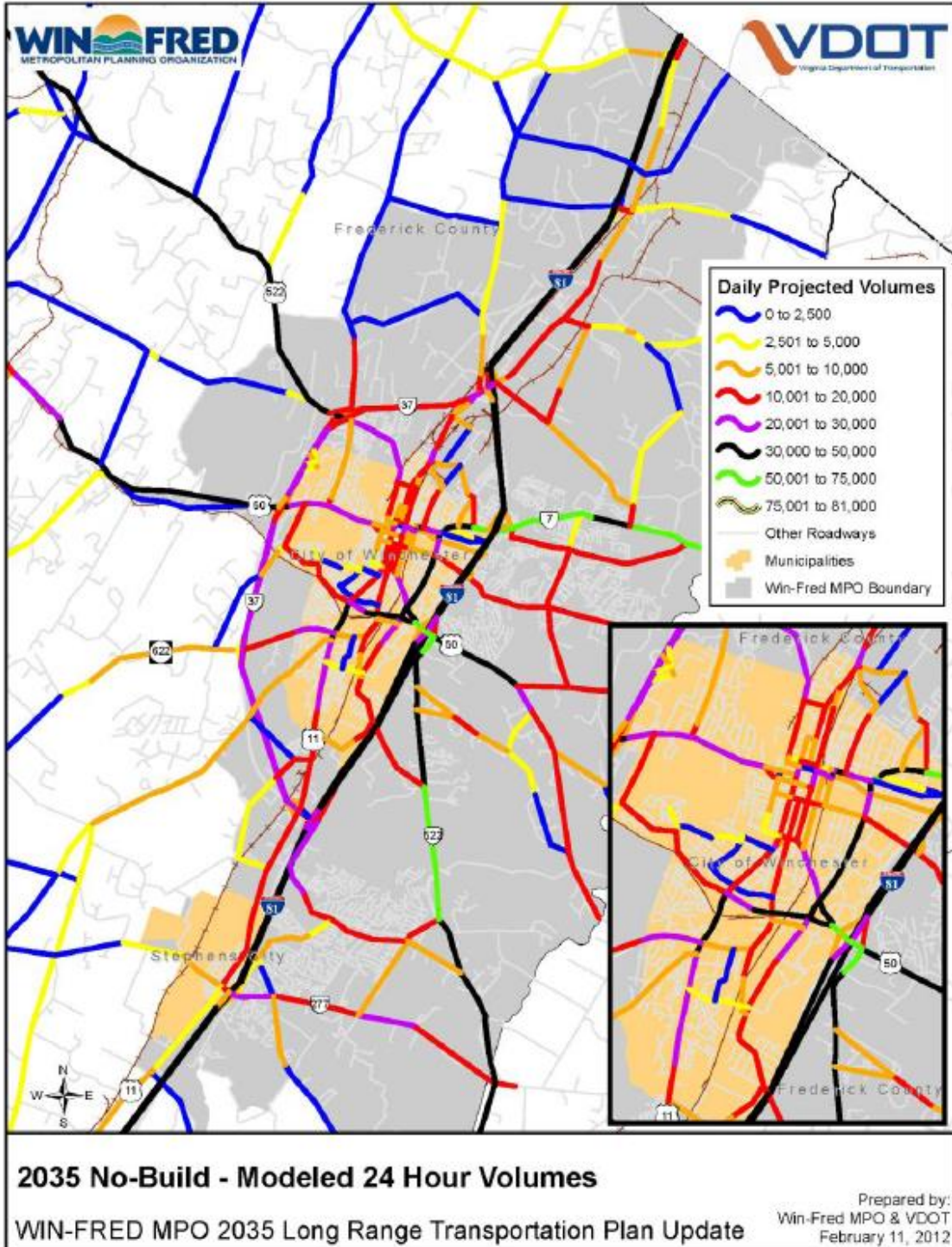
Apple Valley Road/Route 11 Intersection Improvements

Sulphur Springs Road Improvements

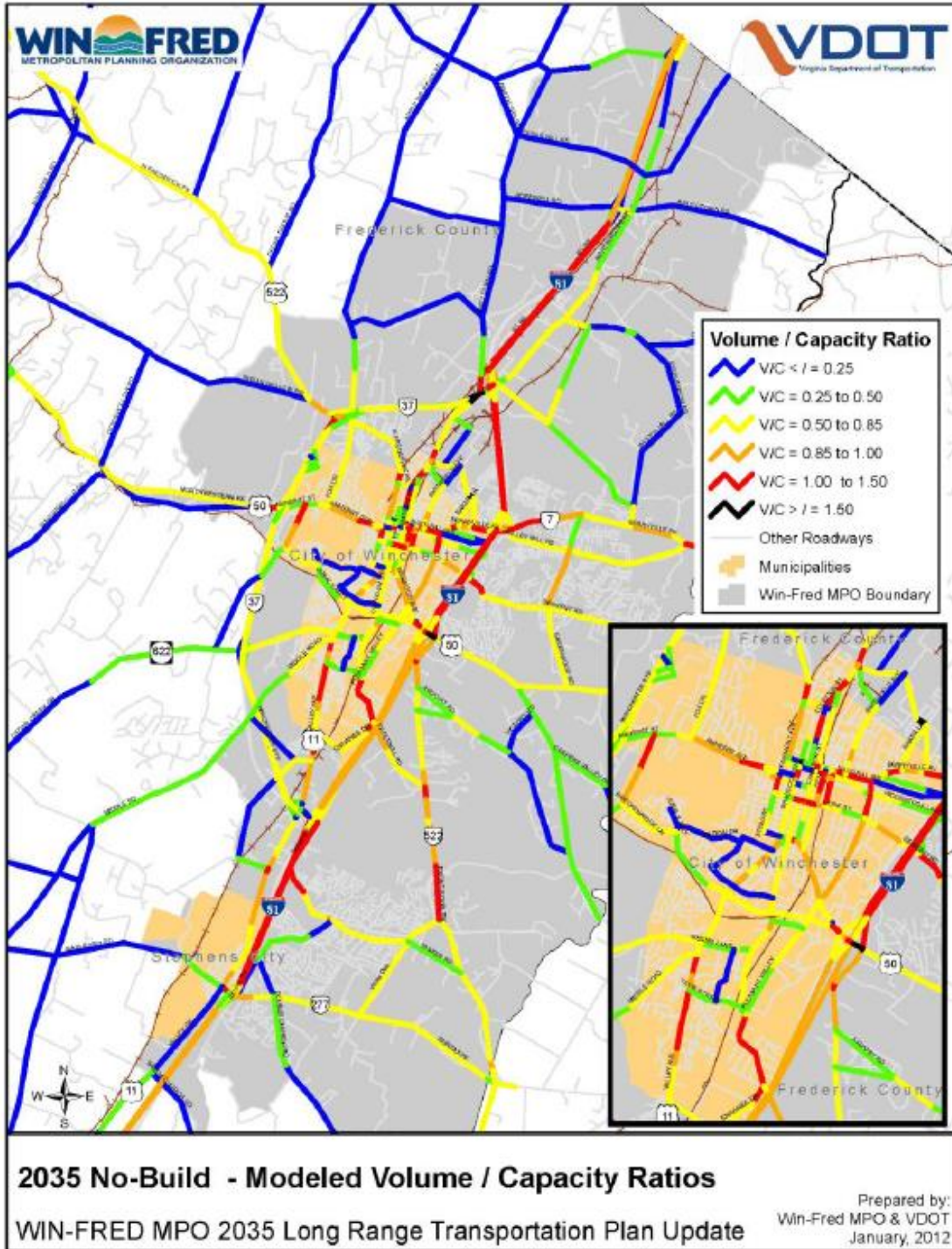
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TRANSPORTATION

Win-Fred MPO 2035 Transportation Plan



TRANSPORTATION



TRANSPORTATION

RECOMENDATIONS

Project recommendations are included in the Current Needs Projects maps as well as the Eastern Road Plan which shows near and long range transportation needs. Please note that while the map of existing inventory and functional classifications shows the entire County, the maps depicting the planned transportation improvements are zoomed in to the areas where improvements are called for to improve readability of the maps. Below please find a table of projects which are currently in the VDOT Six Year Improvement Program and that have been recently applied for through the VDOT SmartScale process.

VDOT UPC	Description	Route	Estimate	Notes
			(Values in Thousands of Dollars)	
T17535	I-81 EXIT 323 NB ACCEL AND SB DECEL LANE EXTENSION	81	\$3,451	Approved SmartScale Project FY17
75881	RTE 81 - INTERCHANGE MODIFICATION, EXIT 310	81	\$41,558	
94847	ADD THRU LANE FROM I81 TO RT37& LT TURN LANES.	11	\$2,501	Approved SmartScale Project FY17
109325	ROUTE 11 S. APPLE VALLEY RD. RIGHT TURN LANE	11	\$515	Approved SmartScale Project FY17
18003	RTE 277 - WIDEN TO 5 LANES FROM EXIT 310 TO DOUBLE CHURCH ROAD AND REALIGN AYLOR ROAD	277	\$35,935	Approved SmartScale Project FY17
104262	AIRPORT ROAD AND WARRIOR DRIVE EXTENSION	645	\$5,600	REVENUE SHARING

TRANSPORTATION

108672	JUBAL EARLY DRIVE EXTENSION - FREDERICK COUNTY	0	\$18,660	REVENUE SHARING
101204	IMPROVE ALIGNMENT VALLEY MILL RD AT RT. 7	659	\$7,200	REVENUE SHARING
109326	FOX DRIVE TURN LANES	767	\$651	Approved SmartScale Project FY17
105633	SNOWDEN BRIDGE BLVD PHASE I	875	\$8,137	REVENUE SHARING
107227	COVERSTONE DRIVE EXTENSION - FREDERICK COUNTY	1538	\$4,000	REVENUE SHARING
	ROUTE 37 EXTENSION FROM TASKER ROAD TO ROUTE 522	37	\$102,187	Applied SmartScale Project FY18
	ROUTE 37 EXTENSION FROM TASKER ROAD TO WARRIOR DRIVE. WARRIOR DRIVE FROM EXISTING TERMINUS OF WARRIOR DRIVE TO ROUTE 37	37/1141	\$49,510	Applied SmartScale Project FY18
	EXIT 317 NB EXIT RAMP RELOCATION TO LOCATION WHERE REDBUD ROAD CURRENTLY TIES INTO ROUTE 11 NORTH AND REALIGNMENT OF REDBUD ROAD TO SNOWDEN BRIDGE BLV	81/661	\$11,239	Applied SmartScale Project FY18

TRANSPORTATION

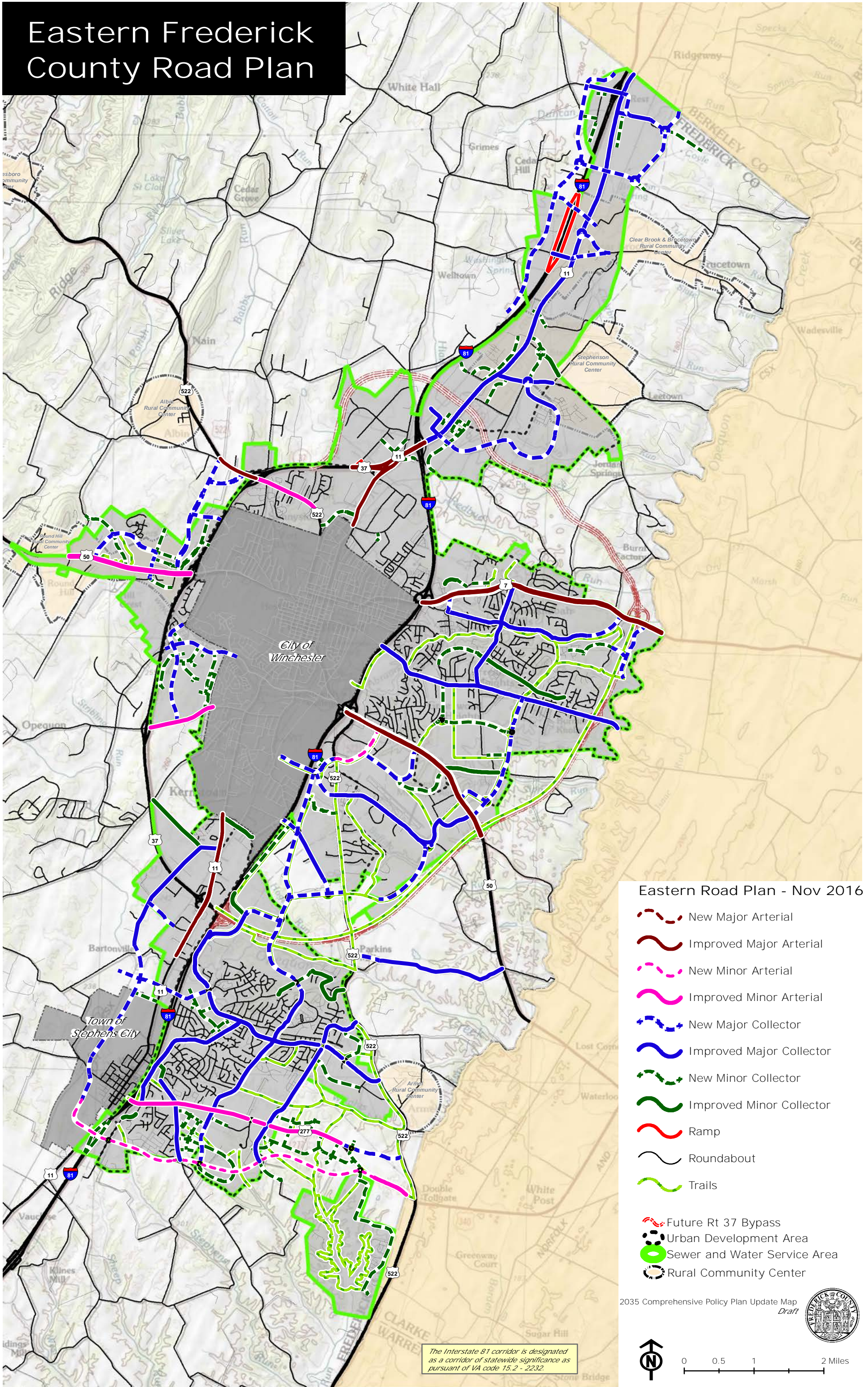
	ROUTE 277 WIDENING FROM DOUBLE CHURCH ROAD TO WARRIOR DRIVE	277	\$25,428	Applied SmartScale Project FY18
	ROUTE 11 NORTH WIDENING FROM SNOWDEN BRIDGE BLVD TO OLD CHARLESTOWN ROAD	11	\$28,346	Applied SmartScale Project FY18
	SULPHUR SPRINGS ROAD RECONSTRUCTION AND WIDENING FROM ROUTE 50 TO THE LANDFILL	655	\$2,704	Applied SmartScale Project FY18
	INTERSECTION OF SENSENY ROAD AND CRESTLEIGH DRIVE-ADD TURN LANES ON SENSENY	657	\$2,548	Applied SmartScale Project FY18
	INTERSECTION OF 277 AND WARRIOR DRIVE, EXTEND EB RIGHT TURN LANE ON ROUTE 277 AND PEDESTRIAN SAFETY IMPROVEMENTS ALONG THE SOUTHERN PART OF WARRIOR DRIVE	277/1141	\$477	Applied SmartScale Project FY18
	INTERSECTION OF PAPERMILL ROAD AND ROUTE 522, EXTEND RIGHT TURN LANE ON EB PAPERMILL ROAD	644	\$507	Applied SmartScale Project FY18

TRANSPORTATION

	EXIT 313 BRIDGE REDECKING AND INTERCHANGE IMPROVEMENTS	81		MPO Applied SmartScale Project FY18
	ROUTE 11 SOUTH AT THE CITY/COUNTY LINE CORRIDOR AND INTERSECTION IMPROVEMENTS IN THE VICINITY OF SHAWNEE DRIVE AND OPEQUON CHURCH LANE	11		MPO Applied SmartScale Project FY18

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Eastern Frederick County Road Plan



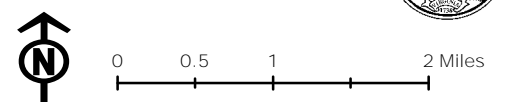
Eastern Road Plan - Nov 2016

- New Major Arterial
- Improved Major Arterial
- New Minor Arterial
- Improved Minor Arterial
- New Major Collector
- Improved Major Collector
- New Minor Collector
- Improved Minor Collector
- Ramp
- Roundabout
- Trails
- Future Rt 37 Bypass
- Urban Development Area
- Sewer and Water Service Area
- Rural Community Center

2035 Comprehensive Policy Plan Update Map
Draft

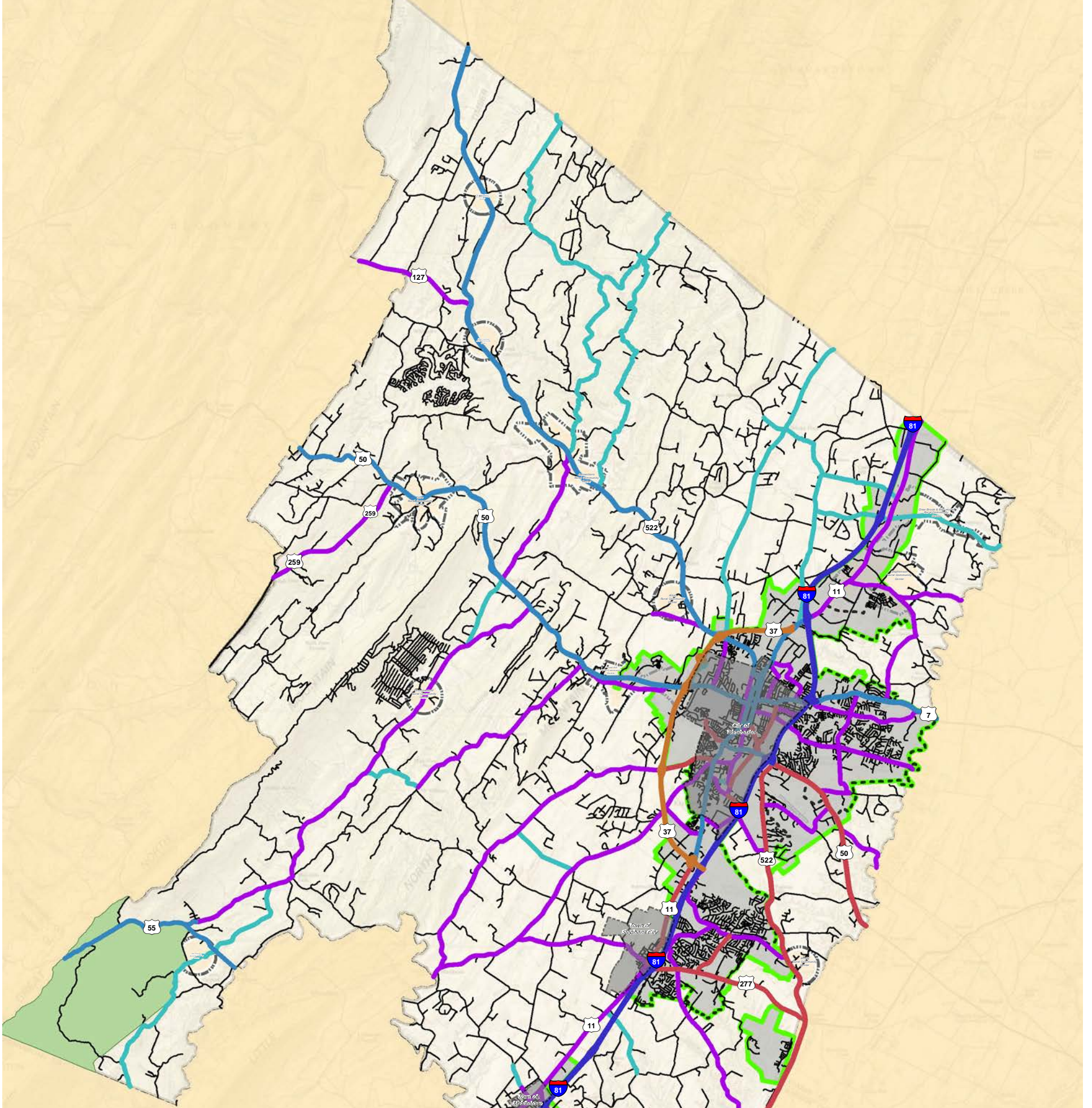


The Interstate 81 corridor is designated as a corridor of statewide significance as pursuant of VA code 15.2 - 2232.



Frederick County Road Plan

Existing Conditions/Inventory and Functional Classifications



Existing Conditions/ Inventory and Functional Classifications

-  Expressway
-  Interstate
-  Major Arterial
-  Minor Arterial
-  Major Collector
-  Minor Collector
-  Local Rd
-  Urban Development Area
-  Sewer and Water Service Area
-  Rural Community Center
-  George Washington National Forest

2035 Comprehensive Policy Plan Update Map
Draft



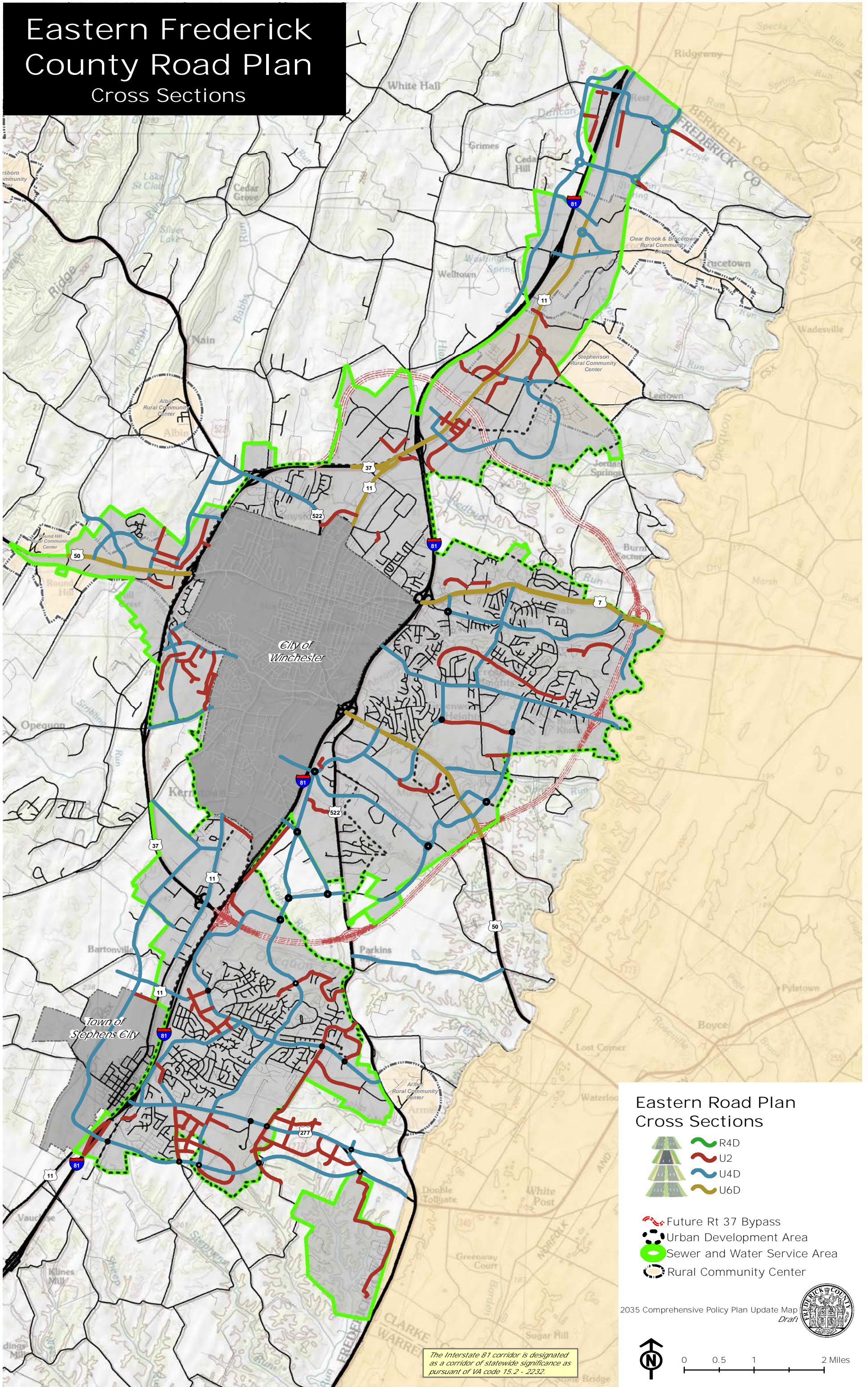
The Interstate 81 corridor is designated as a corridor of statewide significance as pursuant of VA code 15.2 - 2232.



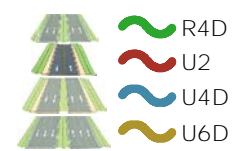
0 1.25 2.5 5 Miles

Eastern Frederick County Road Plan

Cross Sections



Eastern Road Plan Cross Sections

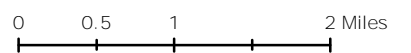


- Future Rt 37 Bypass
- Urban Development Area
- Sewer and Water Service Area
- Rural Community Center

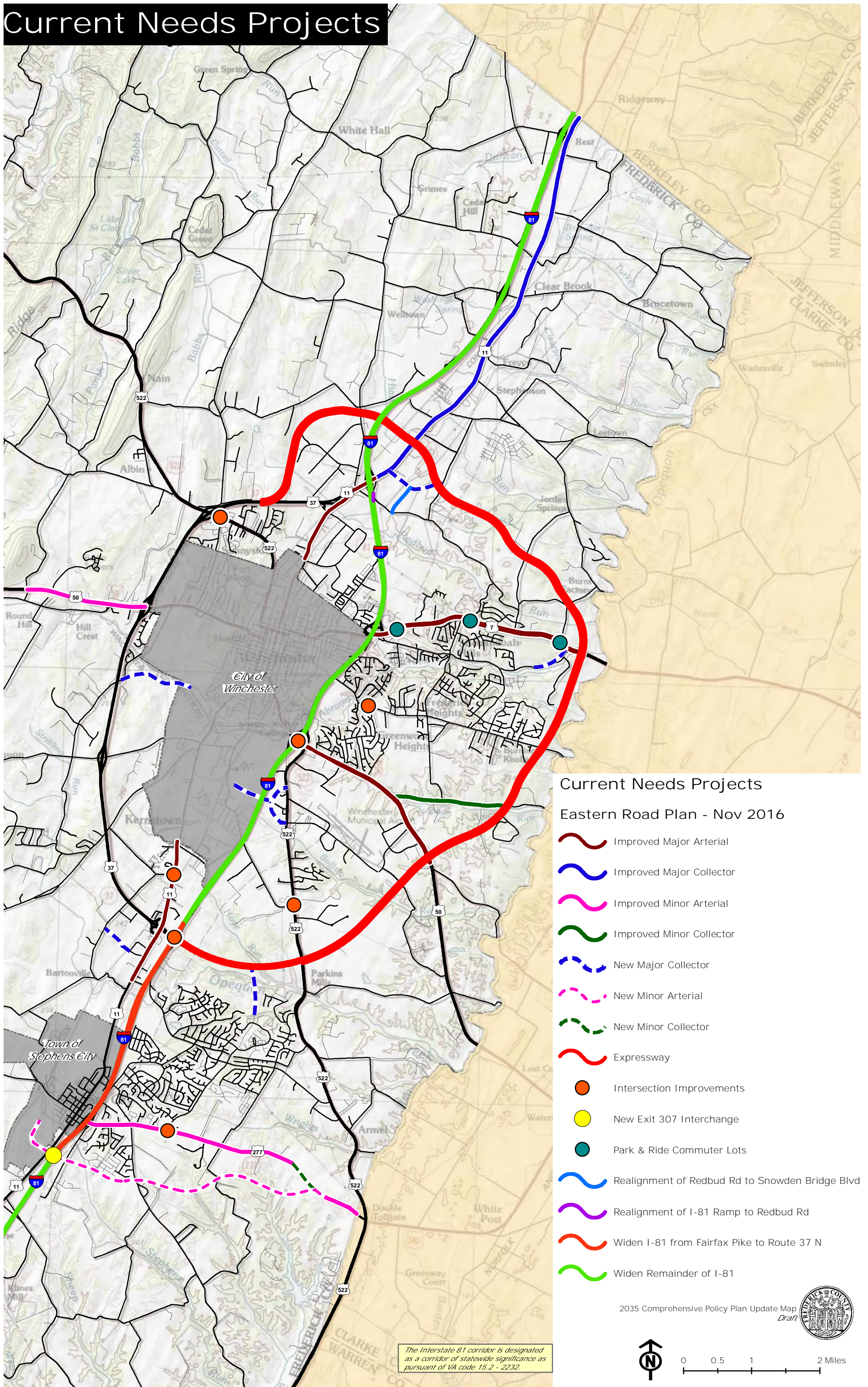
2035 Comprehensive Policy Plan Update Map
Draft



The Interstate 81 corridor is designated as a corridor of statewide significance as pursuant of VA code 15.2 - 2232.


















Current Needs Projects



Current Needs Projects

Eastern Road Plan - Nov 2016

-  Improved Major Arterial
-  Improved Major Collector
-  Improved Minor Arterial
-  Improved Minor Collector
-  New Major Collector
-  New Minor Arterial
-  New Minor Collector
-  Expressway
-  Intersection Improvements
-  New Exit 307 Interchange
-  Park & Ride Commuter Lots
-  Realignment of Redbud Rd to Snowden Bridge Blvd
-  Realignment of I-81 Ramp to Redbud Rd
-  Widen I-81 from Fairfax Pike to Route 37 N
-  Widen Remainder of I-81

2035 Comprehensive Policy Plan Update Map
Draft



The Interstate 81 corridor is designated as a corridor of statewide significance as pursuant of VA code 15.2 - 2232.



0 0.5 1 2 Miles

VI. PUBLIC FACILITIES

- **FREDERICK COUNTY GOVERNMENT SERVICES**
- **FREDERICK COUNTY PUBLIC SCHOOLS**
- **FREDERICK COUNTY PARKS AND RECREATION**
- **HANDLEY REGIONAL LIBRARY**
- **FREDERICK COUNTY EMERGENCY SERVICES**
- **WINCHESTER REGIONAL AIRPORT**
- **FREDERICK COUNTY SANITATION AUTHORITY**



PUBLIC FACILITIES

INTRODUCTION

This Chapter addresses the following County public facility providers and their focus and direction for the future.

- **FREDERICK COUNTY GOVERNMENT SERVICES**
- **FREDERICK COUNTY PUBLIC SCHOOLS (FCPS)**
- **FREDERICK COUNTY PARKS AND RECREATION**
- **HANDLEY REGIONAL LIBRARY**
- **FREDERICK COUNTY EMERGENCY SERVICES**
- **WINCHESTER REGIONAL AIRPORT**
- **FREDERICK COUNTY SANITATION AUTHORITY (FCSA)**

FOCUS FOR THE FUTURE

Creating a sense of community through the principles of Neighborhood Design is supported through the policies contained within the Urban Area Study completed in 2006. By directing growth to the Urban Areas, through the UDA, the County can better direct services and community facilities to the citizens providing efficiency in community facilities including schools, parks, libraries and emergency services. At the same time, the County can better protect its Rural Areas and natural and cultural resources.

COMMUNITY BENEFITS

Public facilities, especially schools, parks and libraries, can provide focal points for walkable, mixed-use neighborhoods, intertwined with variety of housing, retail, and employment opportunities. Focusing development around walkable centers allows people to work, go to school, live, shop, and play in locations that are near each other. The location of public facilities and infrastructure and the thoughtful provisions for public spaces, recreational areas, and open spaces are essential to the creation of more walkable, livable communities.

PUBLIC FACILITIES

Collaboration between County agencies should continue to be a priority goal in order to ensure that the investment made in the **County's community** facilities will continue to provide the best possible environment for positive and vibrant community growth.

FREDERICK COUNTY GOVERNMENT SERVICES

FOCUS FOR THE FUTURE

Frederick County government shall continue to provide accessible, effective, and high quality government services to its citizens, business owners, and community partners. Community facilities providing administrative and judicial services shall be located in urban areas which may include the **County's Urban Development Area**, Sewer and Water Service Area, and/or and areas identified as future Urban Centers. Advances in technology shall be embraced to further advance government services. In addition, a variety of communication methods shall be used to engage the community and promote the accessibility of those government services.

The County shall strive to improve access to government services through a variety of creative and proactive approaches. This may include building new community facilities in urban areas/urban centers and through the use of technology that connects the County with the Community.

COMMUNITY BENEFITS

Projects and proposals aimed at enhancing the County's ability to provide accessible, effective, and high quality government services, either by Frederick County or by private entities through allowable programs such as the Public-Private Education Facilities & Infrastructure Act (PPEA), should be considered as being consistent with the Comprehensive Plan of the County. Such community facilities shall generally be included in the Capital Improvement Plan.

GOALS/STRATEGIES

GOAL: IMPROVE SERVICES TO CITIZENS THROUGH THE EFFICIENT PROVISION OF COMMUNITY FACILITIES.

PUBLIC FACILITIES

STRATEGIES:

- County government services should be provided as needed to provide citizens, business owners, and community partners with accessible government services.
- Community facilities should generally be located within urban areas **which may include the County's Urban Development Area, Sewer and Water Service Area, and/or** and areas identified as future Urban Centers.
- Community facilities should serve as community focal points.
- Collaboration between County agencies should continue to be a priority goal as to provide the best possible environment for positive and vibrant community growth.

FREDERICK COUNTY PUBLIC SCHOOLS (FCPS)

CURRENT CONDITIONS

Frederick County Public Schools (FCPS) is the 22th largest of 134 school systems in the Commonwealth of Virginia, with just over 13,100 students in the 2015-2016 school year. With over 2,100 full time employees, Frederick County Public Schools (FCPS) is the third largest employer in the Winchester-Frederick County area. The school district has 11 elementary schools, 4 middle schools, 3 high schools, 1 career & technical center, and participates in Northwest Regional Educational Programs, an alternative education center. Support facilities include the administration building, the maintenance/warehouse facility, the Transportation Facility, the Smithfield facility, and Support Facilities West. There are a total of 25 schools and support facilities operated by FCPS. Five new schools plus the Transportation Facility were constructed over the past 10 years.

Residential growth continues to impact the school system as additional homes are built throughout the County. During the past several decades, the total student enrollment in the school division has increased steadily. Student enrollment has grown by 869 students in the past ten years, an increase of 7%.

FOCUS FOR THE FUTURE

The establishment of new community facilities creates opportunities to improve the quality of the surrounding community. Schools in particular through the incorporation of Neighborhood Design can serve as the focal point for Neighborhood Villages and Urban Centers within the UDA and Rural Community Centers in the Rural Areas. Opportunities to co-locate schools with other community facilities should be sought. Several schools currently have Parks & Recreation Basic Rec programs within them. This program should be considered for new schools. Other Parks & Recreation programs could be co-located with schools.

Schools should be located in existing or future neighborhoods, within walking distance and be accessible to residents. They act as neighborhood anchors and community centers. Well planned school sites, by encouraging walking and bicycling, can improve student health and academic performance and reduce traffic around schools. A good example of community-centered school planning can be found around Greenwood Mill Elementary School, the County's 11th elementary school.

PUBLIC FACILITIES

COMMUNITY BENEFITS

It is the mission of Frederick County Public Schools' (FCPS) is to ensure all students an excellent education. The school system works hard to meet the needs of all students, from those who will go to college to those who are challenged to master the most basic of life skills. FCPS fosters a culture of success and collaboration as well as a desire to constantly improve.

Frederick County Public Schools strives to be a premier school division in the Commonwealth of Virginia. Teachers and staff maintain high expectations for students so the children of Frederick County are equipped with the necessary knowledge, skills and competencies to be successful in their chosen career and life goals. There are specific programs offered by FCPS to meet the varying needs of special groups of students. In collaboration with the City of Winchester and Clarke County, FCPS provides an education for children who are emotionally disturbed or who have multiple disabilities. FCPS offers a variety of trade and industrial programs and health occupations programs designed to meet the needs of students who wish to improve their employability skills and explore different career possibilities. FCPS provides enriched and expanded instruction for students who qualify for **Gifted Education, including the Mountain Vista Governor's School. FCPS also** participates in two summer programs: Performing and Visual Arts Northwest (PAVAN), a regional summer arts and culture program, and **Blue Ridge Environmental Studies Regional Summer Governor's School, which offers** gifted students opportunities to work on real problems in environmental management.

GOALS/STRATEGIES

Each local school board in Virginia is required by State Code to adopt a division wide comprehensive plan. Accordingly, the Frederick County Public Schools Division Comprehensive Plan is the document that governs the future direction of FCPS. Long-range school planning documents that are developed under the umbrella of the Division Comprehensive Plan include curriculum improvement plans, school improvement plans, a technology plan, enrollment projections, a capital improvement plan, and a staffing projection plan. The following policies include excerpts paraphrased from the FCPS Division Comprehensive Plan 2014-20. Please refer to that plan for the official version of these policies:

GOALS: CONSIDER THE SURROUNDING NEIGHBORHOOD VILLAGES, URBAN CENTERS, AND RURAL COMMUNITIES; SITE LOCATION, SITE SUITABILITY, PROGRAM DESIGN, AND THE NEEDS OF OTHER AGENCIES IN LOCATING NEW FACILITIES.

PUBLIC FACILITIES

STRATEGIES:

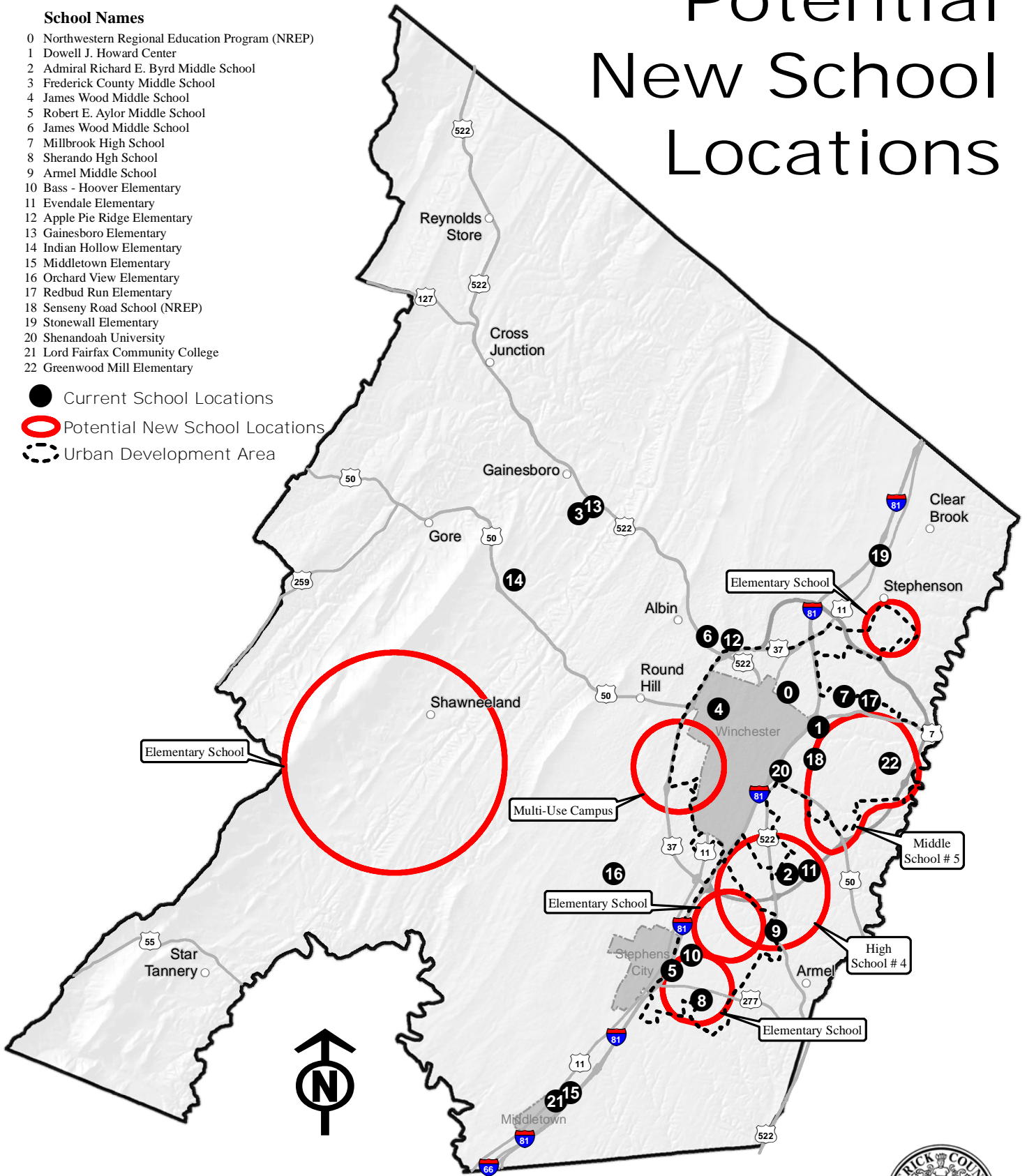
- In evaluating potential school facility locations, consider the role of the site in building diverse, walkable communities in the UDA.
- In evaluating potential school facility locations, consider each location relative to arterial roads, planned roadways, the SWSA, the UDA, surrounding neighborhoods, floodplains, Civil War battlefields, and Agricultural and Forestal Districts. Also consider surrounding land uses, and potential environmental hazards.
- **In evaluating individual candidate sites, consider each site's zoning, planned land use, topography relative to program requirements, historical features, water features, wetlands, potential environmental hazards, geology, soil suitability, and tree cover. Also consider constraints contained in the site's deed and plat and the potential for the presence of rare, threatened, and endangered species.**
- Purchase sites that are suitable for co-locating school facilities with facilities other agencies have identified in their CIP or other studies if **doing so does not interfere with FCPS' educational mission and is a responsible use of public funds.** Future school sites have the potential to be collocated with future fire and rescue stations, parks, community centers, libraries, convenience sites, and satellite offices for several County Departments. Additionally, future school sites could become part of the network of properties needed to execute the Eastern Road Plan.

Potential New School Locations

School Names

- 0 Northwestern Regional Education Program (NREP)
- 1 Dowell J. Howard Center
- 2 Admiral Richard E. Byrd Middle School
- 3 Frederick County Middle School
- 4 James Wood Middle School
- 5 Robert E. Aylor Middle School
- 6 James Wood Middle School
- 7 Millbrook High School
- 8 Sherando High School
- 9 Armel Middle School
- 10 Bass - Hoover Elementary
- 11 Evendale Elementary
- 12 Apple Pie Ridge Elementary
- 13 Gainesboro Elementary
- 14 Indian Hollow Elementary
- 15 Middletown Elementary
- 16 Orchard View Elementary
- 17 Redbud Run Elementary
- 18 Senseny Road School (NREP)
- 19 Stonewall Elementary
- 20 Shenandoah University
- 21 Lord Fairfax Community College
- 22 Greenwood Mill Elementary

- Current School Locations
- Potential New School Locations
- ⋯ Urban Development Area



FREDERICK COUNTY PARKS AND RECREATION

CURRENT CONDITIONS

Facilities

There are five classifications of parks including Mini, Neighborhood, Community, District Parks and Greenways. The classification depends on the size, service area, purpose, character, and location. The County currently owns and operates two district and two neighborhood parks. Additionally, two community parks are planned for the near future; one being created through a partnership with the Museum of the Shenandoah Valley at the historic Rose Hill location, and the other adjacent to the Snowden Bridge development where the County has taken possession of 25 acres of land for a future community park.

The two district parks currently serve the County's population with active and passive recreational programs and facilities. Clearbrook Park, located five miles north of Winchester on Route 11, consisting of approximately 55 acres (44 which are owned by the County) and Sherando Park, located two miles east of Stephens City on Route 277, consisting of approximately 334 acres. Two neighborhood parks include space at the Reynolds Store Fire Company, and the Frederick Heights subdivision near Senseny Road. These neighborhood parks consist primarily of playground equipment for young children. Master development plans were adopted for both Clearbrook and Sherando Parks which establish goals for each park, identify unmet recreational needs, provide unified facility plans, and propose a development program for each park.

FOCUS FOR THE FUTURE

In order to meet the future service demands on the County's two district parks, the Parks and Recreation Department intends to continue implementing the improvements adopted on the Master Plans and in the Department Strategic Plan. Additionally, in support of Neighborhood Design, new parks and usable open spaces should be located within the UDA, near or at the center of Neighborhood Villages and Urban Centers or in Rural Community Centers in the Rural Area to help create more walkable, livable communities. The construction of additional trails throughout the Community is also important. Additional trails would provide residents with the ability to travel safely from their homes to schools, stores, and work or recreation areas without having to share roadways with vehicle traffic.

Frederick County is fortunate to have multiple entities providing publicly accessible land citizens can use for recreation and leisure purposes. Frederick County currently manages 431 acres of park land with almost half of those

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acres yet to be developed for active and passive recreation purposes. Additionally thousands of acres of publically accessible land is provided by Federal, State, school system and non-profit entities within the borders of Frederick County, and adjoining jurisdictions allow the use of their facilities for County residents. In combination these publically accessible lands provide an outline of current conditions from which remaining needs are determined.

COMMUNITY BENEFITS

The Frederick County Parks and Recreation Department is building a sense of community through people, parks, and recreational opportunities benefitting all residents. Parks and recreation activities stimulate economic activity and property values are increased by proximity to parks and through the added quality of life and sense of community. Families and organizations alike look to Frederick County Parks and Recreation to meet their leisure needs. Approximately 1.5 million recreational contact hours for youth, senior, and family programs are provided through programs offered by or facilitated through Frederick County Parks and Recreation with nearly two-thirds of Frederick County households reporting they use Parks and Recreation services and facilities in the past year. Nearly ½ million visits are counted at the two District Parks on an annual basis.

GOALS/STRATEGIES

GOAL: CONTRIBUTE TO THE PHYSICAL, MENTAL, AND CULTURAL NEEDS OF THE COMMUNITY; ITS ECONOMIC AND SOCIAL WELL-BEING, AND ITS SENSE OF CIVIC PRIDE AND SOCIAL RESPONSIBILITY THROUGH THE IMPLEMENTATION OF AN INTEGRATED PLAN FOR RECREATION PROGRAMS AND PARK FACILITIES.

STRATEGIES:

- Maintain a County-wide recreation plan which identifies recreational, park, trail, bikeway and open space needs.
- Identify recreation needs associated with the Rural Community Centers.
- Continue to utilize State and Federal grants and loans for financing and programming County recreational needs and especially for major capital projects.
- Continue to expand our cooperative relationship with the Frederick

PUBLIC FACILITIES

County School Board in jointly meeting identified County recreational needs.




- Review land development regulations to ensure that appropriate standards are provided for open space recreational facilities in new developments.

GOAL: **TO HAVE EVERY RESIDENT OF FREDERICK COUNTY’S URBAN DEVELOPMENT AREA (UDA) WITHIN WALKING OR BIKING DISTANCE OF A RECREATION AREA.**

STRATEGIES:

- **Inventory the County’s** natural and environmental resources to identify appropriate locations for greenways, Community, Neighborhood and Mini Parks including connectivity consistent with the 2014 Metropolitan Planning Organization (MPO) Bicycle and Pedestrian Plan.
- Strategically locate parks in or near Neighborhood Villages and Urban Centers to meet population-based needs. Parks should be carefully planned to respect and take advantage of natural and historic resources as well as to enhance the natural, scenic, and cultural value of the Urban Areas of the County.
- Ensure that development recreation and open space requirements are adequate.
- Actively pursue parkland in areas where publically accessible land does not or is not anticipated to meet citizen needs.





Existing County Parks

-  District Park
-  Community Park
-  Neighborhood Park

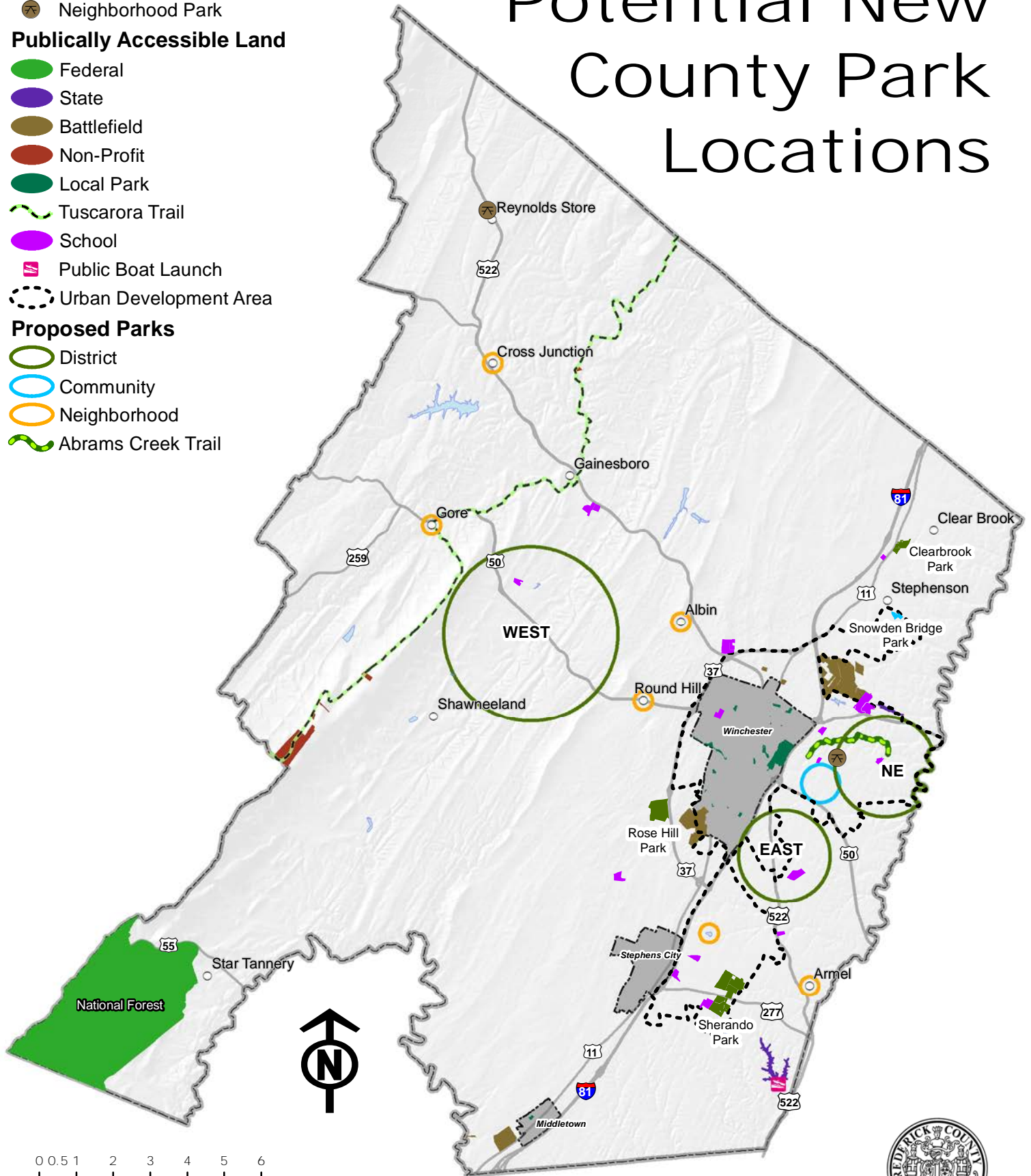
Publically Accessible Land

-  Federal
-  State
-  Battlefield
-  Non-Profit
-  Local Park
-  Tuscarora Trail
-  School
-  Public Boat Launch
-  Urban Development Area

Proposed Parks

-  District
-  Community
-  Neighborhood
-  Abrams Creek Trail

Potential New County Park Locations



HANDLEY LIBRARY

CURRENT CONDITIONS

Currently the Library System has one library in each jurisdiction served. As population grows in Frederick County, the demand for library services also continues to grow. Each library in the Handley Regional Library system functions as a community center, a search engine, and a place that welcomes everyone to lifelong learning. **Frederick County's larger population and land area** mean that there are Frederick County locations not well served by the Winchester or Stephens City libraries.

FOCUS FOR THE FUTURE

As the residential population in Frederick County continues to grow the Library System has plans for opening new facilities. Within the next five years the Library Board plans for a library to open in the Gainesboro district and new libraries at Senseny and Greenwood and at Route 522 and Justice Drive are planned for the next ten years. The inclusion of small library branches that can offer delivery of materials from anywhere in the system as well as providing information and training to customers about new online services is also being considered.

COMMUNITY BENEFIT

Ideally, a new library can best serve as community centers when they are located within a walkable community, near schools, parks and retail establishments.

GOALS/STRATEGIES

GOAL: **PLAN FOR GROWTH WITH THE AIM OF PROVIDING ADEQUATE LIBRARY SPACE FOR LIBRARY USERS IN THE FUTURE.**

STRATEGIES:

- The Handley Regional Library Board will review and update its long-range plan for facilities growth, using the criteria of cost, need, safety, and proximity to the greatest number of residents.
- Continue to monitor the growth throughout the County to determine where new library facilities are needed.

FREDERICK COUNTY EMERGENCY SERVICES

As residential and commercial developments continue to locate and expand in Frederick County, there will be an increased need for fire and rescue stations to provide services to protect the citizens and transient population. The ultimate goal of the fire and rescue system is to provide the most efficient fire and rescue services Countywide. Responses include, but are not limited to, emergency medical services, fire suppression, hazardous materials, swift water rescue, technical rescues, and natural disasters. Timely responses by emergency services personnel and equipment enable resuscitation efforts to begin in the critical minutes immediately following a cardiac related incident and also minimize fire related deaths.

FOCUS FOR THE FUTURE

Future challenges for the Fire and Rescue Department include developing additional fire and rescue stations to meet future growth within the County and keeping up with the staffing needs to continue to provide quality timely service to the citizens.

Planning for future fire and rescue station locations and equipment needs must be accomplished by developing a five year strategic plan. This plan will identify future fire and rescue station sites and equipment needs based on projected service demands and response times. The plan will encourage the dedication of sites for new fire and rescue stations within the identified areas during the rezoning process.

Non-residential areas such as retail, office, and industrial areas require increased fire protection because specialized equipment is necessary to ensure safety for these land uses. Other land uses identified as target hazards continue to grow. These include land uses such as schools, nursing homes, daycare centers, and industrial facilities. These land uses have a higher risk of injury due to the specific demographics of person utilizing these facilities.

Existing road conditions, primarily those with gravel or dirt surfaces and **horizontal and vertical curvatures, located outside of the county's Urban Development Area (UDA)** create longer response times. The greatest factor contributing to the need for new fire and rescue stations is the rapid population growth and increases in dwelling units within the County.

COMMUNITY BENEFITS

The development of new fire and rescue stations could provide an opportunity to extend satellite services provided by other County Departments and

PUBLIC FACILITIES

agencies. Allocation of space could be created within new fire and rescue stations for community services provided by the Sheriff's Office, the Treasurer's Office, the Voter Registrar's Office, and the Commission of the Revenue's Office. Also, in support of Neighborhood Design, it is encouraged that the location of future facilities be located within the UDA, near Neighborhood Villages and Urban Centers or in Rural Community Centers.

GOALS/STRATEGIES

GOAL: WHEN PLANNING NEW FACILITIES, CONSIDER SITE LOCATION, SITE SUITABILITY, BUILDING DESIGN, AND CONSTRUCTION TIMING.

STRATEGIES:

- Co-locate fire and rescue stations with other County facilities and agencies for maximum efficiency.
- Locate fire and rescue stations with easy access to a major arterial or at an intersection of two major arteries to gain both east-west and north-south access.
- Encourage sites to be large enough to accommodate equipment storage and facilitate maneuverability, allowing equipment to either pull-through or be backed into garage bays without hindering traffic flows in the public right-of-way.
- Locate fire and rescue stations on sites of between two and five acres to allow for future expansion. Sites may be smaller when developed as part of a Neighborhood Design in an Urban Center or Neighborhood Village.
- Select and design sites to minimize the adverse impact of sirens and other noise on residential areas.
- Investigate the need for a Regional Public Safety Training Center as the demands for public safety related training increase and existing facilities age.
- Where appropriate, collocate Fire and Rescue communication infrastructure on existing telecommunications towers and/or tall structures to support more efficient operations throughout the County.

WINCHESTER REGIONAL AIRPORT

CURRENT CONDITIONS

The Winchester Regional Airport is recognized as an important component of the County's Business Development efforts. Therefore, the Winchester Regional Airport Authority has developed an Airport Support Area for inclusion in the plan. Business and industrial uses should be the primary land uses in the airport support area and will be supported. The airport support area is an area in which further residential rezoning's will be prohibited in order to protect fly-over areas and noise sensitive areas. Conflicts between airports and residential development can be significant in growing communities. Residents of areas in the vicinity of the airport tend to oppose airport activities and the expansion of such activities because of concern for noise and fly-overs. The airport support area was also established to ensure the feasibility of continued airport use and future airport expansion and the implementation of the Comprehensive Plan.

FOCUS FOR THE FUTURE

There is a need to continue to implement the airport support area expectations. Business and industrial uses should be the primary uses in the airport support area; residential rezoning's will be prohibited.

The Capital Improvement Plan will continue to be a key tool that will facilitate the growth and development of the airport. Remaining capital projects include the acquisition of land along Bufflick Road for noise abatement, development of the northern side of the runway, renovation of the 17 year old terminal building and construction of an aircraft wash rack.

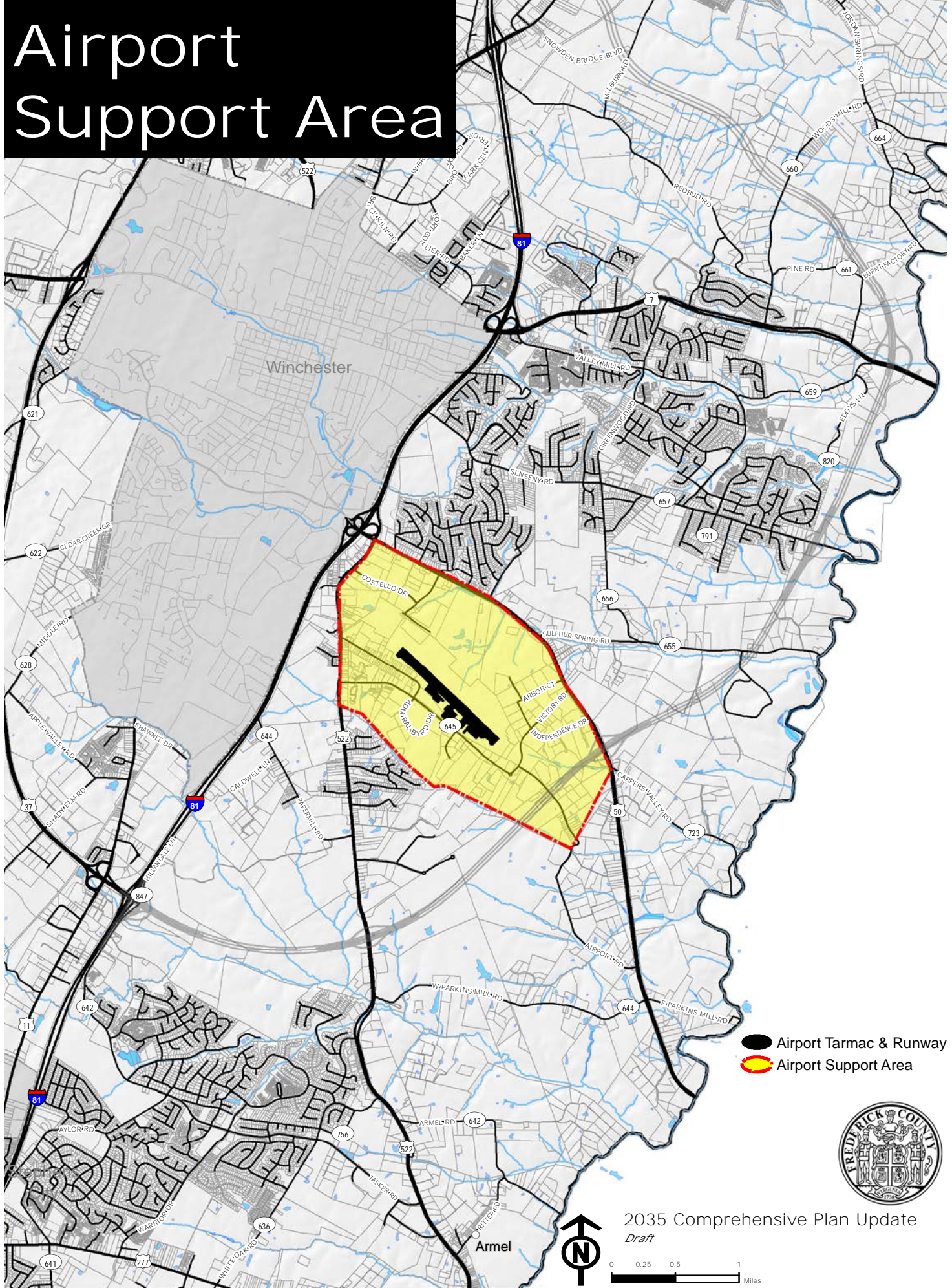
COMMUNITY BENEFITS

Through the support of the member jurisdictions, the Airport will continue to evolve into a modern, first class air transportation facility which will assist business development endeavors in the attraction of new industrial and commercial businesses to the region.

GOALS/STRATEGIES

Specific Goals and Strategies relating to the Winchester Regional Airport are contained in Chapter 4 – Business Development.

Airport Support Area



● Airport Tarmac & Runway
● Airport Support Area



2035 Comprehensive Plan Update
Draft



FREDERICK COUNTY SANITATION AUTHORITY (FCSA)

CURRENT CONDITIONS

The Sewer and Water Service Area (SWSA) is an important policy tool used by Frederick County to determine where public water and sewer service may be provided. The Board of Supervisors approves the location of the Urban Development Area (UDA) and SWSA boundaries through the adoption of the Comprehensive Plan and amendments thereto. As a result, properties located within the SWSA may enjoy access to public water and sewer.

The Frederick County Sanitation Authority (FCSA) has the primary responsibility to manage the provision of water and sewer services in Frederick County. Other public entities may serve properties within Frederick County, if approved by the Board of Supervisors. This is the case in some areas adjacent to the City of Winchester and in the vicinity of the Town of Middletown and the Town of Stephens City. The Middletown/Lord Fairfax and Middletown/Reliance Road Area Plans established Sewer and Water Service Areas (SWSA) with the express stipulation that the Frederick County Sanitation Authority (FCSA) will be the party responsible for providing water and sewer in this area. This may be done in cooperation with those adjacent public entities.

Water and Sewer Services

The location of public sewer and water lines within the Urban Development Area (UDA) and SWSA determines where urban development can occur. The UDA defines the general area in which more intensive forms of residential development can occur. Commercial, industrial, and institutional land uses are also encouraged within the UDA. The SWSA is consistent with the UDA in many locations. However, the SWSA may extend beyond the UDA to promote commercial, industrial, and institutional land uses in areas where residential land uses are not desirable.

It is the clear policy of the Comprehensive Plan that extensions of sewer and water service will be within the boundaries of the UDA and SWSA. The extension service into areas outside of those boundaries will require an amendment to the Comprehensive Plan. All sewer and water mains extended shall be publicly owned.

The Frederick County Sanitation Authority has the responsibility for the treatment, transmission, and distribution of potable water and the collection and transmission of wastewater. Most of the sewer and water mains and laterals in the County are owned, operated, and maintained by the Sanitation Authority.

PUBLIC FACILITIES

Frederick County and the Frederick County Sanitation Authority have executed a Facilities Planning Agreement which sets forth procedures for the planning of sewer and water mains in the County. The agreement includes: provisions for adopting a water and sewer facilities plan as a part of the Comprehensive Plan; specifies the location of water and sewer mains over eight inches in size; provides for review and update of the plan and for including sewer and water facilities projects in the Frederick County Capital Improvements Plan.

The City of Winchester owns and maintains sewer and water lines in portions of the County adjacent to the City corporate limits. Such lines have been extended into the County following a previous agreement between the City and the County.

Wastewater Facilities

The Frederick-Winchester Service Authority (FWSA) provides wastewater service for the FCSA and the City of Winchester. The FWSA currently owns the Opequon Water Reclamation Facility, the Parkins Mill Wastewater Treatment Plant and the Crooked Run Wastewater Treatment Plant and has operational agreements with the City and the FCSA for their operation. The City operates and maintains the Opequon Facility while the Sanitation Authority is responsible for operation and maintenance of the Parkins Mill and Crooked Run Facilities.

Treatment of wastewater generated from within the County's Sewer and Water Service Area (SWSA) is undertaken at all plants. The Opequon Service Area is comprised of the Abrams Creek drainage area which includes the City of Winchester and adjacent drainage areas located east, west and north of the City of Winchester. The Parkins Mill Wastewater Treatment Plant serves Sanitation Authority customers located in the upper Opequon Creek, Wrights Run, and Stephens Run drainage areas along with the Town of Stephens City. The Crooked Run Service Area services the Lake Frederick/Shenandoah Community in southeastern Frederick County.

The Opequon Water Reclamation Facility presently has a treatment capacity of 12.6 million gallons per day. The Parkins Mill Wastewater Treatment Plant which serves the upper Stephens Run, Wrights Run, and Opequon drainage areas has a treatment capacity of 5.0 million gallons per day. In addition, the Crooked Run Wastewater Treatment Facility opened in support of the Lake Frederick development and has an ultimate capacity of 0.626 million gallons per day, with a current capacity of 0.375 million gallons per day.

Water Facilities

The FCSA manages a system with a water capacity of 7.42 Million Gallons per Day (MGD), with an average daily use of 5.5 MGD. Various quarries provide

PUBLIC FACILITIES

the majority of the system's water supply, with an agreement with the City of Winchester supplementing the system with up to 2MGD.

Two water treatment facilities are owned and operated by the FCSA. The James H. Diehl Water Filtration Plant, put into operation 1994, treats up to 3 million gallons of water per day. Additional pumps can increase this capacity to 4 MGD. The water source is 3 million gallons of ground water pumped from quarries on the west side of Stephens City.

The James T. Anderson Treatment Plant, opened in 2002, has an initial capacity of 4 MGD expandable to 6 MGD. The water source is a quarry in Clearbrook and nearby wells.

In addition, the Authority has in operation one elevated tank and three ground storage tanks with a total capacity of 9.5 million gallons of system water storage.

FOCUS FOR THE FUTURE

The Frederick County Board of Supervisors establishes the framework for where development is to occur, and the Frederick County Sanitation Authority (FCSA) is tasked with accommodating and serving this new development

The Comprehensive Plan utilizes the UDA and SWSA to designate those areas that are envisioned to be developed within the next 20 years. Therefore, areas within the SWSA should be provided public water and sewer service over the next 20 years as development advances. Those areas identified with future land uses but are not presently within the SWSA are expected to develop over the next 20-40 years; public water and sewer should be planned to serve these future areas. It is the role of the Frederick County Sanitation Authority (FCSA) to plan for and accommodate sewer and water service to these areas of anticipated new growth and development.

Historically, the County and the FCSA have collaborated on long range planning efforts and this has previously been reflected in the Comprehensive Plan. Continued cooperation and collaboration between the FCSA and the Board of Supervisors is necessary in implementing the 2035 Comprehensive Plan.

In addition, the FCSA should update its master plan to reflect the FCSA's current plans to service land inside the SWSA and to include an overview of their plans to service future land uses outside of the current SWSA boundary. Such a master plan should build upon the future water and sewer needs of the County and guide the development and acquisition of water resources and waste water treatment options. The FCSA should proactively identify major

PUBLIC FACILITIES

capital projects aimed at increasing the County's water supply or implementing the anticipated future land use plan.

As noted in the Natural Resources Chapter of the Comprehensive Plan, water supply is critical to both the natural and built environment, and viable sources are essential for future economic development in the County. The future focus of the FCSA and County should continue to be to protect the water supply and to identify and secure viable sources of water for the future growth and development of the County.

COMMUNITY BENEFIT

The Frederick County Sanitation Authority is a non-profit organization whose mission statement is to provide affordable and reliable water and wastewater service to our customers while protecting public health and the environment. The ultimate benefit to the Community is significant and noted throughout this Plan.

GOALS/STRATEGIES

GOAL: PROTECT GROUNDWATER SOURCES AND THE AREAS THAT CONTRIBUTE RECHARGE TO ENSURE THAT ADEQUATE WATER SUPPLIES ARE MAINTAINED, AND WORK TOWARD DEVELOPING INCREASED WATER SUPPLIES TO MEET FUTURE NEEDS.

STRATEGIES:

- Frederick County and the Frederick County Sanitation Authority should continue to coordinated planning of sewer and water facilities following the procedures described by the Facilities Planning Agreement.
- The Frederick County Board of Supervisors, with the support of the Frederick County Sanitation Authority, should work with adjacent communities to evaluate regional water supply issues. As a result, a regional water supply partnership could be formed that would combine water resources and address water supply issues as one regional entity to ensure common goals.
- Water and sewer service should be provided to service areas in the UDA and SWSA through an orderly process following the Facilities Planning Agreement and using the Capital Improvements Plan.

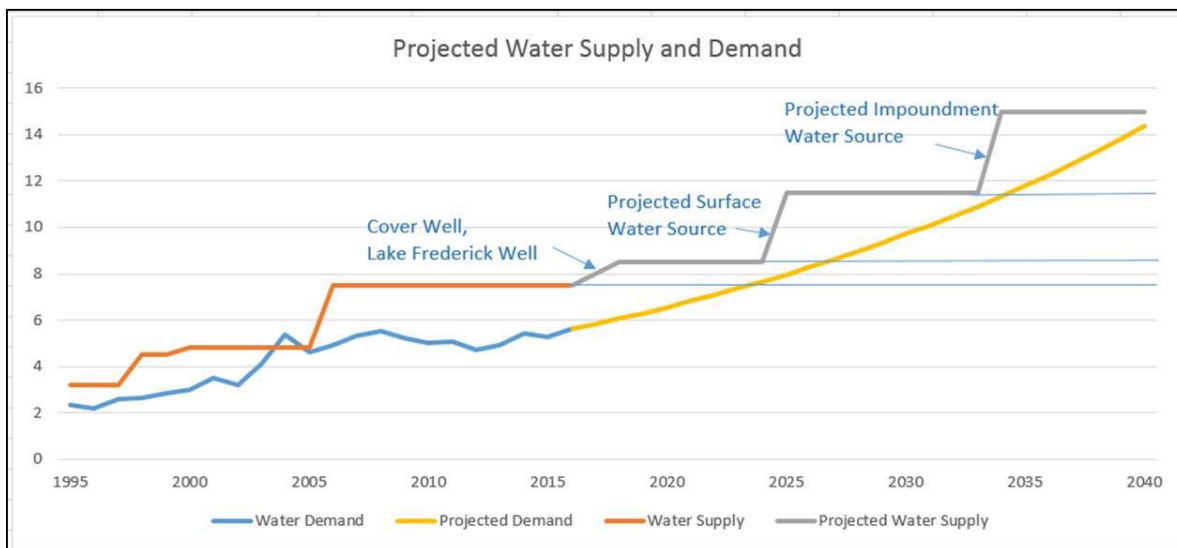
PUBLIC FACILITIES

GOAL: **FACILITIES AND SERVICES SHOULD BE CAREFULLY PLANNED TO MEET PROJECTED NEEDS. APPROPRIATE SERVICES AND FACILITIES SHALL BE PROVIDED TO SERVE PLANNED LAND USES AND DEVELOPMENT.**

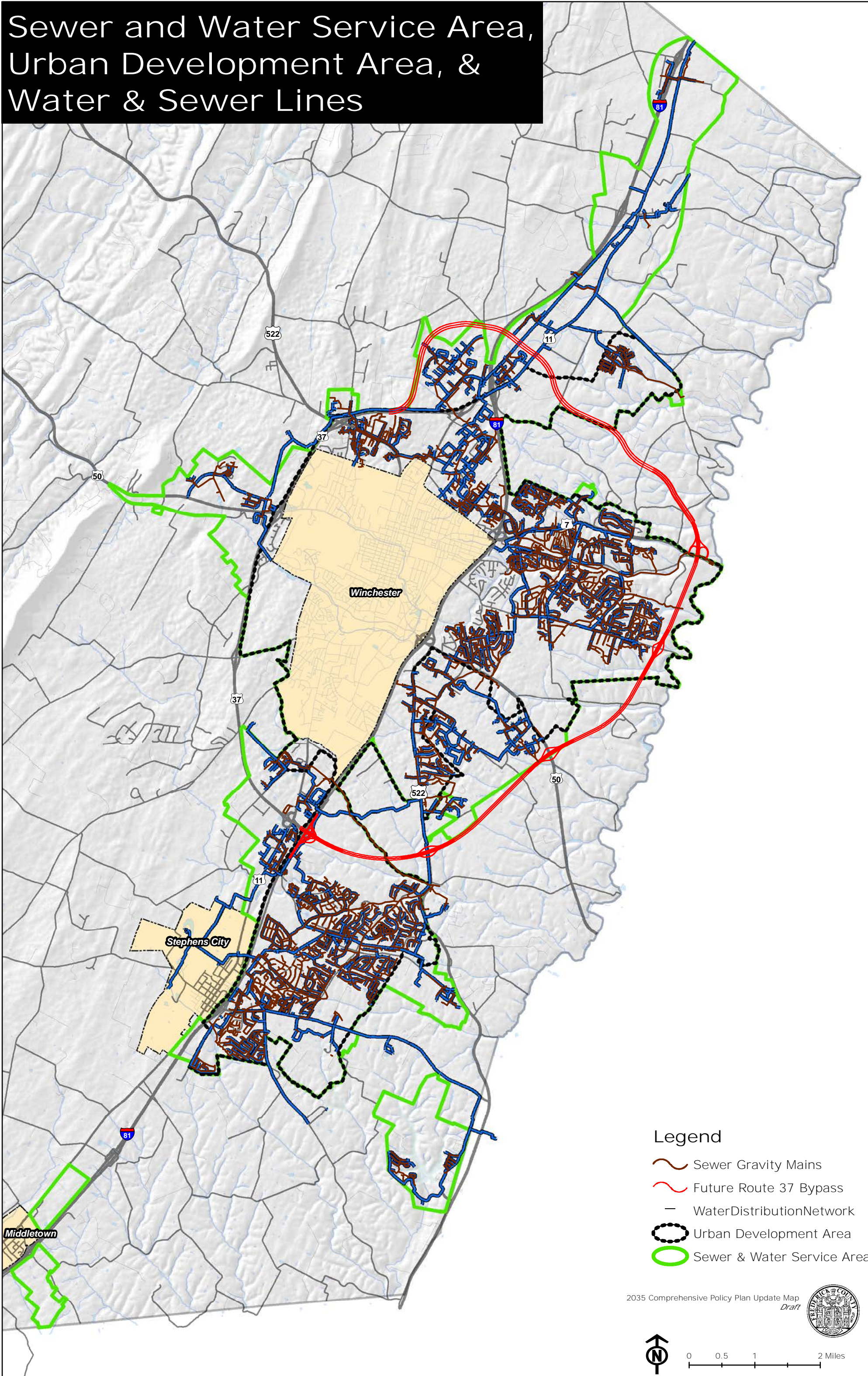
STRATEGIES:

- Carefully monitor sewer and water use and develop up-to-date improvement plans for sewer and water facilities.
- Develop and maintain formal and regular relationships and procedures between the County and providers of facilities and services, including the Sanitation Authority, the City of Winchester, the Service Authority, and the Towns of Middletown and Stephens City.
- Identify those areas in the SWSA that are better situated to be served with water and sewer and prioritize facility and infrastructure development to more effectively serve those areas and the SWSA.
- Any sewer or water main eight inches in diameter or larger, extended or existing within an area proposed for inclusion within the SWSA or UDA, should be dedicated as a public line to be owned and maintained by the FCSA or City of Winchester when appropriate.
- Plans for new facilities should be based on demand projections as derived from population projections in the Comprehensive Plan and from future land use plans which depict the planned future land uses that will accommodate the anticipated community growth.
- Together with the County and the City, the Frederick County Sanitation Authority and the Frederick-Winchester Service Authority should carefully plan needed sewage treatment capacity based on trends in usage.

PROJECTED WATER SUPPLY AND DEMAND CHART



Sewer and Water Service Area, Urban Development Area, & Water & Sewer Lines

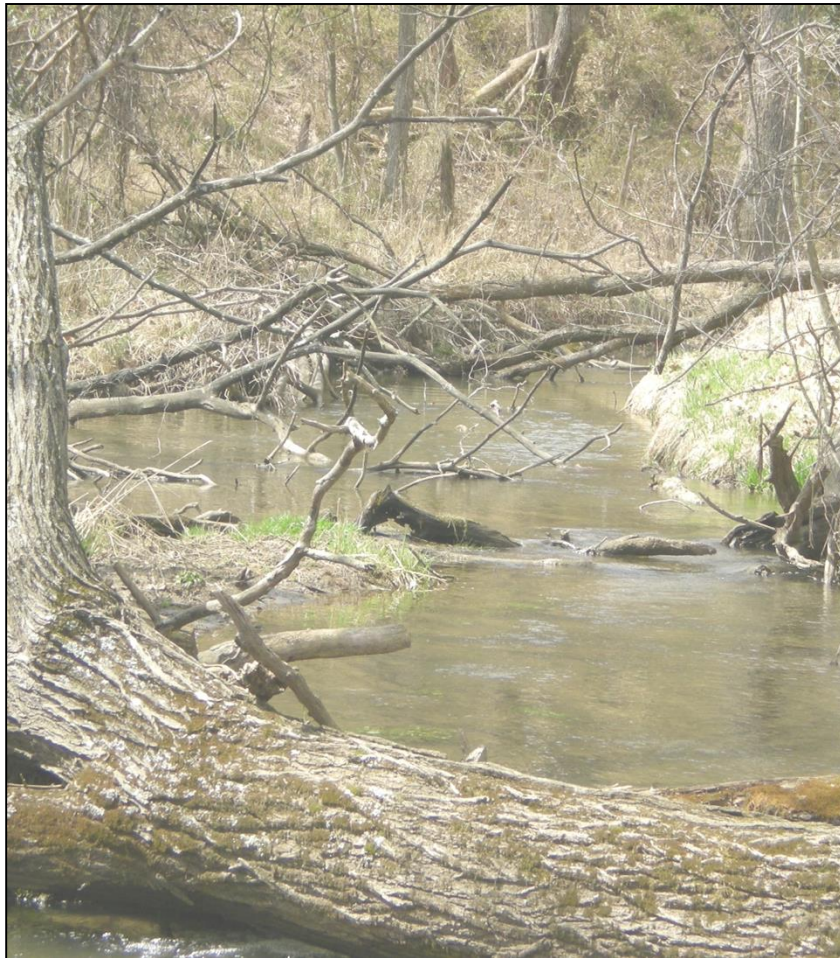


Legend

- Sewer Gravity Mains
- Future Route 37 Bypass
- Water Distribution Network
- Urban Development Area
- Sewer & Water Service Area



VII. NATURAL RESOURCES



NATURAL RESOURCES

CURRENT CONDITIONS

Frederick County's natural resources and geographic location has long influenced the County's history and settlement patterns. The last several decades has seen the Community mature with a significant amount of residential and business growth. The greatest potential impact on our natural environment is the increasing population in the County which results in alteration of the land use. Conversion of land in the rural areas results in reduced open space and fragmentation of farm and forest lands. It can also disrupt natural and wildlife systems that help purify our air, recharge our groundwater and protect our local streams. Likewise, the denser growth in the UDA results in increased impervious surfaces which can impact natural resources.

The priority natural resource issues for Frederick County that are the focus of this chapter are:

- Water Supply and Water Quality
- Sensitive Natural Areas
- Agricultural and Forestal Areas
- Stormwater Management
- Erosion and Sediment Control
- Green Infrastructure
- Habitat Fragmentation and Environmental Corridors
- Light and Noise Pollution

FOCUS FOR THE FUTURE

The intent of this Chapter is to provide guidance that the future of the County's natural resources is viable and balanced, and able to meet the needs of the present community and that of future residents. As the County continues to grow and develop we should ensure that the natural beauty is preserved, air and water qualities are protected, property values and quality of life are enhanced, and ecological diversity is maintained.

COMMUNITY BENEFITS

The preservation, maintenance and enhancement of the natural resources within Frederick County are important to the Community for many reasons. Principal are those which help support the economic wealth, health of citizens, and the vitality of the County. Others include the protection of the scenic

NATURAL RESOURCES

quality residents and visitors enjoy, and that supports native habitat and wildlife and maintains biodiversity

Sound regulations on the part of the public and good practices on the part of the developer make for less costly public investment. New developments that protect the environment with quality systems present less cost to the County in the long term when maintenance may become a necessity. Recreational and aesthetic considerations are also part of our community resource management responsibilities.

One focus of this Plan is to ensure that applications for development address environmental issues at the earliest planning phase. Projects that include components of green infrastructure can help foster community cohesiveness by engaging residents in the planning process. This Chapter defines those areas of the County that are sensitive and need to be preserved.

WATER SUPPLY AND WATER QUALITY

WATER SUPPLY

Water supply is critical to both the natural and built environment, and viable sources are essential for future economic development in the County. There are no major rivers flowing through the County. The majority of the County contains small springs, seeps and headwater streams that contribute to three watersheds: the Opequon, Back Creek, and Cedar Creek. The County is within the larger Potomac River watershed, and ultimately the Chesapeake Bay watershed. The average flows from these streams within the County are marginal, and only Cedar Creek has been considered as a supplemental source with the potential for withdrawals during peak flows. With the exception of water purchased from the City of Winchester, which comes from the North Fork of the Shenandoah River, the County is entirely dependent on groundwater sources.

The most productive aquifers in the County are the limestone/carbonate aquifers. Ninety percent of the recharge areas for groundwater in Frederick County are located in the limestone-carbonate topography or karst areas (see map). As development continues to occur in this region it is important to consider the impacts to both groundwater recharge and the pollution of groundwater from stormwater runoff. These are complex issues that also have a connection to surface water and will be referenced further in the water quality section. Groundwater studies in conjunction the United States Geological Survey (USGS) Virginia Water Science Center should continue, and participation in a regional water authority should be investigated to ensure adequate water supplies are available for the future.

NATURAL RESOURCES

GOALS/STRATEGIES

GOAL: PROTECT GROUNDWATER SOURCES AND THE AREAS THAT CONTRIBUTE RECHARGE (OR RESUPPLY OF WATER) TO ENSURE THAT ADEQUATE WATER SUPPLIES ARE MAINTAINED, AND WORK TOWARD DEVELOPING INCREASED WATER SUPPLIES TO MEET FUTURE NEEDS.

STRATEGIES:

- Regional water supplies should be investigated.
- Groundwater recharge areas should be identified and protected. Protecting recharge areas can be accomplished through both technology options and reduced land disturbance practices during building and construction activities.
- Water conservation and efficiency practices should be encouraged and practiced throughout the County.
- Development within the limestone/carbonate geology should be limited and optimally these areas should be placed in conservation easements or preserved through the Transfer or Purchase of Development Rights (TDR and PDR) programs.

WATER QUALITY

Land use and development activities have the potential to impact the ecological quality of streams and water bodies through the direct transport of pathogens and pollutants. Hydrologic changes can alter the character of flow in streams, resulting in alterations to stream morphology, such as increasing stream bank erosion, increased high-flow events and more critically low flows during low-flow periods.

Unlike point source pollution, which comes from a defined permitted source like industrial and sewage treatment plants, nonpoint source pollution (NPS) comes from many different and diffuse sources. NPS occurs when runoff from rainfall and snowmelt cause erosion and wash various pollutants from the land into our local waterways and potentially into our local waterways. In addition, these pollutants can also enter the groundwater via karst recharge, without the benefit of any natural filtration or dilution. This is a significant issue, as most of the surface streams and rivers in the region are dependent on groundwater recharge for their base flow, rather than surface runoff. Many of the streams/creeks in Frederick County are on the State's impaired waterways list, and warrant future efforts to improve water quality. Volunteer efforts are underway to correct such situations.

NATURAL RESOURCES

On-site sewage disposal systems are a potential source of water pollution when not properly maintained. These systems are regulated by the Virginia Health Department and by the Virginia Department of Environmental Quality. Package treatment plant sewer systems designed to serve particular developments should only be allowed in areas planned for more intensive residential development, such as in the Rural Community Centers. Where such systems are allowed, they should be dedicated to a public authority or sanitary district to insure that the facilities are properly operated.

GOALS/STRATEGIES



GOAL: PROTECT GROUND AND SURFACE WATER QUALITY.

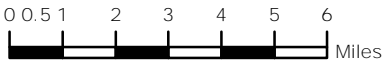
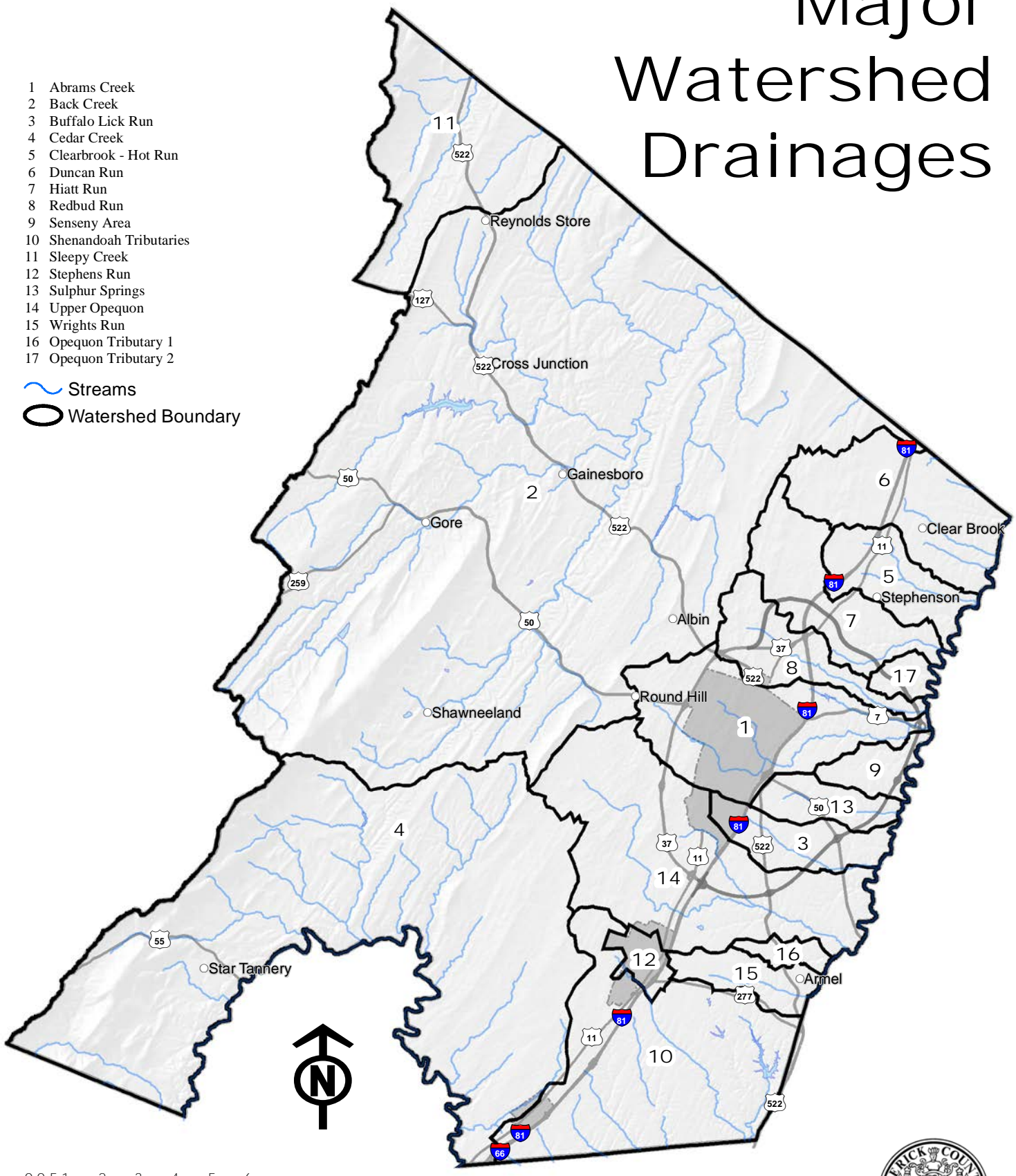
STRATEGIES:

- Watershed management throughout the County should encourage forested or vegetated streamside buffers to filter pollutants, stabilize stream banks and provide wildlife habitat.
- The types of onsite sewage disposal systems permitted in the County need to be managed to insure proper location, installation, operation, maintenance and inspection.
- Special emphasis should be placed on utilizing state and federal cost share programs specifically funded to address water quality in the Opequon Creek watershed and other environmentally sensitive areas. Work with local community and non-profit organizations to promote agricultural best management practices.

Major Watershed Drainages

- 1 Abrams Creek
- 2 Back Creek
- 3 Buffalo Lick Run
- 4 Cedar Creek
- 5 Clearbrook - Hot Run
- 6 Duncan Run
- 7 Hiatt Run
- 8 Redbud Run
- 9 Senseny Area
- 10 Shenandoah Tributaries
- 11 Sleepy Creek
- 12 Stephens Run
- 13 Sulphur Springs
- 14 Upper Opequon
- 15 Wrights Run
- 16 Opequon Tributary 1
- 17 Opequon Tributary 2

 Streams
 Watershed Boundary



NATURAL RESOURCES

SENSITIVE NATURAL AREAS

Sensitive natural areas encompass various resources in the County, such as floodplains, steep slopes, karst terrain, and agricultural areas. This section describes the importance of these sensitive natural areas to Frederick County. These resources are further identified and integrated into the small area land use plans contained within the Comprehensive Policy Plan.

FLOODPLAINS

Floodplains provide a necessary interface between land and water. Floodplains by definition store water and accommodate fluctuations in stream volume during heavy rains and can become flooded. Floodplains provide essential environmental benefits such as reducing peak flows and improving water quality. Encroachment of development into floodplains removes those benefits as well as increasing the impact on life, health and property.

Regulations to protect floodplains and waterways from disturbance are **included in the County's Zoning Ordinance.**

Floodplain areas have been generally identified in studies conducted by the Federal Emergency Management Administration (FEMA). Detailed maps produced by FEMA show floodways, as well as 100 and 500-year floodplains.

STEEP SLOPES

Areas of steep slopes are located throughout the County, predominately in the mountainous areas, stream valleys and drainage areas. Steep sloped areas are often susceptible to erosion. The amount that may occur varies according to the amount and intensity of precipitation, slope steepness and length, vegetated cover and the soil type and erodibility. Clearing steeply sloped areas can exacerbate erosion of soil and increase stormwater runoff resulting in increased siltation and sedimentation.

Careful consideration should be given to avoid concentrated runoff when impervious surfaces are located close to steep slopes. Minimal disturbance of natural vegetative cover, in particular forest cover should be encouraged versus replant requirements.

KARST TERRAIN

The central geophysical area of Frederick County is underlain by a band of carbonate bedrock consisting of limestone and/or dolomite and is identified as karst terrain. Karst terrain is characterized by the presence of sinkholes, surface depressions, caves, large springs, and a highly irregular, pinnacled bedrock-soil interface. Karst terrain is inherently unstable and susceptible to subsidence and surface collapse. As a result, the alteration of drainage patterns in these areas by the placement of impervious coverage, grade

NATURAL RESOURCES

changes, or increased run-off from site changes can lead to sinking of land levels and sinkholes.

It is important to realize that the most of the water recharge area for the drinking water for the County is located in the karst terrain. Groundwater supplies in these areas are particularly susceptible to contamination from surface activities. Fractures, fissures and solution openings in the bedrock may connect to public or private water supplies such as wells and springs, making those sources especially susceptible to groundwater contamination.

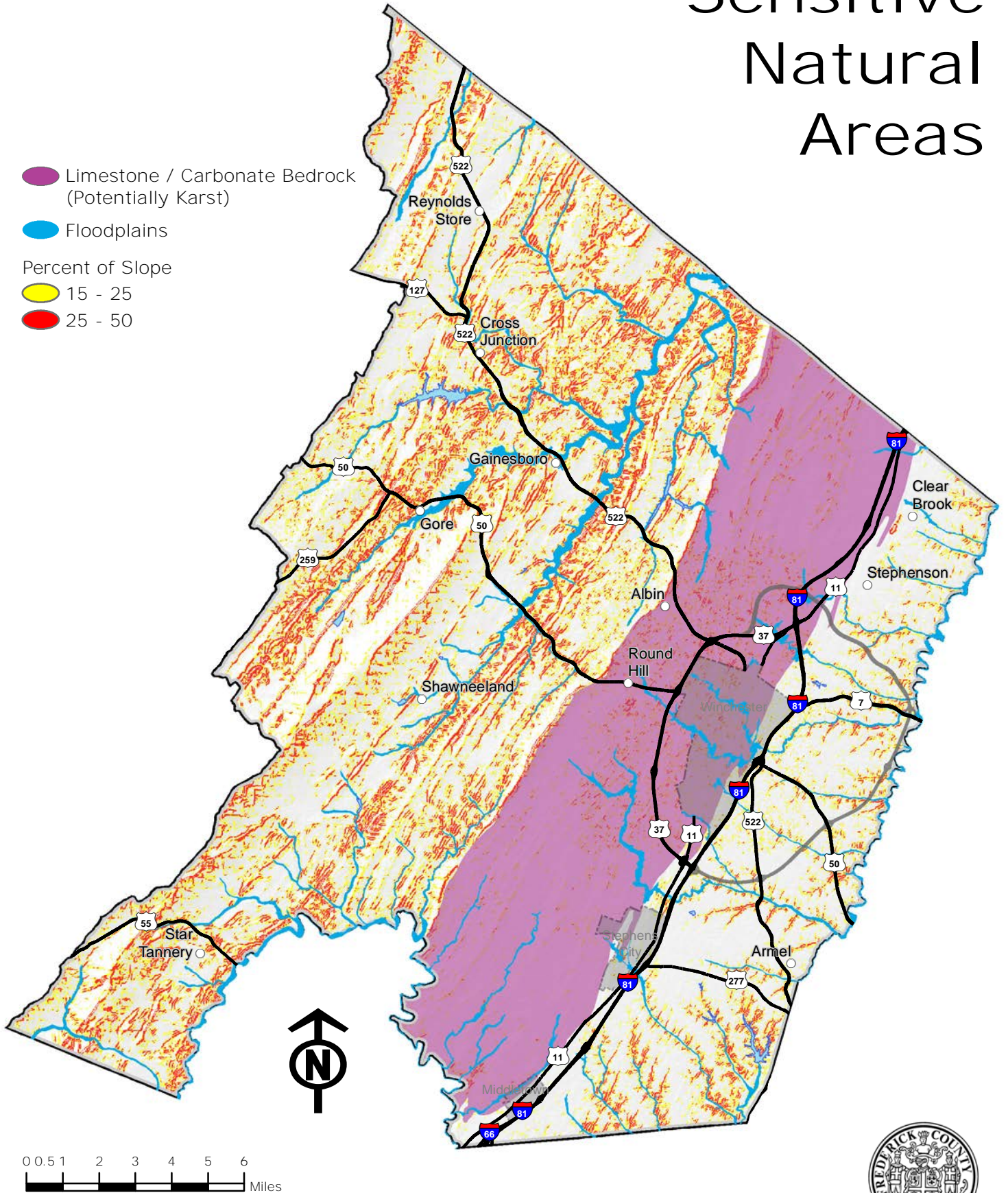
GOALS/STRATEGIES

GOAL: **APPROPRIATELY MANAGE IDENTIFIED SENSITIVE NATURAL AREAS.**

STRATEGIES:

- Protect floodplains and steep slopes from unsuitable uses and continue to recognize their value for stormwater management and ecological functions.
- Development proposals should be adapted to fit the topography and natural setting of the County.
- Special consideration should be given in areas known for karst terrain prior to changes in land use. Prior to any development activities in areas known to have karst terrain, a geotechnical analysis should be performed by a certified geotechnical engineer and submitted to the Public Works Department for review.

Sensitive Natural Areas



NATURAL RESOURCES

AGRICULTURAL AND FORESTAL AREAS

Agricultural and forestal lands in Frederick County contribute to the natural environment as well as add to the historic rural character and scenic quality associated with the community. Agricultural lands and forests provide economic benefits related to agriculture, forestry and tourism, and require minimal County services.

Frederick County has an Agricultural and Forestal District program supported by the Code of Virginia. This program allows landowners to voluntarily enroll their lands in a district which limits development. These districts are renewed every five (5) years but property owners can request that their land be removed at any time. The County has seven separate agricultural and forestal districts which contain a total of 11,281.37 acres. The use of conservation easements for the protection of agricultural and forestry lands is increasingly becoming popular and encouraged, in addition to participation in the County's Agricultural and Forestal Districts.









GOALS/STRATEGIES

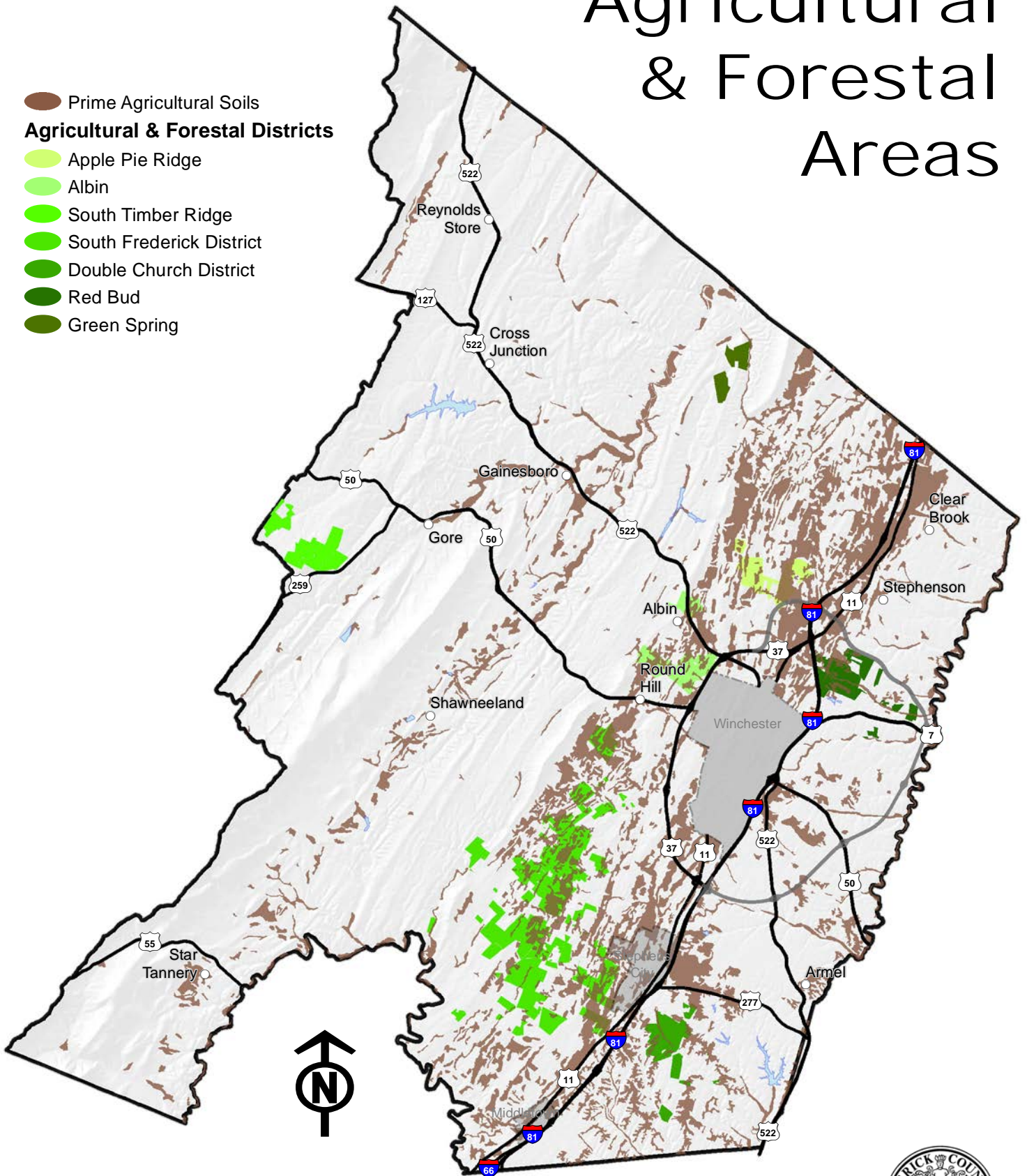
GOAL: PROTECT AND PROMOTE FREDERICK COUNTY'S AGRICULTURAL AND FORESTAL AREAS

STRATEGIES:

- Evaluate the existing Agricultural and Forestal Districts program for effectiveness in helping preserve agricultural and forestry resources.
- Encourage and promote opportunities that support the continued use of farmlands and the consumption of locally grown products.
- Develop, promote and support voluntary measures to protect agricultural and forestry resources such as conservation easements, Purchase of Development Rights (PDR) or Transfer of Development Rights (TDR).
- In the Rural Areas, development should be directed away from soils which are well suited for agricultural production.

Agricultural & Forestal Areas

-  Prime Agricultural Soils
- Agricultural & Forestal Districts**
-  Apple Pie Ridge
-  Albin
-  South Timber Ridge
-  South Frederick District
-  Double Church District
-  Red Bud
-  Green Spring



NATURAL RESOURCES

EROSION AND SEDIMENT CONTROL

Soils are natural resources that require proper use and conservation. Bare soil is the single greatest source of sediment which can enter waterways through erosion. In many instances, the greatest controllable source of soil erosion is through managing construction activities to reduce exposing the soil to the elements.

It is important to realize that the use of the soil be related to its suitability and limitations. Improper use may result in accelerated soil erosion, ground and surface water pollution, flooding, drainage problems, failed septic systems, construction problems and unproductive agricultural and forestal lands. The most environmentally sensible approach is to consider and adapt to soil types the planning and design of developments.

The 1987 Soil Survey of Frederick County, Virginia by the U.S. Department of Agriculture (USDA) and the Soil Conservation Service includes general and detailed soil maps, descriptions of the soils; and the suitability, limitations, and management of the soils for specified uses. The general soils map can be used to compare the suitability of large areas for general land use while the detailed soil maps along with soil unit descriptions can be used to plan and design a specific site.

The Virginia Erosion and Sediment Control Act and the Frederick County Code require that properties and waters be protected from soil erosion and sedimentation resulting from development activities. The Frederick County Public Works Department is responsible for the implementation and enforcement of these requirements.

GOALS/STRATEGIES

GOAL: **INCORPORATE SOIL TYPES INTO LAND USE PLANNING FOR THE DESIGN OF DEVELOPMENTS TO ENSURE PROPER USE OF THIS NATURAL RESOURCE AND GUARANTEE THAT DURING DEVELOPMENT PROPER EROSION AND SEDIMENT CONTROL MEASURES ARE MAINTAINED.**

STRATEGIES:

- Vegetative cover should be encouraged as the most important physical factor influencing soil erosion. The removal of topsoil and permeable soils should be discouraged and when removed, requirements to replace the soils should be enforced.

NATURAL RESOURCES

- Developments should be planned to fit the particular topography, soils, waterways, and natural vegetation on a site to ensure that structures and grading are designed to fit the site.
- Planning that requires the smallest practical area of land be exposed for the shortest period of time (through scheduling and staging project activities) is encouraged.

STORMWATER MANAGEMENT

Urban development changes the nature of streams and drainage. Areas once woodlands or pastures that are developed with roads, parking lots, and buildings, increase the impervious area or imperviousness of the watershed. This process brings changes to the runoff characteristics of surface water, both in quantity and quality.

Stormwater management is regulated by Chapter 79 of the Code of Frederick County **"Erosion and Sediment Control Ordinance"** as authorized by the Virginia Erosion and Sediment Control Law of Virginia. The Department of Public Works is the agency responsible for the implementation and enforcement of the Stormwater Management Ordinance as managed by the DCR.

Stormwater management seeks to maintain post-development runoff at pre-development levels. Where necessary, stormwater storage systems, such as detention ponds, are required to accommodate a post-development storm with a twenty-five-year frequency

Low Impact Development (LID) is an alternative to conventional stormwater management. LID is a site design strategy with the goal of maintaining or replicating the pre-development hydrologic response through the use of design techniques to create a functionally equivalent hydrologic landscape. Some of the functions include water storage, infiltration, and groundwater recharge as well as management of the volume and frequency of water discharges. Elements of LID include minimizing land disturbance, limiting impervious surfaces, and utilizing runoff reduction practices such as bioretention, permeable pavements and grass swales.

Geology is an important consideration when considering the application of LID practices. In areas of karst terrain, infiltrating LID practices must be carefully planned due to the potential for sinkhole formation. Stormwater treatment and conveyance systems should be directed away from known sinkholes to prevent expansion or possible collapse. Other geologic issues involve the presence of shale which makes infiltration difficult to impossible. While the

NATURAL RESOURCES

use of LID may not replace conventional SWM controls, a combination of the two measures makes for a better overall stormwater management program.

GOALS/STRATEGIES

GOAL: **ENSURE THAT STORMWATER IS MANAGED IN ACCORDANCE WITH THE COUNTY'S EROSION AND SEDIMENT CONTROL ORDINANCE AND VIRGINIA'S STORMWATER REQUIREMENTS, AND WORK TO IMPLEMENT LOW IMPACT DEVELOPMENT (LID) MEASURES WHERE APPROPRIATE.**

STRATEGIES:

- Encourage the use of semi-pervious or pervious surfaces and other low impact development techniques, where appropriate. Shared parking areas and reduced parking requirements for developments should be utilized to reduce impervious areas.
- Encourage the use of bio-retention whenever possible. Large impervious areas should take advantage of bio-retention in their parking lots.
- Participate in regional efforts to integrate LID runoff reduction and pollution prevention practices in karst areas and areas with shale-derived soils.

NATURAL RESOURCES

GREEN INFRASTRUCTURE, GREENWAYS AND TRAILS

Green infrastructure is the strategically planned and managed networks of natural lands, agricultural and forestal lands, and other open spaces. As an interconnected system, green infrastructure provides greater environmental viability, value, and function than disconnected individual resources. In both rural and urban areas, the green infrastructure concept identifies critical areas for conservation and establishes priorities for protection. It encompasses aspects like greenways, scenic areas, open spaces, biodiversity, and environmental corridors as well as naturally sensitive areas such as floodplains, karst areas and steep slopes.

URBAN AND RURAL OPEN SPACE RESOURCES

Open space resources in Urban Areas should be designed and created during development. Their value to the Community is determined by their configuration, attributes and relationship to the surrounding areas. Urban open spaces will increase in importance as the County's Urban Development Area (UDA) is more densely developed. Development in the Urban Areas should consider specifically designed open spaces incorporated as amenities to offset the higher densities.

Wooded areas are an important resource and should be considered during planning and designing open spaces. The benefits of wooded include areas the maintenance of ground and surface water quality, groundwater recharge areas, habitat for biological resources, added oxygen to the air, and help protect environmentally sensitive areas. Urban wooded areas provide buffers and potential recreational opportunities. These areas help to preserve the natural scenery and can make the Urban Area a more attractive place to live. Rural open spaces of prime agricultural areas, forested areas, mountainous areas and stream valleys have particular value to the community; and they should be conserved. (See Agricultural and Forestal Lands above)

Inappropriate sites like prime farm land, floodplains, habitats for threatened or endangered species, wetlands and land near wetlands, land near bodies of water and designated park land should be avoided during site selection and development to reduce environmental impacts. Development should be channeled into urban areas with existing infrastructure which would help protect natural resources and that existing natural areas should be conserved and restored to provide habitats and to promote biodiversity.

GREENWAYS

Greenways are areas of open space, usually linear in nature that form networks of trails. They are often located along streams, within utility

NATURAL RESOURCES

easements, and along roadways, and can serve many different purposes. **They can help link people to the area's natural, recreational and cultural resources**, as well as provide a system of natural linkages for the areas wildlife to preserve biodiversity and protect habitats. When constructed along streams they can help preserve and protect buffers along the streams which can help protect biodiversity and help filter pollutants. Greenways can also provide recreational opportunities such as hiking or bicycling provide nature studies such as plant and animal behavior, as well as simply raising awareness of the environment.

The Tuscarora Trail

The Tuscarora Trail is a 249 mile hiking trail situated generally along the mountain ranges to the west of the Shenandoah and Cumberland Valley. It connects to the Appalachian Trail (AT) in Shenandoah National Park and in Pennsylvania northeast of the town of Carlisle.

Approximately 26 miles of the Tuscarora Trail is in Frederick County (see map). Of this total, approximately 11.25 trail miles are protected by easements on private property, 3.75 trail miles are on unprotected private property and 11 trail miles are on public roads.

This trail is an important feature in the County for recreation and for the promotion of tourism. For safety reasons, the County supports the relocation of the trail off of the public roads wherever possible. The County also supports voluntary trail easements for sections of the trail on private property to insure the long-term viability of the Tuscarora Trail.

GOALS/STRATEGIES

GOAL: OPEN SPACES IN THE URBAN AND RURAL AREAS OF THE COUNTY ARE IMPORTANT AND NEED TO BE RECOGNIZED, DELINEATED AND PROTECTED.

STRATEGIES:

- In urban areas, open spaces should be planned. All types of urban open spaces like greenways, squares, plazas, urban parks, playgrounds and street medians should be considered as part of urban development planning and implemented wherever reasonable.
- In rural areas, open spaces should be protected not only through conservation easements but also transfer development rights programs to ensure that agricultural, forested, and mountainous areas are protected.


NATURAL RESOURCES

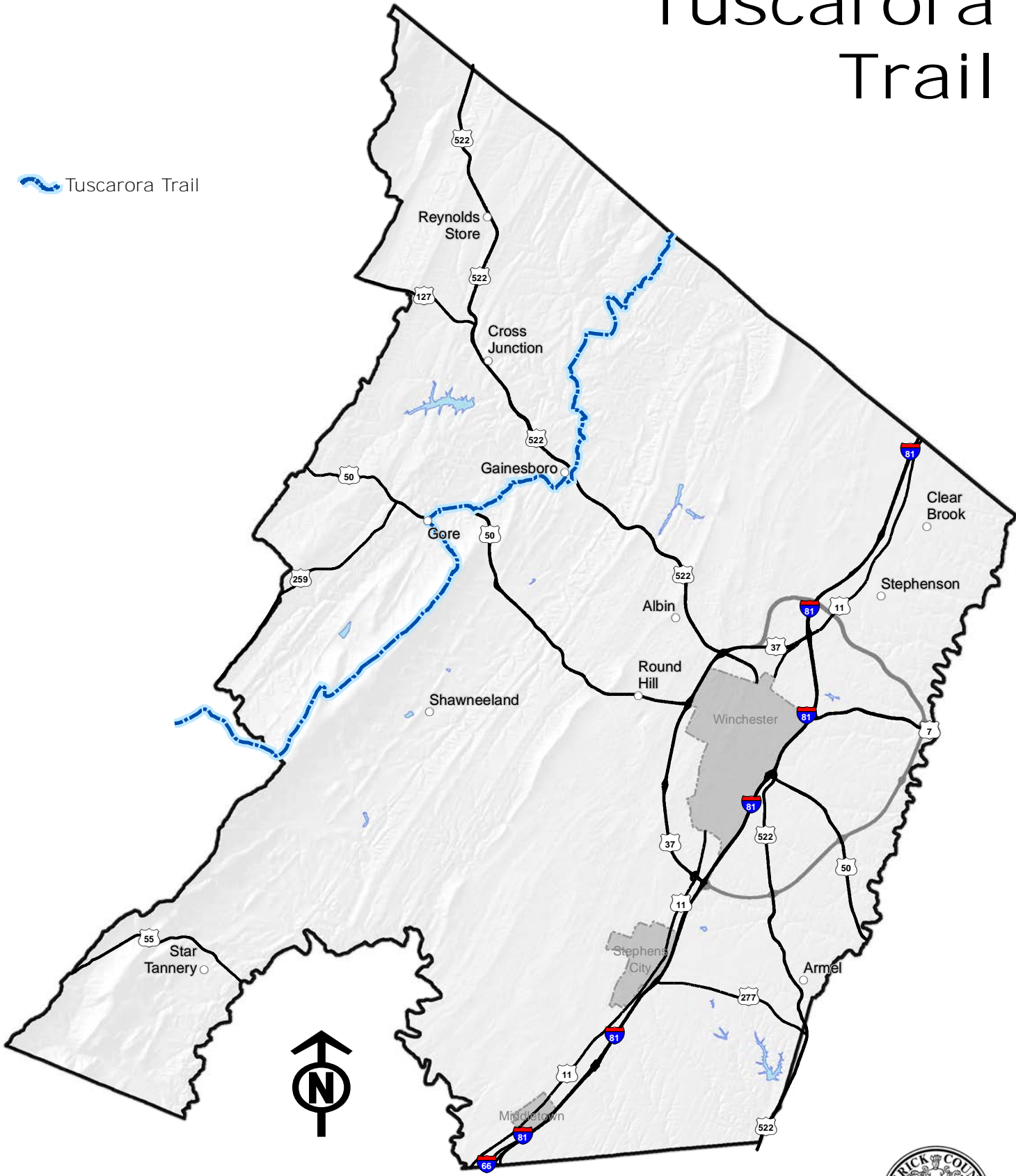
GOAL: **ESTABLISH A NETWORK OF GREENWAY TRAILS FOR CONSERVATION, RECREATION AND TRANSPORTATION THROUGH THE URBAN AREAS OF FREDERICK COUNTY, AND LINK WITH THE TRAILS NETWORK IN THE CITY OF WINCHESTER.**

STRATEGIES:

- Work with the Parks and Recreation Department, the City of Winchester and other organizations and community stakeholders to develop a greenway network plan that **highlights the area's natural and historic resources.**
- Ensure that when new developments are planned, connectivity of greenways is included through the project.

Tuscarora Trail

 Tuscarora Trail



NATURAL RESOURCES

HABITAT FRAGMENTATION AND ENVIRONMENTAL CORRIDORS

Habitat fragmentation reduces available wildlife areas and changes migratory pathways through environmental corridors. Past development has created small separated pockets of open space that sometimes conflict with the needs of local wildlife and their adaptability to these changes. Fragmentation can hinder the safe movement or migration of many species because it forces them to travel over roads and through developments.

GOALS/STRATEGIES

POLICY: INCREASE THE CONNECTIVITY OF NATURAL AREAS AND ENVIRONMENTAL RESOURCES IN BOTH THE URBAN AND RURAL AREAS OF THE COUNTY TO AVOID FRAGMENTATION OF HABITATS AND MIGRATORY PATHWAYS.

IMPLEMENTATION:

- Environmental corridors should be planned with all development activities to ensure safe movement and protection of species.
- The County should seek to reduce habitat fragmentation by maintaining large contiguous areas of forests, meadows, wetlands and streams.
- Large scale clearing of mature woodlands should be avoided during development activities.

LIGHT AND NOISE POLLUTION

LIGHT

Cycles of daylight and darkness have ecological consequences. Obtrusive lighting, often referred to as light pollution, obscures our view of the sky and primarily comes from inefficient and misdirected lighting sources. Misdirected lighting causes urban sky glow and glare, is a source of energy waste and can be a nuisance. Simply defined, light pollution is excess or obtrusive light created mainly by humans. Increasing development requires that care be taken to reduce unfocused emissions of light.

NOISE

Noise pollution is unwanted noise, often described as a displeasing sound that disrupts the activity or balance of human or animal life. The source of most forms of noise pollution is from transportation systems like vehicles, aircraft

NATURAL RESOURCES

or railroads. The daily activities of the Winchester Regional Airport are an example, and it is important that land developing around the Airport is respectful of this operation. The Airport Support Area helps designate what types of uses are appropriate in these developing areas to ensure the continued operation of the Airport.

Other sources of noise include industrial operations, highway traffic, car alarms, factory machinery and equipment, construction work, lawn care equipment, barking pets, car stereos, and power tools. Urban planning can play an important role in managing noise pollution, and the County must ensure that acceptable levels of noise are maintained. Currently the County only has maximum noise levels for industrially zoned property.

GOALS/STRATEGIES

GOAL: **MINIMIZE LIGHT EMISSIONS TO THOSE NECESSARY AND CONSISTENT WITH GENERAL SAFETY AND RECOGNIZE THE NUISANCE ASPECT OF UNFOCUSED LIGHT EMISSIONS.**

STRATEGIES:

- Evaluate current lighting ordinances to assess effectiveness in reducing light pollution caused by up-lighting, excessive lighting, and glare.
- Light emissions need to be minimized to what is necessary and consistent with general safety. Recognition needs to be given to the nuisance aspect of unfocused light emission.

GOAL: **MINIMIZE HUMAN EXPOSURE TO UNHEALTHY LEVELS OF NOISE.**

STRATEGY:

- Ensure that with new development, people are protected from unhealthy levels of noise.
- Examine types of noise generators and determine if additional ordinances are appropriate.

VIII. HISTORIC RESOURCES



HISTORIC RESOURCES

CURRENT CONDITIONS

Frederick County has shifted in recent years from an agrarian community to one that has seen strong residential growth and an expanding business base. As a consequence of development and diversification, landscapes in Frederick County have changed more dramatically during this period than any other. New residential communities have emerged in what were once rural areas, and architectural styles have become more uniform. However, the historic past (including site, structures and landmarks) of Frederick County continues to play a role in the changing landscape.

The Rural Landmarks Survey of Frederick County, a survey of the majority of structures built prior to 1940 in Frederick County, was completed in 1992. It documents over 1800 properties, concluding that many are historically significant. Archaeological sites in the County have also been inventoried. Many of the historically significant properties are recognized on the local, state, and national levels.

In addition to the many structures in Frederick County, six Civil War battlefields of great national importance are located in the Frederick County and Winchester area. More than 12,000 acres of battlefield lands maintain high historic character and are enhanced by several fortifications and entrenchments. A partnership involving Winchester and Frederick County government, the Shenandoah Valley Battlefields Foundation, the Kernstown Battlefield Association, the Cedar Creek Battlefield Foundation, the North-South Skirmish, and others is underway to protect local battlefield sites and create a battlefield park network.

The Historic Overlay Zoning District has been developed as an option for owners who seek to protect the historic resources on their property. This option provides a more regulated approach to the preservation of structures and may be appropriate in areas seeking to establish a historic district. Currently the County has four recognized historical districts and one National Historic Park: Newtown/Stephensburg, Opequon, Middletown, and Bartonsville, Cedar Creek Battlefield and Belle Grove National Historic Park.

The County has also identified Rural Community Centers throughout the County that have a strong rural and historical character (See Rural Areas, Chapter 2).

HISTORIC RESOURCES

FOCUS FOR THE FUTURE

The next twenty years should see the remainder of unidentified historic sites and archeological resources discovered and recorded. Sites that qualify as historic will be added to an on-going inventory. Such an inventory will include archeological surveys of properties surrounding known battlefields, encampments, trenches, and cemeteries.

Heritage tourism will continue to be a strong component of Winchester-**Frederick County's tourism program**. Efforts to develop the battlefield park network will be underway in partnership with the Shenandoah Valley Battlefield Foundation and other community stakeholders.

The economic and cultural importance of historic resources should also be promoted. In combination with historic preservation and heritage tourism efforts, the County should partner with local agencies, organizations, and other appropriate groups to provide education sessions concerning preservation methods and programs. In addition, the Historic Resources Advisory Board (HRAB), a County appointed group, should continue to coordinate with these agencies when reviewing development applications.

COMMUNITY BENEFITS

The value of protecting our historical resources is immeasurable; once lost, historic structures and areas cannot be replaced. They provide a sense of who we are and where we have been. Our community benefits from a balance between surviving historic resources and the new development occurring in this area.

A battlefield park network in Frederick County and Winchester will provide substantial economic and educational benefits and will create a much desired avenue for heritage tourism. Battlefield parks act as a means of meeting the **County's growing need for green space and parkland by providing the** opportunity for recreational facilities within the Parks and Recreation Department. Preserving battlefields and historic sites provides open spaces and scenic vistas. Incorporating trails, such as the five miles linking Route 661 to the Regency Lakes Community and Millbrook High School at the Third Battle of Winchester, complements the pedestrian and bike component of our transportation planning.

Archeological sites are also important to the development of public education and heritage tourism programs as they provide a more detailed story of **Frederick County's history**.

HISTORIC RESOURCES

GOALS/STRATEGIES

GOAL: IDENTIFY AND RECOGNIZE HISTORIC RESOURCES IN THE LONG-RANGE PLANNING EFFORTS OF THE COUNTY.

STRATEGIES:

- The Historic Resources Advisory Board (HRAB) will continue to assist the Frederick County Planning and Development Department by reviewing specific development proposals for potential impact on historic components of the site and surrounding areas and making recommendations regarding impact mitigation.
- Development should include a comprehensive approach to historic preservation that will result in a system of sites and battlefields dedicated or protected in a coordinated fashion, such as the Battlefield Park Network that preserves key sites, attracts tourists, and supports education. Use the Rural Landmarks Survey as a primary source for determining properties and districts that qualify for official recognition.
- Update and maintain the Rural Landmarks Survey regularly in order to keep current the inventory of structures older than fifty years.
- Develop, update, and maintain an inventory of archaeological sites and cemeteries in Frederick County.
- Archaeological surveys should be conducted prior to development, particularly any that involve battlefield areas, homesteads, Native American encampments, and waterways.

GOAL: INCREASE THE REHABILITATION, ADAPTIVE REUSE, OR RESTORATION OF HISTORIC STRUCTURES.

STRATEGIES:

- Study, develop, and adopt methods and criteria to identify historic resources in need of preservation.
- Support the reuse and rehabilitation of historic structures to maintain character of community, both residential and business.

HISTORIC RESOURCES

- Promote incentives for private land owners to comply voluntarily with **Secretary of Interior’s Standards for Rehabilitation**. Incentives allowed by law for the rehabilitation, adaptive reuse, or restoration of historic structures in the Historic Overlay Zoning District should be considered.

GOAL: **INCORPORATE HISTORIC RESOURCE DEVELOPMENT IN AN EFFORT TO STRENGTHEN HERITAGE TOURISM.**

STRATEGIES:

- Developments should incorporate and/or convert historic properties into recreational elements, including but not limited to: pedestrian trails, parks, and museums.
- Develop the Battlefield Park Network as a major heritage tourism component.
- Create dedicated pedestrian-sensitive trails, sites, and routes of interest that will not adversely impact private property owners, as well as develop public scenic byways.
- Permit events, reenactments, tours, and exhibits to attract visitors.



Civil War Battlefields & Sites

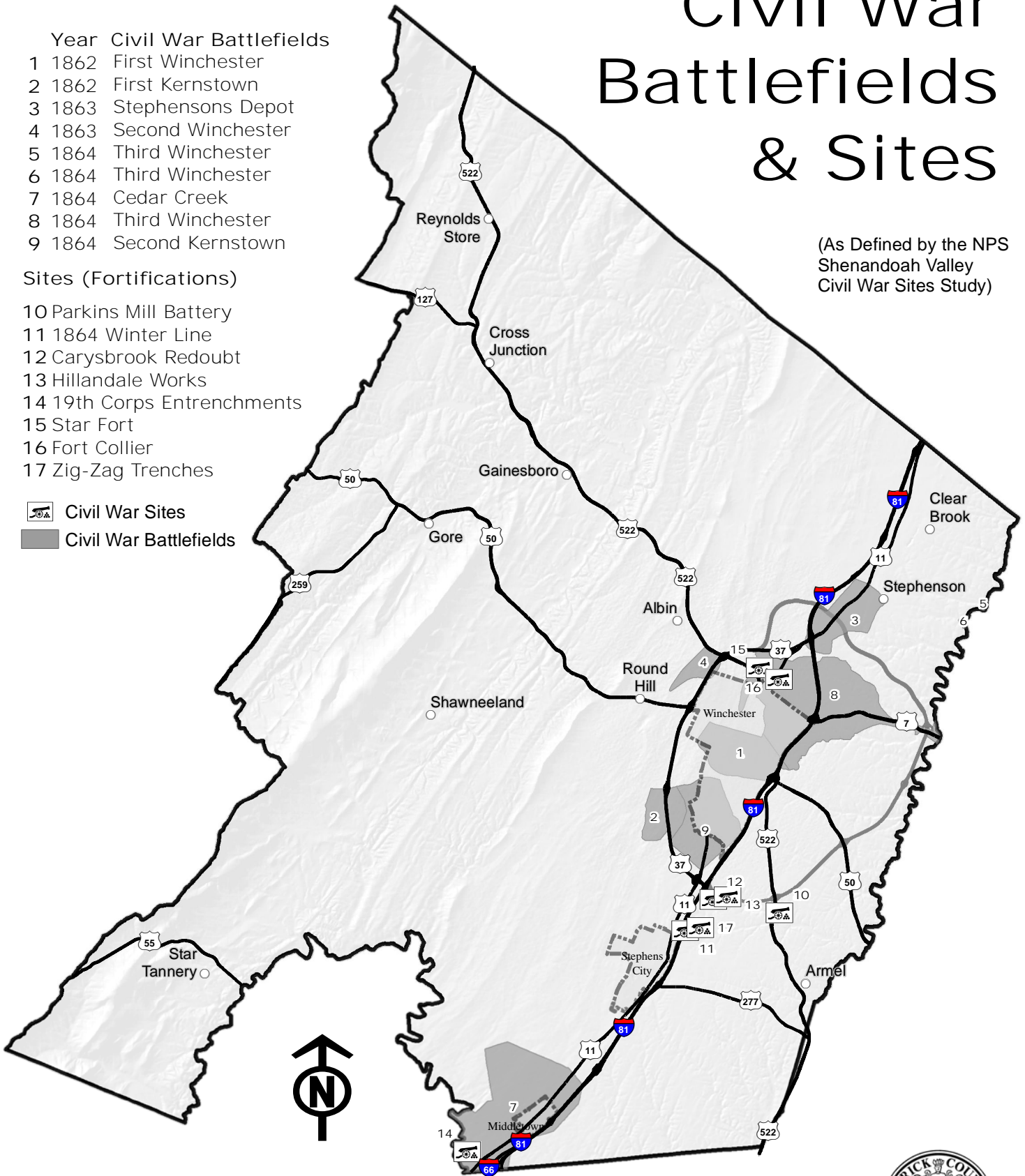
(As Defined by the NPS Shenandoah Valley Civil War Sites Study)

- | Year | Civil War Battlefields |
|------|------------------------|
| 1 | 1862 First Winchester |
| 2 | 1862 First Kernstown |
| 3 | 1863 Stephensons Depot |
| 4 | 1863 Second Winchester |
| 5 | 1864 Third Winchester |
| 6 | 1864 Third Winchester |
| 7 | 1864 Cedar Creek |
| 8 | 1864 Third Winchester |
| 9 | 1864 Second Kernstown |

Sites (Fortifications)


- 10 Parkins Mill Battery
- 11 1864 Winter Line
- 12 Carysbrook Redoubt
- 13 Hillandale Works
- 14 19th Corps Entrenchments
- 15 Star Fort
- 16 Fort Collier
- 17 Zig-Zag Trenches

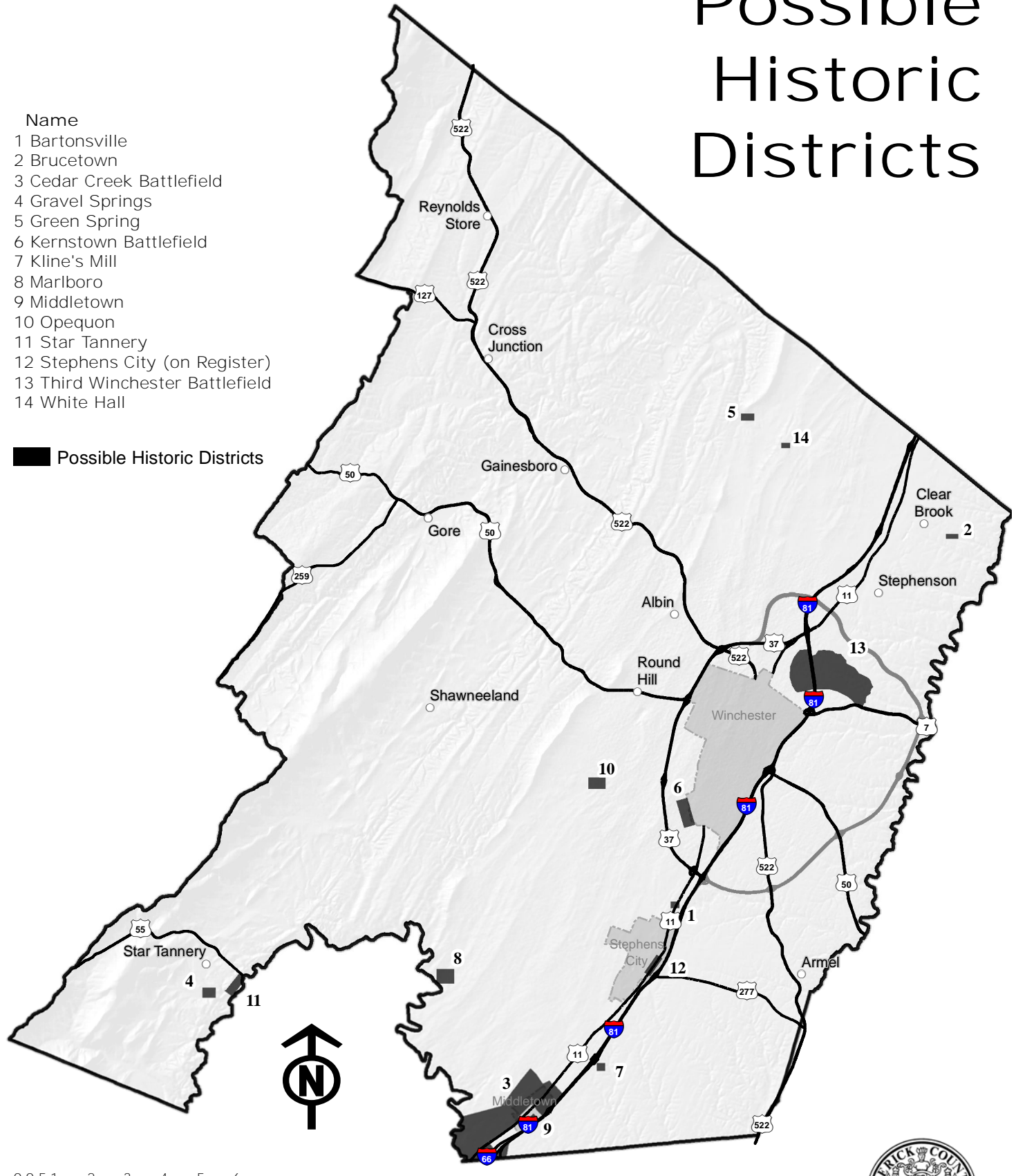
-  Civil War Sites
-  Civil War Battlefields



Possible Historic Districts

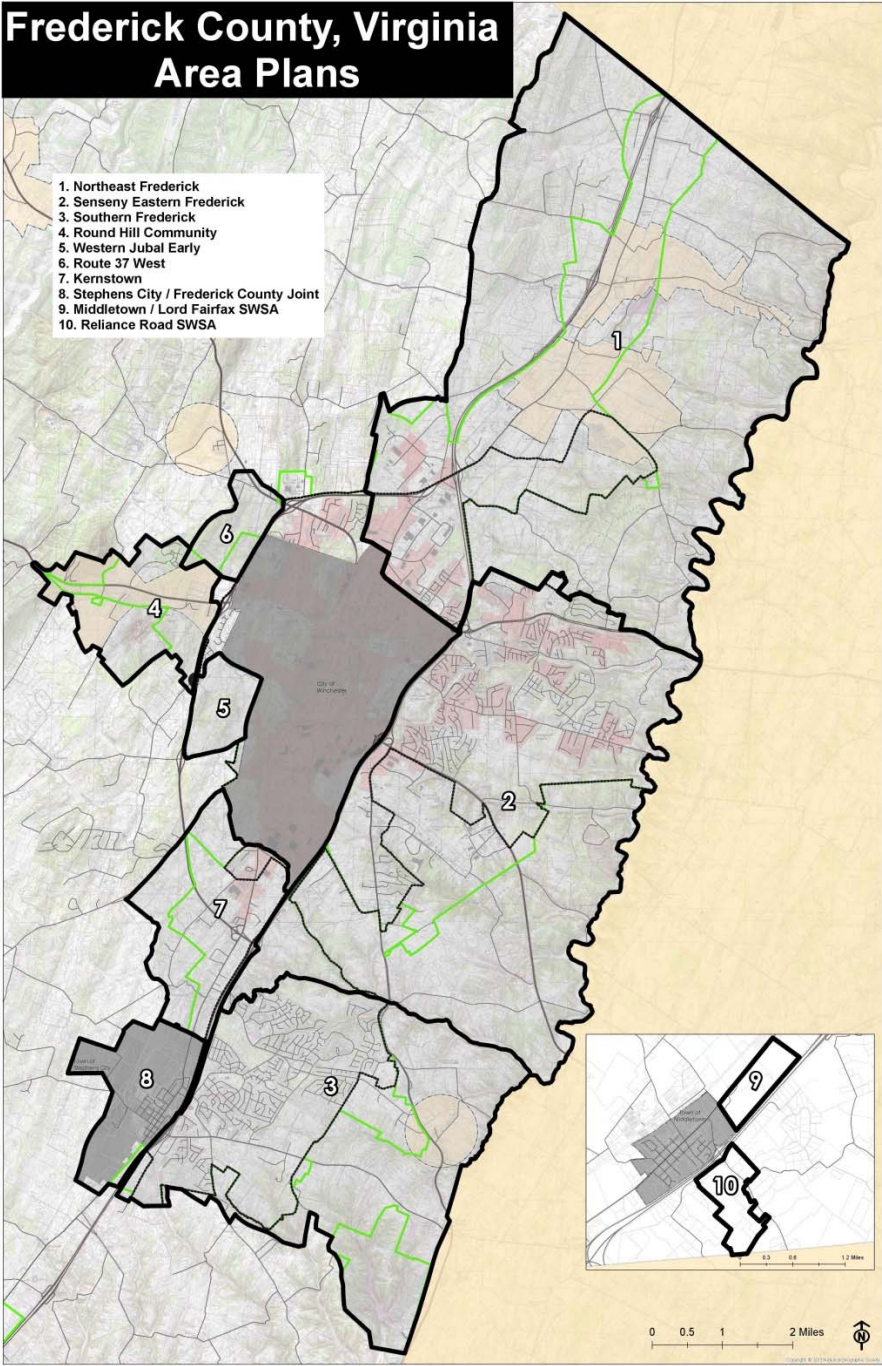
- Name
- 1 Bartonsville
 - 2 Brucetown
 - 3 Cedar Creek Battlefield
 - 4 Gravel Springs
 - 5 Green Spring
 - 6 Kernstown Battlefield
 - 7 Kline's Mill
 - 8 Marlboro
 - 9 Middletown
 - 10 Opequon
 - 11 Star Tannery
 - 12 Stephens City (on Register)
 - 13 Third Winchester Battlefield
 - 14 White Hall

 Possible Historic Districts



THE 2035 COMPREHENSIVE PLAN

APPENDIX I – AREA PLANS



AREA PLANS

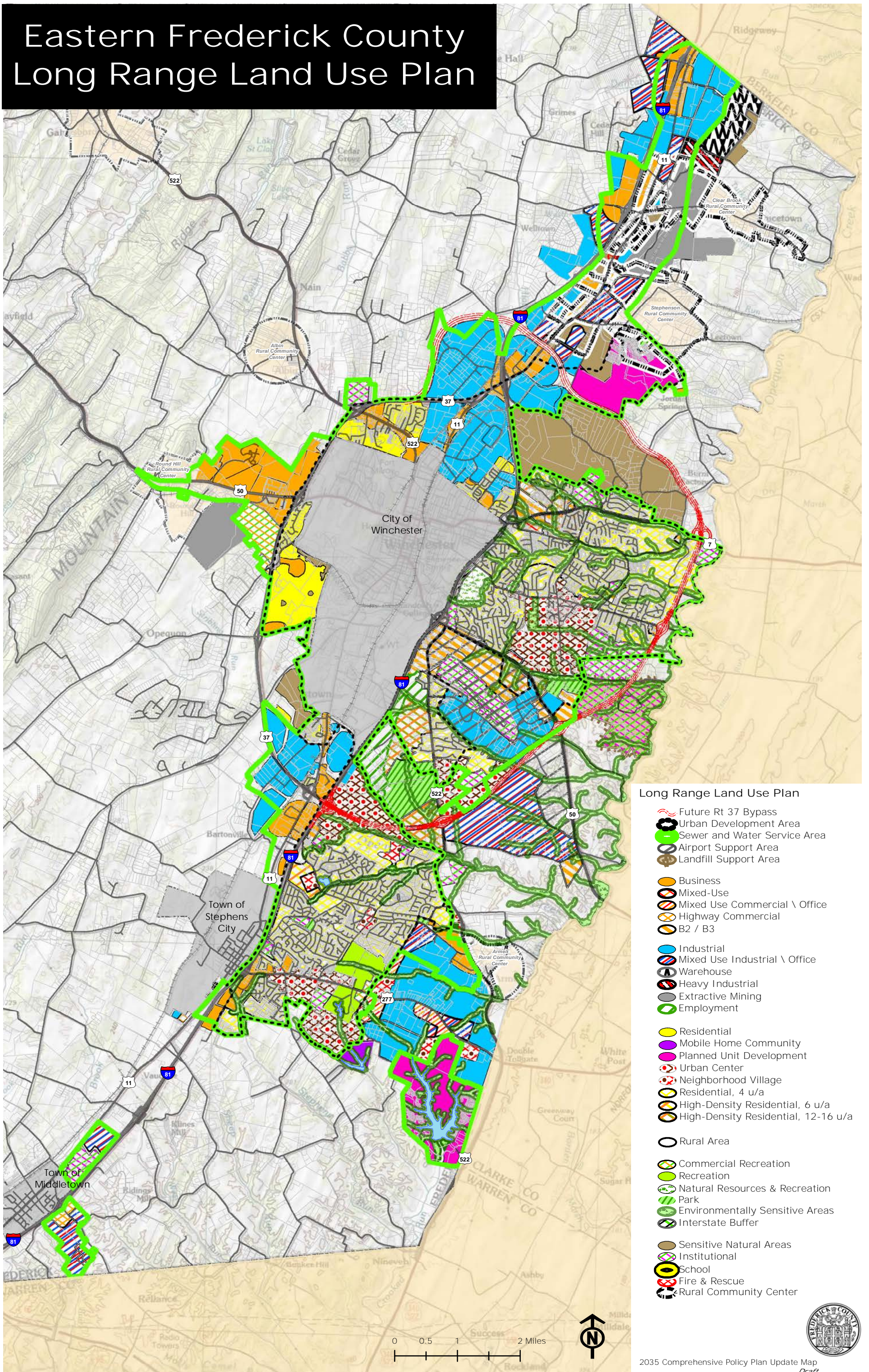
THE EASTERN FREDERICK COUNTY LONG RANGE LAND USE PLAN

- NORTHEAST FREDERICK LAND USE PLAN
- SENECA EASTERN FREDERICK URBAN AREA PLAN
- SOUTHERN FREDERICK LAND USE PLAN
- ROUND HILL COMMUNITY LAND USE PLAN
- WESTERN JUBAL EARLY LAND USE PLAN
- ROUTE 37 WEST LAND USE PLAN

• KERNSTOWN AREA PLAN

- STEPHENS CITY/FREDERICK COUNTY JOINT LAND USE PLAN
- MIDDLETOWN/LORD FAIRFAX SWSA
- RELIANCE ROAD SWSA

Eastern Frederick County Long Range Land Use Plan



- Long Range Land Use Plan**
- Future Rt 37 Bypass
 - Urban Development Area
 - Sewer and Water Service Area
 - Airport Support Area
 - Landfill Support Area
 - Business
 - Mixed-Use
 - Mixed Use Commercial \ Office
 - Highway Commercial
 - B2 / B3
 - Industrial
 - Mixed Use Industrial \ Office
 - Warehouse
 - Heavy Industrial
 - Extractive Mining
 - Employment
 - Residential
 - Mobile Home Community
 - Planned Unit Development
 - Urban Center
 - Neighborhood Village
 - Residential, 4 u/a
 - High-Density Residential, 6 u/a
 - High-Density Residential, 12-16 u/a
 - Rural Area
 - Commercial Recreation
 - Recreation
 - Natural Resources & Recreation
 - Park
 - Environmentally Sensitive Areas
 - Interstate Buffer
 - Sensitive Natural Areas
 - Institutional
 - School
 - Fire & Rescue
 - Rural Community Center



NORTHEAST FREDERICK LAND USE PLAN
NELUP

- INCLUDING TEXT APPROVED WITH THE FOLLOWING AMENDMENTS;

- **MCCANN-SLAUGHTER AMENDMENT**
Approved by the Board of Supervisors on August 13, 2014
- **BLAIN AMENDMENT**
Approved by the Board of Supervisors on February 25, 2015

The Northeast Frederick Land Use Plan, NELUP, was approved by the Board of Supervisors on July 14th, 2011. At that time, the series of four maps detailing the Plan were approved. Text describing the Plan was not included. Subsequently, the two amendments to this plan noted above have included a text component. The text component of the plan follows.

McCANN-SLAUGHTER AMENDMENT

(BOS APPROVED AUGUST 13, 2014)

The Comprehensive Plans and Programs Committee (CPPC), at their April 14, 2014 meeting, recommended that the following amendment be incorporated into the Northeast Land Use Plan:

The CPPC proposed the following balanced approach as an amendment to the Northeast Land Use Plan for the McCann-Slaughter properties located near the intersection of Martinsburg Pike (Route 11) and Old Charlestown Road (Route 761). This location has historically been identified as a Sensitive Natural Area (NSA) due to the environmental and historical features on and **around the site, most notably Stephenson's Depot.**

- Protection of the environmental features of the site.
- Preservation of those areas identified with NSA's and development limited to those areas to the south of the NSA's and south of McCann's Road.
- **Utilizing McCann's Road and other historical features, such as Milburn Road, as features to be protected and potentially used in a manner that promotes their historical context (an extension of the historical trail system in the area).**
- An O.M. (Mixed Use Office/Industrial) land use designation.
- Access to be provided via a new north south road that would generally be adjacent to the border of the Sensitive Natural Area (NSA) providing access from Old Charles Town Road to **McCann's Lane and the southern portion of the property.** Ultimately, Route 37 would divide the southern portion of the **property. No access would be permitted to McCann's Lane for** vehicular access to Martinsburg Pike or Milburn Road.

Subsequently, the proposal was further evaluated to determine if other elements could be incorporated into the proposed amendment that would further ensure the environmental, historical, and development resources were protected, promoted, and sensitively integrated together in this balanced amendment to the Northeast Land Use Plan. To that end, the following items should be addressed with the future development of this area.

- *A buffer adjacent to McCann's lane that is approximately 50' in width (from the centerline). Contained within this area; native landscape plantings and preservation of the existing hedgerows aimed at*

APPENDIX I - AREA PLANS

preserving this resource and its character, interpreting the historical landscape, and buffering the future development.

- *A transitional buffer between the existing floodplain and future land uses that promotes environmental best management practices and buffers the historical NSA from the future land uses (landscaping, building height transitions, view sheds). This buffer may include areas of the identified environmental resources.*
- *The ability to include a small area of neighborhood commercial land use in support of the proposed OM land use. This would be located in the northern portion of the OM land use adjacent to the future road.*
- *An interpretive trail head/parking area in the northern portion of this area adjacent to the proposed road could be incorporated into the design of the project, potentially in conjunction with a small area of neighborhood commercial. The interpretation may be reflective of the environmental and historical resources of the site and area.*
- *The CPPC recommended the OM land use designation extends to the center of the stream. (A subsequent evaluation of this indicated it would be more appropriate to have the edge of the ultimate floodplain be the common boundary as a floodplain is, by definition in the 2030 Comprehensive Plan, an identified Sensitive Natural Area).*
- *The location and design of the road should be sensitive to the environmental and historical resources and should have minimal impact.*
- *Historical signage consistent with currently used signage should be provided.*
- *Historically relevant features, such as split rail fences, should be considered as a feature of the future development. But care should be **taken to ensure the character of the resource isn't changed.***
- ***Appropriate traffic controls should be provided on McCann's Lane to ensure that it is used only for pedestrian and bicycle users.***

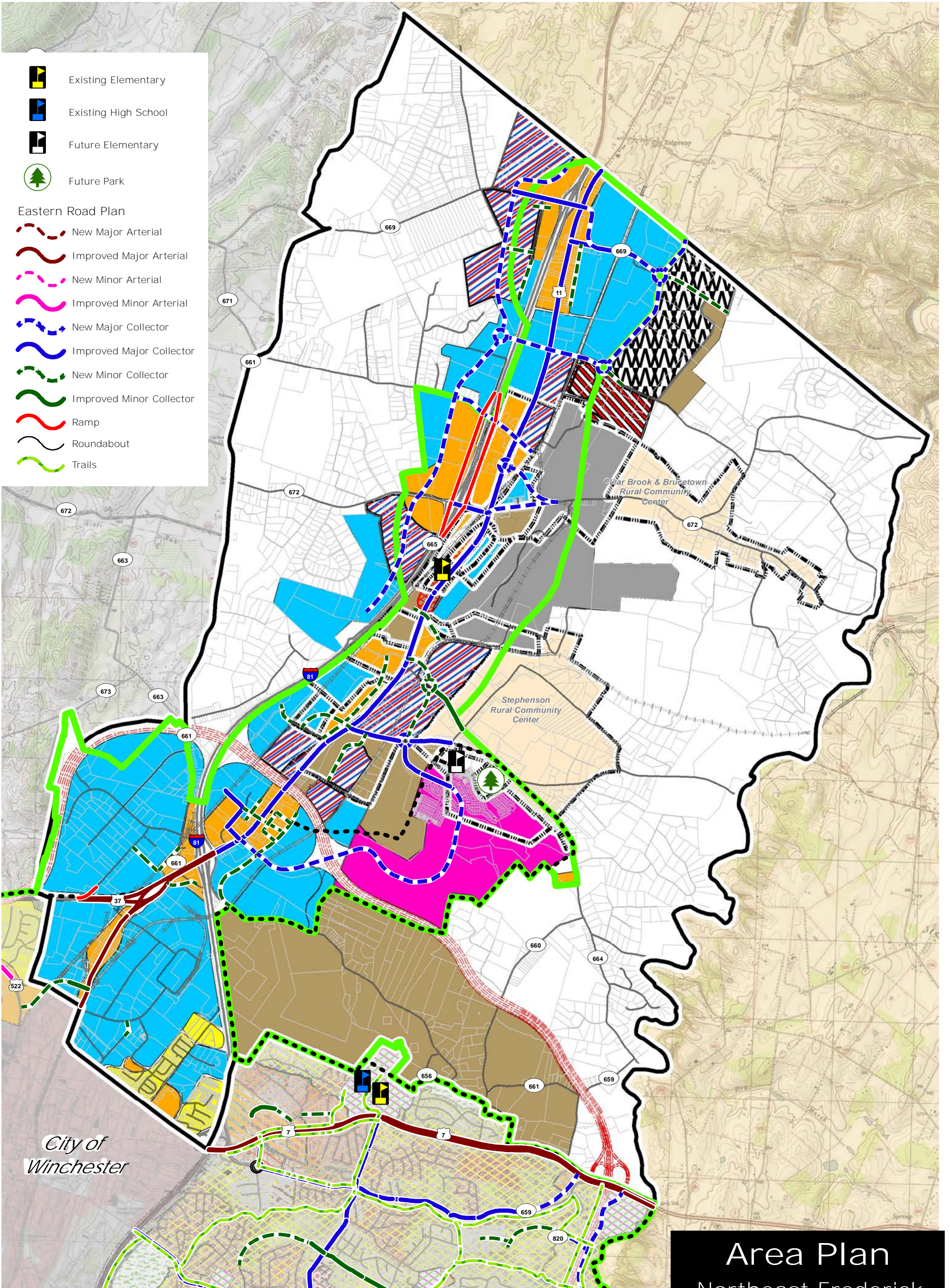
In general, balance was maintained as the overarching theme of the discussion of the CPPC, and subsequently, the discussion of the ad-hoc CPPC/HRAB group.

BLAIN PROPERTIES AMENDMENT

(BOS APPROVED FEBRUARY 25, 2015)

Approved language:

The area of land use northwest of Exit 321, Interstate 81, Hopewell Road, and south of Cedar Hill Road is commercial and industrial in character. In general, the north-south major collector road that has been identified and is necessary to support this area of land use serves as a boundary between the commercial and industrial land uses. Flexibility should be offered in the final balance and location of land uses. Future applications for rezoning in this area shall adequately address any potential impacts to public facilities, in particular transportation, and shall implement any necessary transportation improvements.



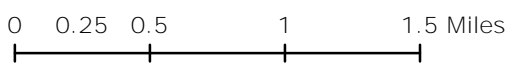
- Existing Elementary
 - Existing High School
 - Future Elementary
 - Future Park
- Eastern Road Plan**
- New Major Arterial
 - Improved Major Arterial
 - New Minor Arterial
 - Improved Minor Arterial
 - New Major Collector
 - Improved Major Collector
 - New Minor Collector
 - Improved Minor Collector
 - Ramp
 - Roundabout
 - Trails

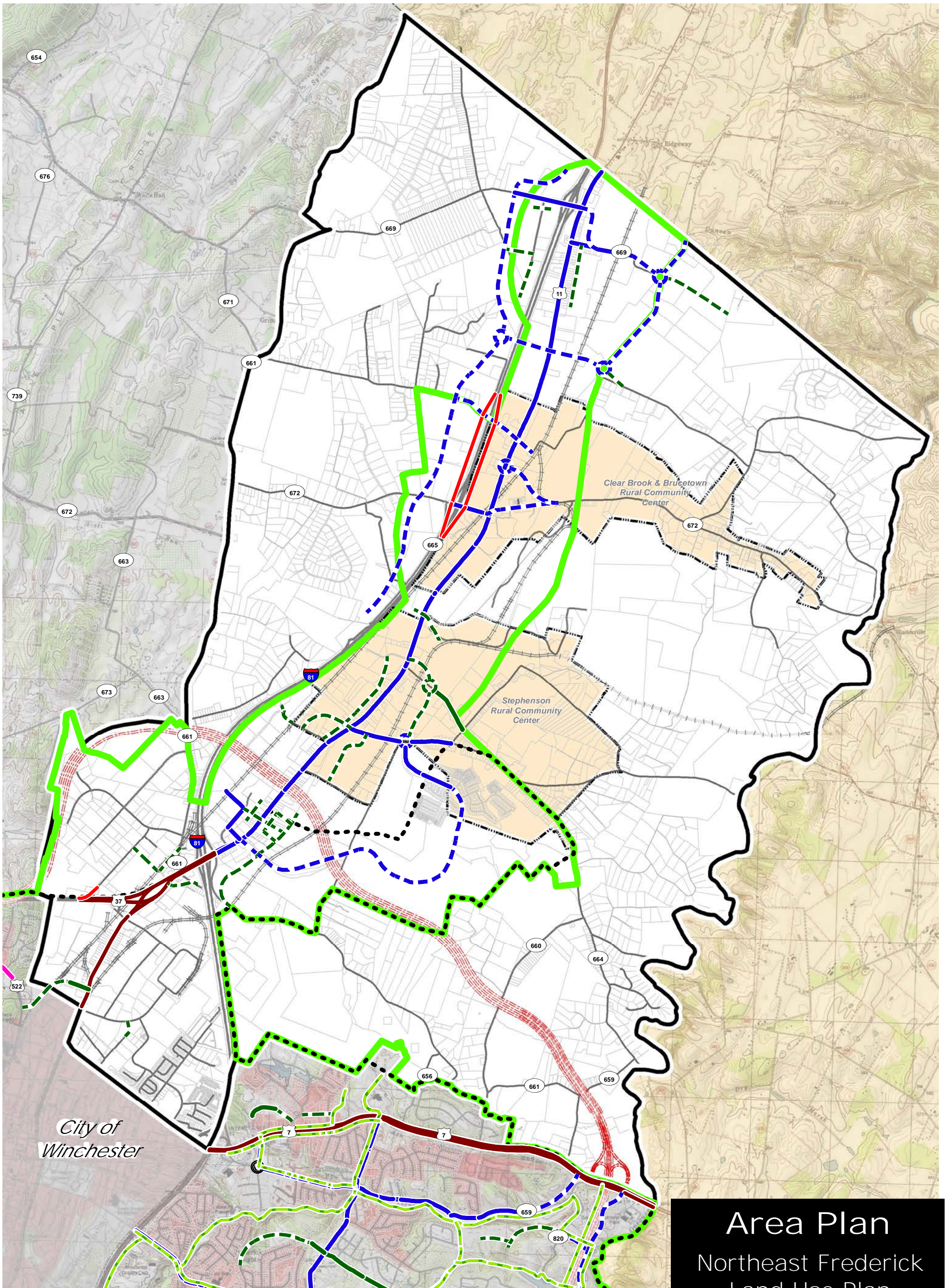
- Urban Development Area
- Sewer and Water Service Area
- Future Rt 37 Bypass

Land Use Legend

- | | | | |
|-------------------------------|-------------------------------|--------------------------------|-------------------------|
| Business | Heavy Industrial | Urban Center | Sensitive Natural Areas |
| Mixed-Use | Mixed Use Industrial \ Office | Neighborhood Village | Fire & Rescue |
| Mixed Use Commercial \ Office | Extractive Mining | Commercial Recreation | Institutional |
| Highway Commercial | Residential | Recreation | School |
| Industrial | Planned Unit Development | Natural Resources & Recreation | Rural Community Center |
| Warehouse | Park | | |

Area Plan
 Northeast Frederick
 Land Use Plan

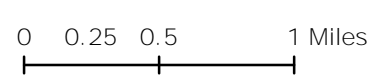


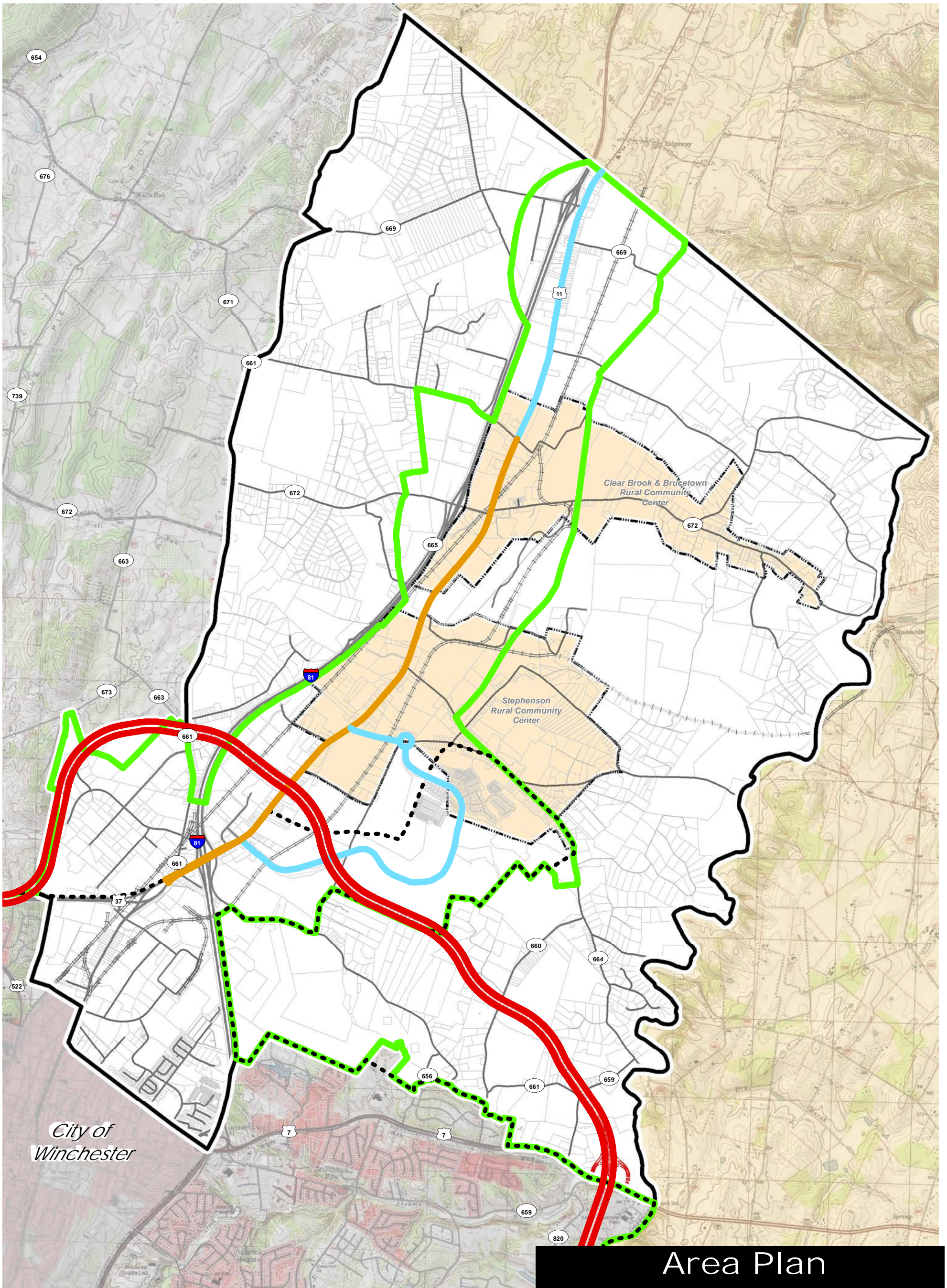


Area Plan
 Northeast Frederick
 Land Use Plan
 Transportation Map

Urban Development Area
 Sewer and Water Service Area
 Future Rt 37 Bypass




- | | | |
|-------------------------|--------------------------|------------|
| New Major Arterial | New Major Collector | Ramp |
| Improved Major Arterial | Improved Major Collector | Roundabout |
| New Minor Arterial | New Minor Collector | Trails |
| Improved Minor Arterial | Improved Minor Collector | |



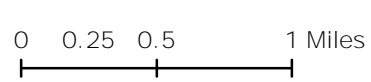


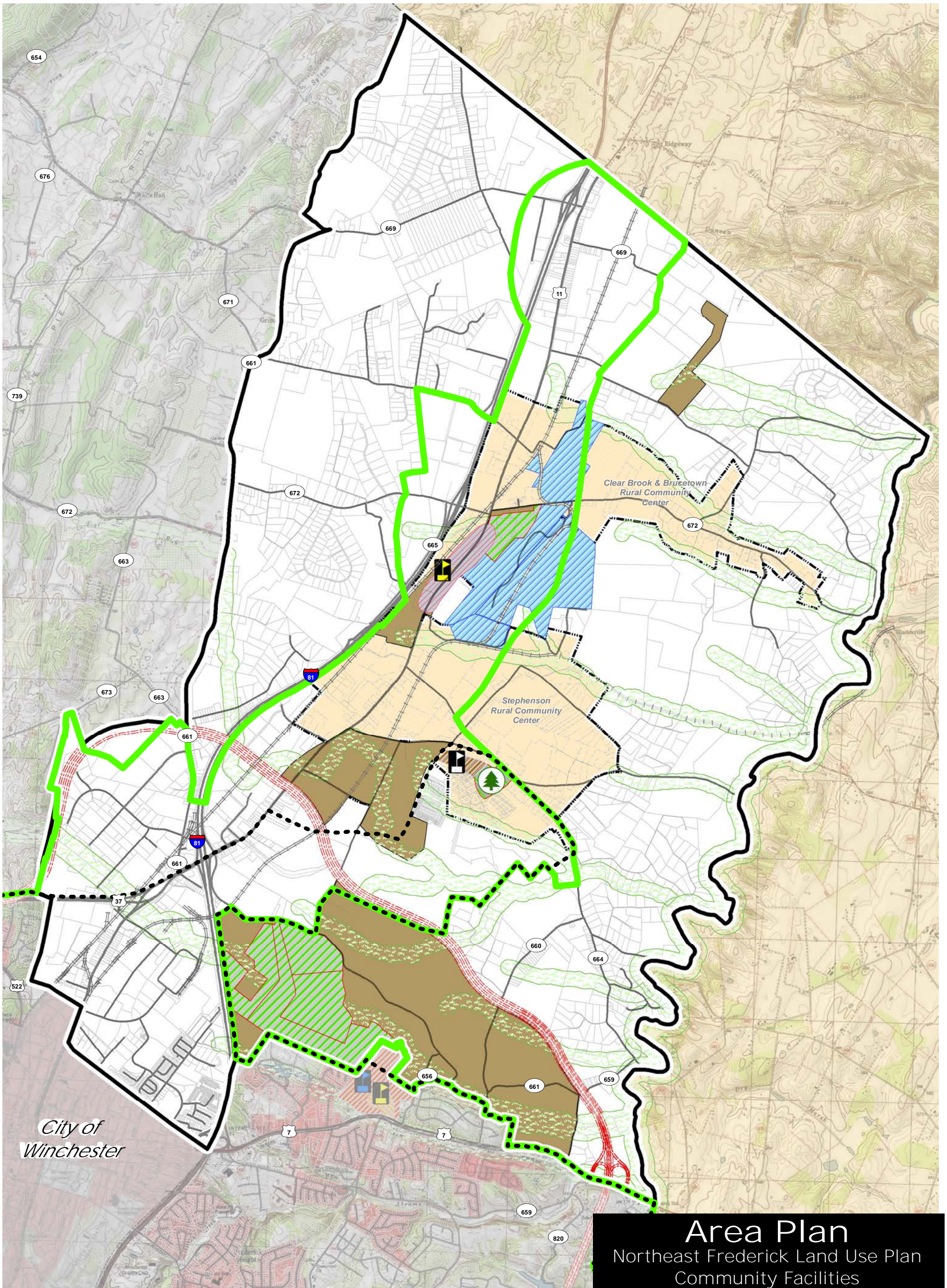
 Urban Development Area
  Sewer and Water Service Area

Proposed Lane Divides

-  4 Lane Limited Access w/ CD Lanes (if required)
-  6 Lane Divided
-  4 Lane Divided

Area Plan
 Northeast Frederick Land Use Plan
 Transportation Map - Lane Divides





Area Plan
 Northeast Frederick Land Use Plan
 Community Facilities
 Natural and Recreational
 Resources Plan

Urban Development Area
 Sewer and Water Service Area
 Future Rt 37 Bypass

Facilities

- Existing Elementary
- Existing High School

Future Elementary

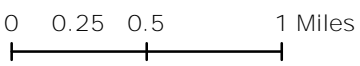
- Future Park

Community Facilities

- Elementary School
- Future Elementary School
- Middle School
- High School
- Fire & Rescue Station

Park

- Future Park
- Water Resources Area
- Natural Resource & Recreation Areas
- Sensitive Natural Areas
- Rural Community Center



SENSENY/EASTERN FREDERICK URBAN AREA PLAN
SEFUAP

SENSENY/EASTERN FREDERICK URBAN AREA PLAN

This area is home to many families and successful businesses, and contains **some of the area's most accessible natural resources and environmental features**, historic resources, and public facilities. The Senseny/Eastern Frederick Urban Area Plan effort builds upon these great assets and has identified opportunities to; create new communities, integrate land use and transportation choices, address community infrastructure needs, and expand **the County's goals for economic development**.

A series of maps have been prepared which identify Future Land Use, Transportation, and Historical Resources, Natural Resources and Public Facilities within the study area.

The Senseny/Eastern Frederick Urban Area Plan incorporates the following areas of new land use focus: *the Urban Centers, the Parkins Mill Economic Development Area, Interstate and Highway Commercial at Routes 7, 50 and 522, Warrior Drive Employment and Commercial Center, and others.*

The above areas combine to form the County's urban areas between the City of Winchester and Clarke County.

The study encompasses the area of the County that is generally east of the City of Winchester and Route 522, South to the Clarke County line and from Redbud Run in the north to the Opequon Creek in the south. This study area includes the Route 7 and Route 50 Business Corridor Plans which were both adopted in 1994, and the eastern portion of the Southern Frederick Land Use Plan which was adopted in 1999, generally north of the Opequon Creek. The study area includes both the Red Bud and Shawnee Magisterial Districts and a small portion of the Stonewall Magisterial District.

An overview to planning in Frederick County.

Planning efforts, such as the Senseny Eastern Frederick Urban Area Plan, enables the community to anticipate and deal constructively with changes occurring in the community. Planning helps guide the future growth of the community and is intended to improve the public health, safety, convenience and welfare of its citizens.

The Plan provides a guide for future land use and was a collaborative effort of the citizens of Frederick County, County Planning Staff, Planning Commissioners, and Board of Supervisors. However, it is the property owners who are the ones who make the decision as to whether or not to implement the Plan as it applies to their property.

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Future rezoning is a means of implementing the Plan. Rezoning in Frederick County have historically been initiated by the property owner, or with their consent. There is no reason to expect that this will change in the future.

Therefore, it is important to remember that the Plan is a guide for the future of the community, but that the property owner is ultimately the one who controls the future use of their property.

Land Use

Urban Centers

The Urban Centers are envisioned to be intensive, walkable urban areas that are well integrated with the surrounding community. The urban center should be based on the principles of New Urbanism or Traditional Neighborhood Design promoted in the 2035 Comprehensive Plan. They shall contain a large commercial core, generally higher residential densities with a mix of housing types, an interconnected street system, and public open space around which the urban center is designed. Multiple uses are envisioned in single structures. Community facilities shall also provide a focal point for the urban center and surrounding community. Public spaces in the form of pocket parks, plazas, or greens shall be further integrated into the design of the Urban Centers.

Presently, Greenwood Mill Elementary School, Admiral Byrd Middle School and Evendale Elementary School provide a focal point for community activity. In the future, these resources shall be complemented by a new High School, Middle School, and Elementary School which shall serve the existing and future population and be located within close proximity to the centers.

The Urban Centers are centrally located in the study area. The commercial and residential mix of land uses shall have a strong street presence and shall relate to existing and planned road infrastructure. The mix of commercial, residential, employment, and community uses shall be linked to the surrounding area with inter-modal transportation choices and public open spaces. While the core characteristics of the urban centers are the same, each urban center is envisioned to be more individual, of a varying scale, and distinctive of their particular location.

The following describes what an urban center in Frederick County may look like. The land use and/or building types could include, in addition to commercial and residential, community oriented types such as civic, religious, fraternal, or institutional uses. In the core area one may find 2 to 4 story buildings that, at the center, share party walls and front directly on the sidewalk; at the first or ground floor one will find retail and commercial uses, upper stories will have offices in some buildings and others will have apartments; and parking of cars will be on the street or in lots behind the buildings and possibly in parking decks if there is such need for structured parking. These types of structures will be readily accessible from the boulevards that serve the urban center.

APPENDIX I - AREA PLANS

The Crosspointe Urban Center

The designated Crosspointe Urban Center provides an opportunity to enable either the currently approved project or an intensification of the proposal to allow for a greater mix of land uses, including residential, for a greater economic return to both the County and the property owner. The Crosspointe Urban Center is envisioned to be the most commercial and urban of the urban centers and, at the convergence of Interstate 81, Route 37 and future Warrior Drive, is ideally located to be the most intensive. The residential densities in **this area have the potential to be the highest in the County's urban areas.** Opportunities exist to further the entertainment characteristics of this area based on its location, visibility and accessibility.

The Greenwood Urban Center

The designated Greenwood Urban Center provides an opportunity for a focal point for an area where most of the recent suburban residential development has occurred. The Greenwood Urban Center is envisioned to introduce a mix of uses into already developed areas in a way that builds the identity and enhances its livability.

This Urban Center should embrace a traditional main-street feel, be pedestrian-friendly, ecologically **sensitive and architecturally distinctive, honor our region's** local heritage and look to the future by promoting urban life in a dynamic new way. This lifestyle center should be defined by tree-lined boulevards and an inviting central park area oriented around the existing historic farm house and grounds.

The residential densities in the core of this area are envisioned to be in the 12-16 units per acre range, tapering off to 6 units per acre on its perimeter. Anchored in all directions by existing and proposed schools and park areas, this Urban Center is tailored to be the future focal point of the Senseny Road and Greenwood area.

The Parkins Mill Urban Center/Neighborhood Village

This designated urban center provides an opportunity to introduce a mix of uses into a largely undeveloped area in a way that builds the identity and enhances the economic performance of these communities. This area is already anchored by an elementary school and middle school.

Similar to the Senseny and Greenwood Urban Center, this Urban Center should also embrace a traditional main-street feel, be pedestrian-friendly, ecologically **sensitive and architecturally distinctive, honor the area's local heritage and** promote urban life in a dynamic new way. This urban center should be defined by tree-lined boulevards and an inviting central park area oriented around the existing public facilities.

APPENDIX I - AREA PLANS

The residential densities in the center of this area are envisioned to be 10-12 units per acre in the core area, tapering off to 6 units per acre on its perimeter adjacent to the existing residential land uses.

Residential Land Uses

Outside of the Urban Centers described above, the residential land uses in the Senseny/Eastern Frederick study area are defined in three main categories:

- R4 – these are generally reflective of our existing residential densities at approximately 4 units per acre.
- R6 – these are slightly higher residential densities at approximately 6 units per acre (this is generally attached house development).
- Higher density residential – these are generally multifamily and a mix of other housing types with densities of approximately 12-16 units per acre (this density is necessary to accommodate the anticipated growth of the County within the urban areas and is essential to support the urban center concept identified in the Comprehensive Plan and this study).

The residential land uses outside and east of Route 37 are envisioned to be rural area residential in character. Route 37, to the north and east of Route 50, may generally be considered as the boundary between the urban areas and rural areas within this study area. This provides a transition area to the Opequon Creek and to the well-established rural character of adjacent Clarke County.

A buffer area along and adjacent to Interstate 81 has been identified where future residential land uses are not appropriate. Commercial and Industrial uses are preferred. Within this buffer area, a linear trail system is promoted. The buffer area also provides for the reservation of additional right-of-way along 81 which may be necessary in the future. Noise abatement techniques should be a consideration in the Interstate 81 corridor to minimize the impact from vehicular traffic on the residents of the area.

Shenandoah University's campus extends into this portion of the County. The plan recognizes and supports Shenandoah University and the University's presence in Frederick County, especially in and around its current location on the east side of Interstate 81 and north of Route 50, as well as the potential for future residential uses associated with the university in the area in the form of urban residential housing in redeveloped existing commercial properties.

The Airport Support Area has been bolstered with the addition of land to the south east. The Airport Support Area was established to ensure the feasibility of continued airport- associated use and future airport expansion. The Comprehensive Plan reiterates that residential land uses are not desirable in the Airport Support Area. Business and industrial uses should be the primary land use.

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Other recommendations from the residential group:

- Utilize additional municipal land uses adjacent to the Frederick County Landfill as a buffer to non-compatible land uses, particularly residential.
- Provide for additional institutional opportunities in the southern part of the study area, west of Route 522.
- Consider another community college presence within this area plan.
- Establish a linear park area east of existing Greenwood Road, and a new park area west of the Justes Drive School cluster.
- Supply additional locations for C & I land uses in the areas identified which are adjacent to transportation corridors and urban centers. These include:
 - An area of commercial and light industrial north of Route 7, buffered by higher density residential to the east, transitioning to existing school uses.
 - An area of medical office uses adjacent to and east of proposed Senseny Road Urban Center.
 - An area of commercial and employment land uses with significant office space availability north of Crosspointe Urban Center buffering into the high density residential areas.
- An area of commercial and employment land use with significant office space availability north of the Crosspointe Urban Center buffering the high density residential areas.

Business Development Land Uses

Parkins Mill Economic Development Area

The Parkins Mill Economic Development Area is intended to be a significant area of commercial and industrial use that is fully supportive of the Winchester – **Frederick County Economic Development Commission’s targeted goals and strategies.** The intent of the mixed use designation is to further enhance the **County’s commercial and industrial areas and to provide focus to the County’s** future regional employment centers.

This area has been established to be a progressive location for economic development opportunities in eastern Frederick County. Targeted businesses include:

- Defense and Advanced Security
- Life Sciences
- Business Services
- Assembly
- Food Processing

In prominent locations, office use with a mix of flexible space is encouraged. Such areas will be the entrance to clusters of industrial and commercial space, and contain distinctive architecture and site design that is aesthetically unique and attractive. It is the intent of such areas to promote a strong positive community image. In addition, this development will support businesses that encourage viable environmental practices and community oriented operating

APPENDIX I - AREA PLANS

philosophies. Residential land use is not compatible with this development and will not be permitted.

Interstate and Highway Commercial at Routes 7 and 50

These areas of land use are located at highly visible locations on prominent interstate interchanges, and along the primary arterial roads that feed into the Interstate. They shall be designed specifically to accommodate and promote highway commercial land uses. Particular effort must be made to ensure that access management for the supporting transportation network is a key priority, as the function of the interstate and primary road network is of paramount importance. The site layout and building design should recognize the nature of the region and land plans should not focus on the minor use, but the comprehensive macro use. In addition, an enhanced area of buffer and landscaping shall be provided adjacent to the Interstate 81 right-of-way and its ramps. Corridor design recommendations are discussed later in this plan.

Warrior Drive Employment and Commercial Center

A major employment and commercial area is proposed primarily along the west side of future Warrior Drive and adjacent to the east side of Interstate 81. This area extends east of Warrior Drive along Airport Road. This major employment area would be centered on the proposed future interchange at Interstate 81 at Papermill Road. Supported by future high density residential areas and central to proposed urban centers, this employment center will be ideally placed to capitalize on this core location. Emphasis should be placed on quality building and site design.

Other recommendations from the business development group:

- New Retail/Service Land Use adjacent to the future Route 37 interchange areas with Route 522 South and Route 50 East to facilitate regional shopping opportunities.
- New Retail/Service Land Use adjacent to the future realignment of Valley Mill Road and Route 7 East.
- Infill Retail/Service Land Use within existing residential developments between Route 7 East and Senseny Road.
- Intensive Retail and Office use lie within the Urban Center planned between Senseny Road, Greenwood Road, Inverlee Way Extension and Channing Drive Extension. This area has been incorporated into the Senseny and Greenwood Urban Center.
- New Neighborhood Retail/Service and Office Land Use within the Mixed Use area planned around existing public school facilities and church facilities near Route 522 South and Justes Drive. This area has been incorporated into the Justes Drive and Evendale Urban Center.
- New Employment Centers are appropriate for the land between Route 522 South and Interstate 81 adjacent to the Paper Mill Road flyover bridge and the future Battaile Drive interchange with Interstate 81, and the future Warrior Drive extension and Tasker Road extension. New Employment Centers are envisioned to allow for intensive Retail, Office, Flex-Tech, and/or Light Industrial Land Use in planned business

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park settings. This area has been incorporated into the Warrior Drive Employment and Commercial Center.

- A new Industrial Park is planned between Route 522 South, Route 50 East, Parkins Mill Road, and future Route 37. This area has been incorporated into the Parkins Mill Economic Development Area.

The business development recommendations of this plan seek to implement the 2035 Comprehensive Plan by promoting the efficient utilization of existing and planned land areas and transportation networks. Further, the recommendations promote commercial, industrial, and employment land use **areas to assure the County's desired taxable value ratio of 25 percent commercial/industrial to 75 percent residential and other land use is achieved.**

The Plan provides new industrial park and employment center areas to match **the Economic Development Commission's vision for this portion of Frederick County.**

The plan identifies prime areas for Urban Center development to capitalize on future commercial and employment opportunities. In addition, areas are identified for neighborhood commercial retail use to accommodate existing residential communities.

Existing commercial land uses are promoted that facilitate tourism and short-term visitor experiences and revenue growth.

Specific Implementation Steps have been identified which would further promote business development opportunities in the Senseny/Eastern Frederick County Urban Area Plan and Frederick County in general. These include:

- The creation of a Future Land Use Revenue Incentive Program that provides property owners with the ability to sell residential density rights to keep their property available for future employment, commercial, or industrial land use as recommended by the Comprehensive Policy Plan. This program would incentivize the property owner by providing a revenue income source in the near term and future revenue income when the property is zoned for employment, commercial or industrial land use.
- Incentivize the property owner with automatic placement of the property into the Sewer and Water Service Area (SWSA) if a rezoning application is processed for future employment, commercial, or industrial land use.
- Incentivize the property owner with County endorsement of Economic Development Access (EDA) funds and/or Revenue Sharing Funds to assist in the financing of major road infrastructure needed to serve the development project. Additionally, provide for County-managed support of the major road infrastructure projects to streamline the approval process for project design and construction management.
- Incentivize the property owner through the implementation of expedited rezoning processes for future employment, commercial, or industrial land use as recommended by the Comprehensive Policy Plan.

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- The creation of new Zoning Ordinance requirements that facilitate more intensive Floor to Area Ratio (FAR) and height allowances for future employment, commercial or industrial land use, especially in the urban centers.
- The County should support and partner with various athletic organizations to sponsor regional or state tournaments and events using existing facilities to promote tourism in support of existing hotels, restaurants, and attractions.

Corridor Design

The Route 522, 50, and 7 corridor design guidelines should be reaffirmed. In addition, the following locations have been identified as priority corridor appearance and multi-modal locations:

- Route 50 between Interstate 81 and Prince Frederick Drive, to include Shenandoah University and prime commercial locations.
- Route 7 between Interstate 81 and Greenwood Road, to include Millbrook High School, Redbud Run Elementary School and prime commercial locations.
- Senseny and Greenwood Roads and Channing Drive, to include the area encompassed by the urban center and Senseny Road in its entirety.

A significant corridor appearance buffer is proposed along Route 522 similar to that established for the Route 50 West corridor in the Round Hill Land Use Plan, which consisted of a 50 foot buffer area, landscaping, and bike path. The Route 50 and 7 corridors are more urban. Sufficient right-of-way is needed and street frontage is approached differently.

Transportation

In support of the new areas of land use, a transportation network has been proposed which relates to the location and context of the areas of land use, promotes multi-modal transportation choices and walkability, and furthers the efforts of the Win-Fred MPO. In this study, there is a direct nexus between transportation and land use.

Interstate 81, future Route 37, Route 7, Route 50, and Route 522, provide **orientation for the County's primary road system and provide new opportunities** to create a transportation network which supports the future growth of the community in the right location, in this study area, generally inside future Route 37.

Access Management is a significant consideration of this study and is a key element of all existing and future roads. The use of frontage roads, minor collector roads, and inter parcel connections to bring traffic to access points is promoted on the above roads. Access Management is also a key consideration on other roads within the study area; however, within a different context.

APPENDIX I - AREA PLANS

The study also proposes a new and extended major collector network supplemented by interconnected minor collector street network in support of a significant urban center and new areas of economic growth - Warrior Drive, Justes Drive, Channing Drive, Inverlee Way.

The context of the collector road network is proposed to be significantly different, however, than that of Route 37, with the focus being placed on a more walkable and friendly street thoroughfare design. The change in context is based upon the classification of a road and to ensure compatibility with adjacent land uses and community goals. Particular attention should be paid to street network within the Urban Center. The surrounding land use, site design, and building design are features that will help create context and promote the creation of new communities, places, and focal points. Attention should also be provided to the context of the street in the immediate vicinity of existing and future schools, and the Neighborhood Village Commercial Areas to ensure that these prominent locations are safe and accessible to all modes of transportation. Bicycle and pedestrian accommodations should be fully integrated into street designs. Appropriately designed intersection accommodations should include pedestrian refuge islands and pedestrian actualized signals.

More specific transportation considerations for Millbrook High School and the adjacent park areas include taking a proactive approach in creating safe interconnected routes to the park from the adjacent areas.

Roundabouts should be considered as a priority preference for intersection design. Roundabouts are particularly effective when used in series.

Consistent application of Comprehensive Plan goals to achieve an acceptable Level of Service on area roads and overall transportation network, Level of Service C or better, should be promoted. Further, efforts should be made to ensure that additional degradation of the transportation beyond an acceptable Level of Service shall be avoided. Consideration of future development applications within the study area should only occur when an acceptable Level of Service has been achieved and key elements and connections identified in this plan have been provided.

Other recommendations from the transportation group:

- Emphasize the role of the State and the development community in the implementation of the planned road system.
- Use modeling to determine lane needs based upon build out of planned land uses, but consider plans of neighboring localities when making recommendations (for example Senseny Road where it enters the City of Winchester or Clarke County)
- Consider the needs of bicycle users and pedestrians in the following ways:
 - Continue to plan for multi-modal street designs that will take all users into consideration.

APPENDIX I - AREA PLANS

- Within residential neighborhoods, this would mean that sidewalks be used and cyclists share the roads. Use of striping that defines parking bays or cycling areas would be preferred.
- On collector roadways or higher, make use of separated multi-use paths at least 10 feet in width.
- Incorporate wide shoulders or bike lanes into roadways that have budgetary or right-of-way limitations. This would be viewed as a step toward the ultimate goal of a separated facility.
- Make use of paved shoulders with striping on rural roadways as a long term measure. Rural roadways would be defined by traffic count or as roadways outside of the UDA that are not part of the Primary System (ex. Route 50 or 522).
- Bike paths should be constructed on the same grade as the adjacent roadway.
- Bike path maintenance should be addressed by adjacent property owner groups whenever possible.
- Continue to enforce improved access management with redevelopment or new development.
 - This includes, but is not limited to, entrance location and spacing as well as traffic signal location and spacing.
- Roundabout use is preferred over signalization of intersections where traffic control is needed.
- Attractive median treatments (as alternative to standard grey concrete median) other than grass or other landscaping should be considered when maintenance agreements with VDOT cannot be achieved.
 - Treatments should be reasonably consistent
- Street sections could be modified due to DCR changes specific to drainage requirements.

Natural Resources, Historic Resources, and Public Facilities.

Natural Resources

Frederick County is a community that values and protects its natural resources.

Frederick County should create a green infrastructure inventory for the study area as well as the County as a whole. This inventory should guide land use and development to best preserve and protect natural resources. Developers should complete detailed environmental analysis for properties proposed for development. This information could be utilized to supplement the green infrastructure inventory.

Within the Senseny/Eastern Frederick Urban Areas Plan, effort should focus on the creation of greenways, stream valley parks and stream buffers around waterways, while taking into account environmentally sensitive areas. Pedestrian facilities should be constructed that connect these features to other public facilities. Many such examples have been identified on the accompanying map.

Environmental corridors should be incorporated with all development activities to ensure safe movement and protection of species and future development within the study area should take into account the natural resources located on and around their property.

Businesses that utilize environmental management systems should be targeted by Frederick County. Further, developers should consider available renewable energy options with their projects.

Historic Resources

Frederick County is a community that recognizes and protects the historic structures and sites within the study area.

Possible historic districts and significant structures have been identified and recognized. Priority sites for preservation within the study area should be identified and efforts initiated to preserve those of highest need. These include Frederick Hall/Parkins Mill Battery and the historic area around Carpers Valley Road.

Increase the rehabilitation, adaptive reuse, or restoration of historic structures.

Heritage tourism should be promoted within the study area.

The Comprehensive Plan calls for the adaptive reuse of historic structures, future development applications that have historic resources on the property should incorporate the site into development.

APPENDIX I - AREA PLANS

Sensitive Natural Areas and Historic Areas are shown on the land use map for the study area. By recognizing these historic sites and structures, we are implementing the policies of the Comprehensive Plan.

Other recommendations from the group:

- Require archaeological surveys to be conducted prior to development, particularly any that involve battlefield areas, homesteads, Indian encampments, and waterways.
- Significant structures and properties should be shown with a sensitive natural/historic designation. These NSA's **should be protected** through historic districts and/or buffered from adjacent development activity.
- The historic areas around Frederick Hall/Parkins Mill Battery and the historic area around Carpers Valley Road should be considered for possible historic districts.
- Developments should incorporate and/or convert historic properties into recreational elements, including pedestrian trails, parks, and museums. Establish a linear historic greenway between Crosspointe (Hillandale, Carysbrooke, and the preservation park) and the fort (at Parkins Mill Battery), preserving the natural, recreational, and historical features and promoting accessibility.
- Create a Historic Gateway park to Frederick County by supporting the restoration and adaptive reuse of the Millbank House in conjunction with other preservation partners.
- The historic one-lane bridge located on Valley Mill Road should be maintained and preserved.
- Ensure connectivity of bicycle or pedestrian transportation accommodations to existing or proposed public facilities and historic resource areas.

A regional park site has been identified on Senseny Road; this site contains a potentially significant structure and one of the few remaining farming complexes within the developed area of the study area. This park should incorporate the historical farm house and contributing structure as a means to demonstrate urban agriculture.

Public Facilities

The need for public spaces within the study area (such as schools, neighborhood parks, and regional parks) is recognized and addressed. The accompanying maps identify general locations within the Senseny/Eastern Frederick Urban Area Plan where such facilities should be accommodated in order to ensure adequate public facilities corresponding with the growth of the community.

Future school sites should be located within or near established or planned residential areas to encourage walk zones, as well as create a focus point for

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the community. Residential land uses that complement existing public facilities and schools are encouraged.

Utilities and infrastructure will be needed within the study to accommodate future growth. Frederick County needs to look at preserving the intent of the landowner when planning for public facilities while still meeting the needs of the community.

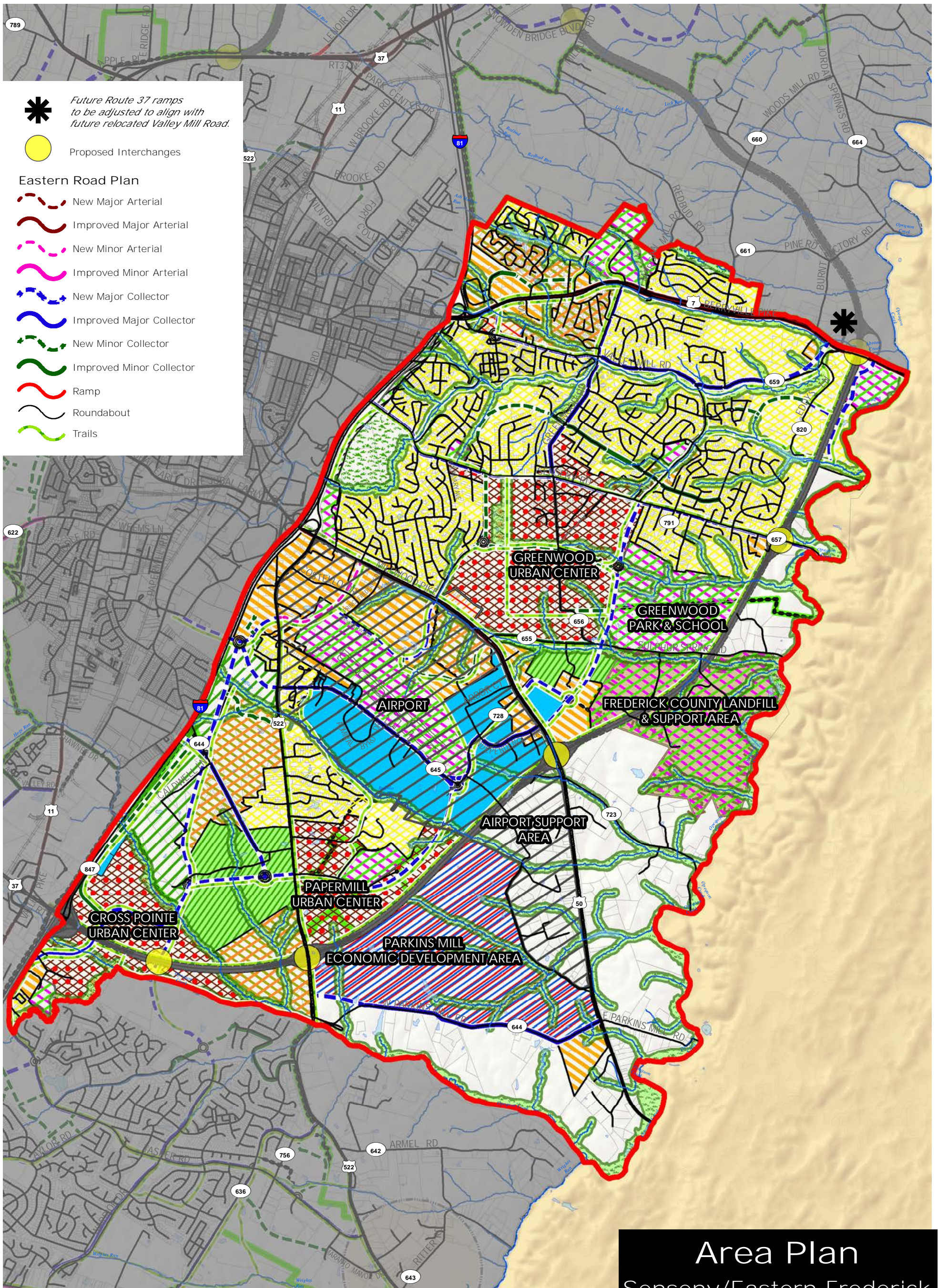
Other recommendations from the group:

- On any given request for development, the development community should work with all public facility providers to determine future public facility needs based upon this plan and the established standards of the public facility providers.
- The Parks & Recreation Department should continue to evaluate the “ideal” park site rings that are within the 2035 Comprehensive Plan. Sites that are outside of the identified park rings should be considered if they meet the needs of the community.
- A regional park is envisioned within the study area. In addition, a smaller park is envisioned within the Greenwood Urban Center that should incorporate the historical farm house and contributing structure as a means to demonstrate urban agriculture.
- Urban parks and other public spaces should be constructed within or near communities. These parks should be open to the public and connected not only by road, but by various pedestrian facilities.
- The 42 acre parcel owned by the landfill (old landfill site) could be considered for future use as a park.
- Public access areas to the Opequon Creek should be constructed, taking into account environmentally sensitive areas.
- The bicycle and pedestrian facilities shown on the map and the 2007 Win-Fred MPO Bicycle & Pedestrian Mobility Plan should be implemented.
- The 2007 Win-Fred MPO Bicycle & Pedestrian Mobility Plan should be utilized as a reference for accommodation recommendations and guidelines.
- Pedestrian facilities should be constructed that connect existing and future neighborhoods to school, park and library facilities to promote access and walkability. A trail or sidewalk should be provided along Greenwood Road.
- Support completion of a linear recreation path encompassing the Senseny Road, Abrams Creek, Channing Drive areas.
- Ensure connectivity of bicycle or pedestrian transportation accommodations to existing or proposed public facilities and historic resource areas.
- Ensure connectivity with existing or proposed bicycle or pedestrian transportation accommodations wherever possible.
- A pedestrian crossing over Route 7 in the Millbrook School area should be provided.
- Handley Regional Library needs should be recognized and addressed within the study area. A satellite library location should be provided within the study area (similar to Bowman Library) to meet this need.

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Frederick County Public Schools should also work with the Handley Regional Library to provide public library locations within new school locations.

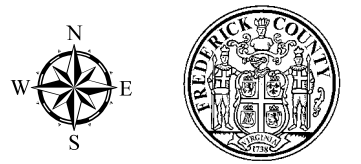
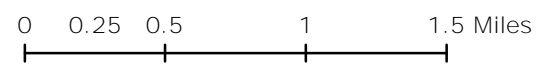
- Future areas for Fire & Rescue stations have been identified on the map; development proposals in these areas should take this future need into account.
- The Airport has a 20 year Master Plan that outlines their ultimate expansion goals for this facility. Development proposals should not be considered on properties that fall within this planned expansion area. Also, development proposals considered within the Airport Support Area should not impact the current or future needs of the Airport.
- Incompatible development should be avoided near the landfill to ensure that their operations are not impacted (i.e., residential, urban, etc.). Industrial uses may be appropriate near the landfill. A landfill support area should be created around the landfill similar to the Airport Support Area. This support area should extend 1,000 feet from the boundaries of the landfill.

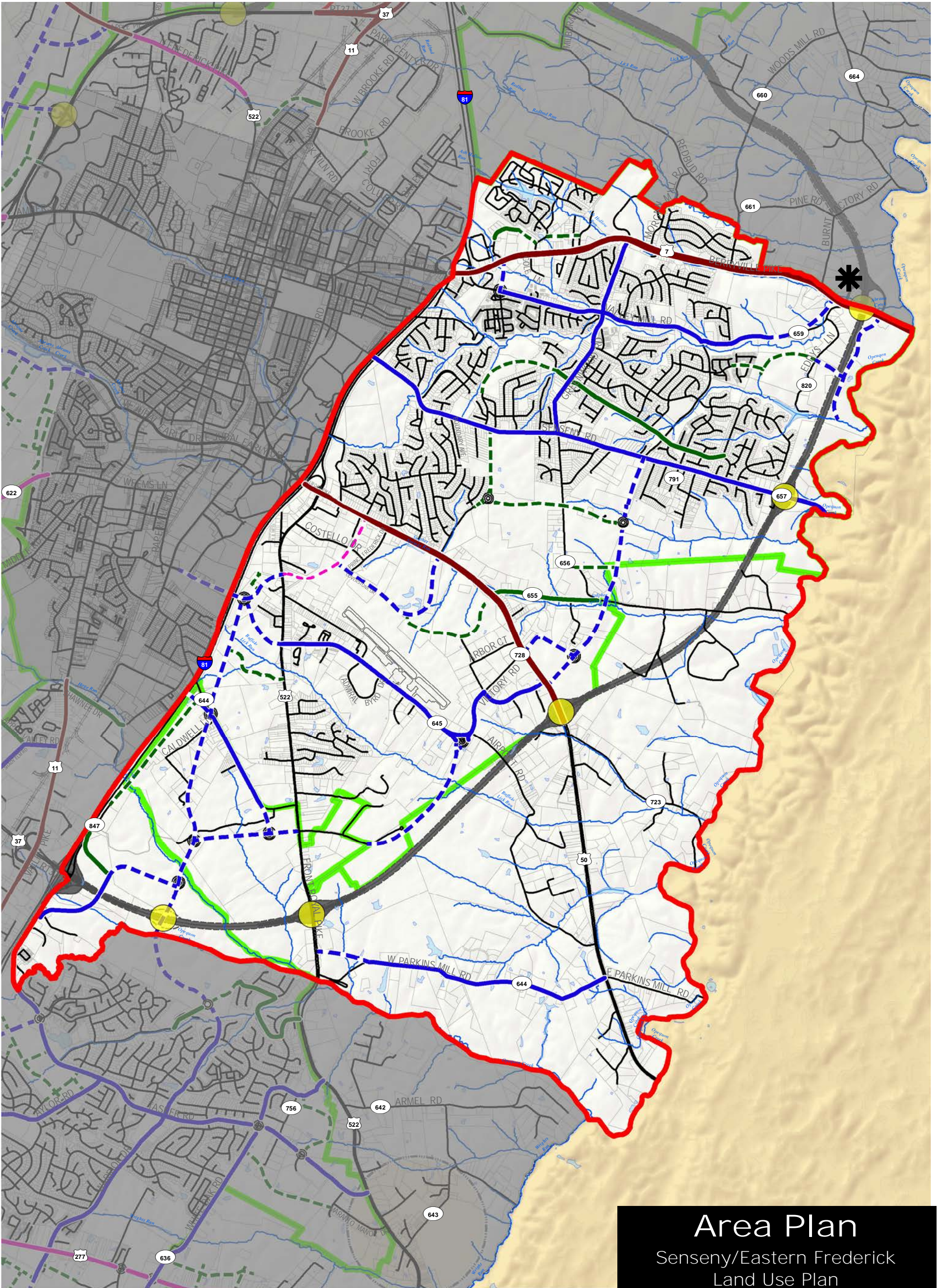


Area Plan

Senseny/Eastern Frederick Land Use Plan

- Urban Development Area
 - Sewer and Water Service Area
 - Future Rt 37 Bypass
- Land Use Legend**
- | | | | |
|----------------------|---|-------------------|--------------------------------|
| Employment | Mixed Use Industrial \ Office | Institutional | Park |
| Airport Support Area | Residential, 4 u/a | Urban Center | Natural Resources & Recreation |
| B2 / B3 | High-Density Residential, 6 u/a | Rural Area | Landfill Support Area |
| Mixed-Use | High-Density Residential, 12-16 u/a | Interstate Buffer | |
| Industrial | Mixed-Use/High-Density Residential, 12-16 u/a | | |



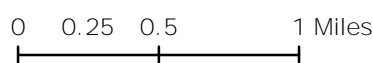


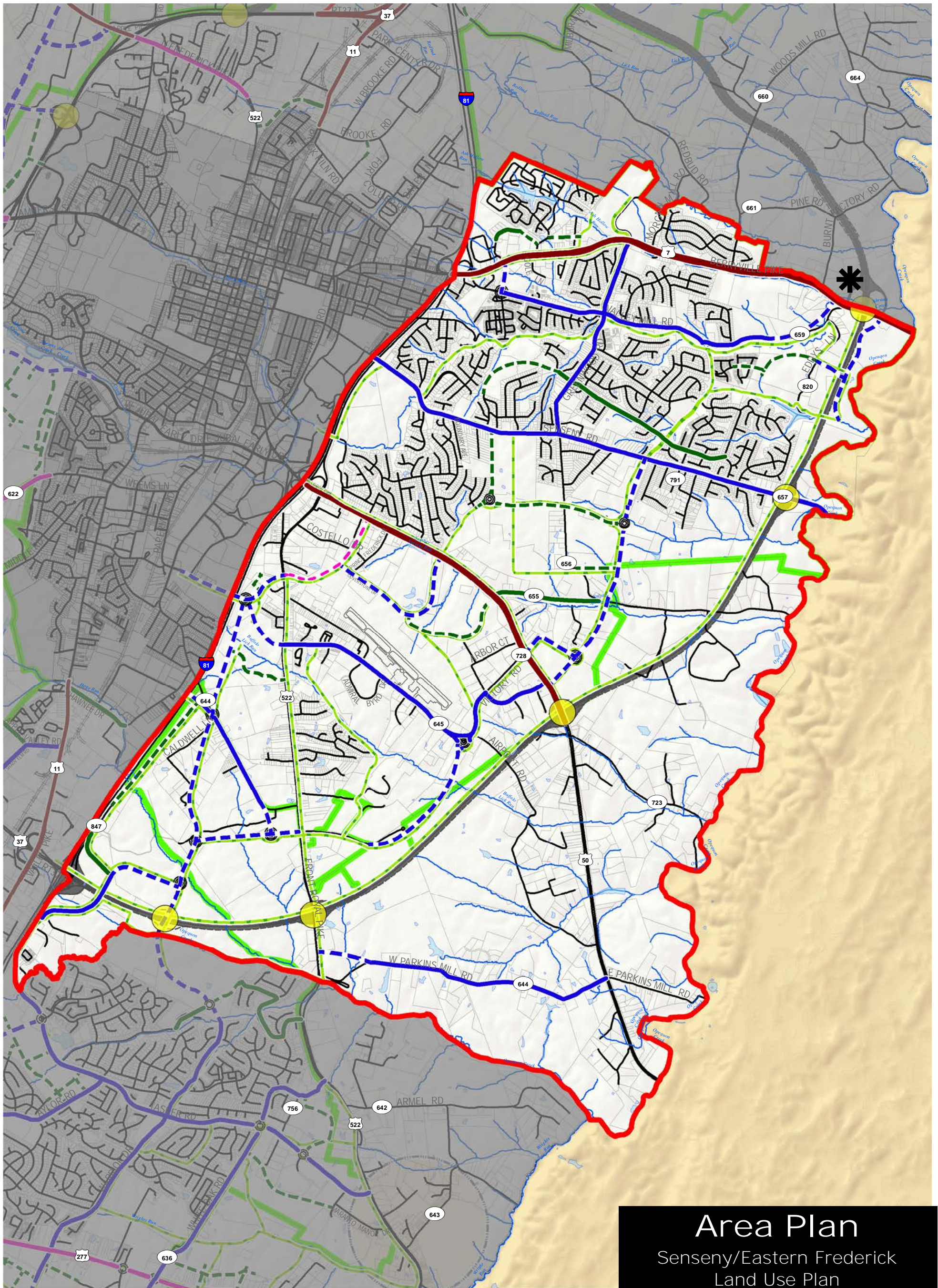
Area Plan

Senseny/Eastern Frederick
Land Use Plan
Transportation Map

Urban Development Area
 Sewer and Water Service Area
 Future Rt 37 Bypass

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> <i>Future Route 37 ramps to be adjusted to align with future relocated Valley Mill Road.</i> Proposed Interchanges New Major Arterial | <ul style="list-style-type: none"> Improved Major Arterial New Minor Arterial Improved Minor Arterial New Major Collector Improved Major Collector | <ul style="list-style-type: none"> New Minor Collector Improved Minor Collector Ramp Roundabout |
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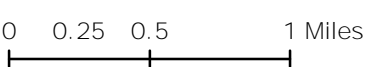


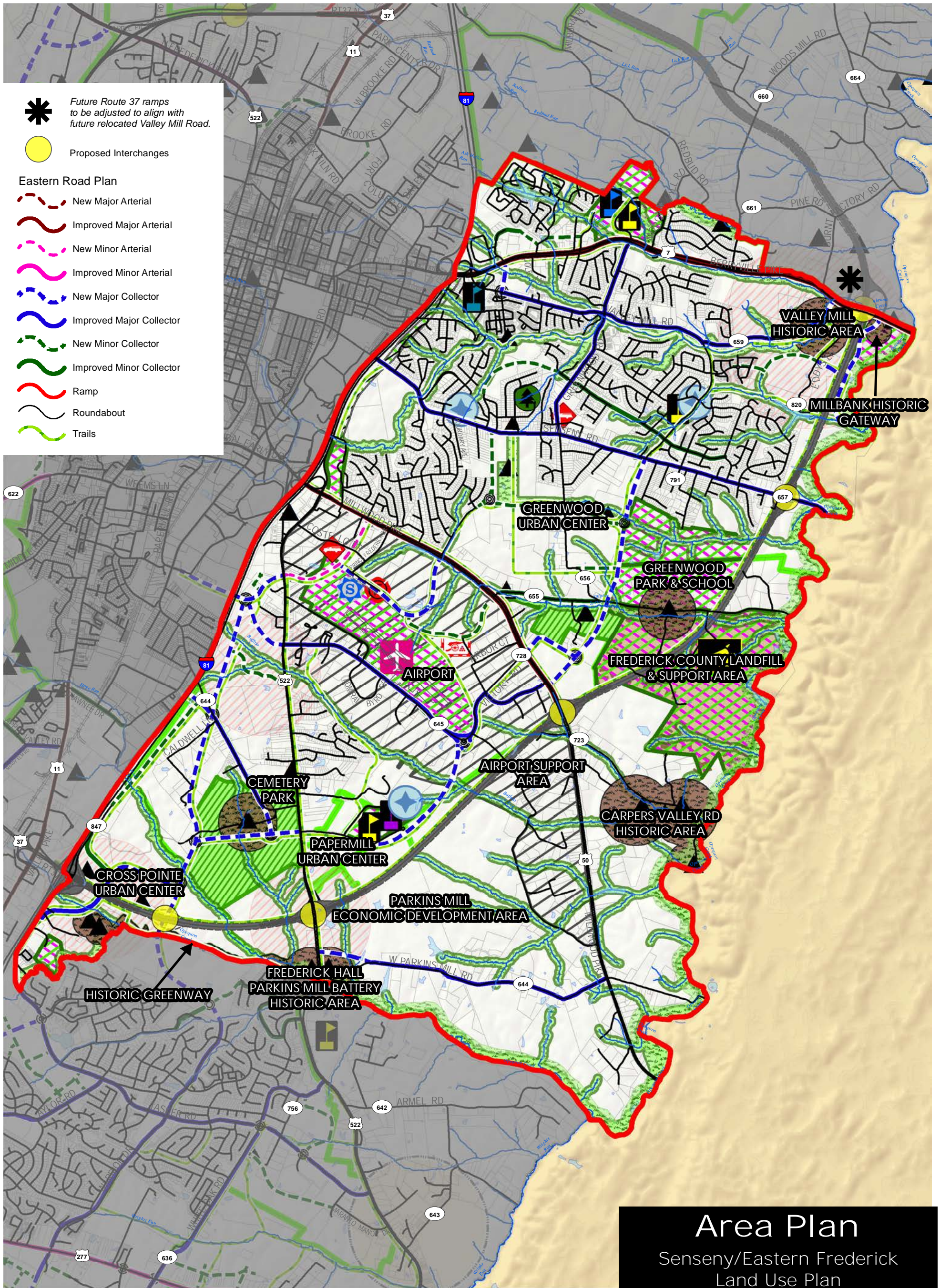


Area Plan

Senseny/Eastern Frederick
Land Use Plan
Transportation w/Trails Map

- | | | |
|---|------------------------------|--------------------------|
| Urban Development Area | Sewer and Water Service Area | Future Rt 37 Bypass |
| Future Route 37 ramps to be adjusted to align with future relocated Valley Mill Road. | Improved Major Arterial | New Minor Collector |
| Proposed Interchanges | New Minor Arterial | Improved Minor Collector |
| Eastern Road Plan | Improved Minor Arterial | Ramp |
| New Major Arterial | New Major Collector | Roundabout |
| | Improved Major Collector | Trails |





- Urban Development Area
- Sewer and Water Service Area
- Future Rt 37 Bypass
- Existing Elementary
- Future Elementary
- Existing Airport
- Existing Fire Station
- Existing High School
- Existing Vocational School
- Armory
- Existing Landfill
- Historic Rural Landmarks
- Existing Middle School
- Future Park
- Existing Community Center Facility
- Existing Public Safety
- Existing Park
- Environmentally Sensitive Areas
- Land
- Institutional
- Interstate Buffer
- Park
- Natural Resources & Recreation
- Landfill Support Area
- Possible Historic District
- Possible Fire Station

Area Plan
 Senseny/Eastern Frederick
 Land Use Plan
 Historic and Natural Resources

2035 Comprehensive Policy Plan Update Map
Draft

0 0.25 0.5 1 Miles

DRAFT

SOUTHERN FREDERICK AREA PLAN

SoFRED

BOARD OF SUPERVISORS

APPROVED ON NOVEMBER 12, 2014

PLANNING COMMISSION

RECOMMENDED APPROVAL OCTOBER 1, 2014

ENDORSED BY THE

COMPREHENSIVE PLANS AND PROGRAMS COMMITTEE

SEPTEMBER 8, 2014

-INCLUDING TEXT APPROVED WITH THE FOLLOWING AMENDMENT:

- LEONARD PROPERTY

APPROVED BY THE BOARD OF SUPERVISORS ON XXXXXXXX

SOUTHERN FREDERICK AREA PLAN

The Southern Frederick Area Plan builds on the Route 277 Triangle and Urban Center Plan, consolidates the Tasker Woods Plan, and incorporates previously unplanned areas within the study boundary into a cohesive and proactive area plan.

The Southern Frederick Area Plan continues to identify opportunities to create new communities, integrate land use and transportation choices, address community infrastructure needs, and expand the County's goals for economic development.

A series of maps have been prepared which identify Future Land Use, Transportation, and Natural, Historical, and Community Facilities within the study area.

The Southern Frederick Area Plan originally promoted five main areas of new land use focus; the Sherando Center, the Route 277 Triangle; Center of Economy, Interstate Commercial @ 307, White Oak Woods Neighborhood Village, and Tasker Woods. In the 2014 update, several additional areas of land use focus were envisioned; Lakeside Neighborhood Village, Artrip Neighborhood Village, Warrior and Tasker Neighborhood Village, and Lake Frederick Neighborhood Village.

The above areas combine to frame the southern boundary of the County's urban areas. In addition, Route 522 South within the study area defines the eastern boundary of the County's urban areas. South and east of this study area; the County's rural areas are strengthened as the primary land use designation. The Lake Frederick Sewer and Water Service Area (SWSA) is recognized in this area plan.

An overview to planning in Frederick County.

Planning efforts, such as the Southern Frederick Area Plan, enable the community to anticipate and deal constructively with changes occurring in the community. Planning helps guide the future growth of the community and is intended to improve the public health, safety, convenience, and welfare of its citizens.

The Plan provides a guide for future land use and was a collaborative effort of the citizens of Frederick County, County Planning Staff, Planning Commissioners, and Board of Supervisors. However, it is the property owners who are the ones who make the decision as to whether or not to implement the Plan as it applies to their property.

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Future rezoning is a means of implementing the Plan. Rezoning in Frederick County have historically been initiated by the property owner, or with their consent. There is no reason to expect that this will change in the future.

Therefore, it is important to remember that the Plan is a guide for the future of the community, but that the property owner is ultimately the one who controls the future use of their property.

Land Use

The Sherando Center

The Sherando Center is envisioned to be an intensive, walkable urban area that is well integrated with the surrounding community. The center should be based on the principles of New Urbanism or Traditional Neighborhood Design promoted in the 2030 Comprehensive Plan. It shall contain a large commercial core, generally higher residential densities with a mix of housing types, an interconnected street system, and public open space around which the center is designed. Community facilities shall also provide a focal point for the center and surrounding community. Presently, Sherando High School and Sherando Park provide this function. In the future, these resources shall be complemented by a new Elementary School which shall serve the existing and future population and be located within the center. Public spaces in the form of pocket parks, plazas, or greens shall be further integrated into the design of the Sherando Center.

The Sherando Center is centrally located to the community and is in the short term, respectful to the Agricultural District. The commercial and residential mix of land uses shall have a strong street presence and shall relate to existing Route 277, Warrior Drive and Double Church Road. The mix of commercial, residential, employment, and community uses shall be linked to the surrounding community with inter modal transportation choices and public open spaces.

Route 277 Triangle; Centers of Economy

Route 277 Triangle; Centers of Economy is designed to be a significant area of commercial and industrial opportunity that is fully supportive of the County **Economic Development Commission's targeted goals and strategies**. The intent of the mixed use designation is to further enhance the County's commercial and industrial areas and to provide focus to the County's future regional employment centers. In specific areas a mix of flexible uses, with office uses in prominent locations is encouraged. Such areas are supported

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by substantial areas of industrial and commercial opportunity, and provide for areas that are well designed with high quality architecture and site design. It is the intent of such areas to promote a strong positive community image. Residential land uses are not permitted.

Lake Frederick Neighborhood Village

Lake Frederick Neighborhood Village serves as a focal point to the 277 Triangle; Centers of Economy and as a gateway feature for the Shenandoah/Lake Frederick community and on a broader scale, a gateway feature for Frederick County as citizens and visitors approach the County from the east. This neighborhood village should promote a strong positive community image. Residential land uses would be permitted only as an accessory component of the neighborhood village commercial land uses. Previously, a small area of neighborhood village commercial was identified on the south side of Route 277 in the general vicinity of the future entrance of **Shenandoah and the existing Sandy's** Mobile Home Park. The 2014 update to the Plan provides for an overall greater area and greater mix of uses in this area that is reflective of a stronger desire to create a more substantial focal point for activity. This is primarily based on the growth and development of the Lake Frederick Community and the involvement of new residents from this area.

Interstate Commercial @ 307

Located at a highly visible location on a prominent interstate interchange, this area of land use shall be designed specifically to accommodate and promote highway commercial land uses. Particular effort must be made to ensure that access management for the supporting transportation network is a key priority as the function of the interstate and primary road network is of paramount importance. Access to the areas of interstate commercial land uses shall be carefully designed. The building and site layout and design of the projects shall be of a high quality. In addition, an enhanced buffer and landscaping area shall be provided adjacent to the Interstate 81 right-of-way, its ramps, and the new arterial road, the South Frederick Parkway, and adjacent to Route 11.

White Oak Woods Neighborhood Village

The White Oak Woods Neighborhood Village is a neighborhood village commercial area that is proposed at White Oak Road and Route 277 which is sensitive to the existing character and scale of the location, adjacent to Sherando Park and the White Oak Campground. The orientation of this

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neighborhood commercial shall be to the park and adjoining street network. A new Fire and Rescue Facility and Community Facility shall provide an additional focal point to this area. This facility and the commercial land uses shall be of a general scale and context similar to projects such as Creekside. High quality building and site design is a priority. Accessory residential uses are only permitted as an accessory component of the neighborhood village commercial land uses.

Tasker Woods

The Tasker Woods area provides guidance on the future land use for all of the land area between Route 522, Tasker Road, and White Oak Road. An area of Neighborhood Village Commercial is proposed between the originally proposed residential areas and Route 522, serving the Tasker Woods area. An internal access road serving this area has been provided with the Tasker Woods project. Therefore, no new commercial entrances shall be permitted on Route 522. Access Management is a priority along the Route 522 corridor. A significant corridor appearance buffer is proposed along Route 522 similar to that established for Route 50 West corridor in the Round Hill Land Use Plan **which consisted of a 50' buffer area, landscaping, and bike path.** Accessory residential uses are only permitted as an accessory component of the neighborhood village commercial land uses within the Neighborhood Village area.

The area of natural resources connecting Tasker Woods with Route 522, including the existing pond shall continue to be recognized in this plan. An extension of the neighborhood commercial land uses may be appropriate on the east and west sides of the existing pond if a balance is achieved between protecting the environmental features and allowing compatible neighborhood commercial uses, which may also include commercial recreational uses.

In addition to the Neighborhood Village Commercial land uses, an area of commercial land use is proposed generally north of Tasker Road. This is an extension of the previously planned commercial area on Tasker Road. Two areas have been identified as recreational and natural resources and have been connected together in an effort to protect the existing natural resources and provide additional recreational opportunities for the Tasker Woods area.

Lakeside Neighborhood Village

A Neighborhood Village Commercial area is proposed along Tasker Road in the Lakeside area, in the vicinity of the Lakeside Library. This small scale commercial area is sensitive to the existing character and scale of the location, the Lakeside Library and the adjacent lake, and the historic and

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natural resources in this area. The orientation of this neighborhood commercial shall be on the opposite side of Tasker Road to the library and lake with a new street network providing the framework for the new neighborhood. The Lakeside Library, an invaluable community facility for the area shall provide a focal point to this area. The commercial land uses shall be of a general scale and context similar to projects such as Creekside. High quality building and site design is a priority. Accessory residential uses are only permitted as an accessory component of the neighborhood village commercial land uses within the core area. An area of residential land use is proposed to surround the core neighborhood village area that shall be of a higher density than that typically found in this general area.

Artrip Neighborhood Village

The Villages at Artrip contains approximately 170 acres of land designed as a neo-traditional village community. This neighborhood village was designed to provide an urban feel in what was historically a rural setting. This development was rezoned in 2006 and is anticipated to include a mix of 900 single family homes and townhouses, over 100,000 square feet of retail, as well as numerous restaurants and office space. A future elementary school is proposed in this area which will ensure that such an important community facility will provide a focal point and valuable community resource for this area of new development.

Warrior & Tasker Neighborhood Village

A Neighborhood Village Commercial area is proposed along Warrior Drive, adjacent to the intersection of Warrior Drive and Tasker Road. This small scale commercial area is sensitive to the existing residential character of the area, in particular the scale of the adjacent neighborhoods, yet seeks to build upon the existing commercial character of this intersection. The commercial land uses shall be of a general scale and context similar to projects such as Creekside. High quality building and site design is a priority. Accessory residential uses are only permitted as an accessory component of the neighborhood village commercial land uses within the core area.

Defined Rural Areas

The Southern Frederick Area Plan has sought to further define the boundary between the Rural and Urban Areas of the community. As noted, the above areas of proposed land use combine to frame the southern boundary of the **County's urban areas**. In addition, the rural areas to the east of Route 522

south further define the County's urban area in this location. The plan provides enhanced recognition of Double Church Agricultural District. This recognition and the location and boundaries of the proposed land uses further promote a clean separation between the County's rural and urban areas.

Armel Rural Community Center

The general location of the Armed Rural Community center was identified in earlier versions of the Comprehensive Plan as one of several rural community centers in Frederick County that have a role to play as service centers for the **County's Rural Areas. This identification was largely based on the** historical role they played to that end. The Southern Frederick Area Plan seeks to further define the Armel Rural Community Center and promote future consideration of this unique area, an area that should remain distinct from the general urban development occurring in the urban areas of the plan. Future policies for this rural community center should reflect the particular characteristics of the center and the desires of its residents. This could be **achieved through a broader effort to plan the County's Rural Community Centers.**

Sherando-Lake Frederick Trailway

For the Southern Frederick Area Plan, it is recommended that a new multi-purpose path be constructed from the planned lakeside path at Lake Fredrick westward along Crooked Run and other connecting areas to intersect with a Sherando Park trail. This pathway surface should be consistent with that of the Sherando Park paths and trails. The new pathway will connect large segments of Southern Frederick trails and provide additional public to access **Lake Frederick's lakeside trails and other constructed facilities. Such an** environmental and recreational resource would provide an excellent example for other opportunities in the County.

Residential Development

Outside of the Sherando Center and Neighborhood Villages described above, the residential land uses in the Southern Frederick study area are defined in two main categories:

- R4 – these are generally reflective of our existing residential densities at approximately 4 units per acre.
- R6 – these are slightly higher residential densities that may fall within the 6-12 units per acre range (this is generally attached house and may also include multifamily and a mix of other housing types).

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These densities are necessary to accommodate the anticipated growth of the County within the urban areas and are consistent with established patterns within the study area and the densities needed to support the future residential land uses envisioned in the Plan.

The residential land uses east of Route 522 South within the study area are envisioned to be rural area residential in character. Route 522 South may generally be considered as the boundary between the urban areas and rural areas within the eastern part of this study area. This provides a transition area to the Opequon Creek and Wrights Run and to the well-established rural character of adjacent Clarke County.

Business Development

The business development section of the plan seeks to identify items that would be complementary to the Urban Areas and Residential Development, Transportation and Natural Resources, Historic Resources and Public Facilities portion of the plan.

The business development recommendations are also intended to implement the 2030 Comprehensive Plan by promoting the efficient utilization of existing and planned land areas and transportation networks. Further, the recommendations promote commercial, industrial, and employment land use **areas to assure the County's desired taxable value ratio of 25 percent commercial/industrial to 75 percent residential and other land use is achieved.**

The Plan provides for new industrial park and employment center areas to **match the Economic Development Commission's vision for this portion of Frederick County.**

The Plan identifies a prime area for Mixed Use development, the Sherando Center, to capitalize on future commercial and employment opportunities. In addition, areas are identified for neighborhood village commercial use, including retail, to accommodate existing residential communities.

The relocation of the Exit 307 Interchange on interstate 81 provides a significant commercial opportunity that the Plan seeks to take advantage of by identifying the Interstate Commercial @ 307 area of land use.

The business development recommendations identified desirable business types to draw to the area. Including, but not limited to;

- Light Industrial/High Tech targeted businesses.

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- Lodging / Event / Dining along the Route 522 corridor and at the interstate.
- Home Office (versus home based)
- Fast-Casual Dining (EG - Panera, Chipotle)
- Higher-end dining (Chain and Local businesses) as well as casual **Pub's** and Cafes.
- Premium Grocery & Retail in the UDA Center area (EG - **Wegman's**)

The business development group also provided the following general comments:

1. All areas should be designed to promote/support pedestrian and bike access, making this a walkable community. This will decrease reliance on cars and enable residents to more readily access business and employment centers.
 - a. To expand the pedestrian & bike access the undeveloped land zoned as Natural Resource / Flood Plain should include walking/biking trails.
2. Identify ways to leverage abundant supply of natural gas in the RT 522 corridor.
3. Determine if incentives to rezone to commercial uses for land owners with agricultural zoned property should be made available.
4. Promote development of small parcels of land that already contain residential structures along transportation corridors for business purposes, examples of which may include doctors, dentist offices, and other professional offices. Promotion could be in the form of incentives or credits to offset the cost of site improvements and transportation improvements required by the site development.
5. Restaurants and community based businesses such as Dry Cleaners, Convenience Stores, and the like, should be located close to and easily accessible by car or by foot to the areas targeted as industrial, commercial and office uses. This could also be within the Sherando Center or Neighborhood village commercial areas which are located within accessible distances from these areas.
6. Identify ways to draw more Light Manufacturing and targeted economic development businesses to the area around the FBI facility off of Tasker Rd.

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7. The Southern Frederick County area would be a natural fit for various outdoor events and festivals, especially once the road and walking path networks have been enhanced and more lodging and dining options are available. This type of business has a low impact on the environment and provides an external infusion of revenue.

The business development group identified several additional areas east of Route 522 South for potential modifications to the Southern Frederick Area Plan that would better promote the business development objectives of the 2030 Comprehensive Plan. However, it was determined through the facilitator group stage of this planning effort that these areas should remain rural in character.

Specific Implementation Steps have been identified which would further promote business development opportunities in the Southern Frederick Area Plan and Frederick County in general. This is consistent with those identified in the Senseny/Eastern Frederick County Urban Area Plan. These include:

- The creation of a Future Land Use Revenue Incentive Program that provides property owners with the ability to sell residential density rights to keep their property available for future employment, commercial, or industrial land use as recommended by the Comprehensive Policy Plan. This program would incentivize the property owner by providing a revenue income source in the near term and future revenue income when the property is zoned for employment, commercial or industrial land use.
- Incentivize the property owner with automatic placement of the property into the Sewer and Water Service Area (SWSA) if a rezoning application is processed for future employment, commercial, or industrial land use.
- Incentivize the property owner with County endorsement of Economic Development Access (EDA) funds and/or Revenue Sharing Funds to assist in the financing of major road infrastructure needed to serve the development project. Additionally, provide for County-managed support of the major road infrastructure projects to streamline the approval process for project design and construction management.
- Incentivize the property owner through the implementation of expedited rezoning processes for future employment, commercial, or industrial land use as recommended by the Comprehensive Policy Plan.
- The creation of new Zoning Ordinance requirements that facilitate more intensive FAR and height allowances for future employment, commercial or industrial land use, especially in the urban centers.
- The County should support and partner with various athletic organizations to sponsor regional or state tournaments and events

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using existing facilities to promote tourism in support of existing hotels, restaurants, and attractions.

Transportation

In support of the new areas of land use, a transportation network has been proposed which relates to the location and context of the areas of land use, promotes multi-modal transportation choices and walkability, furthers the efforts of the Win-Fred MPO, and reaffirms the planning done as part of the Route 277 Triangle Area plan. In this study there is a direct nexus between transportation and land use.

The relocation of Interstate 81, Exit 307, provides a new orientation for the **County's primary road system and provides new opportunities to create a** transportation network which supports the future growth of the community in the right locations. This area is also heavily influenced by the ongoing and future improvements to I-81 Exit 310 and the future extension of Warrior Drive. Minor modifications are proposed to the alignment of the Tasker Road flyover of I-81.

Access Management is a significant consideration of this study and general transportation planning in Frederick County. This concept is supportive of providing for key connections to the south. The use of frontage roads, minor collector roads, and inter parcel connections to bring traffic to access points is promoted.

Roundabouts will be considered as a priority preference for intersection design. Roundabouts are particularly effective when used in series and when used where intersection spacing may be an issue.

The context of the collector road network is proposed to be significantly different with the focus being placed on a more walkable and multi-modal street thoroughfare design. The change in context is based upon classification of road and to ensure compatibility with adjacent land uses and community goals. Particular attention should be paid to street network within the Urban Centers. The surrounding land use, site design, and building design are features that will help create context and promote the creation of new communities, places, and focal points. Attention should also be provided to the context of the street in the Neighborhood Village Commercial Areas to ensure that these prominent locations are safe and accessible to all modes of transportation. Bicycle and pedestrian accommodations should be fully integrated into street designs. Appropriately designed intersection accommodations should include pedestrian refuge islands and pedestrian actualized signals.

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More specific transportation considerations for Sherando Park include taking a proactive approach in creating safe interconnected routes to the park from the adjacent areas and creating additional access points. Traffic calming across the entire frontage of Sherando Park is warranted with special attention placed on providing a safe and efficient main entrance to the park.

Consistent application of Comprehensive Plan goals to achieve an acceptable level of service on area roads and overall transportation network, level of service C or better, should be promoted. Further, efforts should be made to ensure that additional degradation of the transportation beyond an acceptable level of service shall be avoided. Consideration of future development applications within the study area should only occur when an acceptable level of service has been achieved and key elements and connections identified in this plan have been provided.

The Eastern Road Plan calls for White Oak Road between Tasker Road and Route 277 to be an improved two lane roadway. While this improvement has partially taken place for the northern portion of the roadway near Tasker Road, the southern portion of White Oak Road to the south remains a winding and narrow roadway which may be difficult and costly to improve. The area plan identifies improvements to White Oak Road in this area which may include its realignment near the Wrights Run stream crossing, passing to the east of and behind the existing residences fronting White Oak Road.

Other recommendations from the transportation group:

- Emphasize the role of the State and the development community in the implementation of the planned road system.
- Use modeling to determine lane needs based upon build out of planned land uses, but consider plans of neighboring localities when making recommendations. Consider the needs of bicycle users and pedestrians in the following ways:
 - Continue to plan for multi-modal street designs that take all users into consideration.
 - Within residential neighborhoods, this would mean that sidewalks be used and cyclists share the roads. Use of striping that defines parking bays or cycling areas would be preferred.
 - On collector roadways or higher, make use of separated multi-use paths at least 10 feet in width.
 - Incorporate wide shoulders or bike lanes into roadways that have budgetary or right-of-way limitations. This would be viewed as a step toward the ultimate goal of a separated facility.
 - Make use of paved shoulders with striping on rural roadways as a long term measure. Rural roadways would be defined by

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- traffic count or as roadways outside of the UDA that are not part of the Primary System (ex. Route 522).
- o Bike paths should be constructed on the same grade as the adjacent roadway.
- o Bike path maintenance should be addressed by adjacent property owner groups whenever possible.
- Continue to enforce improved access management with redevelopment or new development.
 - o This includes, but is not limited to, entrance location and spacing as well as traffic signal location and spacing.
- Roundabout use is preferred over signalization of intersections where traffic control is needed.
- Attractive median treatments (as alternative to standard grey concrete median) other than grass or other landscaping should be considered when maintenance agreements with VDOT cannot be achieved.
 - o Treatments should be reasonably consistent
- Street sections could be modified due to DCR changes specific to drainage requirements.

Natural Resources, Historic Resources, and Public Facilities

Natural Resources

Frederick County should be a community that understands, values, and protects its natural resources.

The natural resources element of the Southern Frederick Area Plan should directly correlate to the Natural Resources chapter of the 2030 Comprehensive Plan.

To that end, Frederick County should focus on the creation of greenways, stream valley parks and stream buffers around waterways. Shared use trails should be constructed that connect these features to other public facilities. Consideration should be given to creating linear parks with shared use trails along major streams, particularly the Opequon Creek, with buffering vegetation appropriate for preventing erosion, filtering pollutants, and providing wildlife habitat.

Shared use trails should provide connections to other shared use trails as well as other public facilities in the study area.

New construction within the study area should take into account the natural resources located on and around their property.

Ensure that when new developments are planned, connectivity of greenways is included through the project.

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Preserve and maintain existing natural wetlands, woodlands, and grasslands to the maximum feasible extent to provide wildlife habitats for animals and plants. Buffer wetlands and creeks using latest water management principles to promote environmental protection of those localities, stabilize stream banks, and promote such protective steps during residential development throughout the South Frederick County area.

All types of urban open spaces like greenways, squares, plazas, urban parks, playgrounds and street medians should be considered as part of urban development planning and implemented wherever reasonable.

Ensure that storm water is managed in **accordance with the County's Erosion and Sediment Control Ordinance and Virginia's** storm water Requirements, and work to implement Low Impact Development (LID) measures where appropriate.

Provide for best storm water management practices at urban centers, residential developments, and industrial areas to facilitate environmental protection.

Protect floodplains and steep slopes from unsuitable uses and recognize their value for storm water management and ecological functions.

Ensure that with new development, people and wildlife are protected from unhealthy levels of noise and light.

Historic Resources

Frederick County should recognize and protect the historic structures and sites within the study area.

The historic element of the Southern Frederick Area Plan should directly correlate to the Historic Resources chapter of the 2030 Comprehensive Plan.

To that end, the rehabilitation, adaptive reuse, or restoration of historic structures should be increased. The Comprehensive Plan calls for the adaptive reuse of historic structures, future development applications that have historic resources on the property should incorporate the site into development.

Sensitive Natural Areas, including historic areas are shown on the land use map for the study area. By recognizing these historic sites and structures, the Southern Frederick Area Plan is implementing the policies of the Comprehensive Plan.

Significant structures and properties shown with a sensitive natural/historic designation should be buffered from adjacent development activity.

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Require archaeological surveys to be conducted prior to development, particularly any that involve battlefield areas, homesteads, Indian encampments, and waterways.

The Rural Landmarks Survey should be updated and maintained regularly in order to keep current the inventory of structures older than fifty years.

There are at least six historic sites and markers in the Southern Frederick Area Plan. Those sites and markers should be buffered from adjacent development activities and preserved in their original condition whenever possible during any development or land use planning.

The Melvin Sandy house is located immediately adjacent to Sherando Park and would be ideal for use as an element of the Park. In the event that it cannot be included as part of the park, it would be appropriate for the use on the property to develop as something which would encourage the protection of the structure and provide a use which encourages park users to utilize the property.

Frederick County should assist property owners that want to register their properties with the State or National Register.

Increasing shared use trails throughout the study area would give emphasis to the preservation and rehabilitation of nearby historic sites and structures. Developments should incorporate and/or convert historic properties into recreational elements, including shared use trails, parks, and museums. The Zig-Zag trenches should be preserved and connected via a linear park/trail network to Crosspointe.

Developers of any urban center developed in the study area should integrate **into the center's development plans both the preservation and prominence of** historical and natural resources within the urban center boundaries such as the restoration, rehabilitation, or adaptive reuse of historic homes, churches, other buildings, Civil War site markers, Civil War earth works, significant stone outcroppings, etc..

Community Facilities

The need for public spaces within the study area needs to be acknowledged.

The public facility element of the Southern Frederick Area plan should directly correlate to the Public Facilities chapter of the 2030 Comprehensive Plan. The public facilities element should also expand upon the existing 2030 Comprehensive Plan and ensure that opportunities for needed public facilities, which are not currently identified, are not missed.

To that end, the following recommendations are offered:

APPENDIX I - AREA PLANS

The development community should work with FCPS, Fire & Rescue, and Parks and Recreation to determine future public facility needs.

A potable water tank will be needed within the study area to accommodate future growth (Lake Frederick area).

The County should focus on the development of the north side of Sherando Park (north of Route 277).

The 2007 Win-Fred MPO Bicycle & Pedestrian Mobility Plan should be adopted by the Board of Supervisors and pedestrian facilities shown in the plan should be constructed. This plan should also be utilized as a reference for accommodation recommendations and guidelines.

Ensure connectivity with existing or proposed bicycle or pedestrian transportation accommodations wherever possible.

Pedestrian facilities should be constructed that connect neighborhoods to school and park facilities to promote access and walkability.

Trails should be planned and constructed that connect Sherando Park, the proposed S. Frederick Parkway and Lake Frederick (see the Sherando-Lake Frederick Trailway example described in the land use section).

A trail network should be constructed around the Lake at the Bowman Library.

Linear parks should be constructed along creeks where permissible due to topography.

A new Fire & Rescue station is needed within the study area. As proposed, a new Fire and Rescue Facility and Community Facility shall provide an additional focal point to the White Oak Woods Neighborhood Village area.

The 13 acre parcel owned by the Frederick County adjacent to Bass Hoover Elementary should be planned as a combined school, park and recreation facility.

The existing schools within the study area, including Bass Hoover, Aylor, and Sherando need to be upgraded as outlined in the CIP. New schools identified in this plan and in the CIP should be pursued and may be used as focal points for future community development.

Zoning Amendments to implement the plan

Revised/more flexible B2 Overlay concept

Neighborhood Village Commercial areas are envisioned to be compact commercial centers that focus and complement the surrounding neighborhoods, are walkable and designed at a human scale, and which are supported by existing and planned road networks.

Accessory residential uses within the neighborhood Villages are only permitted as an accessory component of the commercial land uses within the core area. *However, the residential uses are allowed in a variety of configurations and are not just limited to the second and third floors of commercial buildings. They may also be located in separated buildings, again provided that they are accessory to the commercial uses.* This provides a greater amount of flexibility with the residential design, while still affording the commercial land uses primary status. *Previously, residential land uses were only permitted on the second floor and above commercial buildings.*

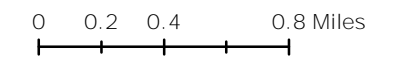
Traditional Neighborhood Design Zoning Classification

This flexible zoning classification is intended to enable Neighborhood and Urban Village Centers, or a part thereof, to be developed.

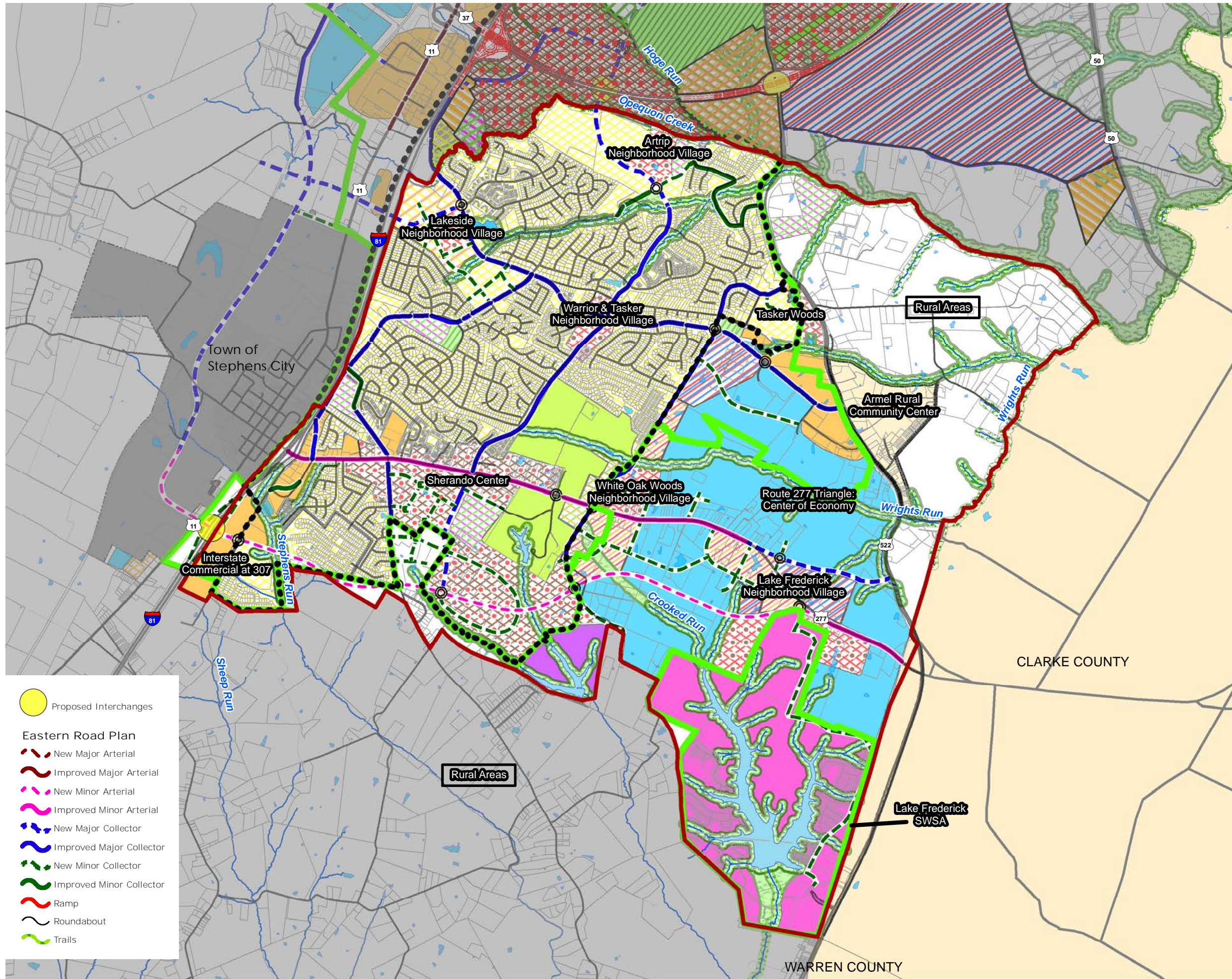
Area Plan

Southern Frederick Land Use Plan

- Urban Development Area
 - Sewer and Water Service Area
- ### Land Use Legend
- Business
 - Mixed-Use
 - Mixed Use Commercial \ Office
 - Highway Commercial
 - Industrial
 - Warehouse
 - Heavy Industrial
 - Mixed Use Industrial \ Office
 - Extractive Mining
 - Residential, 4 u/a
 - High-Density Residential
 - Planned Unit Development
 - Mobile Home
 - Urban Center
 - Neighborhood Village
 - Commercial Recreation
 - Recreation
 - Natural Resources & Recreation
 - Park
 - Sensitive Natural Areas
 - Fire & Rescue
 - Institutional
 - School
 - Rural Community Center



2035 Comprehensive Policy Plan Update Map
Draft



- Proposed Interchanges
- ### Eastern Road Plan
- New Major Arterial
 - Improved Major Arterial
 - New Minor Arterial
 - Improved Minor Arterial
 - New Major Collector
 - Improved Major Collector
 - New Minor Collector
 - Improved Minor Collector
 - Ramp
 - Roundabout
 - Trails

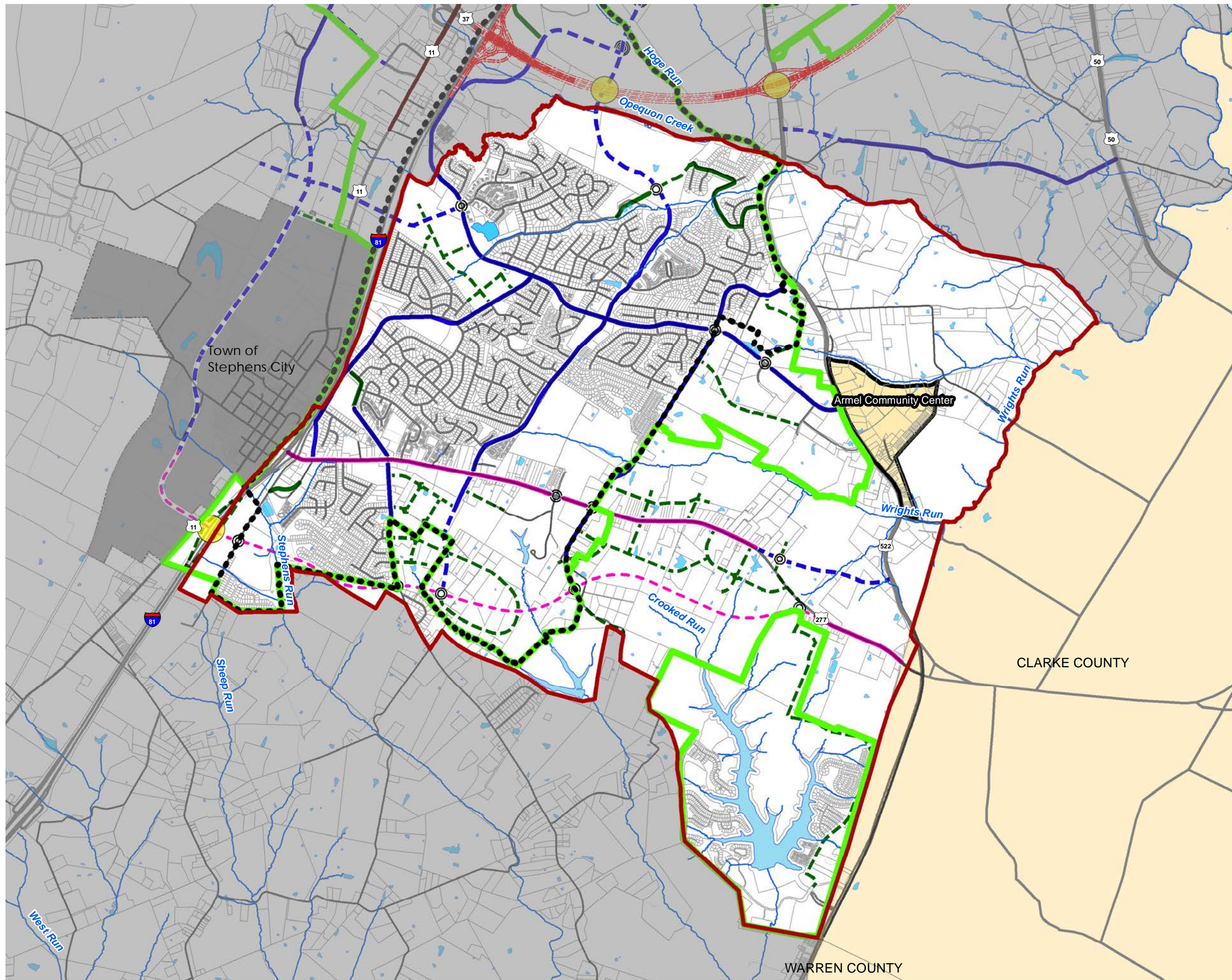
WARREN COUNTY

CLARKE COUNTY

Lake Frederick SWSA

Area Plan

Southern Frederick Land Use Plan Transportation Map

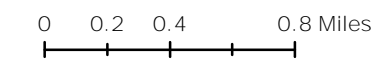


- Urban Development Area
- Sewer and Water Service Area

- Proposed Interchanges

Eastern Road Plan

- New Major Arterial
- Improved Major Arterial
- New Minor Arterial
- Improved Minor Arterial
- New Major Collector
- Improved Major Collector
- New Minor Collector
- Improved Minor Collector
- Ramp
- Roundabout
- Trails

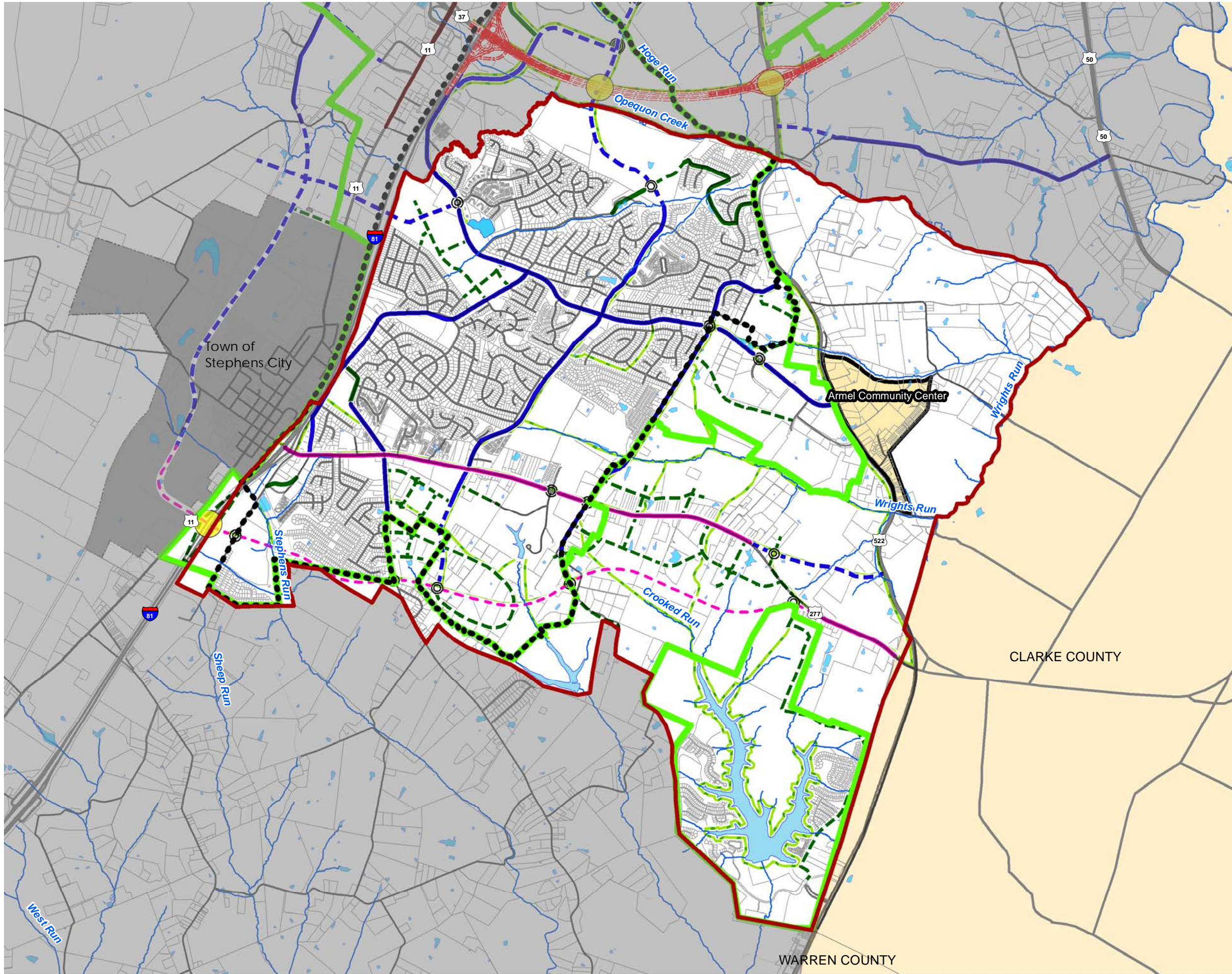


2035 Comprehensive Policy Plan Update Map
Draft

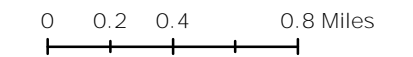


Area Plan

Southern Frederick Land Use Plan Transportation w/Trails Map



- Urban Development Area
 - Sewer and Water Service Area
 - Proposed Interchanges
- ### Eastern Road Plan
- New Major Arterial
 - Improved Major Arterial
 - New Minor Arterial
 - Improved Minor Arterial
 - New Major Collector
 - Improved Major Collector
 - New Minor Collector
 - Improved Minor Collector
 - Ramp
 - Roundabout
 - Trails

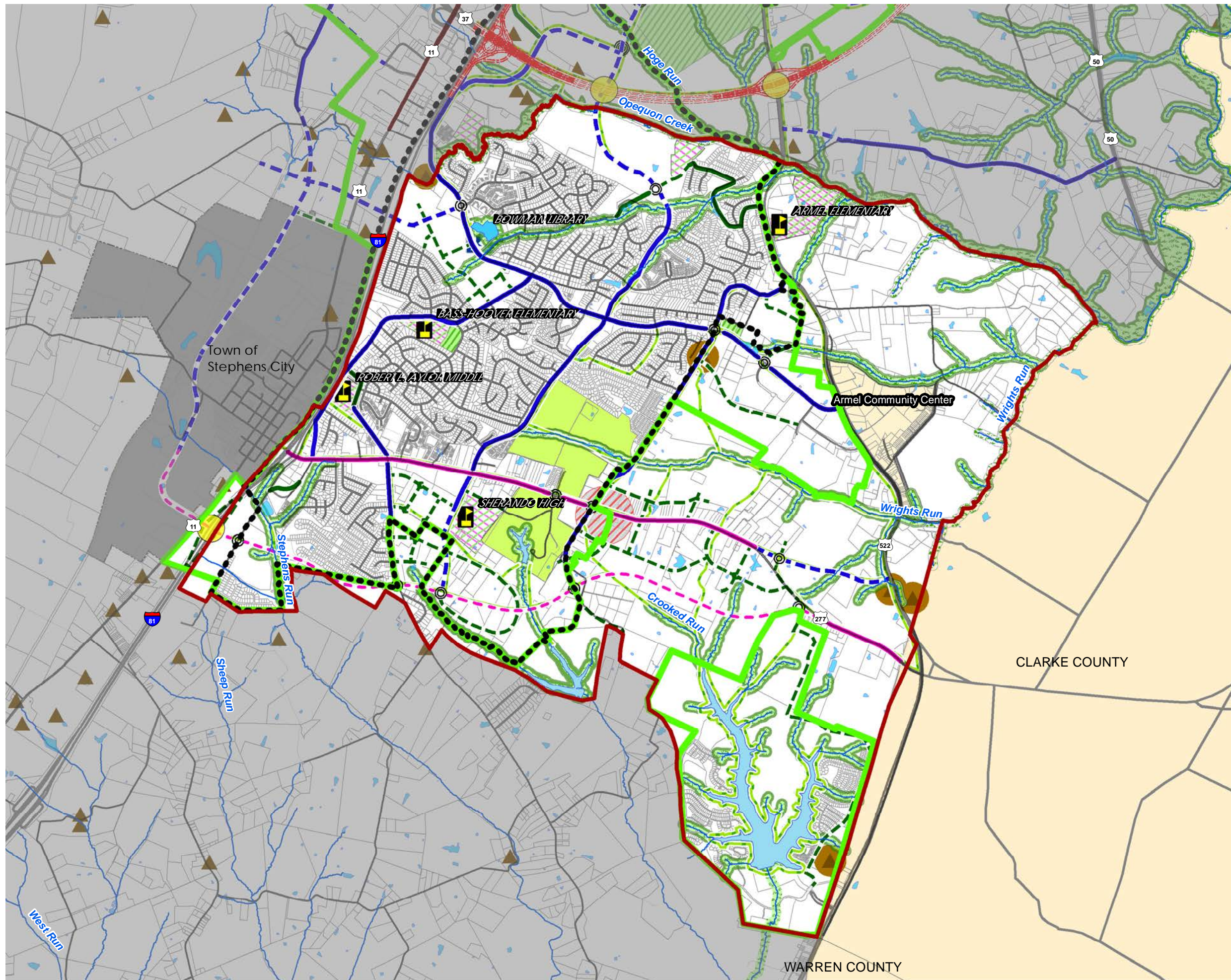






















2035 Comprehensive Policy Plan Update Map
Draft

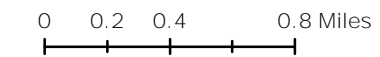


Area Plan

Southern Frederick Land Use Plan Historic and Natural Resources



-  Urban Development Area
-  Sewer and Water Service Area
-  Proposed Interchanges
-  Historic Rural Landmarks
- Eastern Road Plan**
-  New Major Arterial
-  Improved Major Arterial
-  New Minor Arterial
-  Improved Minor Arterial
-  New Major Collector
-  Improved Major Collector
-  New Minor Collector
-  Improved Minor Collector
-  Ramp
-  Roundabout
-  Trails
- Land Use**
-  Institutional
-  Park
-  Rural Comm Center
-  Recreation
-  Future Fire & Rescue Facility



2035 Comprehensive Policy Plan Update Map
Draft



ROUND HILL COMMUNITY LAND USE PLAN

- **INCLUDING THE RECREATION AND CONFERENCE
COMMERCIAL COMMUNITY (ROCK HARBOR)
AMENDMENT**

BOARD OF SUPERVISORS

Approved on November 14, 2007

(ROCK HARBOR) AMENDMENT

Approved by the Board of Supervisors on June 23, 2010

APPENDIX I - AREA PLANS

GUIDING PRINCIPLES

The Round Hill Community has two distinct areas, the long established Round Hill Rural Community Center focused around Round Hill Road (Route 803) and the developing commercial area along Route 50 (Northwestern Pike). This plan encompasses both of these areas. The plan has two primary goals - first, to protect and enhance the character of the established rural community center and second, to create a vibrant, functional and well-designed commercial center. While the two areas are distinct, this plan seeks to link them by efficient roads and multi-purpose trails and sidewalks and to locate a park and other public facilities in the Round Hill Community for the benefit of both the residents and the workers.

As with previous versions of the Round Hill Community Land Use Plan, a key goal of this plan is to provide public sewer and water access for the existing residents of the Round Hill community.

LAND USE

Round Hill Rural Community Center

The core of the long established Round Hill Rural Community Center consists primarily of residences. In the past, a number of small businesses have been located in the core area, but few of these remain today. The development pattern established in the Round Hill Rural Community Center consists of both small lots along Round Hill Road, Poorhouse Road, Woodchuck Lane and other roads, and the larger lots and small farms on the periphery. Both residential patterns should continue. The farms and large lots on the periphery of the Round Hill Rural Community Center should be maintained to preserve the rural character. In order to further preserve the existing character of the area, no part of the Round Hill Rural Community Center should have high density housing.

Most residential lots in the Round Hill Rural Community Center are less than one-half acre. These residential lots contain single family detached housing on wells and septic with reduced front yard setbacks. This historic development pattern cannot be accommodated within the existing RA (Rural Areas) Zoning District, which allows one residence for every five acres and requires primary and reserve drainfield areas. A new zoning district should be created to accommodate infill development that is in character with the area. Such a district should address housing types, lot sizes and setbacks. The new zoning district should also address design standards for street trees, curb-side parking, signage, lighting and underground utilities. The new zoning district could allow for modest commercial/retail uses (with discreet signage) to serve surrounding residents.

In recent years, new residential development in Round Hill has been limited due to private health system requirements. Expansion of the Sewer and

APPENDIX I - AREA PLANS

Water Service Area (SWSA) in 2006 has given the opportunity for some existing residents to connect to public water and sewer, at the property **owner's expense**. **Once a new zoning district is adopted to accommodate in-fill development**, the County will need to re-examine the SWSA boundary to determine whether any other areas in the Round Hill Rural Community Center should be enabled to connect to public water and sewer services. Rezoning to the new district should not be allowed prior to the availability of public water and sewer.

Developing Commercial Areas

Commercial, medical support, medical offices, educational, and public use development are important components of the Round Hill Community Land Use Plan.

Historically, highway commercial uses have located along Route 50 (Northwestern Pike). These uses include gas stations, car dealers, restaurants and small retail establishments. Some of these uses still exist. In more recent years, Round Hill Crossing (including the large Wal-Mart center) has begun to develop on the north side of Route 50. This 70 acre site will ultimately accommodate retail, restaurant and business development. The Winchester Medical Center – West Campus, with 102 acres to the east of Round Hill Crossing, has both a retail component along Route 50 and a **medical component**. **The northern portion of the Medical Center's West Campus** is zoned MS (Medical Support) District. Together these two large developments have changed the nature of land development along Route 50. Large-scale commercial development is now a dominating presence in the Round Hill Community. Growth and development should be carefully planned to take advantage of the close proximity of the Winchester Medical Center.

Two distinct types of commercial development are evolving in the Round Hill Community– a general commercial area along both sides of Route 50 and a medical support and education area located on the north side of Route 50.

The general commercial areas already under development on both sides of Route 50 function as a gateway to and from the City of Winchester. Therefore, an objective of this plan is to create an attractive, functional commercial area and to prevent the creation of a typical commercial strip. Consolidated entrances are strongly encouraged to avoid multiple-entrances along Route 50. Inter-parcel connections will be necessary for the small lots to develop. Standards have already been developed that will minimize the visual disruption to the Route 50 corridor (see Figure 13A). These include standards for shared entrances, inter-parcel connectors, green spaces along Route 50, screening of parking areas, screening between commercial properties and existing residences, size, number and location of signs, underground utilities, and landscaping. These standards strongly discourage individual business entrances both for aesthetic reasons as well as for

APPENDIX I - AREA PLANS

transportation safety and efficiency. Major commercial establishments should connect to Route 50 at signalized intersections.

A continuation of the general commercial area is planned in the vicinity of Ward Avenue and Stonewall Drive. As this area redevelops, new developments will be expected to follow the Route 50 standards (Figure 13A) that apply to small parcels on the south side of Route 50. Consolidation of these small parcels is the key to redeveloping this area. A minor collector road, to join Round Hill Road (Route 803) and Ward Avenue, is planned to funnel traffic to two key intersections on Route 50.

Figure 13A

Design Principles Encouraged for the Round Hill Route 50 Corridor

Street trees in the median, along both sides of the ditch;

Freestanding business signs – one monument style sign per development (Maximum size - 50 feet, maximum height – 12 feet);

Crosswalks at signalized intersections, with signals for pedestrians;

Interparcel connectors required between all properties planned for commercial development (even if currently zoned RA and used for residential purposes) to encourage shared entrances;

Commercial entrance spacing – Commercial entrances are strongly discouraged on Route 50. If no other alternative exists, entrance spacing - 200 feet if speed limit is 35 mph or less, 250 feet if speed limit is greater than 35 mph;

A row of evergreens in addition to the ordinance-required buffer and screening adjacent to areas planned to remain residential;

Underground utilities;

Placement of buildings close to Route 50 with landscaped parking lots in the rear;

North side of Route 50: 50 foot landscaped strip, within the landscaped strip a ten foot asphalt bike and pedestrian trail, ornamental shrubs and street trees along Route 50;

South side of Route 50: 50 foot landscaped strip (20 feet for small tracts) within the landscaped strip a five foot concrete pedestrian sidewalk, ornamental shrubs and street trees along Route 50.

APPENDIX I - AREA PLANS

Due to its close proximity to the Winchester Medical Center, the north side of Route 50 offers a unique opportunity to accommodate medical support, medical offices, educational, public use, and commercial uses. Therefore, the Round Hill Community Land Use Plan should provide for large campus style development of the north side of Route 50 for medical support, medical office, educational, public use, and commercial uses. A number of large open tracts of land exist in this location. The campus style development should provide for boulevard street designs, street trees, bicycle and pedestrian paths, and connectivity between development and common green space gathering areas.

In order to minimize areas of impervious surface, decked or structured parking or increased building heights may be warranted. High quality building designs and materials are expected. Small plazas at the building entrances or in the center of a group of buildings are suggested. Site design standards are expected to exceed those established for the Route 50 corridor (Figure 13A). Coordinated signage, lighting and street furniture are sought.

All of the commercial areas in Round Hill should provide commercial services and employment opportunities that are accessible to the residents within the Round Hill Rural Community Center via alternative modes of transportation, such as pedestrian and bicycle facilities. Enhanced accessibility is anticipated through the connection of such areas to the existing residential areas by a network of multi-purpose trails, sidewalks and intersections with pedestrian actualized signals.

TRANSPORTATION

The County's Eastern Road Plan and the Win-Fred Metropolitan Planning Organization (MPO) 2030 Transportation Plan call for Route 50 to be improved to a six-lane minor arterial road between Route 37 and Poorhouse Road (Route 654). West of Poorhouse Road, Route 50 is planned as a four-lane minor arterial. Sidewalks are planned on the south side of Route 50 and multi-purpose trails on the north side. Developments along Route 50 will be expected to incorporate these road improvements.

A north/south collector road, parallel to Route 37, is included in the **Route 37 West Land Use Plan**. **This road is also incorporated into the County's Eastern Road Plan**. A section of this road, Botanical Boulevard, is being built with the Winchester Medical Center – West Campus development on the north side of Route 50. Should properties further to the north develop, this road should eventually connect to Route 522 (North Frederick Pike).

An east/west collector road, parallel to Route 50 is also included in the Eastern Road Plan. A section of this road, Petticoat Gap Lane, has been proffered with the Round Hill Crossing development. This road is envisioned as an urban divided four-lane cross-section that includes landscaped medians, controlled left turns, street trees, and pedestrian and bicycle facilities, to enhance transportation on the north side of Route 50. Development

APPENDIX I - AREA PLANS

proposals will need to accommodate the continuation of this collector road. The location shown on the plan is general, with the precise location of the east-west collector road remaining flexible.

A new north/south major collector road is planned through the Winchester Medical Center-West Campus that will serve the West Campus and provide access to the future Route 37 interchange located north of Round Hill. While this road is envisioned as an urban divided four-lane road that includes landscaped medians as well as pedestrian and bicycle facilities, it may initially be built as a two-lane road because development to the north may not occur for many years, if at all. The location shown on the plan is general, with the precise location of the north-south collector road remaining flexible.

Vehicular management access is recommended throughout the Round Hill Rural Community Center, particularly along Route 50. A six lane arterial road should not include multiple access points. Ideally, primary vehicular access should be limited to four signalized intersections along Route 50 with additional commercial entrances planned at appropriate intervals to facilitate safe and efficient traffic movement.

Noted throughout this plan is the requirement for alternative modes of transportation, such as pedestrian and bicycle facilities. The plan calls for an interconnected system of multi-purpose trails and sidewalks. It is critical that these alternative modes of transportation link the entire Round Hill Rural Community Center. A future Winchester Medical Center internal road over Route 37 should provide a sidewalk and trail for bicycle and pedestrian access. The County should also encourage the extension of existing bus routes to serve the area. Ideally, bus stops should be located at all of the commercial centers.

The development of new road systems, new signalization and improvements to existing road systems are all elements of this plan. It will be the responsibility of private property owners and developers to ensure that these improvements are made. No rezonings should be approved until the County is certain that the transportation impacts of development will be mitigated and the improvements facilitate the goals of the Comprehensive Policy Plan. **As with all areas of the County, Level of Service "C" should be maintained on roads adjacent to and within new developments.**

ENVIRONMENT

A number of environmental features are found in the Round Hill Community. The area is dominated by two major natural features – Round Hill itself, which is west of Poorhouse Road and a north/south ridgeline. The ridgeline, west of Round Hill Crossing, is highly visible and should be sensitively developed. Ponds, streams and floodplains are present and will need to be taken into consideration so as to minimize and/or mitigate negative impacts with any

APPENDIX I - AREA PLANS

future development. These natural areas provide an obvious location for a trail system.

HISTORICAL RESOURCES

Round Hill is one of the older settlements in Frederick County. The original village was located at the base of Round Hill. The community today includes a small number of eighteenth and nineteenth century dwellings. Approximately 30 late-nineteenth century and early-to-mid twentieth century houses, primarily American Foursquares and I-houses are located in the area. The mid-nineteenth century Round Hill Presbyterian Church and the early-twentieth century Round Hill School (now used as a residence) are also located in this community. Protection of these historic structures is encouraged.

PUBLIC UTILITIES

A fundamental issue for the development of Round Hill has been the provision of public water and sewer. Development of the area is dependent on the availability of appropriate infrastructure. The Sewer and Water Service Area (SWSA) has been expanded to portions of the Round Hill Rural Community Center several times in recent years. This plan does not recommend rezoning land within the Round Hill Rural Community Center for commercial development prior to the availability of central sewer and water. It is also recommended that as land is developed over time and infrastructure extended, that new developments further the goal of providing sewer and water to the core residential area of the Round Hill Rural Community. Future development should facilitate the availability of sewer and water in two ways – the sizing of utility pipes to insure capacity for all of the Round Hill Rural Community Center, and providing utility easements so that adjacent property owners have the ability to extend and connect to public water and sewer.

The Round Hill area will ultimately be served by two wastewater treatment plants. The area immediately west of Route 37, including Winchester Medical Center – West Campus and Round Hill Crossing are currently served by the Opequon Water Reclamation Facility. The transmission lines serving this facility have limited capacity. Therefore, future development south of Route 50 and also west of Round Hill Crossing are planned to be served by the Parkins Mill Wastewater Treatment Plant. Future development proposals will need to demonstrate that sufficient sewer capacity exists.

Water lines exist on Route 50 in the area of Round Hill Crossing and the Winchester Medical Center – West Campus. These water lines have sufficient capacity to provide the volume of water identified in the Round Hill Community Land Use Plan; however, they do not have sufficient pressure. To provide adequate pressure, existing line pressure will have to be boosted and water storage provided.

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PUBLIC FACILITIES

Public facilities to serve new development in the Round Hill Community may be required in the future. It will be necessary for future development to provide a site for such public facilities.

PARKS

The Round Hill Community has one neighborhood park, at the Round Hill **Volunteer Fire & Rescue Station. A children's play area is maintained by the** Frederick County Department of Parks and Recreation and the fire company maintains a ball field. The scope of this park could be expanded, possibly with the relocation of the fire station.

The commercial, medical support, and institutional land uses north of Route 50 should include a new park, ideally in the area of the large pond. This park would be visible from Route 50 and could serve as the visual focal point of the entire Round Hill Community. The park should be a passive recreational facility with trails, benches and outdoor eating areas. The park should be designed to serve both onsite workers and residents of the Round Hill Rural Community Center. A linear trail could also link this park to the smaller pond **to the north. The Park's trail/sidewalk network should be the interconnected** trail system as described in the transportation section. Consideration should be given to establishing a trail along the ridgeline between Route 50 and Route 522 and a trail at the southern edge of the Round Hill Community to link to the Green Circle in the City of Winchester.

RECREATION AND CONFERENCE COMMERCIAL COMMUNITY

Through the 2009 Comprehensive Policy Plan Amendment process, the Frederick County Board of Supervisors endorsed the evaluation of an amendment to the Comprehensive Plan to include the property that is home to the Rock Harbor Golf Course. The following land use policy, along with the updated land use map, is the resulting amendment and is known as the Rock Harbor Amendment to the Round Hill Land Use Plan.

GUIDING PRINCIPLES

The amendment to the plan has two primary goals - first, to establish a new area of land use that would specifically promote the recreational attributes of this area in conjunction with the open spaces associated with the existing Rock Harbor Golf Course, and second, to create a well-designed Conference Facility integrated with limited commercial land uses with an orientation to the Golf Course and future Route 37 interchange, and limited accessory membership residential land use to sustain the viability of the Rock Harbor Golf Course. The goals of the Plan seek to enable the development of land uses which will provide economic development, tourism, and entertainment benefits to the Community and to Frederick County, and further promote the Rock Harbor Golf Course.

The addition of Rock Harbor area to the Round Hill Land Use Plan creates a third distinct area of land use for the Round Hill Community which will join **with the Community's other two distinct areas; the long established Round Hill Rural Community Center** focused around Round Hill Road (Route 803) and the developing commercial and medical support area along Route 50 (Northwestern Pike).

The Rock Harbor area of the Round Hill Land Use Plan is west of, and adjacent to, the West Jubal Early Land Use Plan. The addition of this area will promote a connectivity of land uses and access between the two important land use plans with a focus on the future West Jubal Early Interchange. This plan also encompasses the area of existing quarry operation, providing recognition to this very important area of Extractive Manufacturing and guidance with regards to future development adjacent to the quarry. Additional protections in the form of distance and buffering should be provided for any new land uses on the Rock Harbor Golf Course, particularly for any accessory membership residential land uses.

Like the other two areas, this plan seeks to link to the community by providing access to efficient roads, multi-purpose trails and sidewalks, and public water and sewer for the benefit of both the residents of this Community and those adjacent citizens who may work or recreate in the area. As with previous versions of the Round Hill Community Land Use Plan,

APPENDIX I - AREA PLANS

a key goal of this plan is to provide public sewer and water access for the existing residents of the Round Hill community.

LAND USE

Round Hill Commercial Recreation Land Use

The intent of the Commercial Recreation land use designation shall be to provide for carefully planned commercially driven recreational land uses which take advantage of existing recreational amenities (36-hole golf course) and enhances the economic development opportunities of the area through conference facilities, lodging, commercial activities, and a limited amount of accessory membership residential opportunities.

Growth and development of this area should be carefully planned to take advantage of the existing commercial recreation land uses, Rock Harbor Golf Course, the close proximity of the Winchester Medical Center, and the adjacent areas of planned land use.

The Commercial Recreation land use designation is envisioned to have a balance of land uses that promote the recreational component as the primary land use. The recreational component should be located in close proximity (within one mile) of an existing Route 37 Interchange and contain a major open space component. Compatible commercial ventures such as conference facilities, lodging opportunities, restaurants, and limited accessory retail would also be appropriate in this setting. The Robinson Property shall contain only the compatible commercial ventures component of the land use designation as identified above. Development of the Robinson Property should only occur at the same time as, or in conjunction with the Rock Harbor project.

Balance of land uses

Recreational - *36 hole golf course (minimum # of holes)*

Open Space - *60 percent of land area (minimum area including golf course)*

Commercial - *30 percent of land area (maximum area)*

This area of commercial shall include a conference facility.

Accessory membership residential - *10 percent of land area (maximum area)*

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The introduction of the accessory residential land uses may occur prior to the development of the commercial land uses and the Conference Facility.

It is recommended that the regulations guiding the development of the commercial recreation area promote the balance of land uses identified above that are owned and operated by the Rock Harbor Golf Course without further subdivision of the property.

COMMUNITY FACILITIES

In order to promote high quality low impact design, the commercial recreation land use designation should promote energy efficient design and development, including achieving LEED certification, or certification from a similar program, as a project. Areas of impervious surface in conjunction with the development should be minimized and alternative irrigation techniques should be promoted.

Innovative water and sewer design to this project is necessary due to the limited resources available to the County. Alternative approaches with regards to water resources and reuse of water and wastewater should be provided with this project. This project should provide additional resources to the community and facilitate the provision of water and sewer resources to the Round Hill Community, in particular to the existing residents, rather than **detract from the FCSA's ability to provide these resources.**

It is essential to ensure that the infrastructure and the necessary community facilities are provided in a timely and coordinated manner in order to enable the successful implementation of the land use plan. Therefore, it is expected that the commercial recreation land use application is developed with public water and sewer infrastructure and this application participates in the regional planning and infrastructure development needs of the Round Hill Community. This participation may include infrastructure improvements that exceed those generated solely by this project but are designed to advance the needs of the Round Hill Community.

DESIGN

High quality building designs and materials are expected. An objective of this plan is to create an attractive, functional commercial area and to prevent the creation of a typical commercial strip, from the perspective of a new interchange on Route 37. Unattractive development along Route 37 frontage should be avoided. From this perspective, the golf course and future conference and lodging facilities should be preserved and be the prominent features. Additional commercial and residential land uses should be avoided directly adjacent to Route 37. The recreational viewshed should be promoted

APPENDIX I - AREA PLANS

with the golf course and future conference facilities highly visible. This may include a linear area of open space adjacent to Route 37 (500 feet distance). This area of open space should not be extended to the area surrounding the proposed interchange which is an area where appropriately designed development is anticipated.

TRANSPORTATION

The County's Eastern Road Plan and the Win-Fred Metropolitan Planning Organization (MPO) 2030 Transportation Plan calls for Route 37 Jubal Early Interchange improvement. This project has been endorsed through recent rezoning approvals. This land use plan will ultimately provide direct access to the Route 37 interchange at this location. Access to the Round Hill Community to the North is also encouraged and may be established prior to the completion of the Jubal Early Interchange if supported by an approved TIA (Transportation Impact Analysis). Notwithstanding this, the development of this property should participate in the implementation of the Route 37 interchange to the extent that it is warranted as a primary transportation focus.

A new multi-purpose trail system is planned through the Round Hill Community to serve the area and provide access and connectivity with the West Jubal Early Community. The location shown on the plan is general, with the precise location of the trail connection remaining flexible. However, access should provide a connection generally from west of Route 37 to east of Route 37 as depicted on the map. It would be preferable to have the trail connectivity located on the proposed sewer infrastructure parallel to the north of the railroad tracks. This should occur in conjunction with the construction of the interchange if possible and under the existing Abrams Creek and Rail Bridge. At a minimum, bicycle and pedestrian awareness should be incorporated into the design and signage of the interchange. Trail connectivity to West Jubal Early Land Use Plan and the City of Winchester Green Circle is very important.

IMPLEMENTATION

SWSA Boundary

Preferred Alternative:

The SWSA boundary shall be modified around the boundaries of the Rock Harbor property (and the Robinson property) as identified in this map. This assumes an expectation of development with public water and sewer, as well as regional planning and participation in community facilities development will be addressed during the rezoning process. In addition, this ultimately assumes the ability of community to obtain future water and sewer resources. The SWSA boundary expansion would be the preferred alternative.

APPENDIX I - AREA PLANS

This is the approach preferred and endorsed by both the PC and the CPPC, and approved by the BOS.

Outcome: The addition of approximately 265.5 acres (with Robinson) into the Sewer and Water Service Area (SWSA).

Zoning Designation

A new zoning district or overlay district could be created to accommodate such a balance of land uses and could address housing types and dimensional standards.

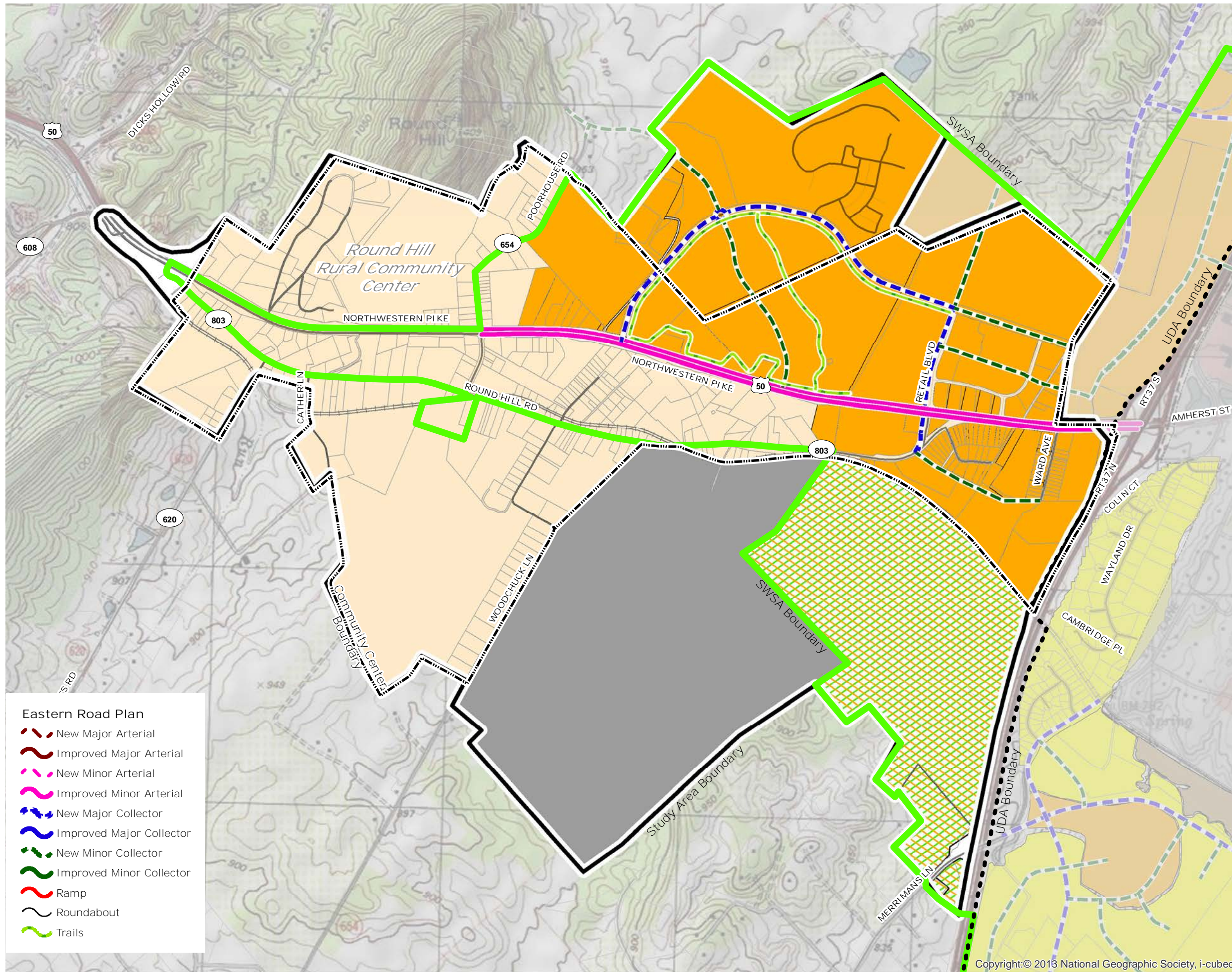
Preferred Alternative:

Recreation and Conference Commercial District or Overlay District – Zoning Designation specifically designed to implement this balance of land uses and associated performance standards.

This is the approach preferred and endorsed by both the PC and the CPPC, and approved by the BOS.

Area Plan

Round Hill Community Land Use Plan



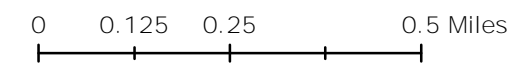
- Urban Development Area
- Sewer and Water Service Area

Land Use Legend

- Business
- Mixed-Use
- Mixed Use Commercial \ Office
- Highway Commercial
- Industrial
- Warehouse
- Heavy Industrial
- Mixed Use Industrial \ Office
- Extractive Mining
- Residential
- Planned Unit Development
- Mixed Use Age Restricted
- Urban Center
- Neighborhood Village
- Commercial Recreation
- Recreation
- Natural Resources & Recreation
- Park
- Sensitive Natural Areas
- Fire & Rescue
- Institutional
- School
- Rural Community Center

Eastern Road Plan

- New Major Arterial
- Improved Major Arterial
- New Minor Arterial
- Improved Minor Arterial
- New Major Collector
- Improved Major Collector
- New Minor Collector
- Improved Minor Collector
- Ramp
- Roundabout
- Trails



2035 Comprehensive Policy Plan Update Map
Draft



WESTERN JUBAL EARLY LAND USE PLAN

BOARD OF SUPERVISORS

Approved on January 11, 2006

GUIDING PRINCIPLES

A new community of over 600 acres is planned in a portion of the County where previously there was little but farmland. The area contains sensitive environmental features and these will be preserved. This new community will contain both residential and commercial uses. The community will be linked by an efficient road system, multi-purpose trails and sidewalks.

LAND USE

Residential

The land included within the Western Jubal Early Land Use Plan (WJELUP) represents a transitional area between the City of Winchester and the rural areas of western Frederick County. The WJELUP area is distinguished by its pristine environmental resources and prime farmland soils and has, therefore, historically supported both agricultural and low density residential land uses. Adjoining land within the City of Winchester has developed extensively with urban and suburban residential uses, most notably within the Meadow Branch, Morlyn Hills, Meadow Branch South, and Orchard Hill subdivisions. Additionally, suburban residential land use has been established within the **UDA adjacent and north of the WJELUP area through the Merriman's Chase** subdivision.

The predominant land uses envisioned within the WJELUP area are urban and suburban residential uses. The residential designation is intended to continue the established land use pattern in the vicinity of the WJELUP area. As such, new residential development within the WJELUP area is expected to consist primarily of single family detached and single family small lot units, and be compatible with the design of existing residential uses on adjoining property. The gross residential density for residential developments within the WJELUP area should not exceed four dwelling units per acre.

Commercial

This plan calls for commercial uses to balance, service and complement the residential uses. Areas for commercial land use are designated along the planned route of the Jubal Early Drive extension and near the intersection of Cedar Greek Grade and Route 37. These areas are intended to provide commercial services and employment opportunities that are accessible for residents within the WJELUP area and the adjacent community via alternative modes of transportation, such as pedestrian and bicycle facilities. Enhanced accessibility is anticipated through the connection of such areas to the

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surrounding residential neighborhoods by a network of multi-purpose trails and sidewalks.

The commercial component is envisioned to consist of neighborhood scale commercial uses and high-end office uses. Priority will be given to neighborhood scale commercial uses as these will serve the needs of residents and create focal points for the new community. Strip commercial development is strongly discouraged. Consolidated entrances will be encouraged to avoid multiple-entrances along Jubal Early Drive, Cedar Creek Grade and the new collector road.

TRANSPORTATION

Future road networks are proposed for the WJELUP area which will link it to Jubal Early Drive, Route 37 and Cedar Creek Grade (Route 622).

The Win-Fred Metropolitan Planning Organization (MPO) 2030 Transportation Plan calls for the extension of Jubal Early Drive to Route 37. It calls for a new diamond interchange at Route 37 and Jubal Early Drive, with a realignment of Merrimans Lane. The extension of Jubal Early Drive and the interchange at Route 37 are critical to addressing regional transportation problems. This plan, therefore, incorporates the extension of Jubal Early Drive as an east/west through road and the construction of the interchange at Route 37. The extension of Jubal Early Drive through this portion of the UDA is envisioned as an urban divided four lane cross-section that includes landscaped medians as well as pedestrian and bicycle facilities.

The MPO Plan also calls for Cedar Creek Grade to be widened to a four-lane section from the city limits to Merrimans Lane, with signalized ramps at the intersection of Cedar Creek Grade and Route 37. The Frederick County Comprehensive Policy Plan Bicycle Plan also identifies Cedar Creek Grade as a short-term destination route. Therefore, this plan incorporates improvements to Cedar Creek Grade, to a four-lane divided highway with a bicycle lane, and improvements to the interchange at Route 37 and Cedar Creek Grade.

A major collector road, as included in the MPO Plan, is planned to facilitate traffic movement in a north south direction to provide a connection between Jubal Early Drive and Cedar Creek Grade. This road is envisioned as an urban divided four lane cross-section that includes landscaped medians as well as pedestrian and bicycle facilities. The location shown on the plan is general with the precise location of the north-south collector road remaining flexible.

The development of new road systems, including a new interchange at Route 37, new signalization and improvements to existing road systems are all elements of this plan. It will be the responsibility of private property owners and developers to ensure that these improvements are made. The financial

APPENDIX I - AREA PLANS

responsibility will rest primarily with private property owners and developers, although they may be able to demonstrate how a partnership, possibly with the Virginia Department of Transportation (VDOT), the City and/or the County will accomplish the necessary road improvements. No rezonings should be approved until the County is certain that the transportation impacts of development will be mitigated.

Another critical transportation component of the WJELUP is alternative modes of transportation, such as pedestrian and bicycle facilities. This plan, therefore, calls for an interconnected system of multi-purpose trails and sidewalks. The County should also encourage the extension of existing bus routes to serve the area. Ideally, bus stops will be located at the commercial centers and within the development.

ENVIRONMENT

The WJELUP designates environmental resources associated with the Abrams Creek corridor as Sensitive Natural Areas (SNA). These areas should be preserved through the development process with improvements limited to required road crossings and passive recreational amenities. A large sinkhole in the area has been filled and improvements to this area may also need to be restricted to required road crossings and passive recreational amenities. A conservation oriented approach to the design of residential and commercial projects within the WJELUP area is encouraged to maximize DSA preservation. As such, the precise study and identification of DSA designated resources should occur as a critical first step in the design process for all development in the WJELUP area. Completion of this resource inventory and the delineation of preservation areas are to be followed and accommodated by layouts and engineering for building sites, lots, drainage and infrastructure. Full gross density credit will be provided for DSA designated land conserved through the development process.

A portion of the Green Circle Trail, as developed by the City of Winchester, has been constructed on the north side of the Winchester Western Railroad. The WJELUP envisions completion of this portion of the trail to Merriman's Lane. Additionally, a connector trail should be developed that extends from the existing trail to Cedar Creek Grade as an enhancement to the Green Circle Trail. The connecting trail should be located to enhance the interaction of the user with any environmental features or view sheds that are conserved through implementation of the WJELUP. The pedestrian/bicycle network developed in the WJELUP area should provide for a continuous flow from the Green Circle.

HISTORICAL RESOURCES

Two known historic houses are located within the WJELUP area. The Baker, Jacob House (750 House) is located in the northwestern corner. The Virginia Department of Historic Resources (VDHR) had determined that the Baker, Jacob House is eligible for the Virginia Landmarks Register and the State and National Register of Historic Places. Protection of this building is strongly encouraged.

One potentially significant historic structure is located in the southwestern **corner of the WJELUP area. The house is identified in the Lake's Atlas of 1885** as the Stuart Brown House, and has been identified as a potentially significant property in the Frederick County Rural Landmarks Survey (#34-1239). Protection of this structure is also encouraged.

EDUCATION/PUBLIC FACILITIES

The WJELUP area contains over 600 acres and the majority of this land is envisioned to be developed for residential uses. It is estimated that up to 2,400 dwellings could be built in the study area. This could generate up to 1,680 new students for the Frederick County School System. This number of students concentrated in such a small area is unprecedented in the western part of Frederick County. It will be incumbent upon future development within the WJELUP area to provide a site for school facilities, to mitigate the impact of the large number of school children resulting from development in the WJELUP area. This is consistent with the Community Facilities and Services policies in the Comprehensive Policy Plan.

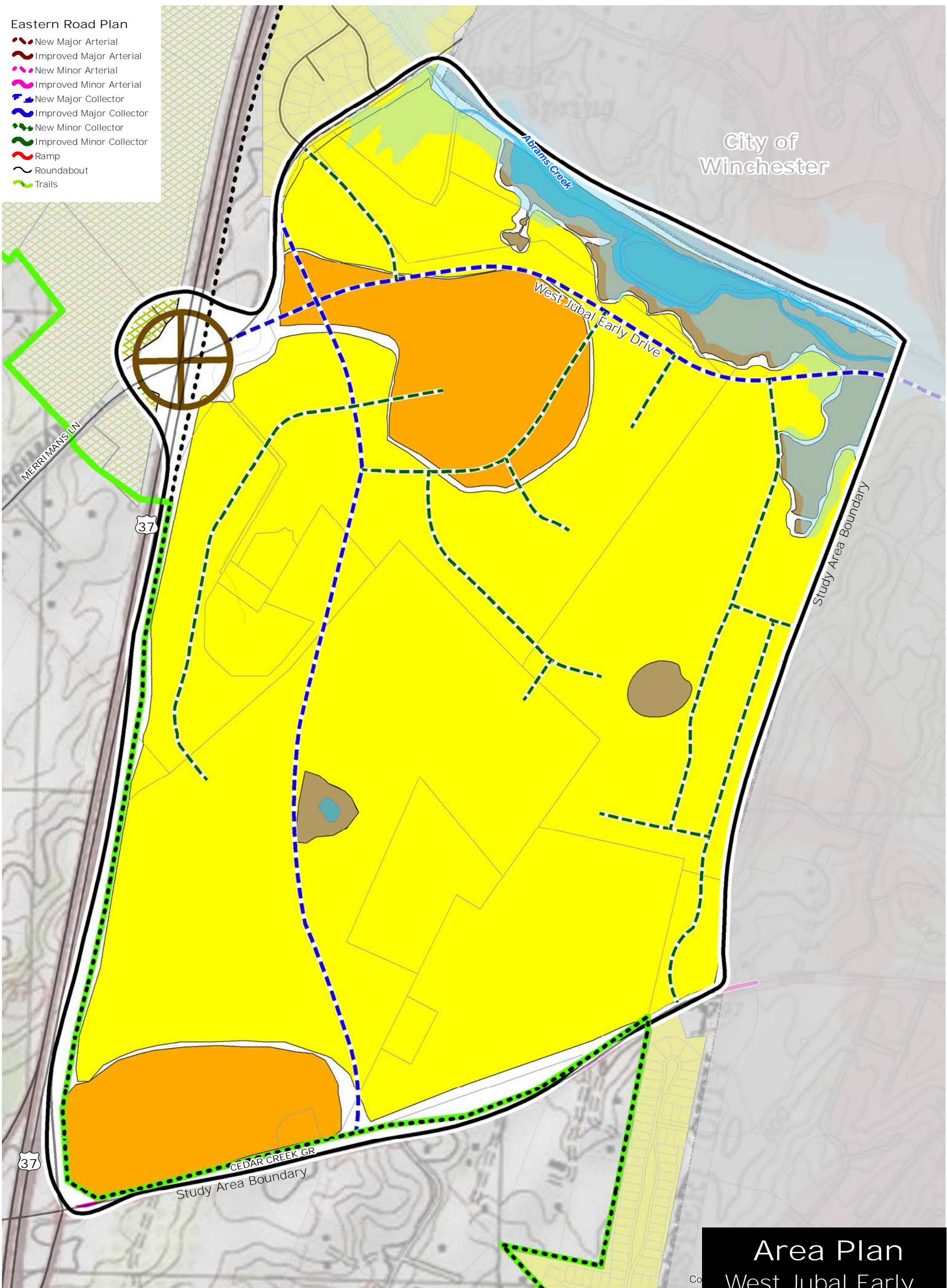
Any school should be sited centrally within the study area to enable the maximum number of students to walk or bike to school. Schools quickly become the focus of a new community when they are at the center of the community. The final location and alignment of any school site should remain flexible to ensure that it conforms to final engineering studies and School Board considerations.

It may also be necessary to provide other public facilities in this area to serve this new development. It would then be necessary for future development to provide a site for other public facilities to mitigate the impact of the large number of residents resulting from development in this area.

PARKS

The WJELUP area should contain a well-defined park and open space system for both active and passive recreation. Central to this open space will be the Abrams Creek corridor which should be preserved as a sensitive natural area. Neighborhood parks should also be located within the study area. As defined in the Comprehensive Policy Plan, neighborhood parks provide limited types of recreation for the entire family within easy walking distance. Examples of potential facilities in a neighborhood park include a playground, a swimming pool and tennis courts. The neighborhood parks should be located near the school and or neighborhood center and away from major streets. Also part of the park network will be the interconnected trail system as described above.

- Eastern Road Plan**
- New Major Arterial
 - Improved Major Arterial
 - New Minor Arterial
 - Improved Minor Arterial
 - New Major Collector
 - Improved Major Collector
 - New Minor Collector
 - Improved Minor Collector
 - Ramp
 - Roundabout
 - Trails



City of Winchester

West Jubal Early Drive

Study Area Boundary

CEDAR CREEK GR
Study Area Boundary

Area Plan
West Jubal Early
Land Use Plan

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Draft

Urban Development Area

Sewer and Water Service Area

Land Use Legend

- Business
- Mixed-Use
- Mixed Use Commercial \ Office
- Highway Commercial
- Industrial
- Warehouse

- Heavy Industrial
- Mixed Use Industrial \ Office
- Extractive Mining
- Residential
- Planned Unit Development
- Mixed Use Age Restricted

- Urban Center
- Neighborhood Village
- Commercial Recreation
- Recreation
- Natural Resources & Recreation
- Park

- Sensitive Natural Areas
- Fire & Rescue
- Institutional
- School
- Rural Community Center
- Proposed Interchange



0 0.05 0.1 0.2 Miles

ROUTE 37 WEST LAND USE PLAN

ROUTE 37 WEST LAND USE PLAN

Recent land use decisions and development trends have drawn attention to the land within the Route 37 western by-pass area between Route 50 and Route 522. In 1996, 50 acres adjacent to Route 37 and Route 50 were rezoned for commercial use, while land adjacent to Route 37 and Amherst Street within the City of Winchester has continued to develop to accommodate the Winchester Medical Center and the Shenandoah University Pharmaceutical School. It has been indicated that build-out of the site within the City of Winchester is inevitable, if development associated with these uses continues at its current rate.

In 1997, Frederick County undertook a study within this area to identify the most desirable land uses and plans for the future area as a whole. The goal of this study was to balance the economic development opportunities associated with the existing development activities while limiting development potential west of Route 37, promoting the continuation of agribusiness activities, and protecting the pristine landscape of the area.

A study area for the Route 37 West Land Use Plan was identified within the county which encompassed 645 acres. This area is bounded by Route 522 to the north, Route 37 to the east, the Round Hill Community Land Use Plan boundary to the south, and a definitive ridge line to the west. The predominate land use is orchard and a portion of the study area includes a core area of the Battle of Second Winchester.

Land Use Components

Approximately a 120-acre area located in the southeastern portion of the 645-acre study area has been identified as a location for potential business concentrations. It is envisioned that this area should be planned for an office park-type development which complements the medical center and pharmaceutical school, while providing retail services that cater to these uses and the community within the proximity of the study area. The remaining 525 acres within this study area should remain in its present, pristine condition, continuing the present land use of orchards while preserving the historic integrity of the battlefield, as well as potentially significant properties identified in the Frederick County Rural Landmarks Survey.

Transportation Components

Future road networks are proposed for this study area which link the 120-acre business and retail area with Route 37, Route 522, and Route 50. A system of major collector roads is necessary to promote the safe and efficient movement of traffic through this area. The Winchester Medical Center is currently working with the Virginia Department of Transportation to develop an interchange on Route 37 that will provide direct access to the medical center. This plan promotes the expansion of this interchange to provide access to the west, while linking the 120-acre business and retail area to this interchange through the development of a major collector road. The development of a major collector road system which links the 120-acre business and retail area with Route 522 and Route 50 is also necessary to promote and efficient north-south traffic pattern through this study area and the DeGrange property which borders this development pod to the south.

Sewer and Water Components

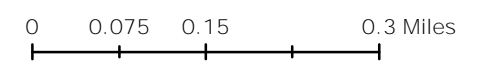
The Route 37 West Land Use Plan calls for the inclusion of the 120-acre business and retail area within the Frederick County Sewer and Water Service Area. This inclusion is necessary to ensure compliance with county policies regarding proposed zoning changes from rural land use to commercial land use. The extension of the Frederick County Sewer and Water Service Area has been done independently of the Frederick County Urban Development Area. Therefore, residential development is not proposed or encouraged for this study area.

Area Plan Route 37 West Land Use Plan

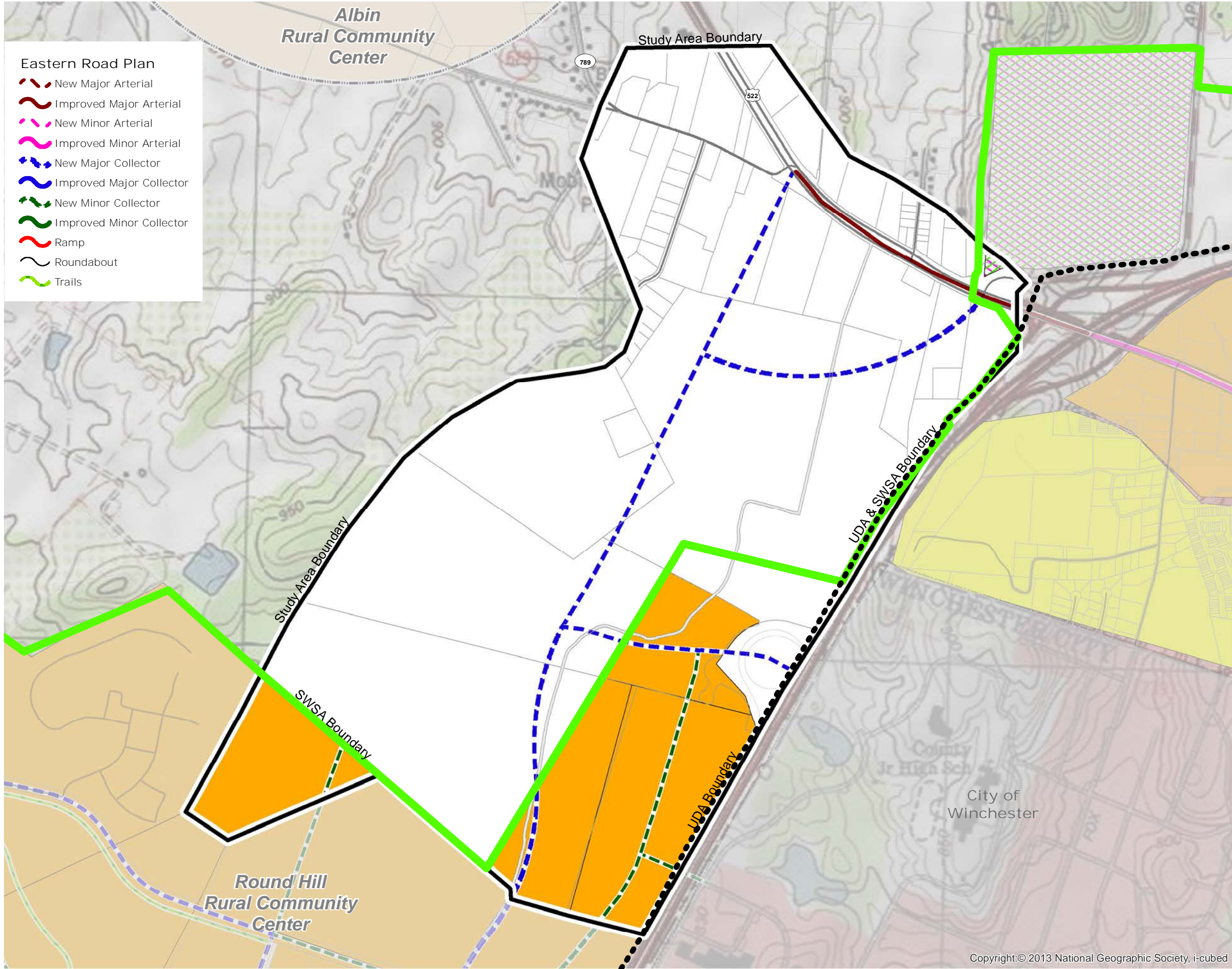
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- New Major Arterial
 - Improved Major Arterial
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 - Improved Major Collector
 - New Minor Collector
 - Improved Minor Collector
 - Ramp
 - Roundabout
 - Trails

- Urban Development Area
- Sewer and Water Service Area

- Land Use Legend**
- Business
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 - Highway Commercial
 - Industrial
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2035 Comprehensive Policy Plan Update Map
Draft



KERNSTOWN AREA PLAN

BOARD OF SUPERVISORS

APPROVED ON TBD, 2017

PLANNING COMMISSION

RECOMMENDED APPROVAL TBD, 2017

KERNSTOWN AREA PLAN

The Kernstown Area Plan study area is generally located along Route 11, south of the City of Winchester and north of the Town of Stephens City, and west of I-81. The Kernstown Area Plan builds on the Route 11 South Corridor Plan, and the balance of the Southern Frederick Plan which was adopted in 1998, by incorporating the western portion of this plan into the Kernstown Area Plan.

A series of maps have been prepared which identify Future Land Use, Transportation, and Natural, Historical, and Community Facilities within the study area.

Within this plan, the Shady Elm Road area continues its economic development emphasis, the Route 11 corridor seeks to capitalize on Interstate Commercial opportunities, the industrial land uses north of Route 37 and east of Route 11 are reinforced, and the Bartonsville and Kernstown historical and cultural areas have been identified.

The Kernstown Area Plan in the vicinity of Route 37 and Interstate 81 feeds directly into the Senseny/Eastern Frederick Urban Area Plan with the Crosspointe Development. Interstate 81 improvements at the 310 Interchange, Phase 1 of which is scheduled to commence in 2015, in this location further supports this area plan. Route 11, Valley Pike, links the Kernstown Area Plan with the City of Winchester to the north and the Town of Stephens City to the south.

The Kernstown Area Plan promotes a new area of new land use focus; the Kernstown Neighborhood Village in the Creekside area, along the west side of Route 11. This area should promote an attractive street presence along the frontage of Route 11 and reaffirm Kernstown as a distinct community, blending the old with the new, and building on the successful developments that have occurred in this area of the County.

Land Use

The goal of this area plan is to integrate the commercial and industrial (C/I) opportunities and the areas of mixed use with future transportation plans and to recognize the historical and natural resources abundant in this area plan.

Shady Elm Economic Development Area

The Shady Elm Economic Development Area is designed to be a significant area of industrial and commercial opportunity that is fully supportive of the County Economic Development Authority's targeted goals and strategies. The intent of the industrial **designation is to further enhance the County's commercial and industrial areas and to provide focus to the County's future regional employment centers.** In specific areas a mix of flexible uses, with office uses in prominent locations is encouraged. Such areas are supported by substantial areas of industrial and commercial opportunity, and provide for areas that are well designed with high quality architecture and site design. It is the intent of such areas to promote a strong positive community image.

Kernstown Interstate Commercial @ 310

Located at a highly visible location on a prominent interstate interchange, this area of land use both north and south of Route 37 along Route 11, is designed specifically to accommodate and promote highway commercial land uses and commercial uses that continue to promote this area as a regional commercial center.

Particular effort must be made to ensure that access management for the supporting transportation network is a key priority as the function of the interstate and primary road network is of paramount importance. Access to the areas of interstate commercial land uses shall be carefully designed. Access Management is a priority along the Route 11 corridor.

The building and site layout and design of the projects shall be of a high quality. In addition, an enhanced buffer and landscaping area shall be provided adjacent to the Interstate 81 right-of-way, its ramps, and along the main arterial road, Route 11, the Valley Pike. A significant corridor appearance buffer is proposed along Route 11 similar to that established for Route 50 West corridor in the Round Hill Land Use Plan which consisted of a **50' buffer area, landscaping, and bike path.** The recently developed Kernstown Commons provides an excellent example of an enhanced buffer and landscaping area along Route 11 that also includes a multi-purpose trail that serves the area.

Kernstown Industrial Area

The existing industrial land uses north of Route 37 and both east and west of Route 11 are reinforced with this area plan. Industries including Trex and H.

APPENDIX I - AREA PLANS

P. Hood, are well established and should continue to be supported in this area. Additional industrial and commercial opportunity that is fully supportive of the County Economic Development Authority's targeted goals and strategies should be promoted. The intent of the industrial designation is to **further enhance the County's** like commercial and industrial areas and to **provide focus to the County's regional employment centers.**

Kernstown Creekside Neighborhood Village

Kernstown Creekside Neighborhood Village serves as a focal point to the Kernstown Area and as a gateway feature for this important County location. In addition, the Kernstown Creekside Area serves as a gateway into the City of Winchester, and on a broader scale, a gateway feature for this portion of Frederick County as citizens and visitors approach this portion the County from the south. This neighborhood village should promote a strong positive community image. Residential land uses would be permitted only as an accessory component of the neighborhood village commercial land uses. This area should have a strong street presence with particular attention being paid to the form of the buildings adjacent to Route 11. It is the intent of this plan to reaffirm Kernstown as a distinct community, blending the old with the new, and building on the successful developments that have occurred in this area of the County.

Defined Rural Areas

The Kernstown Area Plan has sought to further define the boundary between the Rural and Urban Areas of the Community. As noted, the above areas of proposed land use combine to frame the western **boundary of the County's** urban areas. In addition, the rural areas to the west of Shady Elm Road south of the industrial areas **further define the County's urban area in this** location. The plan provides enhanced recognition of the rural residential land uses, Hedgebrook Farm, and the agricultural areas adjacent to Middle Road. This recognition and the location and boundaries of the proposed land uses **further promote a clean separation between the County's rural and urban** areas. The continuation of agricultural uses west of Route 37 and Shady Elm Road will encourage the continuation of agribusiness activity and protect the integrity of the properties voluntarily placed in the South Frederick Agricultural and Forestal District.

Kernstown Battlefield and Bartonsville Sensitive Natural Areas (SNA's)

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A historic district designation or use of conservation easements is recommended for the portion of the Grim Farm, site of the Kernstown Battlefield owned by the Kernstown Battlefield Association (KBA) that is located in the County. This designation is intended to recognize the preservation of the core area of the Kernstown Battlefield. County regulations stipulate that the formation of a historic district must be accomplished through the consent of the land owner. The County continues to support the Kernstown Battlefield Association's efforts in preserving and promoting this tremendous County resource.

A similar designation should be pursued, in conjunction with property owners, in the Bartonsville area. In addition to its historical significance, much of the Bartonsville area is also within the 100 year floodplain and would therefore be otherwise limited in terms of development potential. In Bartonsville, the rehabilitation, adaptive reuse, or restoration of historic structures should be encouraged. Future development applications that have historic resources on the property should incorporate the resources on the site into development. Any future development should be sensitive to those resources present on the site.

There are several historic sites and markers in the Kernstown Area Plan. Those sites and markers should be buffered from adjacent development activities and preserved in their original condition whenever possible during any development or land use planning.

The Springdale Flour Mill is located in the center of Bartonsville and would be ideal for use as a key element for the Bartonsville Rural Historic Area. It would be appropriate for the use on the property to develop as something which would encourage the protection of the structure and provide a use which encourages adaptive reuse users to utilize the property.

Bartonsville South

Perhaps the most outstanding feature of the land from Bartonsville south to the Stephens City limits is the relatively pristine state of the southern portion of the corridor. At time of writing, it remains relatively undeveloped. The majority of this segment of the study area is currently either used for agriculture or is vacant. Only two, small-scale commercial enterprises are situated in this portion of the corridor. The bigger of the two is a commercial recreational land use known as Appleland. General commercial land uses are envisioned in this area in the future.

As noted, the Route 11 South corridor, in the area in and around Bartonsville, is shown as the site of a future preservation effort.

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One of the significant elements of this plan is the buffering of Route 11 South. This southern section of the corridor from Stephens City, north to Bartonsville is intended to be set apart from the existing commercial development along the northern third of the corridor. The intent is that, through a combination of setbacks, vegetative screening, planting of shade trees along the edge of the right-of-way, and the provision of bike way and pedestrian access, the corridor would have a parkway-like appearance. A planted median strip is also envisioned when this section of Route 11 South becomes four lane. Uses locating within this section of the corridor would be expected to have no direct access to Route 11 South, but rather would access a proposed east-west connector road which in turn would intersect Route 11 South.

Valley Pike Trail

For the Kernstown Area Plan, it is recommended that a new multi-purpose path be constructed along the length of Valley Pike through the study area connecting areas of land use, in particular those resources identified as **sensitive natural area's**, and providing connections with the City of Winchester and the Town of Stephens City. This pathway should be consistent with that of the path that exists in several locations along the road today. Examples of this such a recreational resource would provide an excellent example for other opportunities in the County.

In general, the goals for land use in the Kernstown Area Plan are to:

- Promote orderly development within areas impacted by new infrastructure.
- Provide a balance of industrial, commercial, residential, and agricultural areas.
- Promote mixed-use development in-lieu of large areas of residential.
- Concentrate industrial and commercial uses near and around interstate, arterial, and major collector interchanges and intersections.
- Encourage the preservation of prime agricultural areas and the continuation of Agricultural and Forestal Districts.

Recommendations from the 2010 Win-Fred MPO Bicycle & Pedestrian Mobility Plan should be adopted by the Board of Supervisors and pedestrian facilities shown in the plan should be constructed. This plan should also be utilized as a reference for accommodation recommendations and guidelines.

Ensure connectivity with existing or proposed bicycle or pedestrian transportation accommodations wherever possible. In particular, those planned or existing in the Town of Stephens City or in the City of Winchester.

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Pedestrian facilities should be constructed that connect neighborhoods to commercial areas, employment areas and public facilities to promote access and walkability.

Trails should be planned and constructed that connect the Kernstown area, the proposed Valley Pike Trail, and Bartonsville (see the Valley Pike Trail example described in the land use section).

Linear parks should be constructed along creeks where permissible due to topography.

Residential Development

The only area of urban residential development is located within the Urban Development Area in the location identified as the Kernstown Creekside Neighborhood Village. New residential uses should complement the existing residential uses, should be generally of a higher residential density and should include a neighborhood commercial component as described in the Kernstown Creekside Neighborhood Village Land Use. It will be very important to mix residential development in this area with the right balance of commercial uses.

In this area, slightly higher residential densities that may fall within the 6-12 units per acre range are envisioned (this is generally attached houses and may also include multifamily and a mix of other housing types).

These densities are necessary to accommodate the anticipated growth of the County within the urban areas and are consistent with established patterns within the study area and the densities needed to support the future residential land uses envisioned in the Plan.

The residential land uses west of Shady Elm Road within the study area are envisioned to remain rural area residential in character. Shady Elm Road south may generally be considered as the boundary between the urban areas and rural areas within the western part of this study area. This provides a transition area to the Opequon Creek and to the well-established rural character of the Middle Road and Springdale Road area.

Business Development

The Plan identifies a prime area for industrial land uses, the Shady Elm Economic Development Area, to capitalize on future industrial and commercial employment opportunities. Existing areas of industrial development are recognized with additional development promoted. Regional commercial development opportunities are reinforced in the Kernstown Interstate

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commercial area. In addition, an area is identified for neighborhood village commercial use, including retail, to accommodate existing residential communities and to build upon the successful Creekside commercial project.

The improvements to the Exit 310 Interchange on interstate 81 at Route 37 furthers the significant commercial opportunities that the Plan seeks to take advantage of by identifying the Kernstown Interstate Commercial @ 310 area of land use. Future improvements identified for this area are envisioned to continue to enhance this areas major role for commercial and industrial development.

Transportation

The Plan's Eastern Road Plan identifies several significant transportation improvements within the study area boundaries. These plans call for improvements to existing road alignments and interchanges, the relocation of existing roadways, and the construction of new road systems and interchanges. Transportation improvements to the interstate, arterial, and collector road systems will contribute to improved levels of service throughout the study area, and will shape the land use patterns in the short and long term.

In support of the new areas of land use, a transportation network has been proposed which relates to the location and context of the areas of land use, promotes multi-modal transportation choices and walkability, furthers the efforts of the Win-Fred MPO, and reaffirms the planning done as part of the Route 11 South Plan and the original Southern Frederick Plan. In this study there is a direct nexus between transportation and land use.

The improvements to Interstate 81 at Exit 310, will provide an improved **orientation for the County's primary road system and provides** new opportunities to create a transportation network which supports the future growth of the community in the right locations. This area is also heavily influenced by the ongoing and future improvements to Route 11 South, Shady Elm Road, and the future extension of Renaissance Drive to complete a key east-west connection south of Route 37. South of Bartonsville, in the area north of the Town of Stephens City, the road network provides for important connections into the Town and to the west to connect with the planned alignment of the Tasker Road flyover of Interstate 81.

Access Management is a significant consideration of this study and general transportation planning in Frederick County. This concept is supportive of providing for key connections to the south. The use of frontage roads, minor collector roads, and inter-parcel connections to bring traffic to access points is promoted.

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The context of the collector road network is proposed to be different with the focus being placed on a thoroughfare design that is accessible to all users and a more walkable environment. Particular attention should be paid to street network within the Kernstown Creekside Neighborhood Village Area to ensure that is highly walkable. The change in context in this specific location is to ensure compatibility with adjacent land uses and community goals. The surrounding land use, site design, and building design are features that will help create context and promote the improvement of this area as a focal point and as a place with more distinct character. Attention should be provided to the context of the street in the Neighborhood Village Commercial Areas to ensure that these prominent locations are safe and accessible to all modes of transportation. Bicycle and pedestrian accommodations should be fully integrated to achieve a transportation network that is open to all users. Appropriately designed intersection accommodations should include pedestrian refuge islands and pedestrian actualized signals.

In general, the road south of Apple Valley Road will provide for a more functional street open to all users. North of Apple Valley Road, Route 11 will have a more urban scale with a character that builds upon the architecture established in the existing Creekside area.

Special attention should be paid to ensure the transportation considerations of the Town of Stephens City to the south and the City of Winchester to the north are fully coordinated.

In addition, transportation improvements in the Kernstown Battlefield area and the Bartonsville area should include taking a proactive approach in creating safe interconnected routes to the battlefield park from the adjacent areas and creating additional access points. Traffic calming across the entire frontage of Kernstown Creekside Neighborhood Village is warranted with special attention placed on providing a safe and efficient access to this mixed use area of the community.

Consistent application of Comprehensive Plan goals to achieve an acceptable level of service on area roads and overall transportation network, level of service C or better, should be promoted. Further, efforts should be made to ensure that additional degradation of the transportation beyond an acceptable level of service shall be avoided. Consideration of future development applications within the study area should only occur when an acceptable level of service has been achieved and key elements and connections identified in this plan have been provided.

Further in depth study should occur in the future regarding the preferred alignment of the road connections in the area immediately south and adjacent to the Bartonsville area. Consideration should be given to ensure the future road network functions adequately and is sensitive to the many constraints that exist in that general area.

Community Facilities

The need for public spaces within the study area needs to be acknowledged. Opportunities for small public spaces within the Kernstown Creekside Neighborhood Village should be pursued.

The public facility element of the Kernstown Area plan should directly correlate to the Public Facilities chapter of the 2035 Comprehensive Plan. The public facilities element should also expand upon the existing 2035 Comprehensive Plan and ensure that opportunities for needed public facilities, which are not currently identified, are not missed. The development community should work with FCPS, Fire & Rescue, and Parks and Recreation to determine future public facility needs.

With regards to Public Utilities, the Frederick County Sanitation Authority (FCSA) and County should continue to ensure the availability of adequate water resources in conjunction with the future land uses identified in Area Plans and future development, determine the capacities of water and sewer treatment facilities and projected impacts of future land uses, and provide opportunities for expansion of water and sewage treatment facilities.

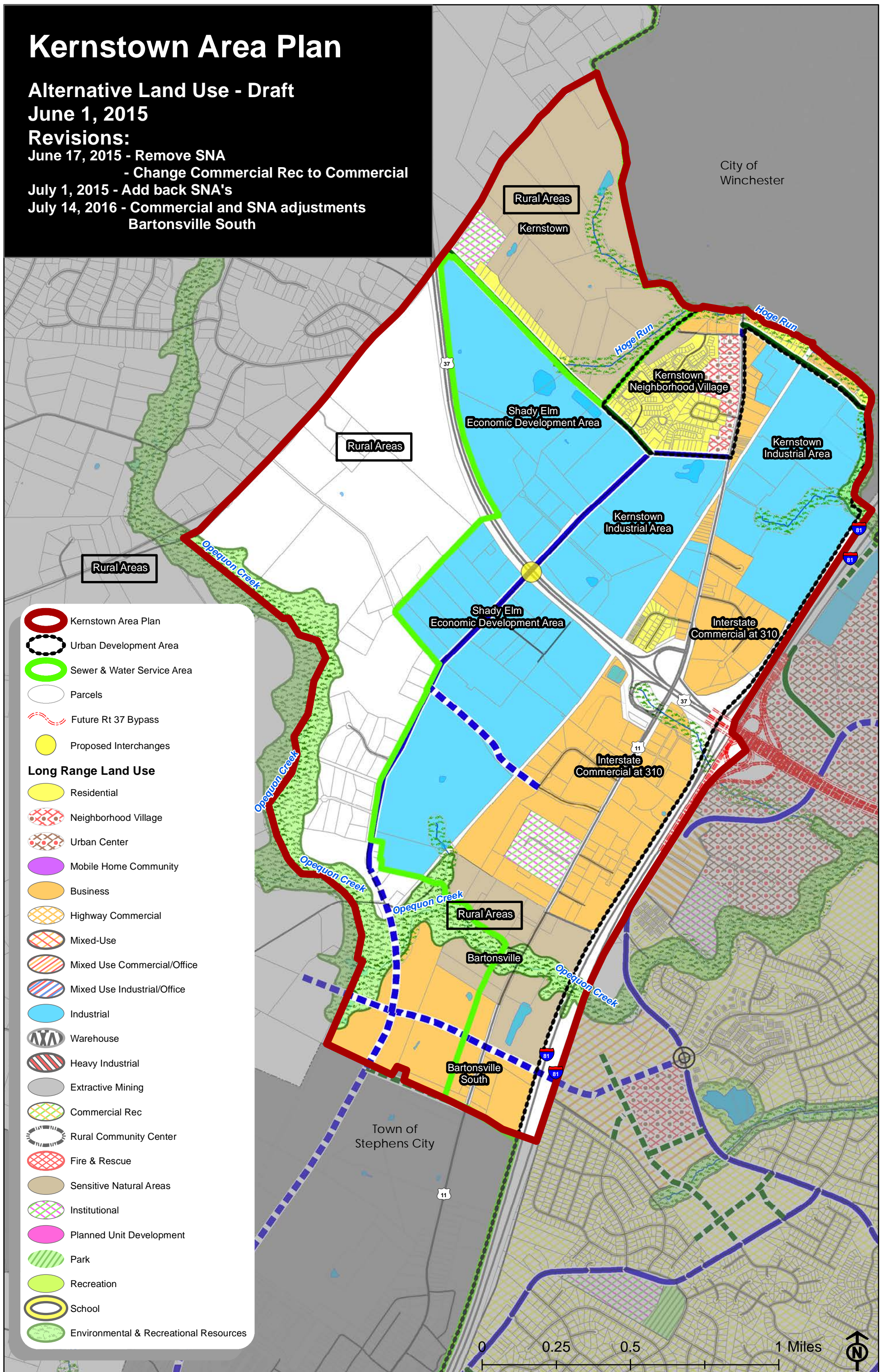
Kernstown Area Plan

Alternative Land Use - Draft

June 1, 2015

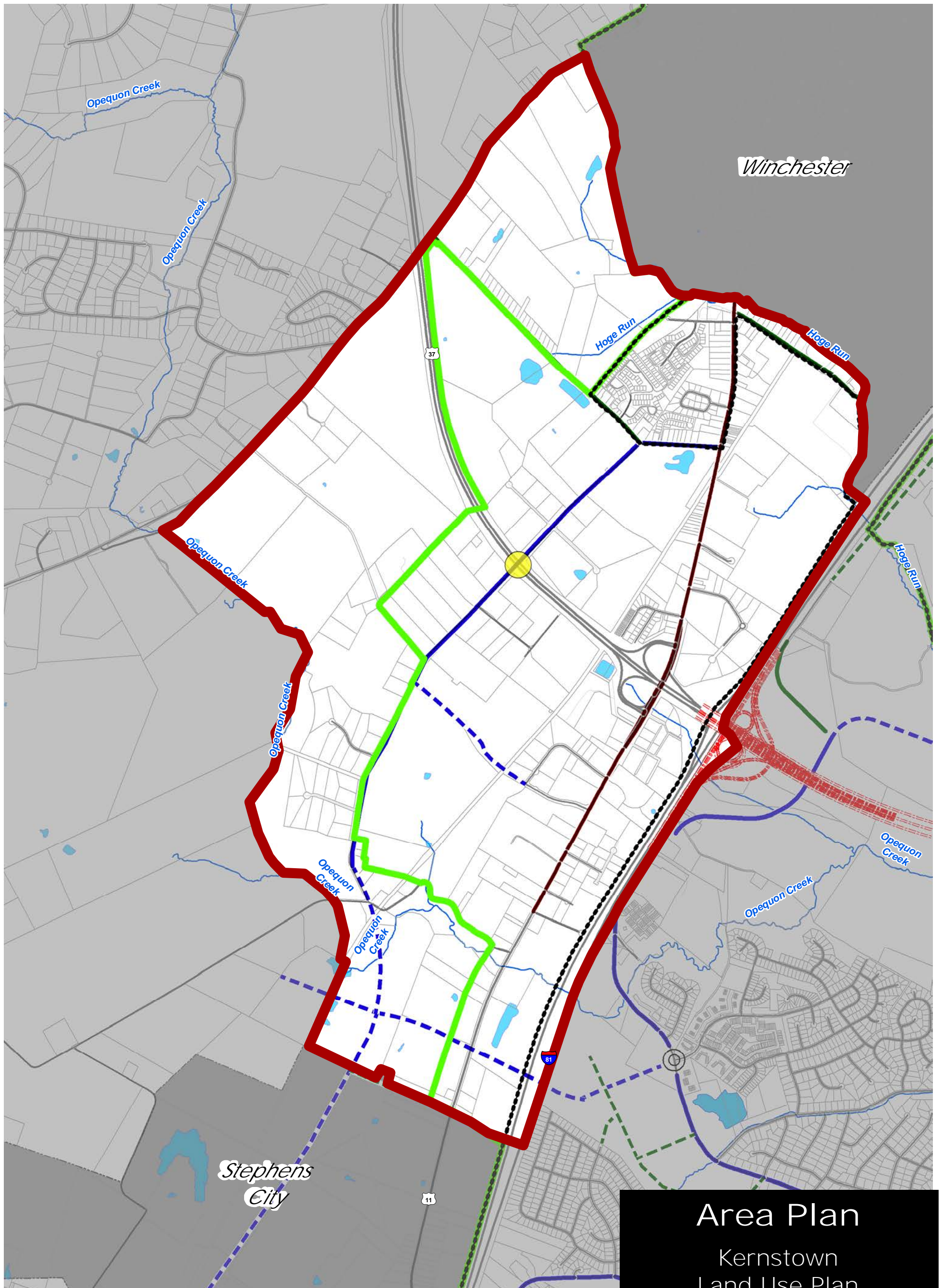
Revisions:

- June 17, 2015 - Remove SNA
- Change Commercial Rec to Commercial
- July 1, 2015 - Add back SNA's
- July 14, 2016 - Commercial and SNA adjustments
Bartonsville South



- Kernstown Area Plan
- Urban Development Area
- Sewer & Water Service Area
- Parcels
- Future Rt 37 Bypass
- Proposed Interchanges
- Long Range Land Use**
- Residential
- Neighborhood Village
- Urban Center
- Mobile Home Community
- Business
- Highway Commercial
- Mixed-Use
- Mixed Use Commercial/Office
- Mixed Use Industrial/Office
- Industrial
- Warehouse
- Heavy Industrial
- Extractive Mining
- Commercial Rec
- Rural Community Center
- Fire & Rescue
- Sensitive Natural Areas
- Institutional
- Planned Unit Development
- Park
- Recreation
- School
- Environmental & Recreational Resources



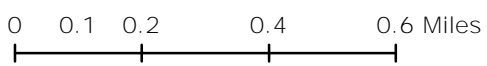


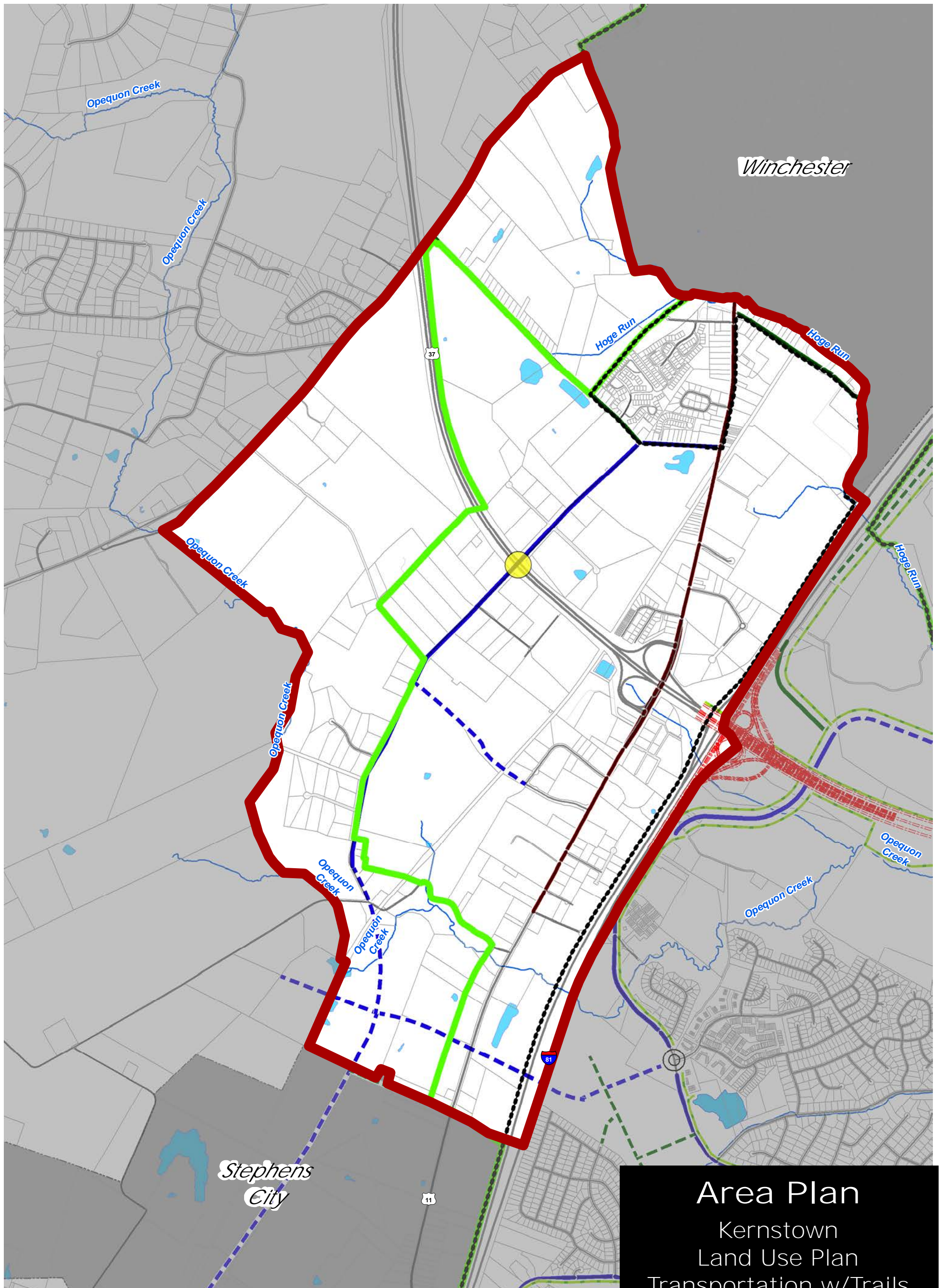
Winchester

Stephens City

Area Plan
 Kernstown
 Land Use Plan
 Transportation Map

- Urban Development Area
- Sewer and Water Service Area
- Future Rt 37 Bypass
- Eastern Road Plan
- Improved Major Collector
- Proposed Interchanges
- New Major Arterial
- New Minor Collector
- Improved Major Arterial
- Improved Minor Collector
- New Minor Arterial
- Ramp
- Improved Minor Arterial
- Roundabout
- New Major Collector
- Trails











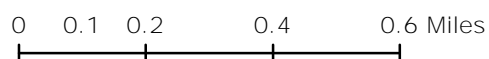


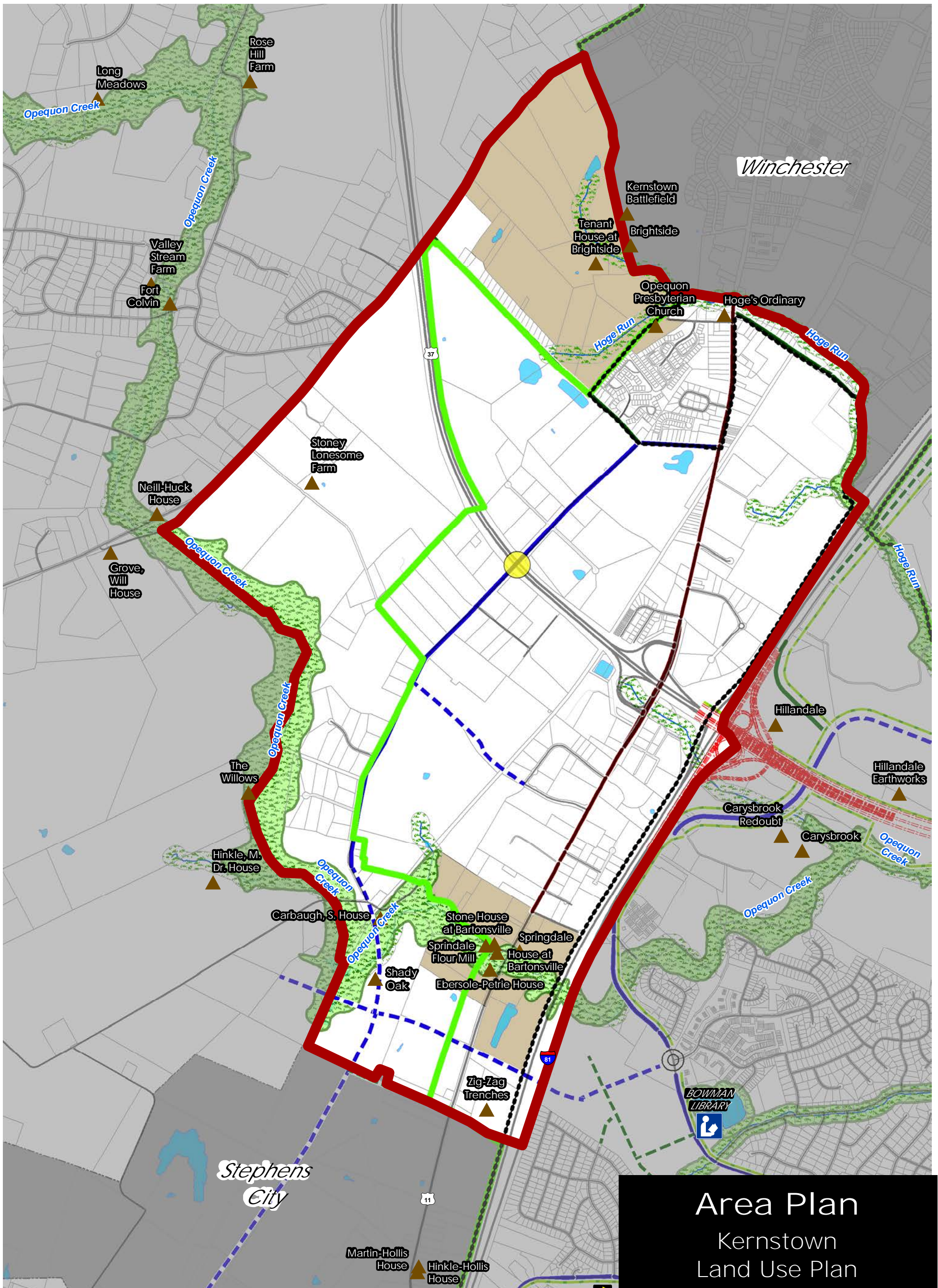
Winchester

Stephens City

Area Plan
Kernstown
Land Use Plan
Transportation w/Trails
Map

-  Urban Development Area
-  Sewer and Water Service Area
-  Future Rt 37 Bypass
-  Eastern Road Plan
-  Improved Major Collector
-  Proposed Interchanges
-  New Major Arterial
-  New Minor Collector
-  Improved Major Arterial
-  Improved Minor Collector
-  New Minor Arterial
-  Ramp
-  Improved Minor Arterial
-  Roundabout
-  New Major Collector
-  Trails

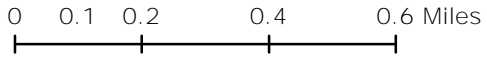




Area Plan
 Kernstown
 Land Use Plan
 Historic and Natural
 Resources

Urban Development Area Sewer and Water Service Area Future Rt 37 Bypass

- | | | | |
|-------------------------|--------------------------|-------------------------|--------------------------|
| Eastern Road Plan | Improved Major Collector | Long Range Land Use | Historic Rural Landmarks |
| New Major Arterial | New Minor Collector | Sensitive Natural Areas | Proposed Interchanges |
| Improved Major Arterial | Improved Minor Collector | | |
| New Minor Arterial | Ramp | | |
| Improved Minor Arterial | Roundabout | | |
| New Major Collector | Trails | | |



**STEPHENS CITY/FREDERICK COUNTY
JOINT FUTURE LAND USE PLAN
FOR PROPOSED ANNEXATION AREAS**

(Final Draft Approved by Stephens City Town Council, February 3, 2009)

(Final Map Approved by Stephens City Town Council, March 3, 2009)

(Final Draft Approved by Frederick County Board of Supervisors, April 8, 2009)

STEPHENS CITY/FREDERICK COUNTY JOINT FUTURE LAND USE PLAN FOR PROPOSED ANNEXATION AREAS

The Town of Stephens City, Virginia, map depicts a conceptual plan for future land uses within the proposed annexation area around the Town of Stephens City. The map was originally developed by county staff working with the Stephens City town manager, and was jointly adopted by Frederick County and the Town of Stephens City on July 9, 2003 and July 1, 2003, respectively. **The foundation of the map is both the County's Route 11 Corridor Plan contained within the county's Comprehensive Policy Plan and the town's 2001-2021 Comprehensive Plan.** In 2008, the Joint Land Use Plan was updated based upon the efforts of the Joint Land Use Committee who undertook an evaluation of past and current planning activity within the area and provided guidance on a revised land use and transportation plan.

The proposed annexation area is made up of two phases. Phase I consists of a northern and southern portion comprising a total of approximately 360 **acres. The northern area of Phase I is adjacent to the town's northern boundary and extends west from I-81, across the railroad. The southern portion of this phase is situated at the town's southwestern boundary,** surrounding the Lime Kiln. Phase II of the proposed annexation area is also located south of the town. It comprises an area of roughly 350 acres lying between I-81 and the railroad and extending south to Family Drive.

Overall, the general concept of the land use plan is to allow for growth around the existing town which is compatible with the existing scale and style of Stephens City. Industrial areas are sited to make use of the rail lines while being buffered from view of Route 11 and existing or proposed residential areas.

A major collector road is shown running west of town that would function as a bypass, drawing through traffic from Route 11 and thereby out of the center **of town. The "bypass" is intended to assist in reducing congestion at the** Route 11 Fairfax Pike intersection. The collector road ties in with a relocated Route 277/Interstate 81 interchange to the south of the present location and to a new overpass of I-81 at an extended Tasker Road to the north. This major collector road would be fed by other new, minor collector roads as well as the existing street system. An extension of this major collector road would provide connectivity with the proposed Shady Elm Collector Road. Key gateway intersections are proposed to include roundabout intersections that will provide effectively functioning intersections with a design quality that enhances the Town.

General categories of future land uses are depicted within the proposed annexation areas by colored areas. These areas of future land use are mixed to coordinate and integrate with each other, take advantage of and

APPENDIX I - AREA PLANS

implement the transportation improvements, and relate with the existing character and context of the Town. These general land use categories are described as follows:

Light Industrial/Manufacturing/Office:

This category is shown in blue and accounts for roughly 153 acres of the proposed annexation area. Anticipated land uses within these areas would be **consistent with the county's current M-1 zoning**, including office, light manufacturing, wholesale establishments, and warehousing. This area could **also be attractive to the County's targeted Economic Development Businesses** which are proposed to be accommodated by the OM zoning classification. One area of this land use, located in the prominently visible site in the area south of the Town, adjacent to the intersection of the Western Bypass and along the Bypass, should seek to accommodate the more commercial and office components of this land use designation. Buildings should be located closer to the road than any accessory uses, including parking areas, in an effort to present a strong economic presence and attractive form of development at this community gateway.

Conservation/Open Space:

These areas are shown in green and account for roughly 300 acres. The areas are located 1) along the Route 11 corridor north of, and south of, the town (depicting an area to be buffered), 2) an area of approximately 15 acres adjacent and connected to the Stephens City Western Bypass and central to this area of development to be utilized by the Town as a park or other public use, 3) an area west of the railroad around the northern quarry, and 4) a low lying area south of town and west of Route 11. The intent of these areas would be to preserve these areas from development for environmental, recreational, and/or aesthetic reasons. The rural corridor preservation buffer along the east and west sides of Route 11 could be up to a maximum **200' in** width. An additional road efficiency buffer should be provided between any residential development and the proposed Stephens City Bypass.

Institutional Use:

This area is depicted with a pink checked hatch and is shown to the north on the eastern side of the Route 11 corridor. The area consists of approximately 25 acres of existing and future institutional land uses. A private school is currently located in this area. The intent of this land designation is to serve the public at large through an institutional use that might consist of school (private or public), church or non-profit organization, recreational use, or a

APPENDIX I - AREA PLANS

government entity. Appropriate amenities may include dormitories, recreational or athletic fields, administration and maintenance facilities, and other similar uses that are customarily associated with this type of institutional land use.

Medium Density Residential:

These areas are depicted in yellow and are shown north of town on both sides of the Route 11 corridor. The area east of Route 11, total roughly 27 acres, is designed to complement the existing residential land uses and complete the area between Route 11 and Interstate 81. The area west of Route 11, between Route 11 and the Western Bypass and totaling roughly 40 acres, is designed to reinforce the residential character of the northern portion of the Town and integrate this residential land use into the proposed areas of Commercial and Mixed Use. The area of medium density residential south of Fairfax Pike is consistent with the residential land use approved by the Town for this property. It is the intent of this land use designation to provide for residential development at a density of approximately four units per acre. This residential development shall implement the standards of New Urbanism and be integrated into the surrounding land uses and orientated towards the internal street network.

Highway Commercial/Commercial/Office:

This area totaling approximately 135 acres is shown in orange and is located in several of the annexation areas at key intersections, but most prominently, in the area immediately west of the future relocation of Interstate 81 Interchange, west of Route 11. This area of land use is intended to provide typical highway commercial uses such as retail, restaurants, and office uses. It is located to take advantage of both the significant Interstate traffic that could be anticipated from the relocated interchange, and the local traffic that would be utilizing the local collector road network.

Mixed Use:

This land use is identified in three locations. The first area is located north of the proposed east west collector road adjacent to the northern boundary of the Town, west of Route 11, and contains roughly 15 acres. The second area is located south of Town, west of Route 11, and adjacent to the collector street connecting the Western Bypass with Route 11. This area is also roughly 15 acres. The third area is at the western gateway to the Town, south of Fairfax Street, and encompasses the area of existing residential lots and an area of approved commercial development. This area is approximately 25

APPENDIX I - AREA PLANS

acres in size. These areas would be a mix of commercial, business, and office uses with the possibility of up to twenty-five (25) percent of the land area being available for single family attached residential land uses at a density of four units per acre. In addition, second story and above residences located above commercial land uses shall be permitted. These second story and above residential uses shall be considered bonus residential uses that do not count towards the residential density of the mixed use area. This area of mixed use development shall implement the standards of New Urbanism and be integrated into the surrounding land uses and orientated towards the street network.

Mixed Use Age Restricted:

This land use designation is identified in one location in the area north of Town and west of Route 11. This area contains approximately 20 acres. This area would be a mix of age restricted residential land uses at a relatively high residential density, up to approximately 8 units per acre, and shall contain a variety of residential housing types. In addition, this area shall contain a mix of commercial, business, or office uses that would be located on a minimum of fifteen (15) percent of the site. The intent of this land use designation would be to serve active older adults in an environment that takes advantage of the unique characteristics of the Town adds value to the broader community. This area of mixed use age restricted development shall implement the standards of New Urbanism and be integrated into the Town, the surrounding land uses, and orientated towards the street network which **shall be a continuation of the Town's grid pattern.**

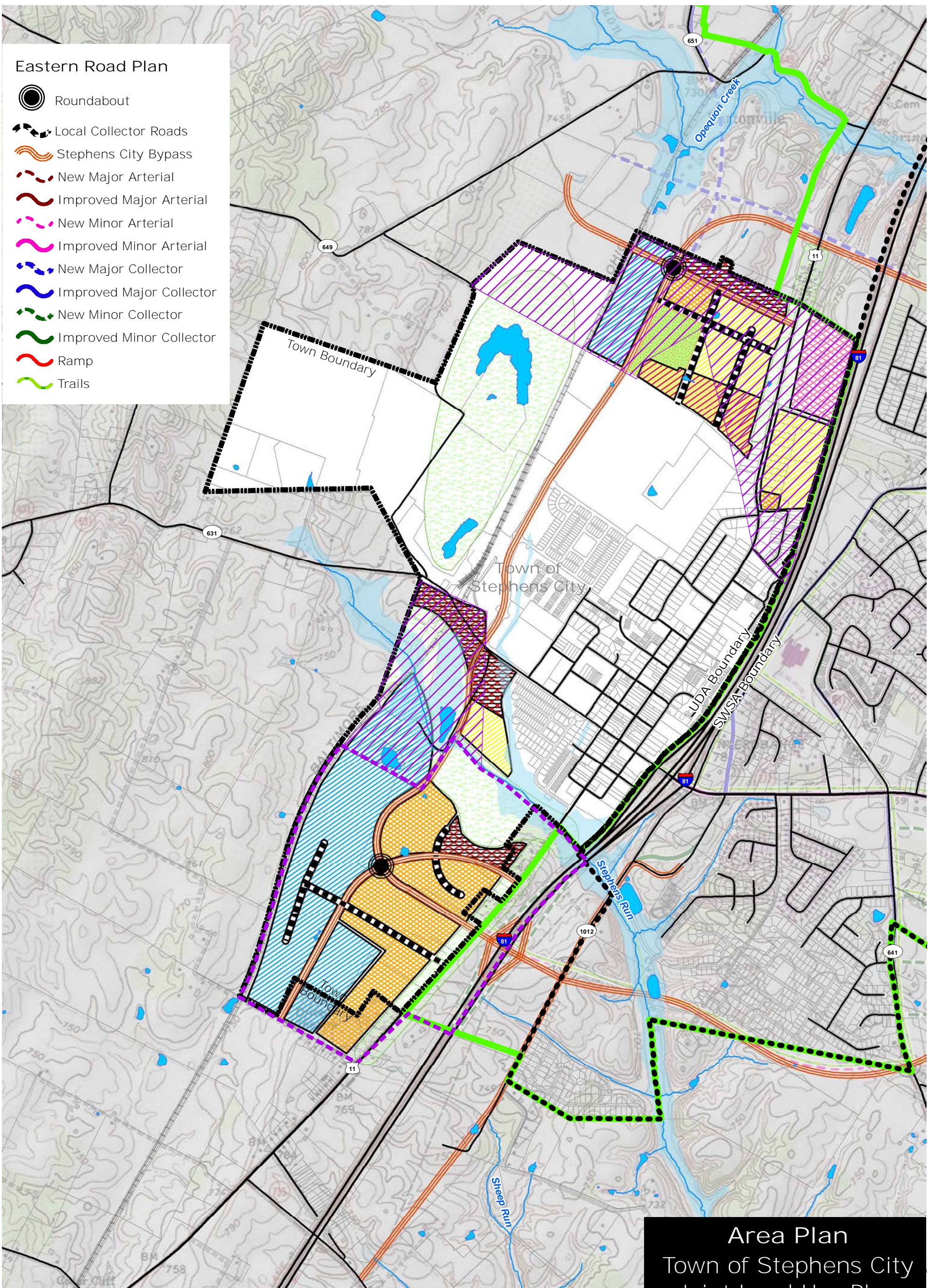
INFRASTRUCTURE AND COMMUNITY FACILITIES

It is essential to ensure that the infrastructure, in particular transportation infrastructure, and the necessary community facilities are provided in a timely and coordinated manner in order to enable the successful implementation of the land use plan.

The County and the Town agree that any development in implementation of the Joint Land Use Plan shall fully mitigate the impacts associated with the **request and shall further the goals of the Joint Land Use Plan, the County's Comprehensive Policy Plan, specifically with regards to transportation policy, and the Town's Comprehensive Policy Plan. Key community infrastructure components identified in the Joint Land Use Plan, the County's Comprehensive Policy Plan, and the Town's Comprehensive Policy Plan shall** be fully recognized and development projects shall seek to implement the Community Facility, transportation, and infrastructure needs of the County and the Town.

APPENDIX I - AREA PLANS

The land use designations of the Joint Land Use Plan that will form the basis for future zoning amendments were designed in coordination with the infrastructure, in particular transportation infrastructure, and the necessary community facilities. Therefore, future development applications shall address the impacts of the project and shall further the implementation of the infrastructure and community facility transportation improvements identified in the respective Comprehensive Policy Plans. This may include the design and construction of key segments of proposed roads and intersection/interchanges. Consideration of future development applications within the study area should only occur when an acceptable level of service has been achieved and key elements and connections identified in this plan have been provided.



Eastern Road Plan

- Roundabout
- Local Collector Roads
- Stephens City Bypass
- New Major Arterial
- Improved Major Arterial
- New Minor Arterial
- Improved Minor Arterial
- New Major Collector
- Improved Major Collector
- New Minor Collector
- Improved Minor Collector
- Ramp
- Trails

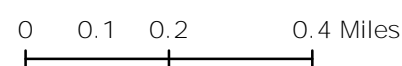
Area Plan
Town of Stephens City
Joint Land Use Plan

- Urban Development Area
- Sewer and Water Service Area
- Land Use**
- Residential
- Mixed-Use
- Mixed Use Age Restricted
- Institutional
- Highway Commercial
- Industrial
- Open Space
- Natural Resource & Recreation

- Phase 1 Annexation Area
- Phase 2 Annexation Area



2035 Comprehensive Policy Plan Update Map
Draft



MIDDLETOWN/LORD FAIRFAX SEWER AND WATER SERVICE AREA

BOARD OF SUPERVISORS

APPROVED ON SEPTEMBER 26, 2012

APPENDIX I - AREA PLANS

MIDDLETOWN/LORD FAIRFAX SEWER AND WATER SERVICE AREA

Lord Fairfax Community College (LFCC) is a comprehensive, multi-campus public institution of higher education. Through its three locations — the Fauquier and Middletown Campuses and the Luray-Page County Center — the College serves eight localities in the Shenandoah Valley and Piedmont regions. The localities are the counties of Clarke, Fauquier, Frederick, Page, Rappahannock, Shenandoah and Warren and the city of Winchester.

Frederick County's Middletown Campus is located at 173 Skirmisher Lane, Middletown, Virginia. The Middletown campus has grown since it was founded in 1970 into the campus illustrated in the following site plan.



LFCC is looking to expand its facilities on its current property and on property owned by the LFCC Foundation.

The Middletown Elementary School is located immediately north of Lord Fairfax Community College and is one of eleven elementary schools operated by Frederick County Public Schools serving elementary aged children in Frederick County.

Middletown/Lord Fairfax SWSA

The Sewer and Water Service Area (SWSA) is an important policy tool used by Frederick County to determine where public water and sewer service may be provided. The Board of Supervisors approves the location of the SWSA boundaries through the adoption of the Comprehensive Plan; the 2030 Comprehensive Plan, and amendments thereto. As a result, properties located within the SWSA may enjoy access to public water and sewer.

The Middletown/Lord Fairfax SWSA has been established to enable the provision of public water and sewer in the area north of the Town of Middletown to current and future institutional land uses, including Lord Fairfax Community College and the Middletown Elementary School. The supporting map identifies the location of the Middletown/Lord Fairfax SWSA boundary.

Future study of the area surrounding the Town of Middletown may identify additional properties that could be added to the Middletown/Lord Fairfax SWSA, if deemed appropriate by the Board of Supervisors.

The Frederick County Sanitation Authority (FCSA) has the primary responsibility to manage the provision of water and sewer in Frederick County, and therefore, within the SWSA. In some cases, other public entities may serve properties within Frederick County, if approved by the Board of Supervisors. Lord Fairfax Community College currently obtains water from the City of Winchester, and the Town of Middletown receives their wastewater.

The FCSA has expressed that, at this time, they have no desire to serve this area of Frederick County. However, nothing would preclude the FCSA from serving this area in the future if it is deemed necessary and appropriate. The approval of this plan by the Board of Supervisors would allow the City of Winchester and the Town of Middletown to continue to serve the properties with water and sewer, respectively.

It is recognized that properties owned by the State of Virginia are preempted from local control by Frederick County. Frederick County and Lord Fairfax Community College will continue to work collaboratively on issues related to the growth and development in this area of Frederick County.

Land Use

Frederick County uses the 2030 Comprehensive Plan to guide the future land uses. The Town of Middletown's Foresight Middletown plan, which was

APPENDIX I - AREA PLANS

adopted into the **Town's Comprehensive Plan in 2005**, guides the future land uses within the Town and was considered when drafting this plan.

The area encompassed by the Middletown/Lord Fairfax SWSA is envisioned to promote the continued growth of institutional land uses that enhance the existing educational institutions; Lord Fairfax Community College and the Middletown Elementary School. To that end, the plan calls for the establishment of approximately 140 acres of institutional land use that will serve the citizens of Frederick County and the broader region.

Institutional land uses are defined as a nonprofit or quasi-public use or institution, such as a church, library, public or private school, hospital or municipally owned or operated building, structure or land used for public purposes. Institutions of higher education are defined as an educational institution whose primary purpose is to provide a collegiate or graduate education.

Transportation

The Middletown/Lord Fairfax SWSA is immediately north of the Town of Middletown and is bounded by Route 11, Valley Pike, to the west, and Interstate 81 to the east. Access to the area is via Route 11, Valley Pike. Route 11, Interstate 81, and Exit 302, are strong assets **to the areas'** transportation network, and to the success of the institutional uses envisioned for this area. It will be important to ensure the function of this transportation network.

In rapidly growing areas, as noted in the Foresight Middletown plan, controlling and coordinating the number, design and location of new access points to major roadways is critical to maintaining the safety and capacity of the road system as traffic volumes increase. Accordingly, access to Valley Pike, Route 11, should be managed and limited. In the future, internal connections within the institutional land uses should be considered. In addition, the primary route to this area from Interstate 81 should be enhanced to safely and effectively manage the traffic and to reflect the Foresight Middletown plan as a means to create an attractive entrance to the Town and this developing area.

Consistent application of Comprehensive Plan goals to achieve an acceptable level of service on area roads and overall transportation network, level of service C or better, should be promoted. Further, efforts should be made to ensure that additional degradation of the transportation beyond an acceptable level of service shall be avoided. Consideration of future development applications within the study area should only occur when an acceptable level of service has been achieved and key elements and connections identified in this plan have been provided.



Area Plan

Middletown / Lord Fairfax Sewer and Water Service Area

Sewer and Water Service Area

Land Use Legend

- | | | | |
|-------------------------------|-------------------------------|--------------------------------|-------------------------|
| Business | Heavy Industrial | Urban Center | Sensitive Natural Areas |
| Mixed-Use | Mixed Use Industrial \ Office | Neighborhood Village | Fire & Rescue |
| Mixed Use Commercial \ Office | Extractive Mining | Commercial Recreation | Institutional |
| Highway Commercial | Residential | Recreation | School |
| Industrial | Planned Unit Development | Natural Resources & Recreation | Rural Community Center |
| Warehouse | Park | | |



0 0.05 0.1 0.2 0.3 Miles

RELIANCE ROAD AREA LAND USE PLAN

- INCLUDING 2014 SEWER AND WATER SERVICE AREA (SWSA)
DESIGNATION

BOARD OF SUPERVISORS

Approved on December 14, 2011

Amended August 13, 2014

RELIANCE ROAD AREA LAND USE PLAN

In spring 2010, the Town of Middletown expressed interest in expanding its boundaries to incorporate approximately 250 acres of land on the east side of I-81, Exit 302, following Reliance Road. Shortly thereafter, the Reliance Road Steering Committee (RRSC) was convened. The RRSC was composed of representatives from the Town Council and the Board of Supervisors.

The RRSC met various times over the ensuing months. The Town representatives also held a community meeting and met with individual property owners within the study area to gain an understanding of the **interest of the property owners in terms of the Town's desired boundary line** adjustment with the County, as well as future land use opportunities; these meetings were summarized and presented to the RRSC by Town representatives. It was noted that while approximately 37 acres of B2 Business General Zoning exists within the study area, only one site has been **developed and benefits from the Town's water and sewer system: the 2.7 acre site occupied by an existing Exxon service station.**

The RRSC also evaluated the existing transportation network in addition to water and sewer availability. The RRSC considered the Foresight Middletown **plan (adopted into the Town's Comprehensive Plan in 2005), which promoted** the implementation of a technology park east of the interstate. The results of these findings led to the crafting of the Reliance Road Area Land Use Plan as a means to illustrate the potential land uses, and the supporting transportation and public water and sewer for the area, to foster further discussions.

The land use plan is envisioned to guide land use decisions for an area of approximately 311 acres over the next 20 to 30 years. Recognizing the **Town's current water availability, development** within the study area will initially be limited until an additional water supply is more readily available. The Board of Supervisors, in approving this update to the area plan, expressly stated that the Frederick County Sanitation Authority (FCSA) will be the party responsible for providing water and sewer in this area.

Land Use

The proximity of the study area to I-81, Exit 302, enhances the opportunities for land uses that benefit from the interstate. As such, commercial and technology uses would be most beneficial at this location.

The plan calls for the establishment of approximately 44 acres of commercial uses that serve the travelling public, such as hotels, gasoline service stations, and restaurants. The commercial opportunities would be located immediately east of the interstate interchange, on the north and south sides of Reliance Road. This is also the area where public water and sewer presently serves the existing Exxon service station. These land uses could be implemented through the B2 Business General Zoning District.

Technology uses are envisioned both north and south of Reliance Road, covering approximately 259 acres. Based on the targeted businesses identified by the Winchester-Frederick County Economic Development Commission, the technology uses would include economic sectors such as: Advanced Security, Assembly, Business Services, and Life Sciences. These land uses would be implemented through the OM Office Manufacturing Zoning District.

In recognition of the continuation of the agricultural and large lot residential land uses adjacent to the study area, efforts should be implemented through the rezoning and development process that mitigate and lessen the adverse impacts that the commercial and technological uses may introduce. Mitigation techniques such as 100-foot distance buffers and landscape screening would be expected.

Transportation

While the existence of **I-81, Exit 302, is a strong asset to the areas'** transportation network, the actual configuration of the interchange and its close proximity of Buckton Road is not conducive to accommodating future traffic demands. In order for the interchange to operate efficiently and effectively in the future, it is essential to migrate the existing intersection of Reliance and Buckton Roads further east, creating a greater separation distance from the I-81 northbound on/off ramps. Increasing this separation distance will avoid significant degradation of the interchange similar to what has occurred at Exit 307 in Stephens City.

In rapidly growing areas, as noted in the Foresight Middletown plan, controlling and coordinating the number, design and location of new access points to major roadways is critical to maintaining the safety and capacity of

APPENDIX I - AREA PLANS

the road system as traffic volumes increase. Accordingly, access to Reliance Road should be managed and limited. The plan calls for limiting Reliance Road access to three points: a managed access entrance point in the vicinity of Confidence Lane, and two appropriately spaced roundabout or signalized intersections.

The initial access point onto Reliance Road would be established with the relocation of Buckton Road. A second access point onto Reliance Road would be established with the relocation of Huttle Road, to create a single intersection on Reliance Road for relocated Huttle Road and a new road servicing the southern land area.

These three Reliance Road access points would facilitate traffic movement to/from Reliance Road to the various future land uses to the north and south. It may also be appropriate to utilize a roundabout at the relocated Buckton Road intersection with Reliance Road as a means to define where the developed portion of Reliance Road ends and the rural land uses of the County begin. A similar technique was suggested by the Foresight Middletown plan as a means to create an entrance to the developed area.

Finally, the Foresight Middletown plan calls for Reliance Road within the Town limits to be a boulevard with a landscaped median; the Reliance Road Area Land Use Plan carries this design concept forward east of the interstate.

Consistent application of Comprehensive Plan goals to achieve an acceptable level of service on area roads and overall transportation network, level of service C or better, should be promoted. Further, efforts should be made to ensure that additional degradation of the transportation beyond an acceptable level of service shall be avoided. Consideration of future development applications within the study area should only occur when an acceptable level of service has been achieved and key elements and connections identified in this plan have been provided.

Water and Sewer

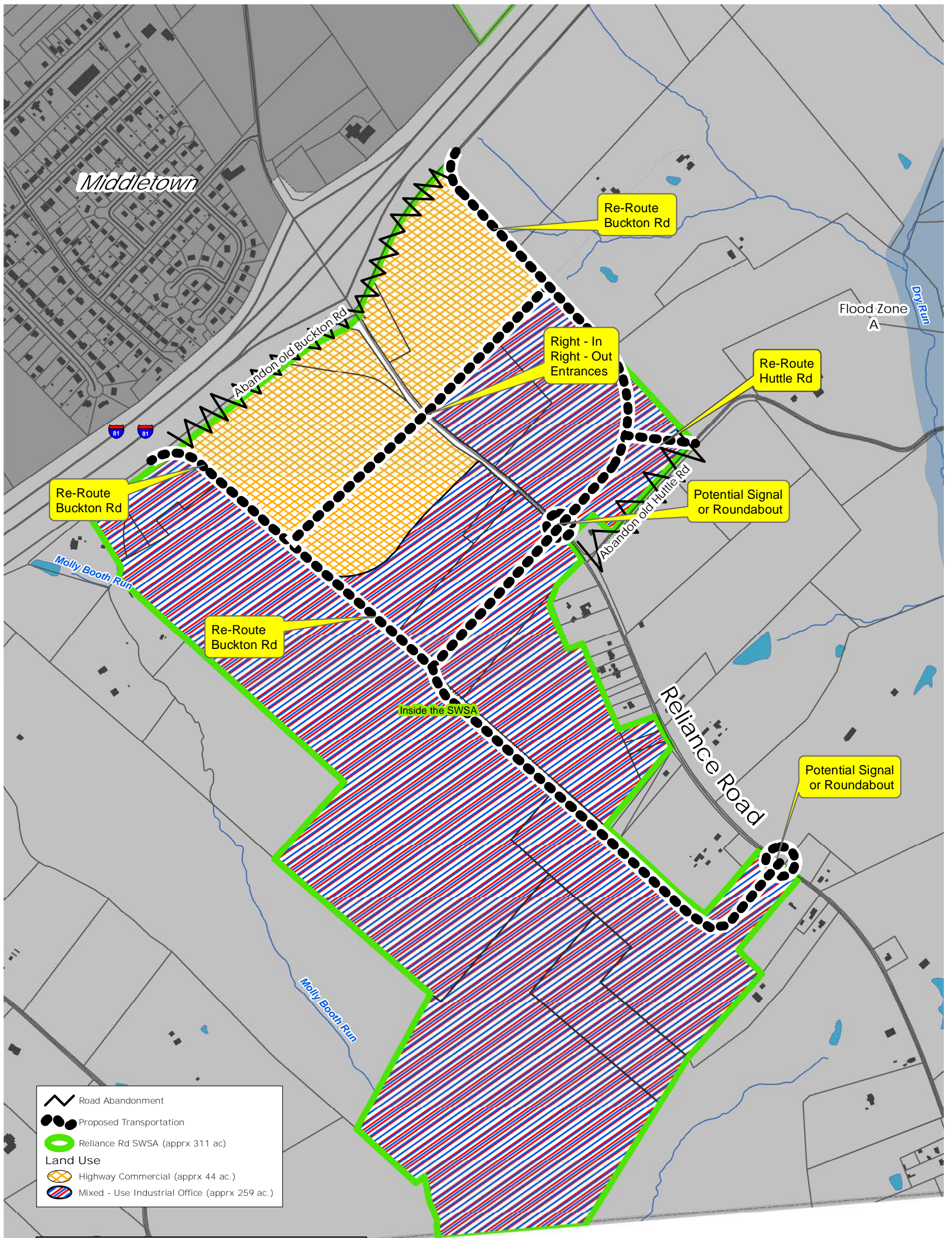
The Town recently completed an upgrade to its wastewater treatment facility which enables it to treat upwards of 400,000 gpd. Reflective of the slowing **economy and the Town's limited** water availability, the wastewater facility is currently operating at less than 30 percent capacity; the facility is available to service future wastewater demands.

Existing limitations in water availability and the conveyance lines under the interstate may hinder development in the near future. As the Town secures additional water availability, upgrades to the conveyance system could easily be undertaken.

APPENDIX I - AREA PLANS

Reflective of current water availability, the Town is positioned to dedicate up to 18,000 gpd of water to development on the east side of I-81. This available water resource could facilitate an initial expansion of the commercial land uses to include a hotel, expanded gasoline service station/convenience center, and a restaurant. Any additional commercial uses would certainly warrant additional water resources.

Development of the technology park land uses will be limited until additional water resources are identified and available. Technology uses that require limited water resources would certainly be more desirable initially, until the expanded water supply has been secured and accessible.



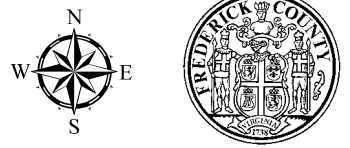
1) There is potential that additional through lanes would be needed depending upon the scope of development.

2) This change would require a traffic study under chapter 527. This study would give the needed information to refine roadway system improvement expectations.

Area Plan

Reliance Road Area

Land Use Plan



THE 2035 COMPREHENSIVE PLAN
APPENDIX II – BACKGROUND
ANALYSIS AND SUPPORTING
STUDIES



APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING
STUDIES

- **HISTORICAL BACKGROUND**
- **GEOGRAPHICAL IMPACTS**
- **DEMOGRAPHIC ANALYSIS**
- **ECONOMIC ANALYSIS**
- **LAND USE ANALYSIS**

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING
STUDIES

- **HISTORICAL BACKGROUND**

HISTORICAL BACKGROUND

Early European Settlement:

For 12,000 years prior to English Settlement of the Shenandoah Valley, a sparse population of Native Americans lived in the area, but many more traveled through these valleys on the “Indian War Path” from New York and Pennsylvania to winter in Georgia and South Carolina. The first Europeans to come through the Shenandoah Valley were Jesuit missionaries in 1632, and the details of this wilderness area were first mapped by French explorer, Samuel de Champlain.

The first private English ownership of Frederick County was the Virginia Company, which was tasked with the settlement of the Virginia Colony by King James I. Ownership of the area returned to the Crown in 1624 when the **Virginia Company’s charter was revoked. In 1649, King Charles II granted** seven royalist supporters the land "bounded by and within the heads" of the Potomac and Rappahannock Rivers. By 1681, Thomas, the Second Lord Culpepper, owned most of this original land grant. After he died in 1689, his daughter married Thomas, the Fifth Lord Fairfax, and later, their son Thomas, the Sixth Lord Fairfax, inherited the entire land grant.

Englishmen settled the Piedmont, then pushed west by foot and horse through passes in the Blue Ridge, and many more German and Scots-Irish settlers came down through the valleys from Philadelphia and Lancaster, Pennsylvania. Some of the earliest settlers of this area were Quakers who built the Hopewell Friends Meeting House, which still stands near Clearbrook and is listed on the National Register of Historic Places. These settlers were attracted by the fertile soils and the abundant forest and water resources.

Initial Settlement and Organization:

The Colonial government of Virginia wanted this wilderness settled as quickly as possible, as a buffer against the Native Americans; but Robert "King" Carter, Lord Fairfax's agent, was settling Fairfax's land slowly in large plantations. The government of Virginia had chartered counties in the Fairfax land grant as settlement spread up the Northern Neck and west. Virginia argued that Fairfax's land grant ended at the Blue Ridge, and began granting up to 1,000 acres each to settler families west of the Blue Ridge.

Abraham Hollingsworth settled near the site of Abrams Delight, now located within the Winchester City limits, in about 1729. Owen Thomas and Jeremiah Smith came to Back Creek in 1730 and settled on 806 acres granted in Thomas' name. Smith left and returned with a wife before 1741. His log cabin is now part of a house west of Back Creek and south of Route 50. In

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

1732, Jost Hite settled 16 families on his 5,000 acre "grant" and built Hite's Fort at Bartonsville, located on Route 11, approximately two miles south of Winchester.

The "Indian Path" became the Great Wagon Road to Philadelphia and Native Americans were dispossessed westward by treaty and force of arms. Frederick County was created from western Orange County by the House of Burgesses on December 21, 1738, and was named after Frederick Louis, the Prince of Wales and son of King George II, and originally spanned from the Blue Ridge Mountains to current day Ohio. In 1744, James Wood, County Surveyor for Orange County, platted a town at the County seat, which he named Winchester, after his birthplace. It consisted of 26 half-acre lots and three streets within 1300 acres, which he claimed as wilderness land owned by Virginia. Those streets are now Loudoun, Boscawen and Cameron. Winchester was officially chartered in 1752.

County government in Virginia was originally by self-perpetuating courts. Frederick County's Court was proclaimed and organized in 1743, and its officials took their oaths of office on November 11th of that year. The Frederick County Court first met at the surveying office of its clerk, James Wood, at the site on which he later built his estate, Glen Burnie.

The original Frederick County has since been divided into the following Counties*:

In Virginia:

Dunmore (now Shenandoah) - 1772
Page – 1831
Warren – 1836
Clarke – 1836

In West Virginia:

Hampshire – 1753
Berkeley – 1772
Hardy – 1776
Jefferson – 1801
Morgan – 1820
Mineral – 1866
Grant – 1866

*from "Frederick County, Virginia: History through Architecture" by Maral S. Kalbian

By the mid-1740s, the Frederick County Court had acknowledged that Lord Fairfax's land grant did include Frederick County, despite previous arguments that the Fairfax lands ended at the Blue Ridge Mountains. At the age of 16, George Washington was a member of a surveying party that came to Frederick County for Lord Fairfax in 1748. In 1749, Lord Fairfax moved to Frederick County and built his home, Greenway Court, at White Post, in present-day Clarke County. He accepted Wood's 1,300 acre claim and other additional lots at Winchester. Eventually, 11 other counties would be created from the 3,824 square miles included in the original Frederick County.

George Washington maintained a relationship with Winchester and Frederick County during and after his surveying expedition for Lord

Fairfax. Early during those years, Washington operated his surveying office in Winchester and oversaw the construction of **Fort Loudoun**. **Washington's first** elected office was as a representative of Frederick County in the House of Burgesses 1758. He served in this post for 15 years. During the French and Indian War, he was given a Commission by Governor Dinwiddie of Virginia and was later promoted to Commander in Chief of the colonial forces with headquarters in Winchester. The location of the headquarters for the western campaign helped to stimulate growth in Winchester throughout the French and Indian War which in turn led to improvements along trade/travel roads,

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

the creation of additional lots in Winchester, and the formation of Stephensburg, which is now Stephens City.

The American Revolution in Frederick County:

Although there were no battles or military engagements in Frederick County during the Revolutionary War, the area was very important in the effort. Prior to the drafting of the Declaration of Independence, a group of protesters met **in Winchester to protest King George’s taxes on the colonies.** They drafted the Frederick County Resolves and promised not to purchase English wares until their grievances were resolved. During the war, General Daniel Morgan, who lived in eastern Frederick County (now Clarke County), and his "Long Rifles" played a prominent role in many battles of the Revolutionary War, including the Battle at Cowpens in South Carolina. His regiment of expert riflemen was one of two from Virginia. Several local citizens furnished the troops with food and supplies, including Isaac Zane Jr. who supplied the army with ammunition made at his ironworks in Marlboro. Many prisoners captured during the War were held in Winchester and Frederick County. By 1779, the number of British prisoners held in Winchester had increased beyond the capacity of the existing prison and a larger one was built. A barracks was built four miles west of Winchester to hold these prisoners whose number had increased to 1,600 by the year 1781.

After the Revolution, the trade routes established during the French and Indian War continued to develop and provide avenues for trade between farmers in Frederick County and those in Eastern Virginia. Winchester grew as a travel and commercial hub in Western Virginia.

Early National Period:

During the late eighteenth and early nineteenth centuries, life in Frederick County centered on small family farms and transportation and trade routes. By the 1770s, the Indian Warpath through Frederick County had transformed into the Great Wagon Road and forms what is now US Route 11. In addition to Route 11, other major roads were established through Winchester including what are now Route 50 West, 522 South, and Route 7 East. These four major roads provided avenues of transportation and made trade possible across the state of Virginia as well as major cities North and South of Virginia. As a result, Winchester and the surrounding area grew in terms of residential occupants and commercial occupants.

Economic life was centered around Winchester and other local towns including Stephens City, Middletown, Kernstown, Gainesboro and Gore, which remain centers of economic and community growth today. The number of craftsmen and merchants in these towns was large and diverse. The strongest influence on the local economy was the Great Wagon Road which carried settlers and travelers from Philadelphia, south through the Valley and to the west. Activity associated with this road made Winchester one of the largest towns in western Virginia.

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Farming in this region focused on several main crops which grew well in the soils of the area. During this period, wheat production became the center of the local economy, along with cattle farming, and by 1810, Frederick County was one of the largest producers of wheat in Virginia. Economic growth in the area was predominantly encouraged by agricultural activities and their industrial counterparts, such as milling and transporting of the locally grown products. By 1820, there were 54 grain mills in Frederick County along with numerous sawmills, tanneries, and other business activities.

Growth in the area continued into the mid-nineteenth century, when the County was faced with Civil War and the turbulence that this area felt as a consequence of its location at the crossroads of many major roads and railroads.

The American Civil War:

In the early to mid-nineteenth century, issues were brewing in Frederick County which mirrored those across the Nation. As agriculture developed in the County, a clear division formed areas east of the Opequon (current day Clarke County), where slave labor constituted a majority of the population and areas west of the Opequon, where small family owned farms were the agricultural trend. In 1836, Clarke County split from Frederick County, largely over this issue.

During the Civil War, Frederick County played a significant role, primarily due to its location at the intersection of many major roads. The northern Shenandoah Valley supplied food, livestock, horses, and soldiers to the southern cause. The Valley was also important because of its strategic location in relation to Washington D.C. The town of Winchester changed hands about 70 times during the course of the war, an average of once every three weeks, for four years.

Major local battles included the First Battle of Kernstown in March of 1862, during which General Stonewall Jackson suffered his only tactical defeat during the Valley Campaign. However, Jackson did succeed in keeping Union troops in the Valley from leaving to reinforce McClellan on the peninsula. This was the first major encounter of the War in this area. In May of 1862, Jackson's army defeated the Union troops at the First Battle of Winchester.

In the Second Battle of Winchester in 1863, Confederate troops successfully attacked and defeated Union troops occupying forts on the western side of Winchester. The most critical effort of the campaign was the battle at **Stephenson's Depot and a portion of the battlefield still remains intact today.** Union troops were again defeated at the second battle of Kernstown in 1864.

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

Belle Grove and Cedar Creek Battlefield National Historic Park:

In 2002, the National Park Service created the Belle Grove and Cedar Creek Battlefield National Historic Park in an effort to protect the integrity of this important battle of the Civil War.

All park land remains under the operation of the Cedar Creek Battlefield Foundation and the Belle Grove Plantation or private ownership. The Battlefield Foundation sponsors reenactments of the Battle of Cedar Creek and other battles of importance throughout the year. Belle Grove operates as a historic house museum and guided tours are available.

At the Third Battle of Winchester, General Philip Sheridan's Union troops successfully attacked Confederate troops at Winchester. With the high numbers of losses on both sides, a new war of attrition began in the Valley from which the southern forces would never recover. For three weeks in 1864, Sheridan's troops undertook the infamous "Burning" to end Confederate strength in the Valley. Virginia's richest valley was left desolate.

In October of 1864, Jubal Early's Confederate troops were entrenched south of Cedar Creek. General **Sheridan's Union troops were encamped** just north of Cedar Creek. A surprise attack by the Confederates drove the Union troops to the north. General

Sheridan, arriving from Winchester upon hearing of the attack, rallied his **troops and launched a massive counter attack which drove Early's troops back** across Cedar Creek. The Confederate defeat at the Battle of Cedar Creek meant the loss of Confederate control of the crucial Shenandoah Valley for the remainder of the war. **Thomas Buchanan Read wrote a poem, "Sheridan's Ride," to memorialize the general's horseback dash** from Winchester to the battlefield. This Union victory, in combination with **General Sherman's victory** in Georgia, helped to secure President Lincoln's reelection.

The Civil War took both a physical and economic toll on Frederick County and the surrounding area. **As the primary "bread basket" of Virginia, the** Shenandoah Valley was affected more by the Civil War than any other war fought on American soil.

Reconstruction:

Through six major battles and countless minor skirmishes, the Civil War brought much destruction to Frederick County. Many farms, mills, and dwellings were damaged or destroyed by the cannon fire from the battlefields or by soldiers raiding for food and supplies. The county's economic productivity was greatly reduced. This period was characterized by a slow economic recovery, but by the 1880s, economic stability gradually returned. After the war, previous economic activities resumed and new activities began. New businesses included the emergence of apple production, tanning, dairying, machinery production, and the shipping industry. These new avenues of commercial growth allowed the **county's economy to rebound at a steady rate** and by the 1880s, some of the **county's agricultural crop** production had returned to pre-war levels. By 1890, Frederick County had 37

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

mills, eight woolen factories, a steam elevator, two iron foundries, four glove factories, a boot and shoe factory, ten broom factories, four tanneries, a large paper mill, three newspapers, a book bindery, eight cigar factories, three marble yards, and two furniture factories.

There was also a tremendous building boom in the county between 1880-1900. In addition to new construction, older structures were often enlarged and updated using modern building techniques and styles. This growth occurred in both rural areas and in small communities that had previously developed in the 18th and 19th centuries. New communities were also formed as a result of newer, more advanced transportation systems. Among the communities that experienced growth during this period were Meadow Mills, Hayfield, Gore, Mountain Falls, Mount Williams, Gravel Springs, Gainesboro, Albin, Brucetown, White Hall and Armel.

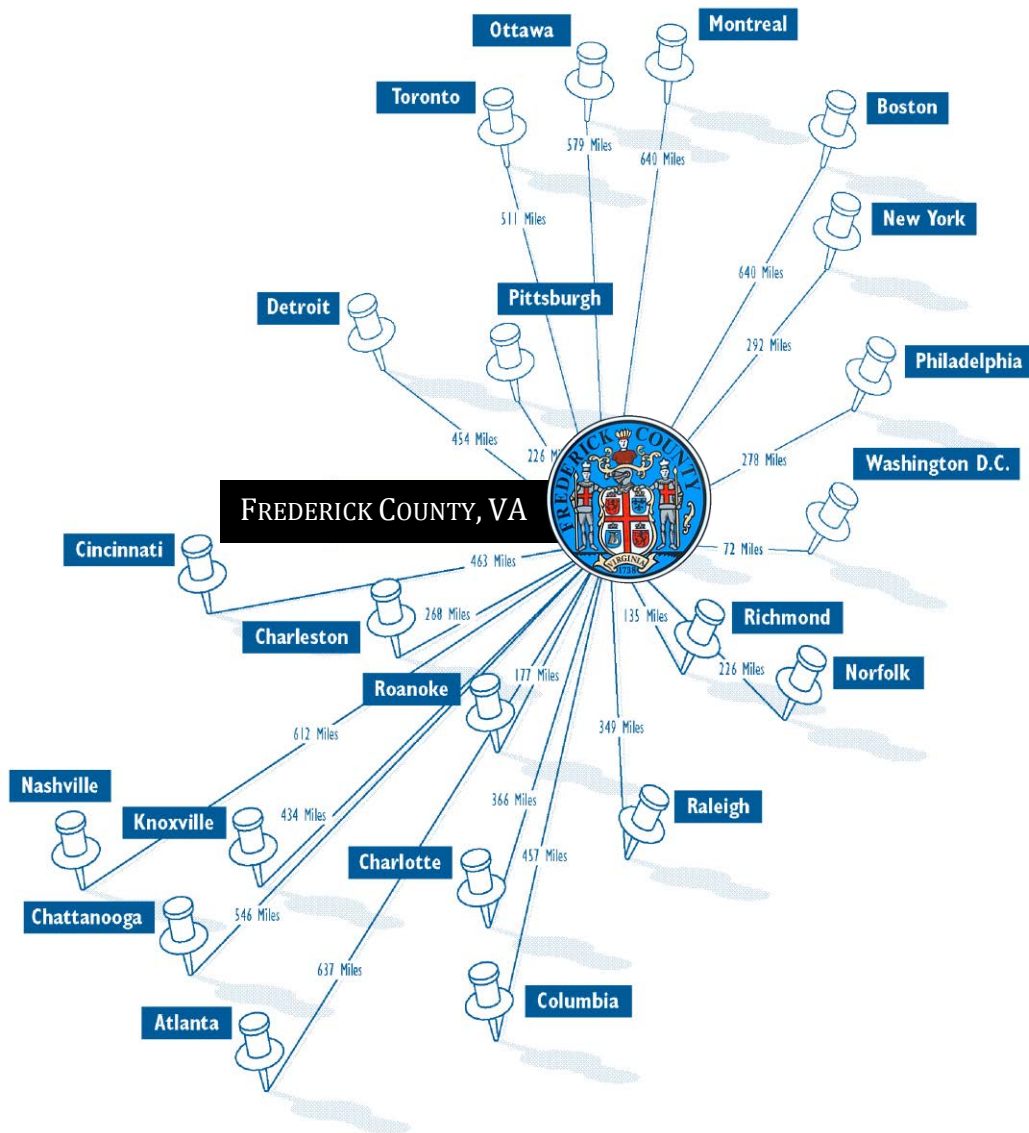
Centers of African American culture also developed during this period as a result of the segregation which followed the end of the Civil War. Communities such as Cedar Hill, Freetown, and Leetown became cores of the African American culture in Frederick County. To mediate the impact of segregation on daily activities, these communities developed public buildings and facilities such as schools and churches, for their own use.

- **GEOGRAPHICAL SETTING**

GEOGRAPHICAL SETTING

LOCATION

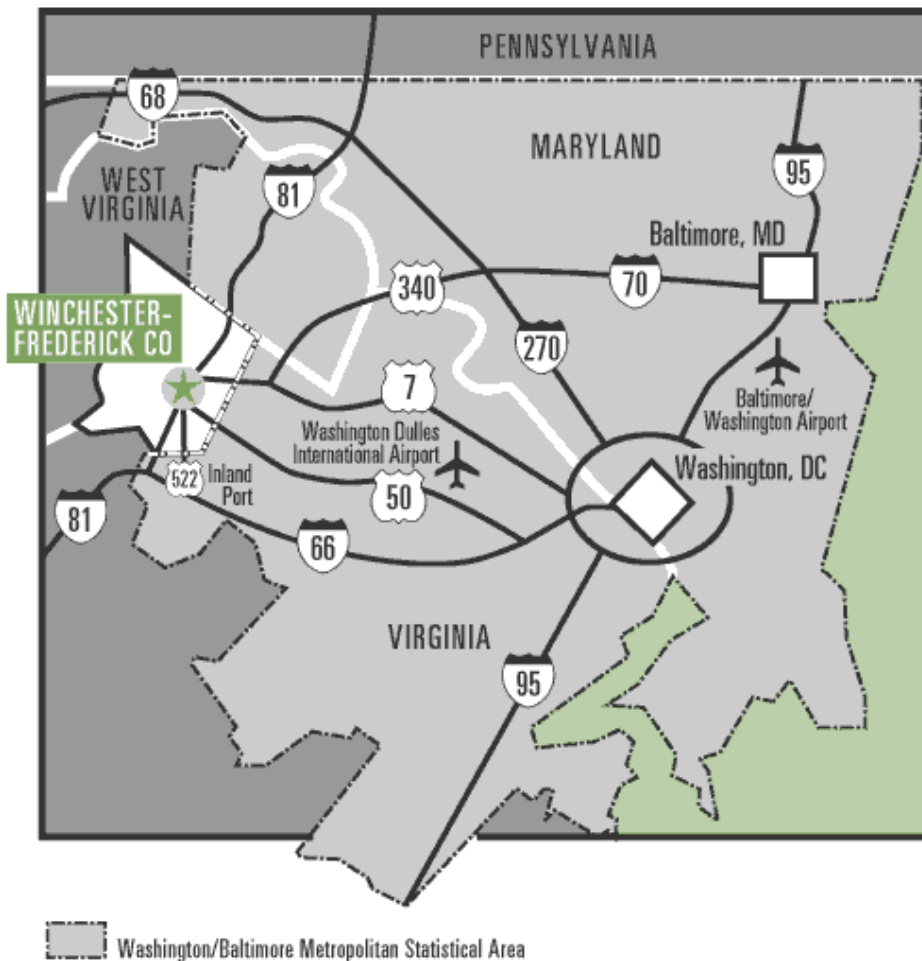
Frederick County is the northernmost jurisdiction in the Commonwealth of Virginia. It lies at the northern, lower end of the Shenandoah Valley west of the Blue Ridge Mountains and east of the Alleghenies. With the formation of the Washington-Baltimore Metropolitan Statistical Area after the 1990 US Census, the fifth largest USA market begins, literally, at the County Line.



APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

Located in the mid-Atlantic region of the United States, Frederick County's location on the eastern seaboard is a valuable asset to companies serving the US markets and Europe. It places local businesses halfway between the markets of the north and south, within one-day haul of 50% of the U.S. population. Over 60% of the goods manufactured in the United States are distributed from the 750-mile (1,207 kilometers) area. For national and international companies being in the Eastern Time Zone maximizes their hours of operations, which helps to improve efficiencies. In addition to being half way between Boston and Atlanta, Winchester-Frederick County is well positioned equidistant between Los Angeles and London. Excellent road, rail, inland ocean port and Dulles World Cargo Center provide access to the major markets in North America, Latin America, and globally.

Metropolitan Washington/Baltimore



APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

TOPOGRAPHY

Generally, the topography of Frederick County is characterized by the rolling Shenandoah Valley, 8 to 10 miles wide, and on its west flank, mountains, ridges and valleys of the Appalachian system. Frederick County and the City of Winchester comprise 436 square miles, or 279,000 acres. Winchester City **occupies 9.3 square miles within the County's boundaries. The average** altitude of the broad valley is about 700 feet and that of the ridgetops and mountaintops is about 1,950 feet. The most prominent mountains are along the Virginia-West Virginia boundary, with Pinnacle Knob (2,844 feet) the highest point in the County. The lowest point in the County is about 500 feet. Handley Library, in the center of Winchester, is at 714 feet.

Three aspects of the topography provide the area with a highly favorable visual environment. The Blue Ridge Mountains on the east serve both as a barrier to overly ambitious development from the mid-Atlantic metropolitan area, and provide a backdrop to a verdant landscape of farms and orchards. The easy rolling topography also provides character, but is not an impediment to development. The easily traversed Valley and the fabled Shenandoah River defined the outstanding network of modern transportation providing easy accessibility to the most important North American cities.

GEOPHYSICAL CHARACTERISTICS

The County has three geophysical areas as shown on the Physical Characteristics and Geologic Formations map.

The eastern area of the County is underlain by the Martinsburg shale which consists of a band running north-south along the length of the County, generally east of Interstate 81. It consists of broad, level ridges separated by steep stream valleys. The soils derived from the shales tend to be thin, poorly fertile, and have high seasonal water tables. The soils are highly compacted and not well suited for intensive agriculture or onsite sewage disposal systems. Primarily the historical use of this land is pasture and has in recent years been developed for residential and urban uses. Substantial suburban development served by public water and sewer is located within this area.

The central area is located between Interstate 81 and Little North Mountain. It consists of a band approximately five miles wide that also trends southwest to northeast, is underlain by limestone/carbonate bedrock, and displays gently rolling karst topography. This area contains the bulk of the prime agricultural soils in the County and supports apple and other fruit production, beef cattle operations, and some crop production, primarily hay and corn. The western area is the Ridge and Valley which is underlain by a variety of shale, sandstone, and limestone formations. This mostly forested area consists of alternating valleys and ridges that run southwest to northeast.

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

The western area is the Ridge and Valley which is underlain by a variety of shale, sandstone, and limestone formations. This mostly forested area consists of alternating valleys and ridges that run southwest to northeast. Ridges are often very steep and are the highest elevations in the County. Some stress fractures are present along the fold lines of the highly folded vertical beds. The vertical bedrock layers provide a barrier to most groundwater movement across the beds. Groundwater moves laterally along the folded bedrock, with little movement through the fold system.

These three geographic regions can be further divided into four distinct drainage areas. The southern third of the county drains towards the south and east to Cedar Creek and Stephens Run and is in the Shenandoah River basin. The northern two-thirds of the County are divided north-south by Apple Pie Ridge, Round Hill and Little North Mountain forming the boundary between the Back Creek and Opequon Creek watersheds. These areas drain toward the north and the east, respectively, and are in the Potomac River Basin. The limestone-carbonate geology drains to the east, but includes random flow patterns throughout this topography, including some areas that are internally drained. Drainage areas provide a good basis for planning sewer and water service areas through gravity flow design. The movement of public sewage flow between the limestone-carbonate and the Ridge and Valley area requires pumping.

Regional geophysical characteristics influence suitability for more intensive forms of development. Urban development is predominant in the eastern shale belt and uses public sewer and water facilities. Rural residential development is predominantly in the limestone belt west of Winchester, Interstate 81 and Route 37. Despite the presence of prime soils, agricultural land use in this area has decreased due to development pressures. The relatively steep areas in the western portions of the County remain rural; however, development is increasing.




CLIMATE

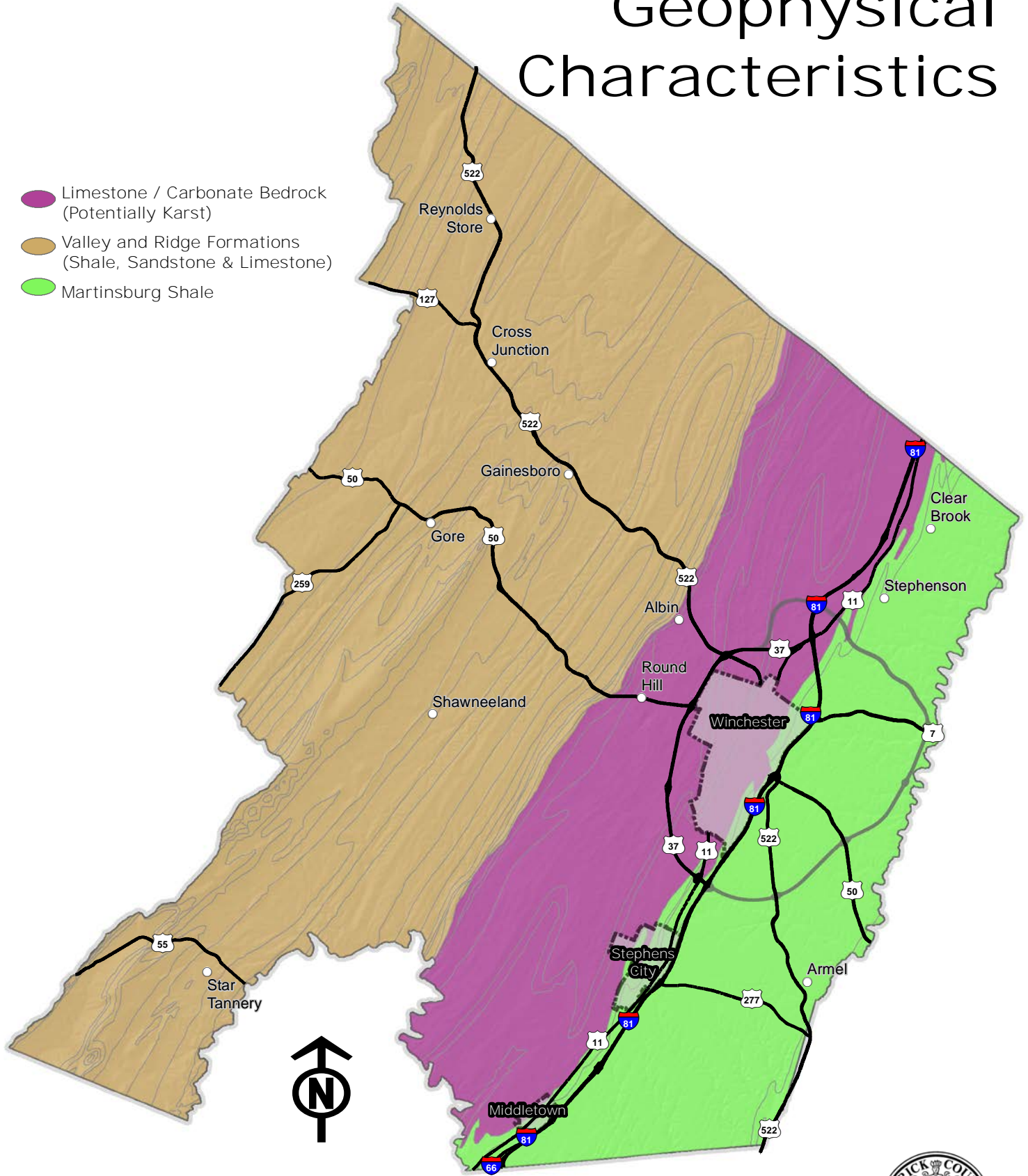
There are four distinct seasons. Few days fall near zero. Nine years in ten will have growing seasons from 148 to 219 days, depending on daily minimum temperature. The average number of growing degree days is 6,989.4, and the latest freeze (one year in ten; 28^o or lower) is April 15th. Only two years in ten will have extreme temperatures of more than 103^o or less than -10^o F.

- Average January temperature 32^oF
- Average July temperature 77^oF
- Average annual precipitation 35.3" inches
- Average annual snowfall 26.5" inches

The area is the heavily planted in apple and peach orchards, and is the "apple capital" of Virginia. In springtime, the explosion of apple blossoms is a spectacular event, announcing the Apple Blossom Festival, which draws an estimated 250,000 visitors each year.

Geophysical Characteristics

-  Limestone / Carbonate Bedrock (Potentially Karst)
-  Valley and Ridge Formations (Shale, Sandstone & Limestone)
-  Martinsburg Shale

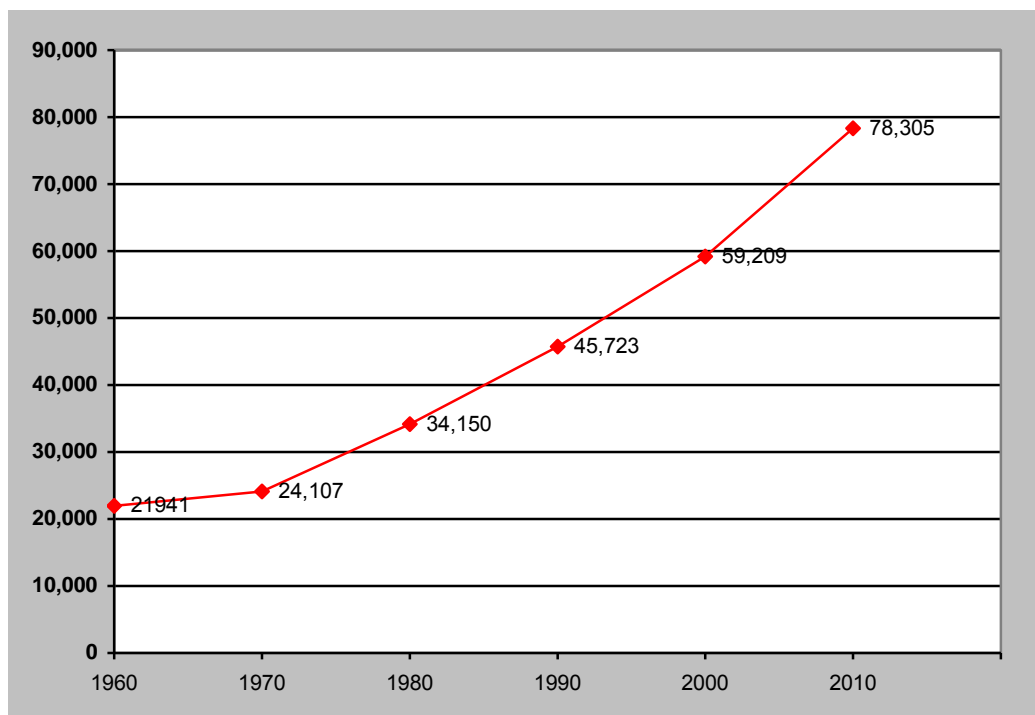


- **DEMOGRAPHIC ANALYSIS**

DEMOGRAPHIC ANALYSIS

HISTORICAL POPULATION

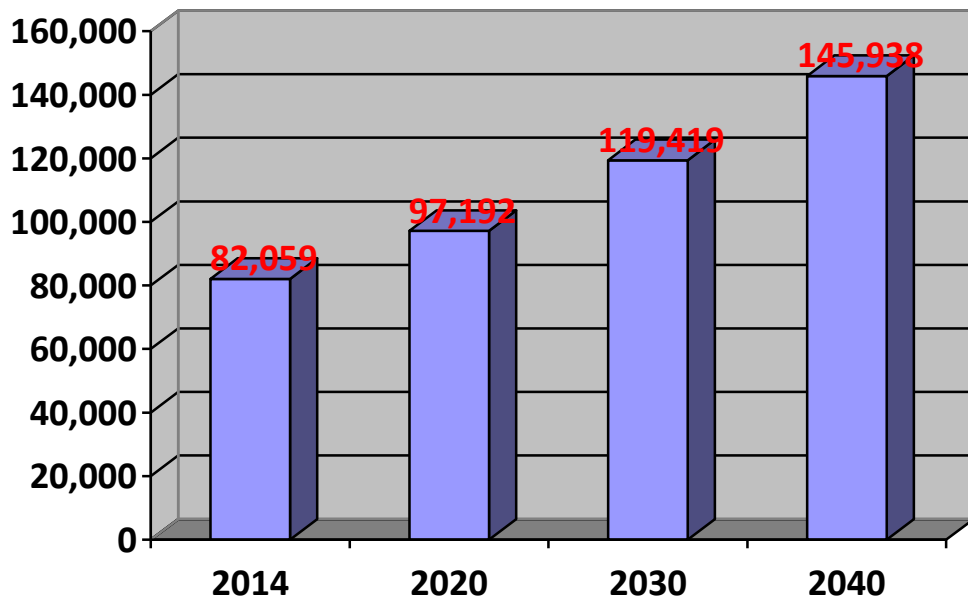
Settlement of Frederick County began in the early 1700's, but it was not until 1840, that the boundary of Frederick County was set at what we know today. Frederick County supports one of the faster growth rates of population in Virginia, and the rate of growth has accelerated in recent decades. During the 1970's, the population of the county grew by as many people as in the previous seven decades combined. In 2010, the population of Frederick County was 78,305. More recently, the population estimate for Frederick County in 2014 was 82,059. Since 1980 Frederick County population growth averaged 29.3% per decade.



APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

POPULATION ESTIMATES

Frederick County's growth rate is expected to continue in future decades and is estimated to be one of the faster growing in the Commonwealth of Virginia and the greater Washington D.C. region. The Weldon Cooper Center for Public Service population projections for 2020, 2030, and 2040 indicate this trend by projecting the population of Frederick County to be 97,192, 119,419, and 145,938 in the respective years. This trend is shown in the following figure.



Source: Weldon Cooper Center for Public Service

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

POPULATION AND AGE DISTRIBUTION

On average, the age of people living in Frederick County is increasing. Between 1990 and 2010, the median age of the population increased from 33 in 1990 to 39 in 2009. Overall, Frederick County's population is slightly older than the Commonwealth as a whole (37.6 yrs) and the USA (37.1).

Population Distribution: Frederick County

	Percent Change					
	1990 Census	2000 Census	2009 Estimate	2014 Projection	1990 to 2000	2009 to 2014
0 - 4	6.5%	7.6%	6.4%	6.2%	52.3%	7.0%
5 -19	22.2%	21.8%	20.4%	19.4%	26.8%	5.5%
20 - 24	4.7%	6.3%	6.1%	6.5%	73.5%	17.4%
25 - 44	31.9%	34.6%	27.8%	25.0%	40.5%	-0.6%
45 - 64	24.1%	20.3%	27.5%	29.1%	9.2%	17.1%
65 and over	10.6%	9.4%	11.9%	13.8%	14.6%	28.2%
Median Age	33.4	37.3	38.8	39.4		

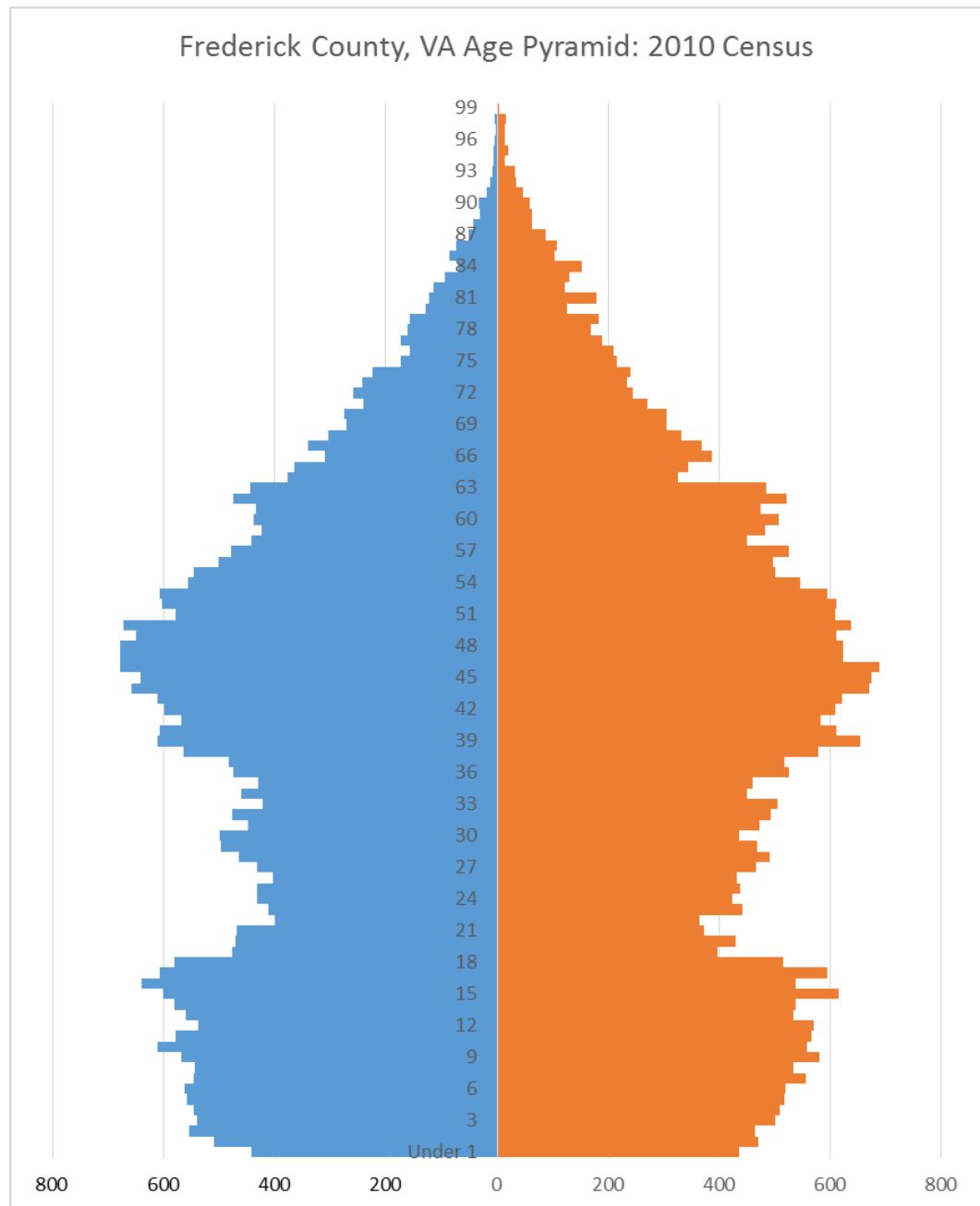
As the median age rose, the proportion of the population in the older age groups also increased. The percentage of the population age 65 or older in Frederick County has increased from 10.6% in 1990 to 11.9% in 2009. Projections for 2014 indicate a trend of increasing numbers of people of 65 or older.

The population under the age of 18 has not increased as rapidly in recent decades. The proportion of the population under eighteen in Frederick County now sits at 20%, down from 22.2% in 1990. This element should be evaluated further with the release of the complete 2010 census information.

Current projections for 2014 indicate a continuation of this trend -- an aging population. One major labor force category (25 – 44) is expected to have negative growth. This fact furthers enforces the need to analyze our regional labor force market to meet future employment needs.

Projections show an increase of over 6,000 individuals who are 45 and older. The school-aged segment of the population (5 – 19) is not expected to significantly increase.

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES



Source: Weldon Cooper Center for Public Service.

DIVERSITY

Diversity is becoming increasingly apparent in Frederick County. From 1990 to 2010, the area's population has experienced substantial increases in individuals of Hispanic (over 5,000) and black ethnicity (over 3,000). The 2010 census has shown a continuation of these trends, which reflect those on the national level.

- **ECONOMIC ANALYSIS**

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

ECONOMIC ANALYSIS

The study of the economy of Frederick County involves many factors. This chapter examines the change in employment sectors, the role of small **business and top employers.** Change in Frederick County's economy, undoubtedly, is evident in this chapter; however, the strong signs of stability with appropriate diversity are particularly noteworthy.

RECENT EMPLOYMENT COMPARISONS AND TRENDS

An analysis of the employment segments reveals minimal overall change in the Frederick County economy since 2005-2010. While the absolute number of employment change is significant for some of the largest employers, 4 of the top employers in 2005 remain ten years later. Health Care and Social Assistance and Accommodation and Food Services employment are the two new arrivals to the top employer list. The growth of Winchester Medical Center and Frederick County's population remain likely reasons for its rise. Overall, retail trade displayed the largest growth of the top employers (+1,677). Manufacturing's overall net increase is noteworthy given its decrease in the Commonwealth overall.

Sector	2005 # Employed	Sector	2015 # Employed
Manufacturing	4,584	Manufacturing	5,033
Educational Services	2,552	Retail Trade	3,405
Construction	2,322	Educational Services	2,891
Retail Trade	1,728	Accommodation and Food Services	2,217
Wholesale Trade	1,481	Construction	2,004
Administrative and Support and Waste Management and Remediation Services	1,254	Health Care and Social Assistance	1,925

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

Looking into the next twenty years, population increase and continued **international economic forces will likely influence Frederick County's economy** and its largest employment sectors. Established clusters in food processing and **plastic manufacturing coupled with the area's sheer logistical advantages** and workforce draw will likely keep manufacturing employment stable. Retail and healthcare growth, fueled by population growth, will gain additional employment and likely rise in its role within the economy. Joining the national and state trends, Frederick County will diversify further via service based employment. Professional service, finance and insurance employment will likely lead this surge.

Although the major employment players remain mostly the same, their impact on the community has clearly changed. Viewing the growth in net new establishments provides an alternative view on the role of largest employment segments. The growth in the number of manufacturing establishments is a prime example. This fact along with overall positive employment growth in this sector demonstrates a very positive evolving **manufacturing sector. The future of Frederick County's economy shines bright given manufacturing's noted large multiplier impact and above average wage.**

Overall, Frederick County added over 397 new establishments in the past ten years. Service based businesses; health care (+265) and accommodation and food services (+56) produced the largest net gain in new establishments since 2005. These sectors, however, collectively employ slightly half the **employees of manufacturing sector. Advancing twenty year's health care and professional service entities will likely continued to add their totals furthering Frederick County's diversification into a manufacturing/service based economy.**

Sector (# of Firms)	2005 # Employed	Sector (# of Firms)	2015 # Employed
Construction (23)	307	Health Care and Social Assistance (62)	313
Retail Trade (44)	163	Construction (23)	217
Other Services (except Public Administration) (81)	117	Retail Trade (44)	195
Professional, Scientific, and Technical Services (54)	102	Professional, Scientific, and Technical Services (54)	132
Administrative and Support and Waste Management and Remediation Services (56)	97	Other Services (except Public Administration) (81)	132
Wholesale Trade (42)	88	Accommodation and Food Services (72)	119

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

SMALL BUSINESS

A discussion about any economy would be incomplete without reviewing the role of small businesses. **Their importance to a community’s long term economic success cannot be overstated.** In the United States overall, they employ nearly half of all private sector employees. They generated 60 to 80 percent of net new job annually over the last decade.

The definition of small business varies widely. For this chapter purposes, small business will be identified as those employer with less than 19 employees.

In 2004, 82.2% of all employers in Frederick County had less than 19 employees. Advance 10 years later, Frederick County experience a slight increase to 83.5% of employers with less than 19 employees. Given the number of arrival/increase of large employers like Kraft, HP Hood, Federal Emergency Management Administration (FEMA), and Valley Health Systems, **the ability of small business to hold their role in Frederick County’s economy is impressive.**

Sector	2004 # of Firms	Sector	2014 # of Firms
Health Care and Social Assistance	38	Health Care and Social Assistance	274
Construction	261	Construction	186
Retail Trade	126	Retail Trade	148
Other Services (except Public Administration)	106	Other Services (except Public Administration)	126
Professional, Scientific, and Technical Services	81	Professional, Scientific, and Technical Services	120
Administrative and Support and Waste Management	95	Administrative and Support and Waste Management	97

Small business will retain the vast majority of employment in Frederick County. As such, entrepreneurship/small business development should **remain one of the pinnacles of Frederick County’s economic development.** It is a beacon indicating when a community has an ideal business climate – when all physical and soft infrastructure is in place to allow new companies to grow and the community to self-sustain economic growth. **The community’s**

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

undeveloped entrepreneurial culture has often been highlighted in studies as a hurdle to continued economic growth.

CURRENT TOP EMPLOYERS

The section will illustrate the evolution of Frederick County’s economy through the top ten employer rankings.

Over ten years ago (2004), Frederick County’s economy was chiefly led by major manufacturers and local government entities. Manufacturers established deep roots due to the area’s immense access to the East Coast, Virginia’s favorable cost of business and Frederick County’s productive workforce.

Employer	Industry	Size Class
Frederick County School Board	Educational Services	1000 and over employees
County of Frederick	Executive, Legislative, and Other General Government Support	500 to 999 employees
World Wide Automotive LLC	Merchant Wholesalers, Durable Goods	500 to 999 employees
Action Executive Services	Administrative and Support Services	250 to 499 employees
American Woodmark Corporation	Furniture and Related Product Manufacturing	250 to 499 employees
H.P. Hood, Inc.	Food Manufacturing	250 to 499 employees
Lord Fairfax Community College	Educational Services	250 to 499 employees
GE Lighting	Electrical Equipment, Appliance, and Component Manufacturing	250 to 499 employees
Shockey Brothers, Inc.	Nonmetallic Mineral Product Manufacturing	250 to 499 employees
Glaize and Brothers	Wood Product Manufacturing	100 to 249 employees

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

Today, the make-up of the largest employers is quite more diverse than 2004. While manufacturers still hold several slots in the top ten, many service base employers, like Navy Federal, Home Depot and Department of Homeland Defense, have provided a more diverse economy than 10 years ago. These new additions provide enhanced stability during instance of plant closures and national economic downturns.

Employer	Industry	Size Class
Frederick County School Board	Educational Services	1000 and over employees
Navy Federal Credit Union	Credit Intermediation and Related Activities	1000 and over employees
U.S. Department of Homeland Defense	Administration of Economic Programs	500 to 999 employees
County of Frederick	Executive, Legislative, and Other General Government Support	500 to 999 employees
Lord Fairfax Community College	Educational Services	500 to 999 employees
Axiom Staffing Group	Administrative and Support Services	500 to 999 employees
H.P. Hood, Inc.	Food Manufacturing	250 to 499 employees
Kraft Foods	Food Manufacturing	250 to 499 employees
The Home Depot	Building Material and Garden Equipment and Supplies Dealers	250 to 499 employees
Trex Company Inc & Subsid	Plastics and Rubber Products Manufacturing	250 to 499 employees

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

FUTURE BUSINESS GROWTH

In 20 years, the top employer listing may contain many of the same names, but likely they will be joined by some of employers of tomorrow. Third party analyses have indicated a strong likelihood of success toward other business service operations, life science entities and defense/advance security oriented businesses. The full list follows below.

TARGETED BUSINESSES					
BUSINESS SERVICES	DEFENSE & ADVANCED SECURITY	LIFE SCIENCES	FOOD PROCESSING	ASSEMBLY	EXISTING BUSINESS
Software	Manufacturing	Manufacturing	Manufacturing	Manufacturing	Manufacturing
Back Office	R&D	R&D			Back Office
	Software				
	Back Office				

NICHE INDUSTRY TARGETS					
IT Service Centers	Small & Medium-scale Manufacturing	Medical Device Manufacturing	Packaged Foods	Medical Focus	Plastics
Regional Headquarters	Life Sciences Applications	Biotech & Pharmaceutical Research	Perishable Foods	Computer & Electronic Products	Printing
Data Centers	Software Development		Organic Foods	Plastic Products	Metal Fabrication
Call Centers (high value add)	Business Services		Beverages	Fabricated Metal Products	Food Processing
Back Office Services					Business Services
Software Design					

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING
STUDIES

CURRENT WORKFORCE DRAW

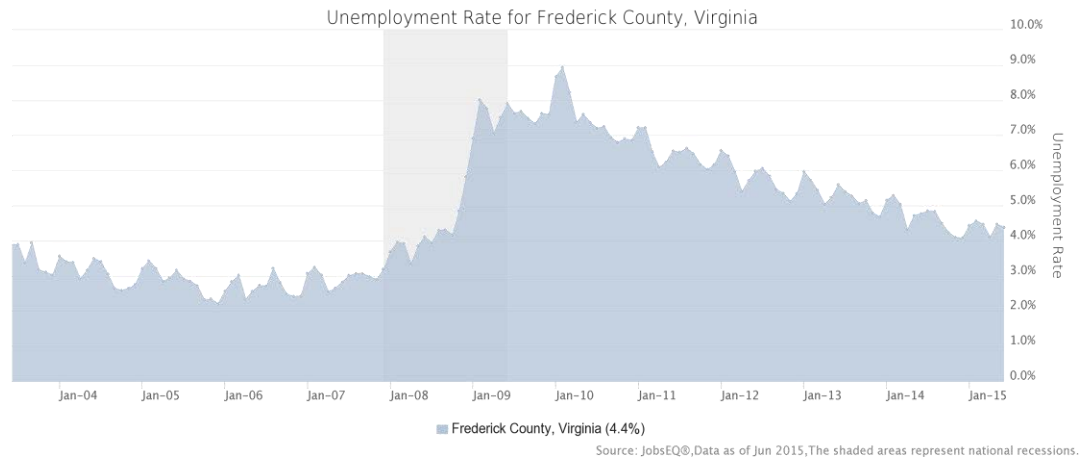
Frederick County’s labor supply is drawn from a 45-mile radius and includes the counties of Shenandoah, Page, Clarke, Warren, Loudoun in Virginia, and the counties of Berkeley, Hampshire, Hardy, Jefferson, and Morgan in West Virginia and Washington County, Maryland

As the table shows below, Frederick County possesses a diverse and ample labor force within its draw area as of 1st quarter 2015.

Title	Employment	Avg. Annual Wages ¹	Unempl	Unempl Rate
Total - All Occupations	253,809	\$42,900	n/a	n/a
Office and Administrative Support Occupations	40,060	\$33,800	3,244	5.9%
Sales and Related Occupations	28,909	\$31,500	2,140	5.7%
Food Preparation and Serving Related Occupations	23,855	\$21,200	2,846	8.4%
Transportation and Material Moving Occupations	20,316	\$33,800	1,697	6.9%
Education, Training, and Library Occupations	16,550	\$50,800	1,079	5.0%
Production Occupations	16,456	\$36,000	1,326	6.7%
Healthcare Practitioners and Technical Occupations	14,704	\$74,700	421	2.5%
Management Occupations	11,573	\$101,900	343	2.2%
Business and Financial Operations Occupations	10,620	\$68,100	531	3.3%
Installation, Maintenance, and Repair Occupations	9,390	\$42,900	588	4.4%
Construction and Extraction Occupations	9,308	\$39,500	1,233	8.4%
Building and Grounds Cleaning and Maintenance Occupations	8,648	\$24,700	1,080	8.0%
Personal Care and Service Occupations	8,297	\$23,800	765	7.0%
Protective Service Occupations	8,130	\$44,400	410	4.2%
Healthcare Support Occupations	7,444	\$28,500	430	4.7%
Computer and Mathematical Occupations	5,331	\$81,100	308	2.6%
Community and Social Service Occupations	3,919	\$43,400	142	3.3%
Architecture and Engineering Occupations	3,166	\$76,600	156	2.9%
Arts, Design, Entertainment, Sports, and Media Occupations	2,852	\$46,800	242	6.0%
Life, Physical, and Social Science Occupations	1,644	\$64,100	89	3.4%
Legal Occupations	1,379	\$87,800	43	2.3%
Farming, Fishing, and Forestry Occupations	1,261	\$25,400	100	7.3%

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

Frederick County’s unemployment rate has continued to decrease since the last recession. Currently the rate stands close to full employment rate of 4.0%.



EMPLOYMENT AND BUSINESS

	Value		
	Frederick County, Virginia	Virginia	USA
Labor Force Participation Rate and Size (civilian population 16 years and over) ⁴	41,878	4,188,480	157,113,886
Armed Forces Labor Force ⁴	95	115,131	1,083,691
Veterans, Age 18-64 ⁴	4,694	483,075	11,977,656
Median Household Income ^{3,4}	\$68,424	\$63,907	\$53,046
Poverty Level (of all people) ⁴	5,547	887,595	46,663,433

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING
STUDIES

	Frederick County, Virginia	Virginia	USA
Labor Force Participation Rate and Size (civilian population 16 years and over) ⁴	67.3%	64.9%	63.8%
Armed Forces Labor Force ⁴	0.2%	1.8%	0.4%
Veterans, Age 18-64 ⁴	9.5%	9.5%	6.2%
Median Household Income ^{3,4}	—	—	—
Poverty Level (of all people) ⁴	7.1%	11.3%	15.4%

COMMUTING PATTERNS

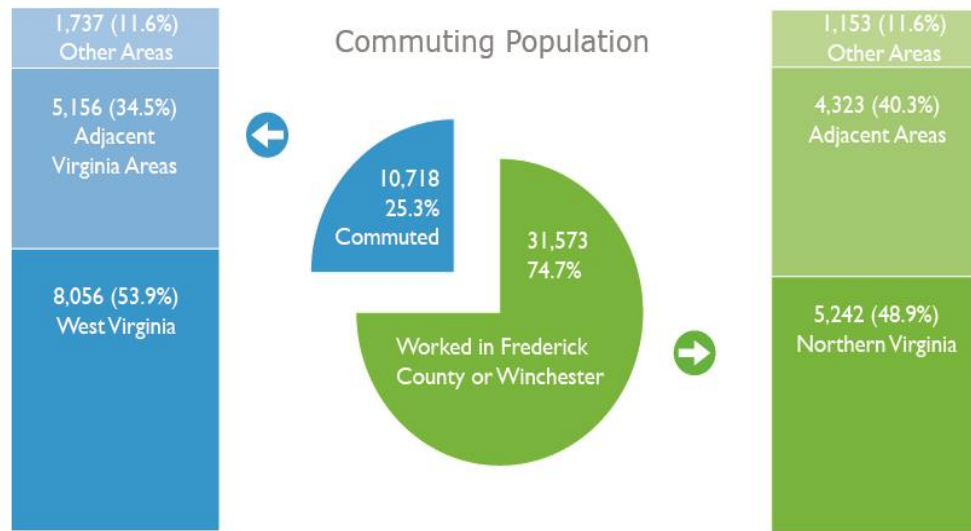
The Winchester-Frederick County community is the regional economic epicenter for the Northern Shenandoah Valley region. One reason for this statement is found in the area’s commuting patterns. The 2000 Census showed just over 4,000 more workers commuted into this community than out-commuted, double the amount from 1990. In 2000, the in-commuting growth (up 5,012) significantly out-paced that of out-commuters (up 2,807) by nearly a 2 to 1 margin.

In addition, the Winchester-Frederick County community remains a “Place to Live and Work.” Nearly 75% (31,573 out of 42,291) of working individuals in either Winchester or Frederick County reported living and working in the Winchester-Frederick County community. Over 4,600 (17.4%) net new workers have chosen to work and live in this community since 1990.

The benefits of our community having a large “live where you work” population is enormous.

- Promotes linkage between employers and community
- **Reduces commuting costs, thus increasing a household’s disposable income**
- Reduces employee turnover, training, and recruitment costs
- Makes our community a more attractive place for businesses to locate and expand

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES



The out-commuting population also remains a viable labor force for some companies. In 2000, slightly more than 25% (10,718 individuals) of our **community's working population commuted**. **Over 89% of our community's** commuting population works either in an adjacent local area or the Northern Virginia area.

Workforce studies in 2003 and 2006 yielded similar commuting patterns. Specifically, the 2006 study showed that 68.7% of Winchester-Frederick **County's working population live and work in Winchester-Frederick County**, with only 12.4% working in Northern Virginia.

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

TAXABLE SALES

The retail sector is important, though, as retail activity reflects the general health of a local economy. Retail sales also produce sales tax dollars, which support municipal service provision. In Frederick County the overall value of taxable sales grew from \$413 million from to just over \$1 billion in unadjusted dollars, currently.

Please note, in the third quarter of calendar year 2005 the Virginia Department of Taxation began tracking quarterly taxable sales using the North American Industry Classification System (NAICS) business categories rather than Standard Industrial Classification (SIC) categories. Consequently, data from the two time periods are not fully compatible for purposes of comparison. Taxable sales reported on this page can be compared from 1995 through the second quarter of 2005 (the quarters using the SIC categories) or from the third quarter of 2005 through the current quarter (quarters using the NAICS categories), but comparing data from between the two periods will carry misleading results.

The evolution of Frederick County’s economy once again became apparent when examining the top taxable sales categories over the past almost 20 years. In 2004, miscellaneous store retail topped all with sales over nearly \$115 million. Fast forward to 2014, the top ranking changes to general merchandise stores taxable sales, which exceeded \$271 million.

Sector	2004	Sector	2014
Gasoline Stations	\$104,881,954	General Merchandise Stores	\$271,764,942.00
Misc Retail	\$115,325,402	Food and Beverage	\$161,493,402.00
Building Materials	\$64,735,846	Merchant Wholesalers, Durable Goods	\$100,667,998.00
Grocery Stores	\$54,407,471	Food Services and Drinking Places	\$82,792,777.00
Food Services and Drinking Places	\$59,059,004	Gasoline Stations	\$60,836,162.00

- **LAND USE ANALYSIS**

LAND USE ANALYSIS

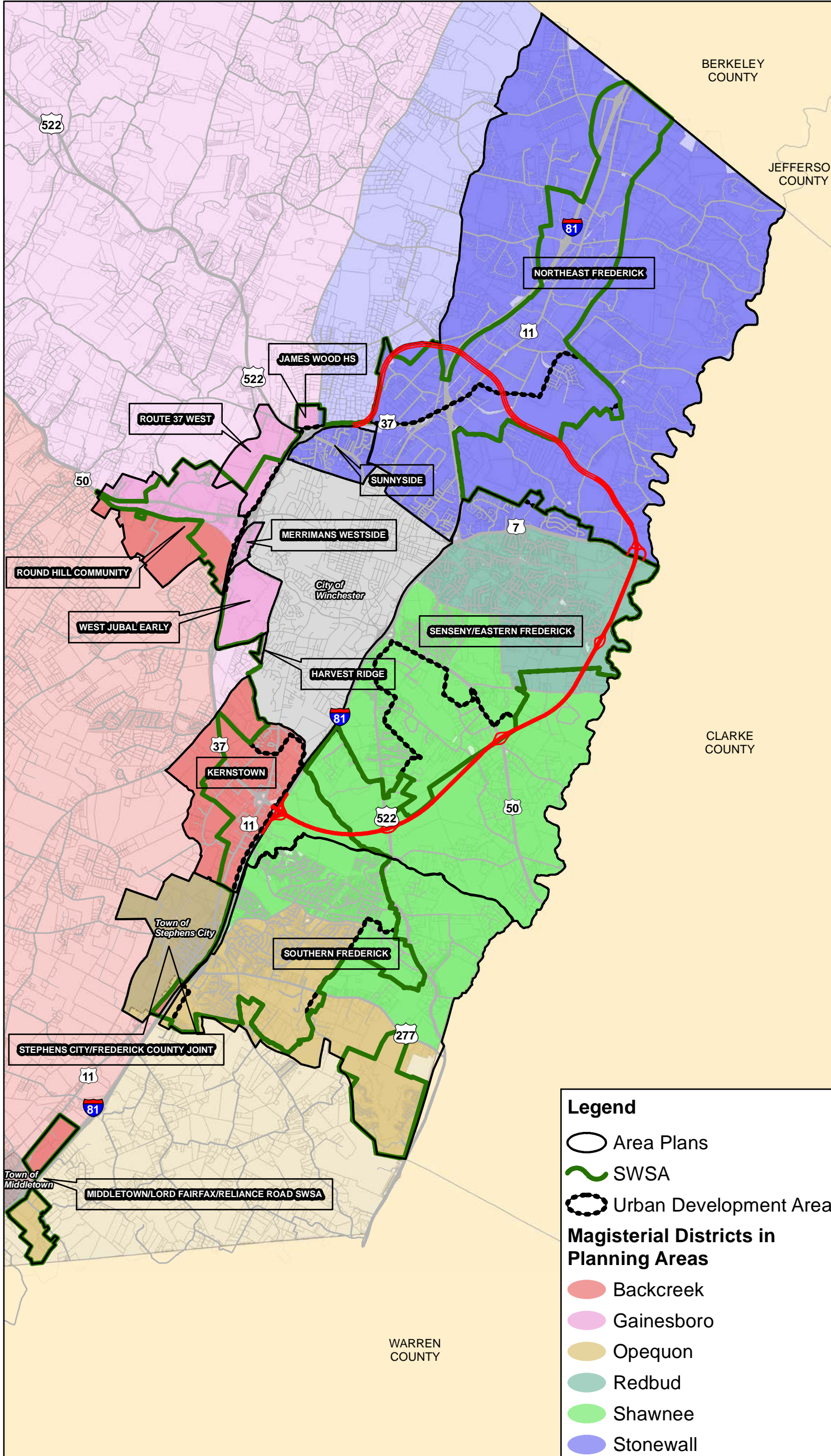
PLANNING AREA ANALYSIS 2015

The Land Use Analysis includes the Planning Area Analysis and a review of the UDA (Urban Development Area) Report. When combined together, these two pieces of information help to provide an understanding of the current make-up of the County in terms of zoning, land use, and residential development. It also helps us to understand the future development of the County and the demands associated with the growth and development of the County. This information is useful in many ways but has been used to better understand the balance of future land uses so the County can continue to strive for a balanced approach to the 25% Commercial/Industrial – 75% Other Real Estate Tax Assessment Ratio and the water and wastewater needs associated with the Frederick County Sanitation Authority.

The Planning Area Analysis has been completed revised to better reflect the **improvements made in the County's Area Plans in support of the 2035 Comprehensive Plan**. Each Planning Area directly relates to each Area Plan and also includes those urban areas not covered in specific Area Plans. All of the County's Urban Areas are included in the Planning Area Analysis.

Planning Area Analysis 2016 - Frederick County's Urban Areas

Planning Areas



Gross Acreage - 54340 acres
 UDA Acreage - 17181 acres
 Total SWSA Acreage - 29131 acres
 Main SWSA Acreage - 27469 acres
 Lake Frederick SWSA Acreage - 1113 acres
 Middletown SWSA Acreage - 549 acres
 (All acreages based on Parcel calculated acreages)

Residential

RESIDENTIAL UNITS	# UNITS
Existing	18668
Planned	13563
Potential RP	2992

Zoning

ZONING	TOTAL ACRES	VACANT ACRES
B1	57	26
B2	3010	1289
B3	449	196
EM	1361	489
HE	30	9
M1	3335	1421
M2	600	234
MH1	441	67
MS	180	50
R4	1622	1494
R5	931	759
RP	7728	3811
RA	33607	17850

Land Use

Land Use	TOTAL ACRES	VACANT ACRES
Residential	1254	557
MHC	68	3
PUD	1392	1247
Urban C	2414	1507
N Village	304	204
Res, 4 u/a	6672	2717
HDR, 6 u/a	85	85
HDR, 12 u/a	916	599
Business	2966	1531
Mixed-Use	61	50
MUCO	201	136
Highway C	69	23
B2 / B3	1008	644
Industrial	6177	3319
MUIO	2455	1410
Warehouse	337	141
H Industrial	141	72
E Mining	1372	485
Employment	370	342
Commercial R	306	35
REC	300	134
NRR	161	101
Park	545	475
ERR	1235	1235
Hist / DSA	2507	1571
Institutional	2221	783

Legend

- Area Plans
 - SWSA
 - Urban Development Area
- Magisterial Districts in Planning Areas**
- Backcreek
 - Gainesboro
 - Opequon
 - Redbud
 - Shawnee
 - Stonewall

ACHIEVING FISCAL BALANCE THROUGH LAND USE PLANNING

THE 25% COMMERCIAL/INDUSTRIAL – 75% OTHER REAL ESTATE TAX ASSESSMENT RATIO

Local governments throughout the country rely on the revenue collected from real estate taxes to fund their general operation. Therefore, it is understandable that the revenue-generating potential for properties receives strong consideration during land use and development decisions. In many **circumstances, a site's ability to generate revenue, and an applicant's** capability to adequately mitigate negative fiscal impacts, are driving factors behind the development approval process.

Prompted in part by fiscal concerns, local governments plan and ultimately zone large tracts of land for commercial and industrial use, to ensure that there is not only adequate land available for current demand but also for future demand. This practice of using land use policies (a.k.a. Comprehensive Plan) and the zoning ordinance to achieve fiscal objectives rather than purely land-use objectives is commonly referred to as **'fiscal zoning'**. Under the fiscal zoning approach, local governments discourage proposed developments that have the potential to create a net financial burden on the county and will instead encourage development that promises a net financial gain. Fiscal consideration is a significant element of land use planning.

The county has successfully utilized the Comprehensive Policy Plan to designate areas of the county for future commercial and industrial (C/I) land use opportunities since the early 1970s. Over the years this practice has helped reserve designated land for vital tax generating land uses. Through the policies of the Comprehensive Plan areas designated for C/I land uses can be implemented through the rezoning process, which then allows the property owner to develop the site into commercial and/or industrial uses. Once the C/I use has been constructed, the county is then able to bring in additional tax revenues from the site. Through the support and encouragement of C/I uses, the county over the past decade has successfully maintained a relatively low (0.51 to 0.71 percent) real estate tax rate while continuing to provide a high quality of public services to its citizens.

The Frederick County 2035 Comprehensive Plan strives to incorporate a more comprehensive analysis of the C/I land uses and their contribution towards **the county's fiscal health into its overall community planning effort. The** importance of the C/I land use has elevated in recent years as the country strives to overcome the challenging economic times. In an effort to plan for **the county's prosperous future, the** 2035 Comprehensive Plan has been drafted to designate sufficient acreage for C/I land use opportunities that is necessary to generate tax revenue that is **necessary to offset the county's** costs for providing public services to the important but more financially burdensome residential land use.

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

It is the county’s goal to create a policy plan that balances land uses and their associated tax contributions to ensure that those contributions offset the countywide cost of community services. This goal should be achieved by utilizing the land use plan to assist the county in achieving a real estate tax assessment ratio of 25 percent C/I to 75 percent Other land uses such as residential. Ultimately, the land use plan should be designed to plan for adequate revenue opportunities to ensure that the county is capable of providing its citizens with desired public services without having to place additional tax burdens on those citizens to fund the services.

This document strives to provide additional background materials and a better understanding in support of the C/I policies and goals of Frederick County.

ANALYSIS

Evaluation of Costs of Community Services (COCS) by land use

A Cost of Community Services study is one of the simplest forms of fiscal analysis available to local government. This study groups major land use categories together and evaluates all revenues and expenditures of the land uses throughout the county. In 2003, the American Farmland Trust (AFT), in **working with the Frederick County Farm Bureau, analyzed Frederick County’s FY02 budget, its revenue and expenditures, in an effort to determine the Costs of Community Services (COCS) by land use.** This study was targeted to illustrate the minimal impact that agricultural lands place on county services, but residential and commercial/industrial land uses were also analyzed. The study concentrated on fiscal year 2002 (July 2001 to June 2002), and represented a 12 month ‘snap-shot’.

The American Farmland Trust study of Frederick County, VA found the following:

Land Use	Cost of Service per \$1 Revenue Generated
Residential	\$ 1.19
Commercial/Industrial	\$ 0.23
Agricultural/Open Space	\$ 0.33

The AFT study found that residential land uses receive \$1.19 in community services for every \$1 contributed in tax revenue. More importantly, this study also found that the revenue generated by C/I land uses are more than four times their projected costs for community service.

While it is noted that this study was conducted a few years ago, the premise **behind the analysis does capture a key aspect of the county’s typical financial situation: C/I is vital to the county’s tax base, and that in 2002, the C/I land uses contributed 18.82% of the total real estate tax revenue.**

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

In order to project the capital fiscal impacts that would be associated with residential developments, Frederick County utilizes a Development Impact Model (DIM). This DIM is a micro-level model with the ability to analyze site specific land use data. In 2010, as part of the annual review of the DIM, the Development Impact Model-Oversight Committee (DIM-OC) utilized the DIM to evaluate the costs for service for residential land uses. The DIM projects **fiscal analysis over a 20 year period (a 20 year 'snap-shot'), and considers full** revenue contributions and expenditure demands, traditional budget elements as well as the associated Capital Improvement Plan projects. The DIM considers the various revenue sources such as real estate and property taxes, as well as sales, meals, and other potential taxes enabled within the community. The findings that were generated from the residential analysis were surprising. The DIM projected that over a 20 year period a single family residence valued at \$270,000 would cost the county \$1.95 for every \$1 contributed. The DIM's projections indicate a significant disparity in the relationship between residential tax contributions and its associated service expectations.

2010 Development Impact Model (DIM) projections over 20 year period		\$270,000 Single Family Dwelling
Tax Revenue		\$72,881
	Real Estate (<i>direct contributions</i>)	\$26,125
	Personal Property, Sales, Meals, etc (<i>indirect contributions</i>)	\$46,756
County Service Expenditures		\$142,394
	Capital (schools, public safety, library, etc)	\$ 21,672
	Operations	\$120,722

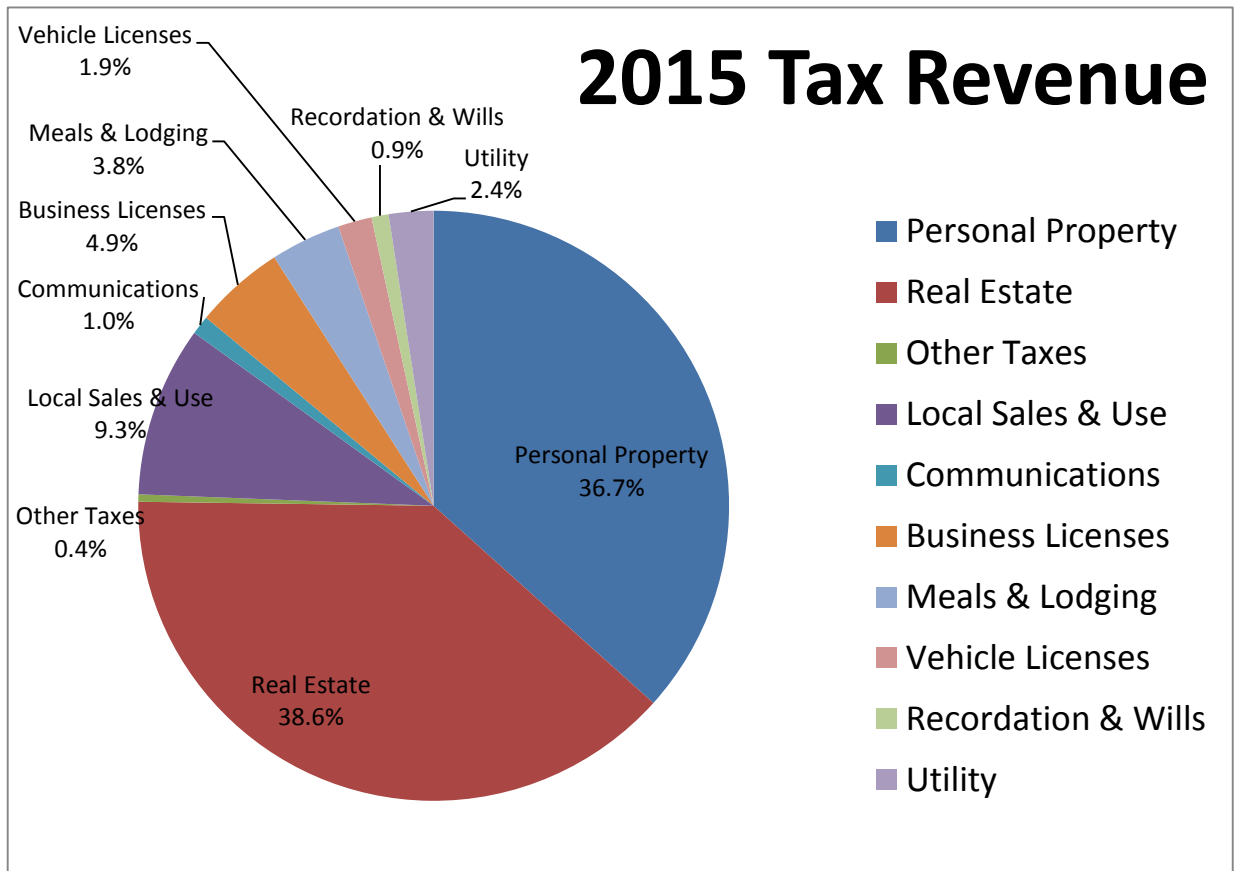
These two studies reinforce the generally accepted belief that residential land uses require more services than their associated tax contributions cover, while on the other hand commercial and industrial land uses offer significant tax revenues which exceed their associated cost for community services. More importantly, these two studies show that the revenues generated by C/I land uses are essential in the county being able to mitigate the residential land use costs for community services, and provide for more opportunities and quality of life elements that make for a great community.

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

Evaluation of County Tax Revenue and Expenditures

Utilizing figures for the county's fiscal year ending June 30, 2015, one gains a better understanding from where funds are derived, and where those funds are then spent.

Real Estate taxes represented 38 percent of the County's tax revenue in 2015, down from 43 percent (\$41.1 million) of the county's tax revenue in 2010.



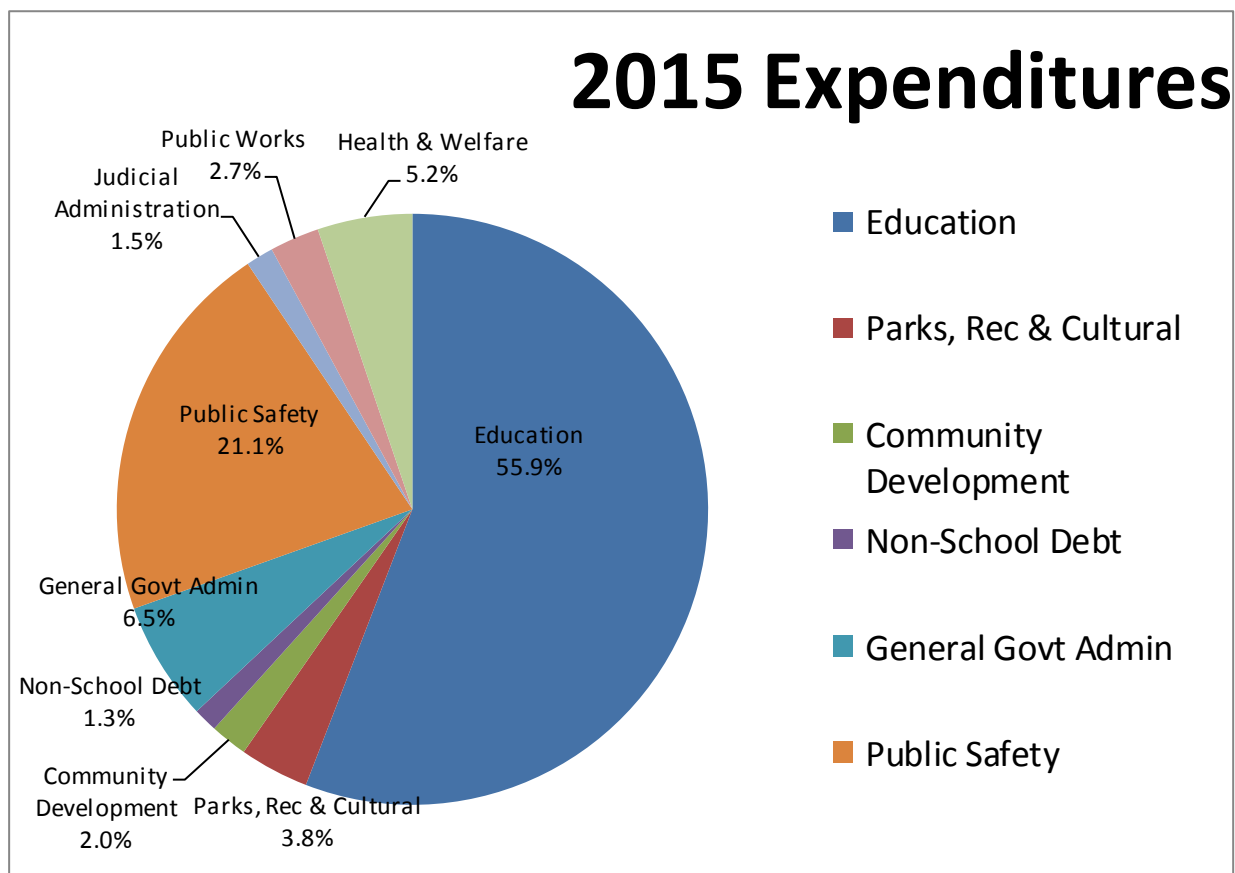
This real estate tax revenue is derived from various land uses: residential, commercial, industrial, and agricultural. In 2010 C/I land uses brought in \$5.6 million in real estate taxes, or 13.56 percent of the total real estate tax revenue. It should be noted that C/I uses only occupy 1.79 percent of the County's total land area and contribute \$1,229.5 per acre in real estate taxes.

In addition to real estate taxes, C/I land uses are also significant contributors to personal property, local sales, meals and lodging, business license, and

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

In addition to real estate taxes, C/I land uses are also significant contributors to personal property, local sales, meals and lodging, business license, and other local taxes. C/I land uses are vital contributors to the local tax revenue and ultimately contribute over 75 percent of the County's total tax revenue. At the other end of the spectrum, residential land uses brought in \$24.3 million in real estate taxes, or 59.2 percent of the total real estate tax revenue. Residential land uses make up 27 percent of the County's total land area and contribute an average of \$353.40 per acre in real estate taxes.

In reviewing the county's expenditures for the same period, a significant portion of the county's funds are directed towards education (\$65.3 million). At 52.1 percent of the expenditures, the county is clearly committed to educating its residents, preparing for the future, and providing for a high quality of life. In 2015, 55.9 percent of the expenditures are directed towards education, an increase over 2010.



APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

This review of the **County's** 2015 tax revenues and expenditures clearly illustrates that while residential land use contribute a majority of the real estate taxes collected by the County, the costs for covering services provided to those resident far exceeds their contributions. As depicted in the chart above, the expenditures for education (which is a service connected with residential land uses), is more than three times the contributions made from residential property.

Through solid land use and financial planning, the county has maintained a stable, relatively low real estate tax rate for the past decade while continuing to provide top notch services to its residents. Utilizing the benefits of C/I, an increase in C/I land uses would offer the county an even greater ability to provide services or cover the increasing costs of services.

Recognition of C/I Contributions to the Tax Base

Commercial and industrial land uses offer significant benefits to the community, in terms of tax contributions (real estate, meals, machinery, room, etc.) with minimal expectations and impacts on county services. C/I land uses also offer key employment opportunities for the residents of the county to help improve their individual quality of life and achieve their personal goals.

Based on the 2015 tax revenues, C/I properties represented more than 13 percent of the total real estate property assessments in the county, but accounted for less than 2 percent of the land area within the county. While land values will certainly fluctuate with the ebb and flow of the economy, **C/I values will continue to be significant contributors to the county's tax base and more importantly, C/I tax contributions will offset the residential land use cost for services.**

Target: Plan for C/I to Represent 25 Percent of Real Estate Assessments

In an effort to maintain the county's ability to provide high quality services while at the same time maintaining low real estate tax rates, the 2030 Comprehensive Plan is utilizing land use planning and C/I opportunities to offset impacts from existing and planned residential uses. If it is a goal for Frederick County to have 25 percent of the total county assessments come from C/I land use values, then it is obvious that at only 13.56 percent (4,556 acres) the county needs additional developed C/I uses. To achieve the 25 percent assessment target in 2010, an additional 2,761 developed acres of C/I land uses would have been needed.

Recognizing the county's 2.9 percent annual growth rate over the past 3 decades, the 2035 Comprehensive Plan should be designed to accommodate an additional 4,859 acres of new C/I opportunities. This projection indicates that the 2030 Comprehensive Plan should contain a minimum designation of 12,176 acres for C/I land uses within the Sewer and Water Service Area

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

(SWSA). Further fluctuations may be anticipated with additional residential growth.

2035 Comprehensive Plan

The 2035 Comprehensive Plan has been developed to incorporate a balance of land uses in order to achieve needed tax revenues. The Plan achieves the land use policy target of ensuring that 25 percent of the projected assessments will be in C/I land uses. This is accomplished by designating 16,700 acres for future C/I land uses, which will occupy approximately 2/3 of the 25,000-acre Sewer and Water Service Area (SWSA).

The Plan also incorporates opportunities for mixed use developments and single family residential uses at a minimum density of 4 units per acres within the designated Urban Development Area (UDA). The policy of directing residential growth into the UDA also promotes a more efficient use of land and community services, ultimately offering additional cost savings to the county.

Mixed use developments also offer additional revenues to address the demands for services generated by the residential uses. Mixed-use developments – such as urban center and neighborhood villages – are planned developments that encourage and accommodate a mix of land uses.

These projects include an appropriate mix of commercial, office, and residential development. They provide an efficient development pattern that can foster economic development, provide diversity in land use, and reduce the number and the length of automobile trips. These mixed uses projects are encouraged in appropriate locations in the 2035 Comprehensive Plan.

CONCLUSION

The land use designations contained within the 2035 Comprehensive Plan accommodate the goal of providing 25 percent C/I land uses to 75 percent Other land uses. Maintaining a healthy C/I ratio will help the county maintain its current tax rates while continuing to enhance the services provided the residents - particularly in the area of education. It is through the use of land use policies contained within the Comprehensive Plan that these goals will be supported and achieved.

In an effort to reinforce a sound policy basis that balances land use planning and fiscal policies, the ratio of 25/75 between C/I and other land uses in terms of available land areas and taxable value of the land uses shall be the established benchmark. This policy shall dictate that at least 25 percent of the taxable land value (land plus improvement value) in the county should contain C/I land uses, and conversely that no more than 75 percent of the taxable land area should be for uses other than C/I land. By achieving this

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

policy goal, the County will ensure that taxable land values equate to the projected expenditures.

URBAN DEVELOPMENT AREA (UDA)
Residentially Zoned Development Information - vacant lot summary
Frederick County, Virginia
(Through December 2015)

Vacant Land - No Approved GDPs

2,992 potential units based on permitted densities on
442 acres of vacant
land

Zoned Land - Approved GDPs

0 Units (maximum yield based on proffered
densities)
1,153 Acres

Master Development Planned Projects

6,095 Total residential lots/units
planned
1,471 single family lots planned
1281 townhouse, duplex, multiplex lots/units planned
262 multi-family units planned
mixed units
3,081 planned

(Current Status) Residential Subdivisions Under Development - platted, vacant lots

2,627 Total residential lots/units
available
1,305 single family-detached lots available
701 townhouse, duplex, multiplex lots available
621 multi-family units available

Grand Total: **11,714** approved, planned, or potential residential
lots/units.

285 Single Family-Detached permits have been issued in 2015 within the UDA
115 Townhouse/Duplex/Multiplex permits have been issued in 2015 within the UDA
137 Apartments permits (units) have been issued in 2015 within the UDA
83% Percentage of all new residences constructed in 2015 where within the UDA

Notes:

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

- 682 Vacant single family-detached platted lots are within 6 of the single-family residential subdivisions which currently have approved subdivision plans within the UDA. (Abrams Pointe, Meadows Edge, Old Dominion Greens, Red Bud Run, Shenandoah and Snowden Bridge)
- 3,722 The number of lots planned within Age-Restricted communities
2,463 Vacant lots within Age-Restricted Communities
- Denotes an age-restricted community or component
- 5,453 The number of vacant lots within the R5 zoned residential communities in the western portion of Frederick County, outside the UDA. These communities (Lake Holiday, Shawneeland, and Mountain Falls Park) contain a total of 7,916 recorded lots.
- 1,787 The number of vacant lots within The Shenandoah development, which is located outside the Urban Development Area on the south side of Fairfax Pike; however, the proximity of the UDA will directly impact land development decisions in the county's development area. The Shenandoah MDP calls for 593 age-restricted and 1,537 traditional residential units in a community of 2,130 total residential units on 926.26 acres.

Revised: 01/06/16

APPENDIX II – BACKGROUND ANALYSIS AND SUPPORTING STUDIES

Race and Ethnicity				
	1990	2000	2009	2014
American Indian, Eskimo, Aleut	0.2%	0.2%	1.0%	2.4%
Asian	0.5%	0.7%	1.4%	1.5%
Black	1.8%	2.6%	5.2%	7.3%
White	97.4%	95.0%	91.2%	88.2%
Other	0.2%	0.6%	0.4%	0.3%
Multi-Race		1.0%	0.8%	0.3%
American Indian, Eskimo, Aleut	0.2%	0.2%	1.0%	2.4%
Hispanic Ethnicity	0.6%	1.7%	7.8%	12.0%



RESOLUTION

Action:

PLANNING COMMISSION: November 2, 2016 - Recommended Approval

BOARD OF SUPERVISORS: December 14, 2016 APPROVED DENIED

RESOLUTION

DIRECTING THE PLANNING COMMISSION TO HOLD A PUBLIC HEARING REGARDING THE 2035 COMPREHENSIVE PLAN, INCLUDING APPENDIX I AND APPENDIX II

WHEREAS, The Comprehensive Plans and Programs Committee and the Planning Commission, with the assistance of citizen volunteers and working groups, worked diligently throughout 2015 and 2016 on the 2035 Comprehensive Plan; and

WHEREAS, The 2035 Comprehensive Plan was presented to the public through a series of four public input meetings during the month of June, 2016; and

WHEREAS, The 2035 Comprehensive Plan was presented to the Planning Commission and Board of Supervisors at joint work session on August 17, 2016; and

WHEREAS, The Comprehensive Plans and Programs Committee (CPPC) discussed the draft 2035 Comprehensive Plan on October 12, 2016 and recommended it be sent to the Planning Commission; and

WHEREAS, the Planning Commission discussed the draft 2035 Comprehensive Plan on November 2, 2016; and recommended that a public hearing be held; and

WHEREAS, the Frederick County Board of Supervisors discussed and endorsed the 2035 Comprehensive Plan, including Appendix I and Appendix II, on December 14, 2016 and finds that it is in the public necessity, convenience, general welfare, and good planning practice, to direct the Frederick County Planning Commission hold a public hearing regarding the 2035 Comprehensive Plan, the Plan; and

NOW, THEREFORE, BE IT REQUESTED by the Frederick County Board of Supervisors **that the Frederick County Planning Commission shall hold a public hearing to consider adopting the 2035 Comprehensive Plan, including Appendix I and Appendix II and forward a recommendation to the Board of Supervisors.**

Passed this 14th day of December, 2016 by the following recorded vote:

Charles S. DeHaven, Jr., Chairman	_____	Gary A. Lofton	_____
Judith McCann-Slaughter	_____	Gene E. Fisher	_____
Blaine P. Dunn	_____	Robert W. Wells	_____

A COPY ATTEST

Brenda G. Garton
Frederick County Administrator