

# Town of Shenandoah Comprehensive Plan, 2022



Update Prepared for: Town of Shenandoah Town Council  
Update Prepared by: Northern Shenandoah Valley Regional Commission



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**Acknowledgements**

This 2022 Plan update was prepared with technical assistance from the Northern Shenandoah Valley Regional Commission, acting as a consultant to the Town of Shenandoah. The following staff members assisted with the revisions to this plan:

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The Northern Shenandoah Valley Regional Commission (NSVRC) would like to express its deep appreciation to all of the residents, workers, businesspersons, and community officials of the Town of Shenandoah and Page County who contributed their time and knowledge to the development of the Town of Shenandoah Comprehensive Plan.

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**(\*) Denotes the commissioner’s length of their term or resignation**

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**General Thanks:** The NSVRC and the Town of Shenandoah would like to publicly thank Brad Reed of VDOT, Joshua Hahn of Page County GIS, the Virginia Employment Commission, The Weldon Cooper Center at UVA, and all of those who were not mentioned but played a key role in this joint effort to finish this Comprehensive Plan for the Town of Shenandoah.

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*All figures produced by NSVRC GIS unless otherwise noted*

## Introduction

The Comprehensive Plan for the Town of Shenandoah is part of a continuing planning program for the Town. The purpose of this Town Plan is to serve as a guiding vision for the future development of Shenandoah and the immediate surrounding area and to outline a concise statement of the policies and actions for implementing the Town's vision and goals.

The Town does not employ any formal planning staff and has sought out the help of the Northern Shenandoah Valley Regional Commission to implement any planning strategies. Through the process of meetings with the officials at the Northern Shenandoah Valley Regional Commission, we have achieved the goal of completing this Comprehensive Plan.

The Plan examines past growth and development, and presents current data on transportation, population, housing, economy, land use, and community facilities. Data presented is for the Town. General goals and objectives were developed and are presented in a separate chapter as well as at the beginning of each specific goal area. Specific implementation measures that can be accomplished in the first five-year period are included throughout the chapters as well as planned long-term goals.

The Town Plan was developed in accordance with Title §15.2 Chapter 22 of the Code of Virginia, which requires that:

- “The local commission shall prepare and recommend a comprehensive plan for the physical development of the territory within its jurisdiction...”
- “...every governing body in this Commonwealth shall adopt a comprehensive plan for the territory under its jurisdiction.”, and
- “At least once every five years the comprehensive plan shall be reviewed by the local commission to determine whether it is advisable to amend the plan.”

To assist in the implementation of the five-year review the Town Plan has been formatted with each chapter numbered in a sequence that will allow for individual updates without requiring changes throughout the plan.

The implementation section of each chapter of this plan should be reviewed as part of the annual budgeting process of the Town.

*After Planning Commission Meeting and public hearings held by the Planning Commission and Town Council, this plan was adopted by Town Council on:*

## Chapter 1: Comprehensive Goals, Strategies and Accomplishments

### Vision

- Increase the prosperity of the Town of Shenandoah;
- Maintain the Town's safe and attractive small-town atmosphere; and
- Improve and protect the natural environment so that future generations will inherit a vital and prosperous Town.

### Strategies

- Develop diversity of the economic base including general commerce, tourism sites and services, residential development and industry;
- Encourage citizen participation in the governance of the town to develop a body of active stakeholders for the future of the Town of Shenandoah;
- Use such means as the Comprehensive Plan, subdivision regulations and zoning ordinances to plan, implement and enforce town goals;
- Consider the protection and improvement of water, air and land in all other goals;
- Identify and zone specific areas to include home businesses; and
- Identify and zone areas to include above-retail apartments.
- Create and maintain recreational areas for residents and tourists to utilize.



## Objectives

### **GOAL I Land Use: Existing and Future**

Develop and maintain the comprehensive land use plan that protects and promotes undeveloped land, controls annexation patterns for residential and commercial expansion, and maintains a mixed use pattern of residential, commercial and employment functions in the town and surrounding areas.

#### *Strategies:*

- A. Review and update portions of the Town of Shenandoah Comprehensive Plan as needed.
- B. Coordinate the Town's planning with the county so that the town remains a center for residential, commercial and industrial development in Page County.
- C. Protect existing open space within the Town limits through the development of recreation/conservation areas that will provide greenbelts and neighborhood recreation areas on land, which is unsuitable for most other uses, while protecting the riparian environment.
- D. Confine residential development to public service areas.

### **GOAL II Residential**

Provide the opportunity for safe housing, developed in such a manner as to maintain a small town community land pattern, and accommodate a range of income levels and tenure options.

#### *Strategies:*

- A. Encourage the improvement and protection of established neighborhoods by maintaining compatible infill development and density.
- B. Identify and zone specific areas to allow town homes by right.
- C. Encourage complete development of tracts of land adjacent to roadways so as to limit "strip" residential development.
- D. Prohibit the construction of dwellings in those areas defined as flood plain.
- E. Coordinate planning and regulation of development around the Town with the County.

### **GOAL III Commercial**

Improve the existing commercial area to re-establish business structures, and assist existing businesses and new companies to establish viable commercial enterprises.

*Strategies:*

- A. Establish a commercial development committee to work on solving business problems.
- B. Encourage the redevelopment of old commercial structure.
- C. Develop home business ordinances to deal with the necessity for special use permits.
- D. Maintain a marketing plan to attract entrepreneurs and promote the Town to tourists and other enterprises.
- E. Encourage the development of buffer areas or screening between commercial activities or parking (of a particular size) and adjacent to residential and public areas.

### **GOAL IV Industrial**

Work with existing industry to promote a sustainable, profitable environment for their companies and work to attract new industry compatible with the Comprehensive Goals of the Town.

*Strategies:*

- A. Structure public partnerships with the Chamber of Commerce and other civic groups to promote the Town as viable home for new industry.
- B. Continue to meet with representatives of groups, such as the Shenandoah Industrial Development Authority and existing industry, on a scheduled basis to discuss needs of both the Town and industry.
- C. Acknowledge and publicize the contributions of existing industry to the economy and social fabric of the Town.
- D. Require compliance with all current environmental regulations and protective measures necessary to ensure that there is no harmful pollution, waste, or storm water generated by industry and that construction does not take place in environmentally sensitive areas such as sinkholes, floodplains, and federally designated wetlands.

## **GOAL V Parks and Recreation**

Maintain and develop recreational facilities and opportunities that serve residents of all ages as well as those that offer recreational opportunities to tourists.

### *Strategies:*

- A. Maintain a recreation committee to oversee and/or perform ongoing maintenance and planning of existing facilities as well to develop plans for new recreational facilities.
- B. Maintain riverfront activities and safe pedestrian access to town centers from the river.
- C. Continue development of the Big Gem Park, and continue developing the connection between the Big Gem Park, Shenandoah National Park and Shenandoah Landing and River Park.
- D. Create an orientation system for visitors and residents to facilitate use of recreational facilities and services.
- E. Facilitate the timely support of neighborhood parks as new residential growth occurs, develop a strategy for including parks in long-term growth.

## **GOAL VI Transportation**

Develop a safe, multi-modal approach to transportation so that people can move through town and within the region in a safe, convenient, and affordable manner that accommodates their needs and the economic and environmental needs of the Town.

### *Strategies:*

- A. Analyze existing traffic patterns and develop a traffic plan that will convey people and goods in a convenient, efficient, and safe manner.
- B. Support controls for land development adjacent to Town roadways. The impact of land use on the street system should be considered. Adequate provisions should be made for right-of-way acquisition, access control, off-street parking, building setbacks, and limitations on the type and size of development.
- C. Develop and implement a plan for safe bicycle and foot traffic especially to the existing and planned recreational areas so that adults and older children can safely reach parks by bicycle or foot. Work with the Virginia Department of Transportation (VDOT) for the construction of bike paths along with new road building or the widening of existing roads.

- D. Devise a plan for town parking that integrates with the existing and developing commercial areas and encourages pedestrian traffic in the core business area.
- E. Partner with regional, private and governmental entities and social service organizations to develop and implement adequate public transportation, including buses and taxis, to adjacent areas.
- F. Consult the business and social services community to assess the need and feasibility of taxi service within the Town.

### **GOAL VII Fire/Police/Rescue Squads**

Maintain a high level of professional service in the areas of fire protection, police service and rescue squad response so that citizens have the benefits derived from living in a safe and protected town.

#### *Strategies:*

- A. Promote maximum and best use of existing community facilities. Ensure the safety of Town residents by continuing to provide an adequately sized, well-trained police force.
- B. Provide required community facilities in a cost-effective manner.
- C. Provide for necessary capital improvements related to Fire, Police and Rescue through a comprehensive planning process.
- D. Develop and maintain long-range financial plans.
- E. Recognize the value of the volunteer fire and rescue team. The Town will cooperate with fire and rescue officials to continue providing a cost-effective volunteer system. Maintain a liaison with volunteer fire and rescue officials and the County to determine future public safety needs.

### **GOAL VIII Water and Sewer**

Maintain a safe water supply that allows for controlled growth in the town and/or annexation of adjacent areas as well as a corresponding safe waste-removal system that can keep pace with the expansion of the water system.

#### *Strategies:*

- A. Protect the existing town wells by the development and implementation of a wellhead protection program.

B. Ensure sufficient water by developing new sources of water, analyzing current usage and promoting a voluntary conservation ethic related to water use.

C. Maintain water and sewer capacity for economic growth by analyzing current capacity and developing new facilities and sources as needed, within the context of the Comprehensive Plan.

### **GOAL IX Schools**

Maintain active citizen participation so that the needs of the Town's citizens are considered by the Page County School system.

### **GOAL X Town Administration**

Promote active participation in town affairs between citizens and elected and appointed officials so that a core of informed adults is available to be responsive to the needs of the Town and the surrounding area.

#### *Strategies:*

A. Develop a committee of participating citizens through outreach to the entire community in order to reach a wide spectrum of citizen resources.

B. Maintain the plan for ongoing communication with the general citizenry in order to develop and maintain community cohesiveness.

C. Maintain the comprehensive plan by using the Plan as a guide for all decision-making, reviewing portions as needed and performing a complete review every five years.

### **GOAL XI Historic Preservation**

Maintain the working inventory of all historical buildings so that issues related to renovations and demolitions can be addressed so as to preserve as many historic buildings as possible that contribute to the historic, economic and aesthetic concerns of the Town.

#### *Strategies:*

A. Work closely with existing historic preservation agencies in the Town and County to support their work as it meets the goals of the Comprehensive Plan.

## Chapter 2: History of the Town of Shenandoah

The location of the Town of Shenandoah on the South Fork of the Shenandoah River has greatly influenced local development patterns. The Town, which became important due to the proximity of natural resources such as iron ore, wood for making charcoal, high grade limestone and water, utilized the Shenandoah River for transporting commodities to markets downstream. The Town also employed the Shenandoah River as a source of power.

In 1837, two brothers, Daniel and Henry Forrer, purchased approximately 1,100 acres of land, which included the land in the current Town limits. Shortly after making this land acquisition, the Forrers built the Shenandoah Iron Works for the purpose of producing and forging pig iron. The Forrer brothers became the original founders of the Town of Shenandoah. The first post office was established in February of 1838 under the name of Shenandoah Iron Works.

In 1855 the Forrer House was constructed. The Forrer House is a 4-story mansion with 22 rooms constructed of handmade bricks shipped from England. The home was located on Long Avenue but has since been demolished.

The Shenandoah community continued to develop following the establishment of a post office. A Mr. Pee Dee built ten houses in a row in Furnace Hollow and four double houses facing the river, south of the present Methodist Cemetery. This section of Shenandoah became known as Pee Dee. In 1867, Captain Cooke built a home on the River Road for his son-in-law, Peter Jefferson Propes. Floodwaters reached ten feet deep at this house in 1870. Another early part of Shenandoah is known as Miller's Addition.

The Town of Shenandoah is listed on the National and State Registers of Historic Places. This Historic District includes 451 buildings, 3 sites and 4 structures and encompasses portions of First, Second, Third, Fourth, Fifth, Sixth, Seventh, Eighth, and H Streets, Central, Denver, Long, Maryland, Pennsylvania, and Virginia Avenues, and Coverstone Lane. Other structures in and around the Town listed by the Virginia Historic Landmark Commission include the Stevens Cottage on the corner of Maryland Avenue and Second Street, the South Fork House off of Route 340 north of Town, the Mt. Lebanon United Church at Comertown and the Old Verbena Mill at Verbena south of Town off of Route 340.

The historic pattern of development in Shenandoah has always fronted the Shenandoah River. A wagon road along the riverbank in Shenandoah served as the original thoroughfare. This road extended the length of the Page Valley. The Shenandoah Iron Works constructed buildings next to this road, and residential areas spread out to the north and west.

During this period, the Shenandoah River could be crossed either by fording or ferrying. The ferry served the people of Shenandoah and crossed 100 yards south of the present bridge, which is now part of Route 602.

From 1861 to 1865, the Confederate Government built and operated a gunpowder plant near town on the west side of the Shenandoah River, one mile north of the river bridge. Shenandoah industries forged iron into solid bars and shipped them to the cannon factory in Richmond, Virginia. The powder plant also produced and shipped cast cannon balls and gunpowder.

The arrival of William Milnes, Jr., and Thomas Johns in 1866 heralded an era of prosperity and growth for Shenandoah. In 1867, these men purchased thirty-two thousand acres, including the Shenandoah Iron Works. They continued the Forrers' Iron Works but introduced patented tools and machinery to improve production.

The pattern of development along the east bank of the Shenandoah River, including the forge, furnace, and the major road, caused the Town to be built in the flood plain. On September 28-29, 1870, the floodwaters washed away most of the Town. The loss included thirty to sixty structures, including manufacturing buildings, machinery, offices, stables, a large store, warehouses, a river bridge, flourmill and some of the best residences. The flood washed out and destroyed the land beyond recognition.

During this time, the nation experienced an era of prosperity, which enabled Shenandoah to recover rapidly from the flood's destruction. In 1870, a public school was constructed, and many new businesses opened.

Despite the flood, industrial activities continued. Between 1870 and 1880 William Milnes worked with leaders between Hagerstown, Maryland, and Roanoke, Virginia, to try and get a railroad built through Page County. Milnes saw his dreams come true in 1881, when the railroad from the north reached the Shenandoah Iron Works. A connection to Roanoke followed in 1882, and this became known as the Shenandoah Valley Railroad. A telegraph line was built along with the railroad.

As soon as the railroad was assured, Milnes erected the Big Gem Cast Iron Furnace under the name of the Shenandoah Iron, Lumber, Mining and Manufacturing Company. Big Gem, with its great boilers, large casting room, and high smokestacks was completed in 1882. The name of the company was later changed to Shenandoah Furnace Company, and later still to Empire Steel and Iron Company, and finally to the Allegheny Ore and Iron Company.

On June 27, 1882, the name of the post office was changed from Shenandoah Iron Works to Milnes. An Act of the General Assembly of the State of Virginia was passed on February 12, 1884 to incorporate the Town. It bore the name Milnes in honor of William Milnes, Jr., President of the Shenandoah Valley Railroad.

Coverstone Addition, Miller's Addition and Edinburg each bear the name of the family farm that occupied the property until 1890.

The original corporate limits of the Town never changed until the friendly boundary line adjustment between the Town and Page County became effective, January 1, 2007.

The Railroad built tracks above the river flood plain parallel with First Street, which became the main street of commercial activity in Shenandoah. Businesses established themselves in buildings constructed on only one side of First Street so that they could face the railroad yards and the Shenandoah River. First Street continued from Maryland Avenue to Junior Avenue on the east side of the railroad. There was a bridge on Main Street across Virginia Avenue and another at the old Y.M.C.A. building. Both were high enough to drive a wagon underneath. Poles were laid along the streets of the town for curbing and were filled in with engine cinder for sidewalks.

Mr. Milnes gave a building lot to each church denomination to be used for a church building. He also gave sixty acres of land to the railroad company to be used for the terminal shops, as well as lots on Third Street for public schools.

The output of cast iron at Big Gem reached one hundred and ten (110) tons daily. The furnace became a well-known tourist attraction due to the spectacular shower of sparks that could be seen each night when a kettle of red-hot cinder was poured down the cinder bank. Oftentimes, the streets were made more serviceable by spreading a layer of Big Gem cinder over them.

On March 8, 1890, the name of the post office was changed from Milnes to Shenandoah. Thereafter, the name of the town was changed, by an Act of the General Assembly, from Milnes to Shenandoah City. During the following years, the word "city" was informally dropped from the Town's name.

In 1890, Shenandoah experienced a sudden and rapid growth known as the "boom". This was brought about by a national era of growth and the advertising efforts of the Shenandoah Land and Improvement Company.

The Shenandoah Land Improvement Company bought land around the Town and surveyed the entire corporate limits as well as their own land. The streets were staked, a map made, and a land sale conducted. There were great increases in land prices and one lot on Tenth Street sold for as much as \$2,000.

The Shenandoah Land Improvement Company also erected many buildings. Most of these buildings have been demolished or destroyed by fire.

In 1890, the first river bridge was built across the Shenandoah River. For many years after, a toll was charged to cross the bridge.



A very large and luxurious frame hotel, known as “The Shenandoah,” was built on the crest of the hill on First Street, south of Maryland Avenue. The hotel burned in 1891 and was rebuilt the following year. It never operated as a hotel again but served as an apartment house for ten years before finally being torn down. Broad Hall, on Maryland Avenue at Seventh Street, was built for Mr. Flickwir who was active in the Shenandoah Land Improvement Company, Furnace Company, and the Railroad Company.

The Furnace Company built a huge rolling mill along the river and the railroad. Machinery was installed, but it was never operated.

In 1891, the “boom” collapsed, and a general depression settled over the entire country. Banks closed their doors, and many businesses went bankrupt. A degree of prosperity was maintained in Shenandoah due to the continued operation of the Furnace Company and the Railroad. Shenandoah’s growth continued unchecked, and the population increased from 751 in the 1890 census to 1,878 by the 2000 census.

The Norfolk and Western Railroad (N&W) took over the Shenandoah Valley Railroad in 1891. Large railroad repair and maintenance facilities were built in Shenandoah over the years. The old train station, which was built around 1900, is located on the south side of First Street.

In 1896, a flood washed away the eastern portion of the river bridge. During that same year, a fire destroyed the business section from the modern day post office on Virginia Avenue to the Shenandoah Municipal Building on First Street. In 1904, another fire destroyed a large part of the remaining business section, including three hotels, two storerooms and almost all of the existing buildings.

The Town installed a steam electric power plant and water system in 1906. The Big Gem Furnace discontinued operation in 1907. Parts of it were sold, and finally in 1917, it was completely dismantled. Between 1890 and 1900, the Town experienced high population growth (62.5 %), but this slowed considerably between 1900 and 1910 (17.3%).

In November 1916, a fire destroyed the N&W round house and machine shop. Following the fire, a broad program of reconstruction with modern facilities and equipment began. Norfolk and Western completed construction on a new 21 stall round house in the spring of 1918, and a large powerhouse and a modern shop in 1925.

N&W operated its main overhaul and repair facilities in Shenandoah and at times employed over 400 men. The railroad’s prosperity is reflected by the population increase that took place between 1910 and 1920 to 1,895 persons.

In 1918, Shenandoah installed a filter plant for the water system and also constructed a dam in the river to furnish hydroelectric power. The Town erected a powerhouse on the center of the dam. In 1924, a flood caused severe damage to the dam and powerhouse. Three years later, Shenandoah sold its light and water system to the Massanutten Power Corporation, which later became Potomac Edison Power Company, and then Allegheny Power. The Town is currently served electric power by Shenandoah Valley Electric Co-op.

The Virginia Department of Highways built Route 340 along Fourth Street in 1924.

In 1930, Shenandoah reached a population of 1,980 persons. Census tract data for 1970 indicates that the population had declined to 1,714, but by 1980, it climbed to 1,861. The 1990 census also demonstrated an increase in the Town's population to 2,213. However, according to the 2000 Census, the Town's population has declined once again to 1,878. Though occupied housing units increased by 25, from 739 to 764, average household size declined from 2.99 to 2.46. A boundary line adjustment between the Town and Page County effective January 1, 2007 brought an estimated 450 citizens into the Town corporation limits. The Town of Shenandoah Boundary Line Adjustment was completed as a result of the following historical developments:

- Shenandoah Industrial Park consisting of 18 acres was purchased in 1978 and developed in 1981. The Town currently provides water and sewer service to the entire Industrial Park located on Quincy Avenue. This industrial park contains four (4) buildings. Town of Shenandoah provides police protection and surveillance in this industrial park and responds to any emergencies. Shenandoah Fire Company and Rescue Squad respond to any emergencies as well.
- The Town of Shenandoah acquired the Big Gem property (68.6 acres) from Lukens Steel on September 27, 1995. This property is being developed into a recreational area to serve citizens and visitors as well. The Town has received numerous grants and donations to assist with the development of this park. Previous development of this park has included installation of a large gazebo and numerous picnic tables; large scale landscaping and walking trail development, including but not limited to split rail fencing, retaining walls, and clearing of trails; installation of a fountain in the pond; implementation of a fishing program for the pond; stairways to allow easy access to the upper portions of the park; bridges to allow access to the rear sections of the park; rain gardens to assist with environmental protection; etc. In 2014, the picnic shelter was built and in 2017 the restroom was built. Master plans have been developed and will include additional walking trails; picnic areas; ball fields; and an amphitheater. The master plan for this park is on file at the Shenandoah Town Hall.
- The Town of Shenandoah has extended its water and sewer utilities to properties outside its current corporation limits. These utility extensions have included water service to 25 residential homes and sewer service to 1 residential home.

- The Town of Shenandoah needs to expand its tax base due to loss of the Wrangler Plant and numerous other small businesses within the past few years.

Between 1930-1939 Shenandoah laid concrete sidewalks and surfaced its streets.

A knitting mill was built in 1938 at the end of Williams Avenue on the northeast side of the Town. Following the knitting mill industry, this structure was first inhabited by North American Phillips, where the employees manufactured small motors. Finally, it was purchased by Overhead Door Company, and was known as the Genie Company, where employees manufactured garage door openers. The Genie Plant announced plans to completely close the facility in May of 2012. After the close of the Genie Plant, KVK Precision Specialties purchased the building. In 2017, Tactical Walls purchased the building.

The N & W Railroad decommissioned steam-locomotives and replaced them with diesel engines in the 1950s. By 1958, the railroad shut down all but its minimum repair facilities in Shenandoah. This contributed to the decreasing town population.

In 1966, Shenandoah installed a new sewage system to serve the central portion of the Town from First Street to Ninth Street and Williams Avenue to Shenandoah Avenue. This system included a primary level wastewater treatment plant located close to the river at the end of Long Avenue.

By the 1970s, it became apparent that natural and man-made obstacles such as wooded ravines, streams and a change in the grid pattern of the streets divided Shenandoah into three distinct sections. The main section extended from the First Street business district northeast towards Comertown. The northern section, otherwise known as Miller's Addition, consisted of residential areas. The southern section, known as Pee Dee, had become a residential area. A wooded ravine of Dry Branch Creek and the area of the Old Furnace Reservation for the Big Gem Furnace set Pee Dee off by itself.

Shenandoah began actively regulating its land in 1978 by adopting the first Zoning Ordinance. In 1996, the Shenandoah Town Council amended the Zoning Ordinance to incorporate the Flood Plain Ordinance into the Zoning Ordinance, eliminate the Mobile Home Park district and permit residential uses above the first floor in the General Commercial District. Current zones identified include: Residential: (R-1, R-2, and R-3), General Commercial District: C, Industrial District: I, and Flood Plain Conservation (100 year).

In recent years, Shenandoah has engaged in economic development and redevelopment activities. These efforts focused on the revitalization of the First Street Historic and Commercial District and 68-acre Big Gem Park. Shenandoah has forged partnerships with community stakeholders, nearby James Madison University and the University of Virginia, and state and federal agencies to plan for the redevelopment of these sections of town. With the assistance of a Brownfields Demonstration Pilot

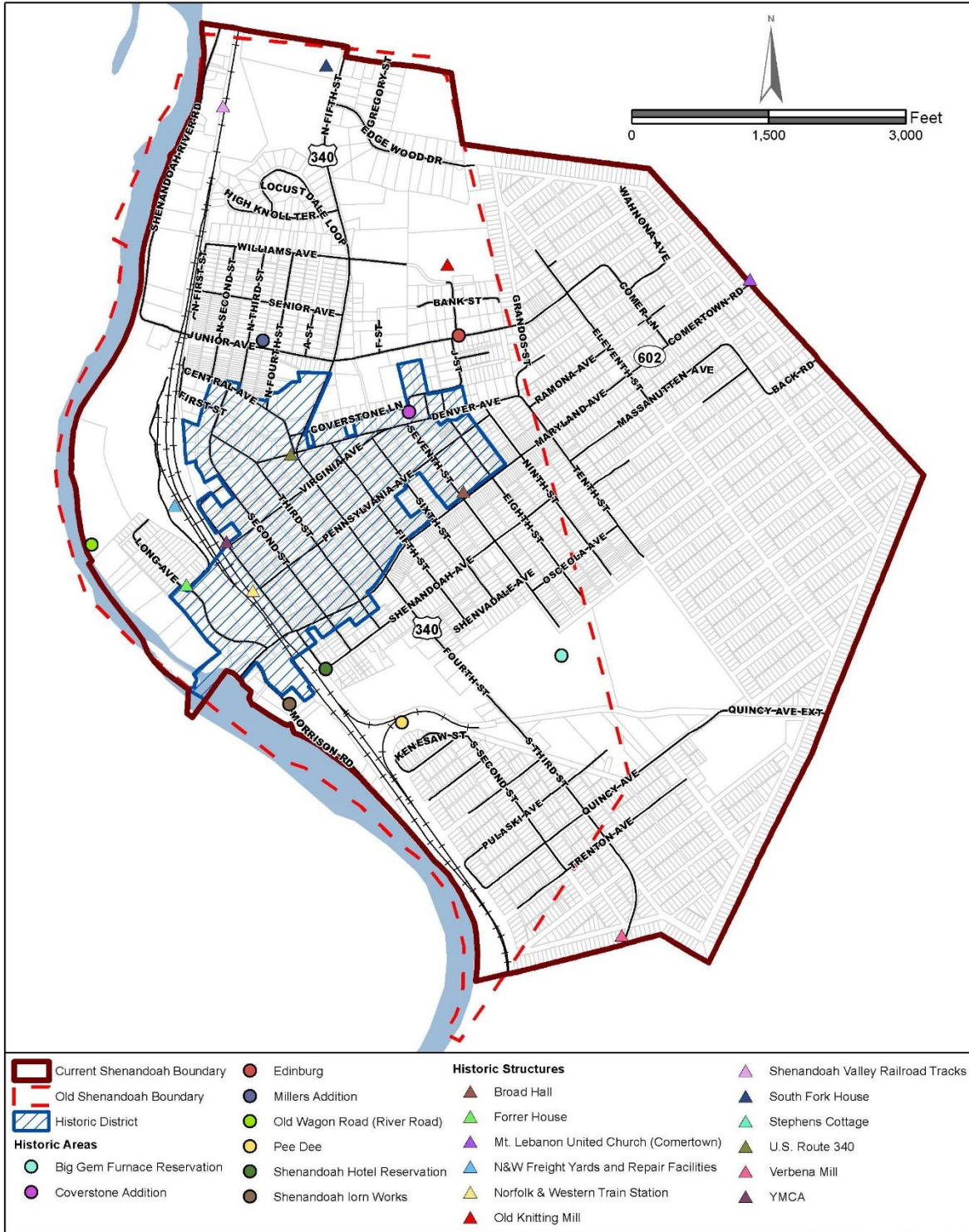
Project Grant (1998) from the U.S. Environmental Protection Agency and a Community Development Block Grant (2000) from the Virginia Department of Housing and Community Development, Shenandoah has now carried out redevelopment plans for blight removal and has a healthy mix of commercial development and outdoor recreation. In future years, Shenandoah plans to continue developing recreational areas and to integrate development between the Big Gem Park, Shenandoah Landing River Park and First Street Historic Commercial District. (Please refer to Figure 2-A for the location of historic sites and the historic district boundary).

The Town experienced two (2) devastating fires in the First Street Historic Commercial District following the renovations. The first fire, on May 23, 2006, destroyed the apartment buildings at 102 Virginia Avenue, the Letter Perfect building at 402 First Street and Comer's Hardware Store at 406 First Street. The second fire, on March 27, 2007, destroyed buildings at 504 and 506 First Street and the historic Eagle Hotel buildings, which stood at 512 First Street since 1907 and was undergoing renovation to convert it to mixed use, including apartments, commercial office space, and retail space.

October 2021, the Town purchased the former mill building located at 507 First Street using American Rescue Plan Act funds (ARPA). The Town opened the Town of Shenandoah Museum and Welcome Center/Covid-19 Information Center on June 21, 2022 at 507 First Street.

Figure 2-A

### TOWN OF SHENANDOAH HISTORIC MAP



Data: VDOT, NSVRC

## Chapter 3: Land Use

This Land Use Chapter describes the pattern and statistics of existing land use, showing how the land area of the Town is utilized and what changes in development have taken place between 1977 and 2013 within the Town of Shenandoah.

In addition to a current survey of land within the corporate limits, Shenandoah relied on existing zoning ordinances about planned development and redevelopment and conducted a study of the area surrounding the town in 2006. The 2006 study characterized current land use both within the town and outside of its boundaries and makes reasonable assumptions about future land use. The results of the land-use survey are shown in Table 3-A, in an Existing Land Use map on page 24. Assumptions about future land use inside and outside of the Town's boundaries are shown in Figure 3-C.

This chapter is broken into General Land Use Patterns, Zoning, Existing Land Use Patterns, and Development Trends and Future Land Use Patterns. The following compilation of existing land use in Shenandoah is fundamental to understanding the character of the Town. Economic trends, development trends, cultural attitudes, and physical features result in land use patterns that express what a community is and has been. Information gathered through the existing land use survey serves as part of the Town's inventory of resources and, together with other factors, provides a basis for recommendations regarding future land uses and the continued following of the Town of Shenandoah's zoning ordinances.

### General Land Use Patterns

Town of Shenandoah has a total land area of 1,376.510 acres. Current land use patterns are shown in table 3-A below. The table accounts for land use details aside from transportation and right away (measurements for this category are shown in table 3-B Zoning following this section. Of the 1,068 acres currently in a described Land Use category, residential is the largest and accounts for 55% of the Town's land area. Transportation and Utilities account for the next largest land use, totaling 22.4% of the land area. A total of 154.9 acres (11.3%) of land area is used for commercial and industrial, and Local/State Government, Religious, Educational and other combined account for the remaining 11.4%. (Please refer to Table 3-A and 3-B)

The Shenandoah River shapes the development pattern of the Town. The Norfolk Southern Railroad tracks follow the river's curve, and the street pattern of the Town runs parallel to the railroad tracks.

Shenandoah is divided into three distinct sections, which are divided by barriers such as wooded ravines, streams and a change in the grid pattern of the streets. The main section of the Town extends from the First Street Commercial District northeast toward Comertown. The northern section of the Town, otherwise known as Miller's Addition, consists of residential areas. This section is separated

from the main body of the Town by a small, wooded ravine and street pattern, which intersects the rest of the Town at an angle. The southern section of the Town, formerly known as Pee Dee, and now recognized as South Shenandoah, is a residential area. This area is set apart from the rest of the Town by a wooded ravine of the Dry Branch Creek and Old Furnace reservation for the Big Gem Cast Iron Furnace. The Town has developed a portion of South Shenandoah into an industrial park and is currently redeveloping the Old Furnace Reservation, which is known as the Big Gem Park, into a multi-purpose recreation area with trail connections to the Shenandoah National Park and the Shenandoah Landing and River Park.

**Table 3-A: Current Land Use July 2022**

Land Use Value	Category Definition	Basic Category	Acreage	Total Acreage
11	URBAN RES-IN TOWN	Residential	733.0	756.1
21	URBAN RES-IN TOWN	Residential	19.4	
31	RESIDENTIAL/DUPLEX	Residential	0.4	
32	RESIDENTIAL/ APTS	Residential	3.0	
41	MOBILE HOME PARK	Residential	0.3	
42	COMMERCIAL/COMMERCIAL	Commercial	134.6	134.6
43	COMMERCIAL/INDUSTRIAL	Industrial	20.3	20.3
72	STATE GOVT	Government	3.7	111.8
74	LOCAL GOVT	Government	108.2	
76	RELIGIOUS	Religious	27.3	27.3
78	EDUCATIONAL	Educational	3.5	3.5
79	OTHER	Other	14.6	14.6
<b>Total</b>			<b>1068.2</b>	<b>1068.2</b>

- Note – Transportation/Right of Way acreage of 308.2 not included in this table

The following table shows zoning in 2022.

**Table 3-B: Zoning**

Land Use Category	Total Acres	% of Total Land Area
Commercial	63.0	4.6
Industrial	263.2	19.1
Residential	742.1	53.9
Transportation and Right of Way	308.2	22.4
<b>Total Area</b>	<b>1376.5</b>	<b>100.0%</b>

Source: Page County GIS, 2022

## Land Use

The Town of Shenandoah began actively regulating its land in 1978 following the adoption of a zoning ordinance. The zoning ordinance details the categories of land use such as setback, frontage, yard requirements, height regulations, by-right zoning, and special use permits. The ordinance is designed to:

- Provide adequate light, air, convenience of access, and safety from fire, flood, and other dangers
- Reduce or prevent congestion in the public streets
- Facilitate the creation of a convenient, attractive and harmonious community
- Ensure adequate police and fire protection, disaster evacuation, civil defense, transportation, water, sewerage, flood protection, schools, parks, playgrounds, recreational facilities, and other public requirements
- Protect against one or more of the following: overcrowding of land, undue density of population in relation to the community facilities existing or available, obstruction of light and air, danger and congestion in travel and transportation, or loss of life, health, or property from fire, flood, panic or other dangers
- Encourage economic development activities that provide desirable employment and enlarge the tax base
- Implement the policies and recommendations made in the Town of Shenandoah Comprehensive Plan

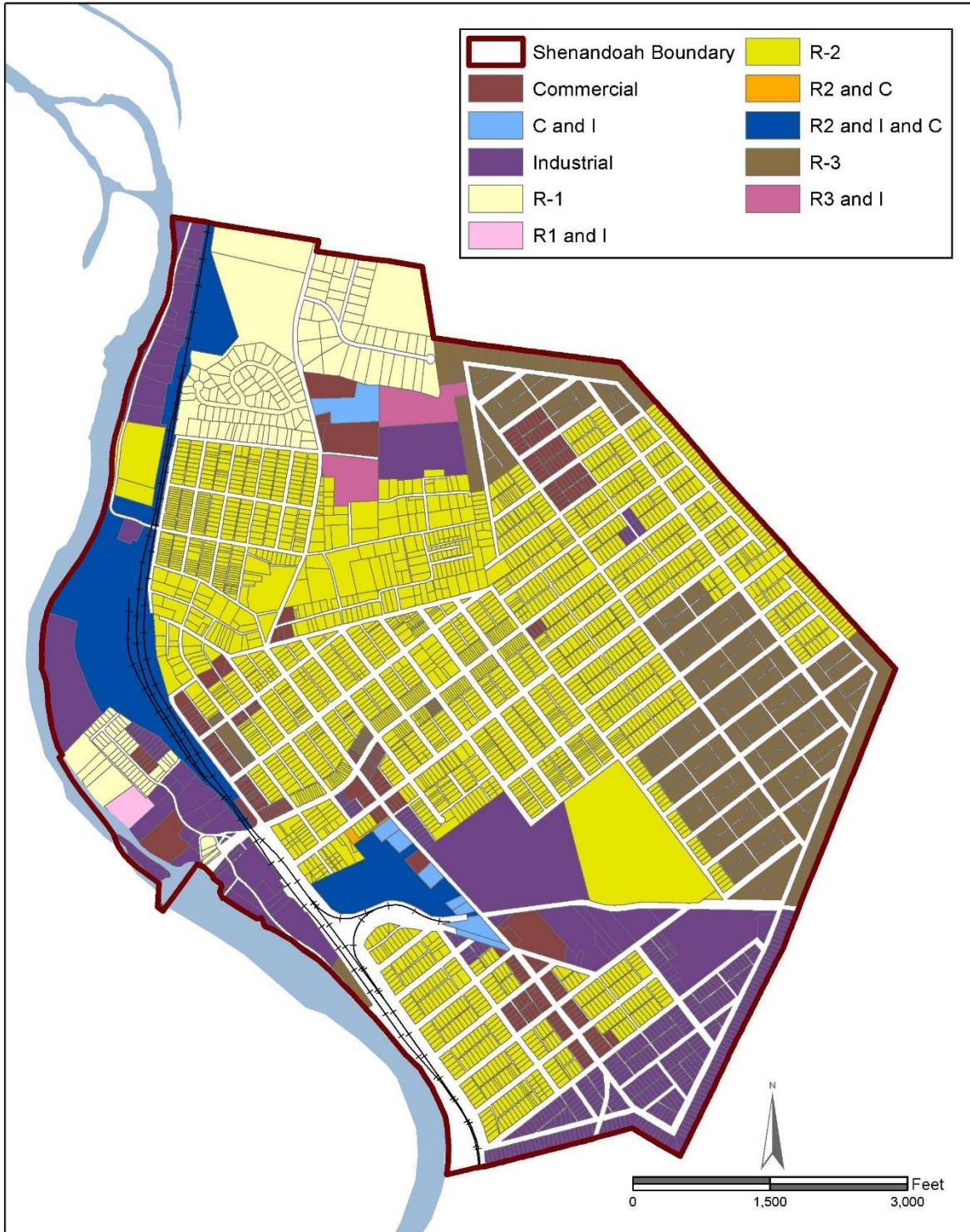
(Please refer to Figure 3-A, Existing Land Use, on page 25)

In 1978, the Shenandoah Town Council made its first major amendment to the zoning ordinance. This amendment, which the Council readopted in 1996, incorporated the Flood Plain Ordinance into the overall zoning ordinance, eliminated the Mobile Home Park district and permitted residential uses above the first floor in the General Commercial District. The zoning ordinance was adopted into the Town Code on November 12, 2002. This new Town Code incorporated the zoning ordinance and subdivision ordinance, as well as other Town regulations into one book. On March 8, 2005, the Town amended the zoning ordinance to provide for a motor sports facility. The Town has also made a number of minor amendments to the zoning ordinance. The Town of Shenandoah, with the assistance of the Page County GIS Department, updated its zoning map in 2014.



Figure 3-A

### TOWN OF SHENANDOAH EXISTING LAND USE



Data: NSVRC, Page County GIS

The following sections briefly describe the Town of Shenandoah's adopted zoning ordinance. For further information concerning zoning, please refer to the Town's Zoning Ordinance, which may be viewed at the Town Hall on First Street or on the Town website at [www.TownOfShenandoah.com](http://www.TownOfShenandoah.com). These brief descriptions are included so that future development within the Town or future land acquisitions will follow the same guidelines presented in this Comprehensive Plan.

#### Residential.

R-1 -- Quiet low-density residential and undeveloped areas targeted for similar development. Prohibit all commercial activities. Includes selected additional uses such as schools, parks, and certain public facilities that serve the residents of the district.

R-2 -- Medium-density residential uses and open areas where similar development appears likely to occur. Limited to low-to-medium density including single and two-family dwellings and selected additional uses such as schools, parks, and certain public facilities that serve the residents of the district.

R-3 -- High-density residential uses and open areas where similar development appears likely to occur. Intended to create areas for apartment and townhouse construction located close to employment, shopping, and other community facilities. Includes high-density and selected additional uses such as schools, parks, and certain public facilities that serve the residents of the district.

#### General Commercial District C

This portion of the community is intended for the conduct of general business to which the public requires direct and frequent access, but which is not normally characterized either by constant heavy trucking other than stocking and delivery of retail goods, or by any nuisance factors other than the light impact of noise from the congregation of people and passenger vehicles.

#### Industrial District I

This area permits the location of certain industries that do not in any way detract from the residential desirability of nearby areas, and permits industries to locate near a labor supply.

#### Flood Plain Conservation (100 year)

The intent of zoning requirements in this area is to prevent: the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, and the extraordinary and unnecessary expenditure of public funds for flood protection and relief.

## Extra-territorial Jurisdiction

The Town currently exercises no extra-territorial jurisdiction on development surrounding it with regard to zoning policy. Policies in the past have allowed for utility extensions to developments outside of the Town limits, and this continues to date with water and sewer supplied to areas north of Town.

## Existing Zoning Patterns

The following categories of land use are used to analyze current use. These categories or subsets of these categories are also used to focus the overall goals of the Comprehensive Plan.

- Residential – all types
- Commercial - Retail and Office
- Industrial – Manufacturing
- Institutional- Government, Schools, Libraries, Town Administration
- Churches, Fire/Police/Rescue
- Open Space/Recreation – Parks, Playgrounds, Athletic Fields, Boat landings, and green space.
- Transportation & Utilities - Streets and Highways, Railroads, Bike paths, Sidewalks, Walking Trails, Public Water and Sewer

## *Residential Detail*

Residential land use occupies 57.1 % of the total land area of the Town. The predominant type of residential land use is Low Density Single Family detached. Between 1970 and 1990, development caused several acres to be converted for residential purposes. During this time period, the greatest increase in residential development occurred in areas with access to public sewer lines. Shenandoah intends to continue opening up greater opportunities for residential development in the future.

From 2000 to 2012 the total number of residential units of all types increased by 34.5 percent from 812 to 1,090. Since the 1990 census, the north side of Shenandoah has experienced the greatest amount of residential growth. This trend is likely to continue with the on-going residential development in the Forest Knolls Estates Subdivision, and additional development off of Marcus Street, near Eppard Subdivision.

**Table 3-C: Dwelling Unit Density**

Census Block Groups	2020 Total Units	2010 Total Units	% Growth 2010-2020	Density (Units per Acre)
Town of Shenandoah	1,150	1,076	6.9%	1.52
Block Group 305-2	412	407	1.2%	1.2
Block Group 305-4	726	714	1.6%	1.6
Block Group 305-5	487	457	6.6%	6.6

Source: 2020 U.S. Census, Page County GIS

**Table 3-D: 2020 Housing Data**

	2020 Census	2010 Census	% Change 2010-2020
Population	2,486	2,373	4.8
Housing Units	1,150	1,076	6.9
Vacant Units	87	108	-19.4
Occupied	719	696	3.3
Renter Occupied	344	272	26.5
Single Family	939	912	3.0
Duplex/Multifamily	183	135	35.6
Mobile Home	28	43	34.9

Source: U.S. Census, 2020 and 2020: ACS 5-Year Estimates

*Commercial Detail*

Commercial land use encompasses 5.3% of Shenandoah’s total land area or approximately 134.6 acres which is clustered in three primary areas:

- First Street Historic Commercial District
- Fourth Street/ Route 340- Maryland Avenue Intersection
- South Third Street/ Route 340- South Shenandoah

The First Street Historic Commercial District is Shenandoah's traditional business district. The core of this older commercial district fronts the Norfolk Southern railroad tracks and spans to the east up portions of Virginia, Pennsylvania and Maryland Avenue. This area flourished during the railroad's heyday, and this commercial district is once again being revived since all blighted areas were removed by a complete revitalization effort. Small retail establishments and offices occupy renovated buildings and commercial space is still available. Residential apartments are available above the first floor of many of the renovated buildings. The Town secured a number of state and federal grants and implemented a physical, commercial development and marketing plan to remove blighting influences and revitalize this commercial district. The grants provided funding for building façade renovations, replacement of streets and sidewalks, electric utilities to be run underground, installation of new lamp posts, landscaping, and banners.

The intersection of Maryland Avenue and Route 340 is an active commercial area. Several gas stations, restaurants, laundromat, credit union, and automotive repair and sale businesses are located at or near this intersection, which is south of the Shenandoah Elementary School. Only a few undeveloped lots remain.

Another very active commercial development in the Town is located along Route 340 in South Shenandoah. This commercial area features the former IGA Shopping Center, currently known as Town Center, banks (Blue Ridge Bank and Pioneer Bank), auto dealers and a computer repair shop. The development of the former IGA Shopping Center in 1985 occurred through a public-private partnership between a developer, the Shenandoah Industrial Development Authority and the Town. A host of mainstream commercial establishments have clustered in and around these shopping centers.

### *Industrial Detail*

Approximately 229 acres of land are devoted to industrial uses. This amounts to 16.6% percent of the total land area of the Town. In 1977, industrial land represented only 3 % of the total acreage, but this number had increased to 14.6% in 2000. Between 1977 and 2006, additional acres were converted to industrial. The friendly boundary line adjustment became effective January 1, 2007, and increased industrial acreage by encompassing the existing industrial park.

### *Public Service and Government Detail (Institutional)*

Public Service and Government land is scattered throughout the Town and includes 13 churches, three cemeteries, a post office, fire company, rescue squad building, public library, visitor information center/Covid-19 information center/train museum, and various local government holdings.

### *Recreation/Conservation Detail*

Since 1977, the Town has created a new zone for flood plains and developed a number of parks and other recreational areas, including a new boat landing on the Shenandoah River. The Shenandoah Landing and River Park includes a boat ramp, parking lot, public restroom building, paved walking track, and picnic tables.

The Town acquired the 68 acre Big Gem Park and it is currently being developed into a multi-use recreational area. The Big Gem Park includes areas for fishing, picnicking, hiking, and a small playground area. The Master Plans for the park includes the development of ball fields, amphitheater, and additional walking trails.

The Town also has a children's playground known as the Wig-Wam Village Playground located on Railroad Avenue, between First and Second Streets. This area offers children's playground equipment and two picnic shelters with tables. Replacement of playground equipment at WigWam Village began in 2018. Future plans include a public restroom.

Adjacent to the Wig-Wam Village Playground are two tennis courts with benches. Future plans include a third court.

The Town has a dog park on Denver Avenue. Currently, the Town is planning to install a fence around the dog park.

### *Transportation*

Transportation and Right of Ways make up the second largest land use category in Shenandoah representing 21% or 288.6 acres of the land. The largest percentage of land for this category is contained by the Norfolk Southern Corporation, which operates a full-service switching station and rail yard across from the First Street Historic Commercial District and includes railroad tracks that run parallel to the Shenandoah River throughout the Town.

The remainder of Shenandoah's transportation and utility land uses comprise streets and sidewalks, water and sewage treatment plant, wells, a hydroelectric plant, an electric power substation, and municipal water tanks.

### *Undeveloped Land Detail*

Prior to the friendly boundary line adjustment in 2007, most of Shenandoah's undeveloped open space land was found in the floodplain at the north end of the Town and on the Big Gem Park. Shenandoah now has a large percentage of undeveloped open space spread throughout Town. No land is zoned for agricultural purposes within the corporate limits of the Town. However, there are a few areas being

farmed, which were brought into the Town corporate limits by the friendly boundary line adjustment. These farmed areas are grandfathered in under the zoning but account for a comparatively small percentage of land use.

External Development

There is no significant external development projected per the 2020 Page County Comprehensive Plan future land-use map (see Figure 3-C). Most new development will occur within the Town boundary as the areas immediately around the Town are zoned agricultural or conservation.

The following chart and map show growth within three census tracts that are in and surround the town.

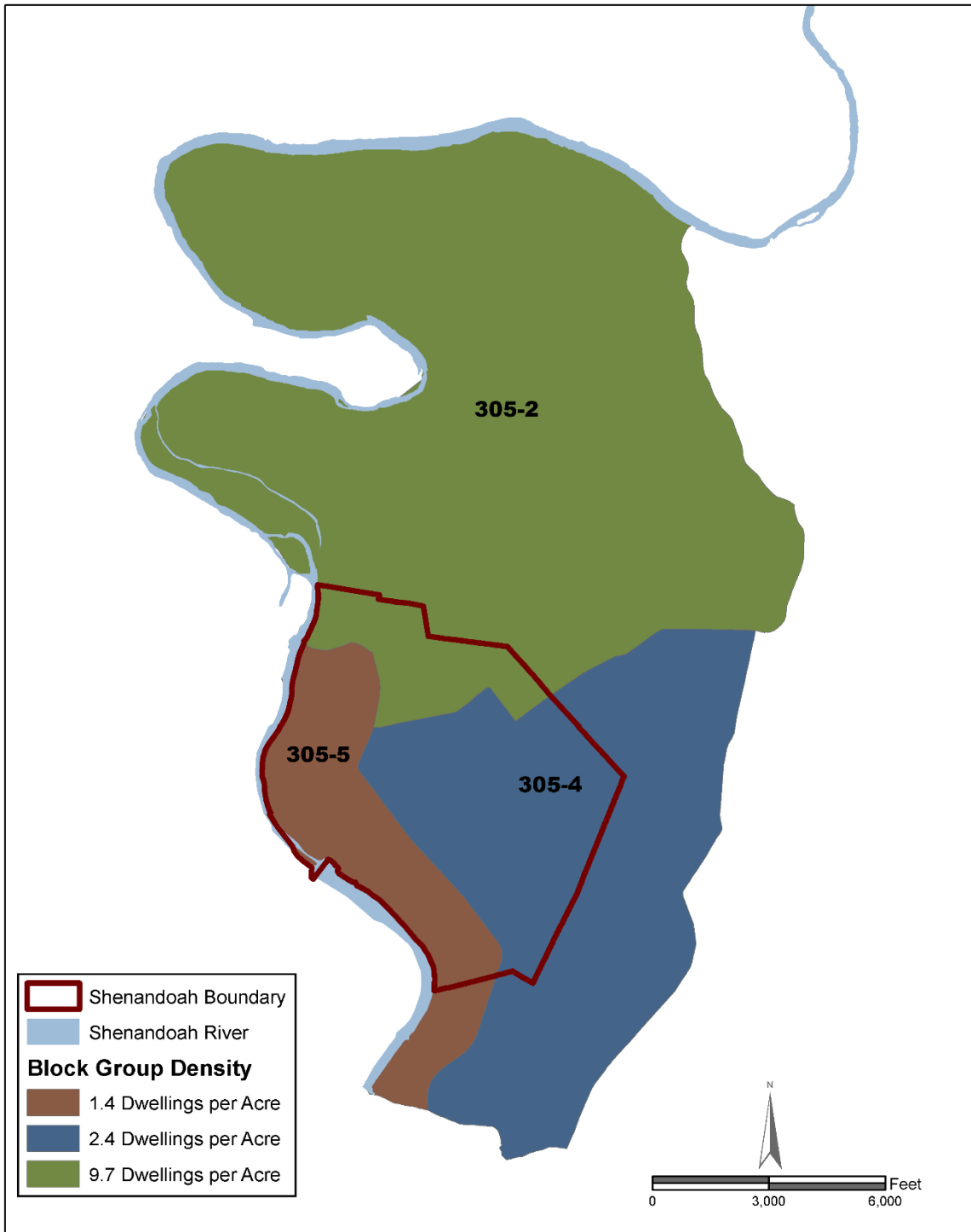
**Table 3-E: Rural Areas Dwelling Unit Density**

<b>Census Block Group</b>	<b>2000 total units</b>	<b>2010 total units</b>	<b>2020 total units</b>	<b>%Growth 2010-2020</b>	<b>Density</b>
305-2	369	407	425	4.4%	1.3 Units/Acre
305-4	406	714	708	-0.8%	9.8 Units/Acre
305-5	258	457	491	7.4%	2.2 Units/Acre

*Source: 2020 ACS 5-year*

Figure 3-B

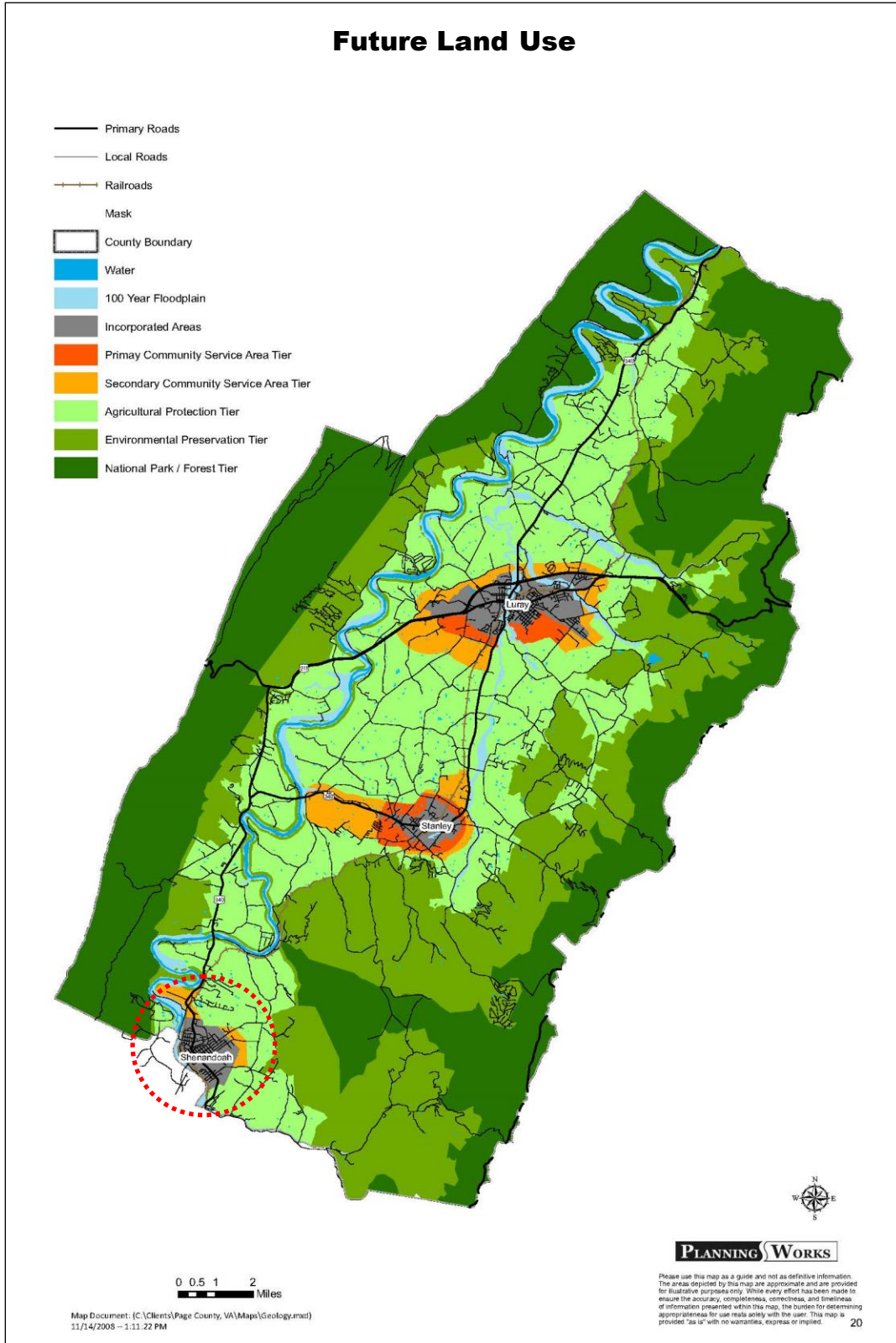
**CENSUS BLOCK GROUP GROWTH  
AROUND THE TOWN OF SHENANDOAH**



Data: NSVRC, US Census



Figure 3-C



Map Source: Page County, VA Comprehensive Plan

## Development Trends and Future Land Use

### *Development trends since 1977*

Since 1977, Shenandoah has seen the majority of its development occur along U.S. Highway 340 in the form of commercial development. In 1985, the former IGA Shopping Center, currently known as Town Center, became a leading component of commercial development within the Town. Shenandoah has also seen the development of an Industrial Park in the southern part of the Town. This development ended up being a nice counterpart to the already existing Genie plant factory on the northern part of Town. Residential development was fairly moderate through these years. The Town has since shifted focus to the revitalization of the First Street Historic Commercial District and to developing more recreational facilities and improving existing facilities. The extension of sewer out to the Eppard subdivision has also addressed residential development and is an important factor in the continued growth of the Town. There are a number of existing subdivisions nearing completion (Forest Knolls) or in the planning/early-development stages.

### *Future Land Use*

Shenandoah's land use goals are to develop and maintain a comprehensive land use plan that promotes the protection of undeveloped land, controlled annexation patterns for residential and commercial expansion, and maintenance of a mixed-use pattern of residential, commercial, and employment functions in the town and surrounding areas. (Please refer to Figures 3-C for the Future Land Use on page 33).

To meet these goals, Shenandoah has identified the following implementation measures:

- Coordinate Town planning efforts with the County so that Shenandoah remains a center for residential, commercial, and industrial development in Page County. The Town will need to continue their productive working relationship with the County Administrator, Zoning Official, County Planning Commission, and County Economic Development Authority in order to achieve both the Town and County's goals while progressively moving forward. This working relationship was most helpful when the Town addressed issues of boundary line adjustment.
- Protect existing open space within the Town limits through the development of recreation/conservation areas that will provide greenbelts and neighborhood recreation areas on land that is unsuitable for most other uses, while protecting the riparian environment. Shenandoah is actively taking these ideas into account with the development of Big Gem Park into a recreation park facility and the renovations that are being made at the Shenandoah Landing and River Park. Through these projects alone the Town has addressed both the Floodplain zoning ordinances as well as the preservation of "green space" within its corporate limits.

- Confine residential development to public service areas. As mentioned earlier in this chapter, the Town has extended the sewer line out to the Eppard subdivision in order to better serve the residents of the Town in the northern section of the Town. The new sewer line extension has opened up development of residential dwellings in the north part of the Town and will help to continue the overall growth of the Town within the corporate limits. This also means that the Town is growing in a well-planned systematic way that will not overtax their public services, thus allowing “smart growth” within the community. Another area the Town continually addresses is its stormwater management, which enhances already existing development and allows the Town to plan better for future development.

## Chapter 4: Economy

This chapter analyzes Shenandoah's economic background and profile, assesses opportunities and constraints to development and provides implementation strategies to improve the community's economic vitality. The chapter is intended to identify economic development prospects in the Town of Shenandoah, and provide basic directives for maximizing the Town's ability to capitalize on these prospects. The following comprise the key findings of this effort:

Shenandoah possesses a number of important assets, which include being located in a HUBZone and a large Enterprise Zone. Both programs offer many incentives to existing and perspective businesses. A few of Shenandoah's other important assets are its proximity to a wide variety of visitor attractions, and scenic, recreational and rural aspects of the Shenandoah Valley, proximity to the growing community of Harrisonburg, proximity to James Madison University's labor and educational resources, and proximity to Northern Virginia's burgeoning technology-driven economy.

The U. S. Highway 340 corridor remains a viable commercial area for Shenandoah. Mainstream businesses such as financial institutions, convenience stores, restaurants, and other commercial nodes are expected to continue thriving along this corridor. In-fill development of vacant lots located along U. S. Highway 340 should occur over time. In addition, the development of the 68-acre Big Gem Park will likely bolster economic opportunities and the northern end of U. S. Highway 340 holds promise for increased development.

Economic development opportunities in Shenandoah should continue to focus on its downtown area. This area offers locations where new businesses can locate in physical clusters, deriving convenience and visibility from one another. Equally important, downtown Shenandoah has the potential to provide a historic, downtown setting that can appeal to regional visitors as well as new businesses. The Town must take steps to protect the "Main Street" character of the downtown layout, and to prevent the introduction of noxious, heavy industrial uses that could compromise the area's prospects.

Downtown Shenandoah has attracted tourism-based businesses such as small independent retailers, and plans include trying to attract restaurants and lodging facilities.

Shenandoah is well positioned to capture high-technology related businesses. With the assistance of grant funding, the Town has both fiber optic and wireless high-speed internet service available to businesses and residents at competitive rates. Additionally, the Town has ample land area for production of high technology parts and equipment, and it also provides an attractive location for satellite locations for growing information technology companies based in Northern Virginia; startup companies generated from within the region; and other companies seeking access to low cost high-speed broadband and fiber optic internet service, qualified labor, relatively inexpensive land, and a small-town quality of life.

Key steps in the implementation of economic development in Shenandoah must focus on: Marketing of high-speed internet service, marketing of the downtown area; and improving linkages from the Shenandoah River waterfront to the downtown area; and installing new signage, markers, and other visual signals to direct traffic from Highway 340 into downtown Shenandoah.

The Town can assist new businesses by maintaining its new programs for the HUBZone, Enterprise Zone, collective marketing, technical business planning assistance, tax incentives, revolving loan programs, and credit enhancement programs.

To implement this strategy, the Town must seek public grants and loans to support private enterprise, public program administration costs, and public facilities, such as park improvements.

### Economic Background and Profile

#### *General Setting*

The Town of Shenandoah is located in southern Page County, along U.S. Highway 340. In recent decades, as the Town's rail and iron-based industries have declined, the Town has captured very little employment growth or investment. At this time, the Town's employers include, but are not limited to, manufacturing companies such as KVK Precision Specialties, Sullivan Mechanical Contractors, and Shenandoah Machine Shop. Many Shenandoah residents work in nearby communities such as Elkton and Harrisonburg, where major employers include several poultry manufacturing facilities, Merck Pharmaceutical, and Miller-Coors Brewing Company. With the access to broadband internet service, the Town has experienced growth in home based businesses in the Shenandoah area.

While it is some distance to major highways, the Town is located less than an hour's drive from major tourist attractions. These include Skyline Drive and Shenandoah National Park, two of Virginia's top ten attractions (Virginia Tourism Corporation, FY 2011 Virginia Visitor Study). Other important nearby attractions include Luray Caverns, Shenandoah Caverns, Massanutten Resort, and the New Market Battlefield. Recreational opportunities on the Shenandoah River and the George Washington National Forest and nearby wineries and breweries attract additional visitors.

The completion of the Shenandoah Speedway offers tourists another venue for activities. The speedway includes various activities in addition to the racing events held during the racing season.

#### *Demographic Overview*

The Town of Shenandoah contains a population of 2,486 per the American Community Survey. While Page County experienced a decline in population from 2010-2020, the Town of Shenandoah saw annual growth comparable to the rate in Harrisonburg. The Northern Shenandoah Valley Regional

Commission population grew at nearly twice the rate of the Town. These figures are shown in Table 4-A below.

**Table 4-A: Population Growth: Selected Areas**

	2010	2020	Change 2010-2020	Compound Annual Growth Rate
Shenandoah	2,373	2,486	113	0.5%
Page County	24,042	23,709	-333	-0.1
NSVRC	222,152	242,944	20,792	0.9%
Harrisonburg	48,914	51,814	2,900	0.6%

Source: 2020 U.S. Census, NSVRC

Economic Framework

*Economic Base*

The Page County and regional economies are dominated by educational services and healthcare, manufacturing, tourism related industries and construction. Employment in Tourism related industries like arts, entertainment, and recreation is more than 4 times the national average in Page County. Page and Rockingham Counties share the same top 5 industries by employment accounting for 67.5 and 66.1% of all employment respectively. In Harrisonburg, Construction is replaced by Professional, Scientific and Technical Services. The City of Harrisonburg leads employment in Education and Arts, Entertainment and Food Service likely due to the location of James Madison University.

**Table 4-B: Non-Farm Employment by Industry Sector (place of work)**

INDUSTRY	Page County		Rockingham County		Harrisonburg	
	Estimate	Percent	Estimate	Percent	Estimate	Percent
Agriculture, forestry, fishing and hunting, and mining	177	1.6%	1,895	4.7%	433	1.7%
Construction	1,171	10.6%	3,011	7.5%	1,316	5.1%
Manufacturing	1,679	15.3%	5,499	13.6%	3,810	14.7%
Wholesale trade	141	1.3%	1,220	2.1%	405	1.6%
Retail trade	1,088	9.8%	4,562	11.3%	3,346	12.9%
Transportation and	450	4.1%	1,881	4.7%	626	2.4%

**Town of Shenandoah: Comprehensive Plan 2022**

warehousing, and utilities						
Information	73	0.7%	361	0.9%	398	1.5%
Finance and insurance, and real estate and rental and leasing	605	5.5%	1,403	3.5%	805	3.1%
Professional, scientific, and management, and administrative and waste management services	722	7.0%	2,759	6.9%	2,105	8.1%
Educational services, and health care and social assistance	2,307	20.8%	10,206	25.4%	6,934	26.7%
Arts, entertainment, and recreation, and accommodation and food services	1,216	11.0%	3,330	8.3%	3,899	15.0%
Other services, except public administration	661	6.0%	2,706	6.73%	1,326	5.1%
Public administration	735	6.6%	1,422	3.5%	559	2.2%
Civilian employed population 16 years and over	10,882	100.0%	40,205	100.0%	25,962	100.0%

*Source: U.S. Census, NSVRC*

The above employment figures do not reveal the role of tourism in the regional economy. Tourism-related employment is reflected in various subcategories of trade and services employment, such as Retail Trade and Arts, Entertainment, and Recreation, and Accommodation and Food Services.

Tourism is one of the most important economic drivers in Page County and the Shenandoah Valley. Page County was recognized in 2009 as the “Cabin Capital of Virginia,” with over 250 recreation cabins for those persons looking for rural charm and a playground for outdoor adventure. Currently, the Town of Shenandoah has 16 vacation rentals.

Recreation and scenery are among the most important reasons for visiting. Skyline Drive and the Blue Ridge Mountains are the dominant visitor attractions; historic features and natural features such as Luray Caverns are also important to the local tourism industry. In general, visitors seek to experience the rural, historical setting unique to the Shenandoah Valley.

In a 2021 spending and economic impact report, the Virginia Tourism Corporation reported that domestic travelers to Page County spent \$111.1M generating \$5.8M in local tax receipts which equates

to \$29.9M in direct labor income. In the same report, visitors to Page County spent \$43.9M on lodging, \$23.3M on recreation, \$18.0M on retail, \$14.4M on food and beverage, and \$11.4M on transport.

Recent Trends

From 2010 to 2020 the Manufacturing; Educational Services and Healthcare; and Professional, services industries accounted for the highest growth by employment with employment increases of 528, 356, and 194 respectively. The Information sector grew fastest by rate of change, at 65.9% in 10 years. Both Tourism related industries Retail Trade and Arts, Entertainment, and Recreation as well as Construction declined by employment since 2021, though they remain in the top employment industries for the County. Employment in Wholesale Trade decreased by 196 or 58.2%. (See Table 4-C below).

**Table 4-C: Non-Farm Employment Trend Page County: 2000-2010**

INDUSTRY	2010		2020		Change2010-2020	Percent Change 2010-2020
Agriculture, forestry, fishing and hunting, and mining	142	1.3%	177	1.6%	35	24.6%
Construction	1,812	16.7%	1,171	10.6%	-642	-35.4%
Manufacturing	1,139	10.5%	1,697	15.3%	528	48.9%
Wholesale trade	337	3.1%	141	1.3%	-196	-58.2%
Retail trade	1,160	10.7%	1,088	9.8%	-72	-6.2%
Transportation and warehousing, and utilities	460	4.2%	450	4.1%	-10	-2.7%
Information	44	0.4%	73	0.7%	29	65.9%
Finance, insurance, real estate, and rental and leasing	597	5.5%	605	5.5%	8	1.3%
Professional, scientific, management, administrative, and waste management services	578	5.3%	772	7.0%	194	33.5%



Educational, health and social services	1,951	18.0%	2,307	20.8%	356	22.4%
Arts, entertainment, recreation, accommodation and food services	1,345	12.4%	1,216	11.0%	-129	-9.6%
Other services (except public administration)	597	5.5%	661	6.0%	64	10.7%
Public administration	693	6.4%	735	6.6%	42	6.0%

Source: 2020 ACS 5-year, NSVRC

### Labor/Employment

Unemployment is generally higher in Page County than in any of its surrounding counties. However, as shown in Table 4-D below, average unemployment as measured by the ACS 5-year estimates for 2020, was 3.1% in Page County, as compared to approximately 2.8 in Harrisonburg and 2.0% in Rockingham County the Page County seasonally adjusted unemployment rate has steadily declined over the last 10 years. Page County’s employed population has increased by 4% in the last 10 years.

James Madison University and College of Integrated Science & Technology in particular, generate qualified labor for professional and high technology-related jobs, and thus provide the Shenandoah Valley region with an important asset in the development of new high technology and other businesses. The Luray Page campus of Laurel Ridge Community College also contributes to the work-readiness of Page County.

**Table 4-D: Employment Statistics: Selected Areas**

	Page County		Rockingham County		Harrisonburg	
	Estimate	Percent	Estimate	Percent	Estimate	Percent
Employed	11,093	56.6%	40,205	61.5%	25,962	56.8%
Unemployed	613	3.1%	1,293	2.0%	1,293	2.8%
Armed Forces	6	0.0%	21	0.0%	103	0.2%
Not in labor force	7,878	40.2%	23803	36.4%	18,390	40.2%

Source: ACS 5-year Estimates, 2020

Shenandoah/Page County Internal Trends

Despite the importance of tourism in the Shenandoah Valley, Page County has not achieved a level of success equal to that achieved in other parts of the Valley.

In the Town of Shenandoah, retail sales have increased from approximately \$62,296 in 2000 to \$82,574 in 2012. In general, the figures in Table 4-E show that retail sales are highest in the summer and fall, and lowest from January through May. This reflects an influx of spending from summer and fall visitors to the area; the winter ski season has not generated comparable visitor spending in Shenandoah. This is attributable in large part to the destination/activity orientation of the skier-visitor, as opposed to the more varied agenda for summer and autumn visitors.

**Table 4-E Retail Sales Tax Receipts: 2012-2021**

<b>MONTHS</b>	<b>2012</b>	<b>2015</b>	<b>2018</b>	<b>2021</b>
JANUARY	\$ 5,788	\$5,923	\$7,093	\$10,010
FEBRUARY	\$ 6,210	\$6,174	\$7,609	\$9,417
MARCH	\$ 4,570	\$7,997	\$9,119	\$13,236
APRIL	\$ 4,606	\$8,178	\$9,135	\$13,697
MAY	\$ 5,790	\$9,085	\$10,839	\$13,883
JUNE	\$ 6,015	\$10,630	\$11,234	\$15,168
JULY	\$ 6,397	\$10,249	\$11,346	\$14,961
AUGUST	\$ 7,264	\$9,643	\$10,469	\$13,798
SEPTEMBER	\$ 7,007	\$9,713	\$10,359	\$14,375
OCTOBER	\$ 10,321	\$9,321	\$9,952	\$14,901
NOVEMBER	\$ 10,397	\$8,245	\$9,302	\$12,645
DECEMBER	\$ 8,209	\$8,730	\$9,090	\$14,375

TOTAL	\$	\$103,887	\$115,546	\$160,466
	82,574			

*Source: Town of Shenandoah, Department of Finance, 2022*

Key Factors for Future Growth

Important influences on future economic development prospects in Shenandoah include:

*Growth in the City of Harrisonburg*

Notwithstanding Shenandoah’s location in Page County, the independent City of Harrisonburg and Rockingham County exert an important influence on Shenandoah’s economy. Growth in these jurisdictions can provide a broad range of benefits to economic development in Shenandoah. These include:

The overall region’s viability as a location for relocating or expanding companies;  
 Shenandoah’s viability as a location for companies seeking proximity to an urban growth center of increasing stature and significance;

- Increased regional visibility as more business travelers visit Harrisonburg and Rockingham County;
- Increased visitor traffic, as more visitors visit friends and family locating in Harrisonburg and Rockingham County;
- Increased markets for high end homes in rural settings; and
- Increased markets for unique retail establishments in Shenandoah.

The 2010 census reveals that Shenandoah has achieved a more rapid growth rate than Page County, Harrisonburg, and Rockingham County. This is partially due to the annexation of roughly 500 acres by the Town of Shenandoah. At the same time, employment growth in these jurisdictions has occurred at an annualized rate of 3.5 %, adding nearly 11,000 jobs. In comparison, in recent years Page County employment has declined (see Table 4-C page 40).

Located in Harrisonburg, James Madison University is a nationally prominent four-year university offering a comprehensive range of undergraduate and graduate degree programs. Recent growth has increased student enrollment from approximately 14,800 in the fall of 1999 to nearly 18,107 in the fall of 2012. During this same period, instructional faculty has increased from 857 to 1,274.

An important aspect of this growth has been the creation and growth of the College of Integrated Science and Technology (CISAT), created in 1992, which currently offers degree programs in various technical and scientific disciplines and continues to expand and improve its programs, facilities, and enrollment.

James Madison University and the College of Integrated Science & Technology in particular, generate qualified labor for professional and high technology-related jobs, and thus provide the Shenandoah Valley region with an important asset in the development of new high technology and other businesses.

### *High Technology Growth*

The Northern Virginia region, comprising the counties West and South of Washington, D.C., has experienced rapid growth in high-technology employment. Private-sector companies engaged in telecommunications and other high-technology sectors have grown at explosive rates, fueling proliferations of new companies to the area. As this growth continues, high-technology companies have begun to encounter labor scarcities (recent articles in the Washington Business Journal have cited a range of 23,000 to 25,000 unfilled high-technology related jobs in Northern Virginia). As such companies explore further expansion alternatives, they will increasingly seek: (1) access to available labor and labor training resources; (2) relief from high property costs; and (3) high quality of life amenities, and (4) relief from mounting traffic congestion problems in Northern Virginia. Overall, continuing high-technology-driven growth in neighboring Northern Virginia will produce two positive impacts on communities in the Shenandoah Valley region:

- A need for labor, new facilities, and relatively inexpensive land.
- Increased tourism for the Shenandoah Valley.

In recent years, the City of Harrisonburg has experienced growth in high technology employment. Companies have noted that their reasons for locating to the area are the availability of a highly skilled and professional workforce, James Madison University, affordable labor rates, and a climate for technical innovation.

The availability of high-speed wireless broadband internet service has allowed several technology companies to locate in Town. These businesses have expanded over the last several years. Additionally, since late-2012, the Town of Shenandoah has been served by the Page County Broadband Authority (PCBA) which installed microwave and fiber-optic high-speed broadband internet infrastructure connecting. The network provides interconnection points at the Shenandoah Water Tank for local internet service providers to support commercial and residential needs.

### Opportunities and Constraints

#### *Assets and Opportunities*

Summarizing the above findings, the primary assets in attracting economic growth to Shenandoah include:

- The Town's HUBZone status and the large Enterprise Zone.

- The Town's location along U.S. Highway 340. While this does not provide the higher traffic volume of an interstate highway, it attracts visitors seeking historic, scenic and recreational experiences. Additionally, the Town is only a short drive to Interstate 81.
- The profile of regional visitors, who seek exposure to a variety of attractions and the rural character of the Shenandoah Valley, as opposed to any single destination;
- The existing downtown area street grid, which offers the potential to recreate a historic and scenic setting, as well as linkages to the South Fork of the Shenandoah River and the River Park landing area;
- Proximity to a wide variety of attractions, as discussed in Section II.A.
- The Shenandoah name, which provides easy identification with an image, and which may in and of itself attract visitors;
- Proximity to Cities of Harrisonburg, Charlottesville, Richmond, and James Madison University;
- Proximity to Northern Virginia;
- Access to an existing network high-technology-related businesses and resources through the Shenandoah Valley Technology Council, the Virginia Center for Innovative Technology, and the Virginia Technology Council.

### Targeted Opportunities

#### *Tourism*

Shenandoah offers the potential for small-scale tourism development. This potential rests on the strengths of the regional tourism market; the profile of regional visitors, who seek to experience the ambiance of the Shenandoah Valley and do not seek mainstream commercial offerings; and the town's potential to provide a historic, quaint, and scenic downtown setting. The types of tourism-related businesses that could thrive and capitalize on the downtown district would include:

- Retail boutiques, typically occupying smaller (500 - 3,000 square feet.) spaces.
- Independent restaurants and taverns.

- New establishments will draw support from local patrons as well as visitors. Applying conservative estimates under current conditions, downtown Shenandoah is able to support at least 20,000 square feet of new restaurant/bar space. While some larger restaurants contain this much space by themselves, in Shenandoah, this might comprise up to five smaller establishments in the downtown blocks.
- Shops offering antiques, art, and/or handcrafted products relating to the area's heritage;
- Lodging facilities such as B & Bs and/or guesthouses reflecting the area's historic, small-town atmosphere.

### *High Technology-Related Businesses*

The Town offers long-term potential for high technology-related business development. Additional potential rests upon:

- Technology-related growth at JMU, which will provide (1) technologically proficient labor resources for nearby businesses; and (2) research activity which can lead to new business development;
- Proximity to the burgeoning Northern Virginia region, where high technology companies may (1) seek new satellite locations; and (2) suffer from a lack of skilled labor;
- The continued availability of high-speed broadband internet service;
- The existing regional network of organizations seeking to promote high technology development in the Shenandoah Valley.

Based on the strengths of these assets, the Town can provide locations for various technology-related businesses, including:

- Secondary satellite office locations for expanding companies located in Northern Virginia, seeking access to labor, inexpensive land, and high quality of land.
- New companies started by professors and former students from James Madison University;
- Other miscellaneous startup and relocating companies seeking access to various combinations of the above assets.

### *Big Gem Cast Iron Furnace Site*

The site of the former Big Gem Cast Iron Furnace offers a 68-acre site to the east of River Park. Although this site is not currently linked directly to the River Park or to downtown, the Town has started development of various amenities which will appeal to visitors as well as local and regional users. Physical redevelopment and on-site progress to date include the excavation and seeding of the "Phase One" area around the Big Gem Pond, resolution of pond circulation and drainage issues, construction of a retaining wall, gazebo, large shelter, and picnic tables, the installation of electrical service and a fountain, and the clearing of significant areas of the park for recreational use. Also, the addition of two (2) playgrounds, and hiking and mountain bike trails and the area for a baseball field has been cleared. Future amenities might include an ADA trail, recreational uses, historical exhibits, and other publicly or privately operated improvements (amphitheaters, new lodging facilities, etc.).

At this time, the Big Gem site provides major development opportunities for recreational and historical purposes. Future plans include trying to combine the site with other parcels connecting to downtown or the River Park area.

### Constraints

#### *Previous Aesthetic Issues and Marketing*

Aesthetic issues were one of the primary barriers to reinvestment in Shenandoah. The downtown buildings now feature renovated facades, the street offers many visual and streetscape amenities, and the downtown area now offers linkage to the nearby riverfront park and landing area.

Aesthetics is no longer an issue for existing buildings. However, two fires have created vacant lots with aesthetic issues. The downtown area was depressed for an extended time period and the Town is finding it difficult to find parties willing to invest in the local environment.

Marketing of the downtown commercial district is being accomplished through advertisements on the Town website ([www.townofshenandoah.com](http://www.townofshenandoah.com)) and in the Massanutten Vacationer and Villager publications. However, additional marketing efforts are needed to attract prospective businesses.

#### *Visibility*

As drawback to visibility, downtown Shenandoah is located off Highway 602, and is not visible or apparent to traffic passing on Highway 340. Consequently, many businesses seeking to capture visitor traffic would find the 340/602 intersection preferable to a location in downtown Shenandoah, although signs have been installed to direct tourist and traffic to the downtown area.

#### *Telecommunications Bandwidth Issue*

Businesses involved in the development and/or use of new technologies depend increasingly on access to high capacity “broadband” communications infrastructure. While specific bandwidth requirements depend on the volume and character of data transmission needs, the un-enhanced copper wires designed to serve conventional telephone services will eventually constrain the Town’s potential to attract companies transmitting significant volumes of data.

In addressing this issue, the Town partnered with High Speed Link to install a wireless broadband system that compares to DSL/cable services. This service must be enhanced over time in order to stay competitive with the latest technology. Additionally, since late 2012, the Town of Shenandoah has been served by the Page County Broadband Authority (PCBA) which installed microwave and fiber-optic high-speed broadband internet infrastructure connection. The network provides interconnection points at the Shenandoah Water Tank for local internet service providers to support commercial and residential needs.

### *Land Availability*

The Town currently has available land for the development of large industrial uses. This enhances the Town’s ability to attract new companies that require (or may eventually require) production plants of any substantial size.

The Town completed a boundary line adjustment in 2007, bringing in additional acreage which might be suitable for future industry of substantial size. The Town approved zoning changes for the newly incorporated areas, which includes this large tract of land now zoned Industrial.

### Implementation Strategy

#### *Strategic Measures*

##### 1. Focus on Downtown

The Town has focused its initial development opportunities on its historic downtown commercial area. This area offers the most likely location where new businesses can locate in physical proximity to one another. In addition, the downtown area can provide a historic downtown setting with a unique atmosphere. This gives the Town its strongest asset; in order to realize its potential to attract regional visitors and new businesses, the Town should focus on its downtown. This area also is included in the Town wide HUBZone and the large Enterprise Zone. Additional marketing efforts should be undertaken to gain access to potential businesses.

##### 2. Aesthetic Improvements



Downtown Shenandoah has improved its aesthetic environment. Targeted aesthetic amenities of greatest importance fall into the following categories:

- Streetscape amenities: planters, benches, lighting fixtures, etc., are now in place;
- Building improvements: businesses should be encouraged to maintain facade improvements, sign improvements, etc.;
- Linkage to nearby riverfront areas, which can provide an important asset should be marketed more often;
- Residential improvements – owners encouraged to maintain house, sidewalk, and yards.

### 3. Linkage to Shenandoah River Waterfront Amenity

As mentioned above, the Shenandoah River gives the Town one of its strongest assets, providing a landing area for boating and water sports and an ideal location for picnics. Improved amenities and enhancement of current link to downtown will enable the Town to provide an experience that combines recreation (boating, picnics, etc.) with downtown shopping/dining.

### 4. Access and Signage

The Town must promote the viability of its potential by enhancing visibility and ease of access to its downtown area. Visitors traveling along Highway 340 must be made aware of the downtown district and directed to the district through welcoming routes. In facilitating access and awareness, the Town must implement signs and logos, possibly including a small monument or other marker in a landscaped welcoming area, so as to create a sense of “arrival.” While this sense of place will be more easily established as downtown begins to attract new business activity, the Town should provide these improvements as an initial step in new downtown business recruitment. (Note: Small signs have been erected at several intersections directing visitors to the downtown area.)

### 5. Collective Marketing/Business Organization

Until new businesses begin to locate in downtown, marketing efforts should focus on the preceding steps as methods for improving the downtown business environment. As new business open the Town should help them create (and fund) an organization that can function as a collective marketing entity as well as a unified representative.

Rather than having individual business to fully incur their own advertising costs, a collective effort can effectively publicize recent improvements, recognize new businesses, promote the evolving downtown image, and advertise new and existing businesses. Such programs should include:

- Seasonal and/or festive events (contests, fairs, parades, outdoor concerts, etc.);

- Brochures/pamphlets to be displayed at nearby attractions, strategically located visitor centers, and local offices;
- Web page displays, which provide regional information, are very important such as [www.TownOfShenandoah.com](http://www.TownOfShenandoah.com).

### Regulatory Issues

In seeking to promote a historical ambiance in its downtown, the Town must seek not only to promote certain types of establishments, but also to exclude other businesses that would compromise the desired atmosphere. For example, uses involving fast food or outdoor storage of industrial equipment or parts would detract from the desired image and compromise the potential for either tourism-related or high-technology development. Also, new buildings that block views of mountain scenery, one of the downtown area's attractive features. Rather than promoting all types of new businesses, the Town must consider changes to its land development regulations that would restrict approvals of new developments that would be incompatible with the promotion of a historic, attractive, and visitor-friendly downtown area. Such changes can be addressed through zoning conditional use provisions, subdivision regulations, or design standards that seek to regulate permissible uses, operations, or building features.

### Public Assistance Programs

In addition to improvements in the physical environment, private businesses and investors facing a range of other investment options will seek financial advantages in prospective location or investment decisions. The Town can provide these in various forms.

#### 1. Overlay District

With the assistance of the Page County Economic Development Department, the Town developed special overlay zones or districts (specifically named the HUBZone and Enterprise Zone), which offer unique guidelines, incentives, assistance programs, and other benefits. In practice, these various types of benefits required separate enactments; the general idea was to create a common physical delineation and economic objective for each incentive, guideline, or other measure. The entire Town is located within a HUBZone, which provides many incentives for businesses and industry. Also, the Town now has a large Enterprise Zone offering even more incentives for existing and perspective businesses or industry.

The Town could also consider creating a Technology Zone, pursuant to Code of Virginia, Section 58.1-3850, which essentially offers tax incentives and revised land development regulations and procedures. Within this same zone, other non-technology related businesses could also be eligible for specified incentives.

While tax incentives need not play a central role in attracting new business, within the zones the Town may consider various public incentives involving fee reductions, land price reductions, local grants, and other such incentives permitted by Virginia law.

## 2. Capital Assistance: Revolving Loan Fund

The Town should establish a revolving loan fund program, administered by a duly authorized public or quasi-public agency in cooperation with local banks, to assist prospective businesses and property owners with capital investments in downtown properties. In addition to general business startup costs, such loans should be available to existing property owners for façade improvements and other improvements that would improve the downtown area's aesthetic appearance and marketability.

## 3. Capital Assistance: Loan Guarantee/Credit Enhancement Programs

In relatively untested markets such as downtown Shenandoah, lending institutions may seek enhanced security for prospective loans. Duly authorized public agencies can organize funding mechanisms to guarantee conventionally financed loans, either partially or in their entirety. In a hypothetical example, the public agency might pledge funds to guarantee 75 % of loans issued by a local bank. Depending on a variety of factors, the bank would require the agency to reserve only a certain specified percentage of the total loans. Given a reserve requirement of 33 %, the agency in this example could use \$100,000 to guarantee \$300,000 in loans, which would insure \$400,000 of capital. This sort of loan guarantee program can significantly improve an investor's ability to obtain private financing for a new business or renovation project. Where such guarantees are available, private lenders can guarantee their repayments. As a result, loan guarantee programs often result in below-market interest rates, further enhancing the investor's opportunity.

## 4. Technical Business Assistance

In many cases, technical assistance programs can be more efficient and more effective than programs that simply make money available. In creating a technical business assistance program, the Town should begin by identifying resources of expertise, which could include JMU faculty, local bank officers, corporate attorneys, and other persons with business, financing, technological, or other relevant areas of expertise.

Based on discussions with potentially interested parties, the Town will be able to refine its understanding of important issues and identify the extent of resources that may be available. Working with this understanding, the Town can then identify possible lecture series, seminar programs, and other targeted projects. At this point, the Town should also explore ideas for issues such as: responsibility for administering the assistance program; creation of literature; creation of a business resource library; program office locations (possibly in a business incubator facility); possible programs involving local banks; and strategies for advertising the availability of the program.

## 5. Tax Abatement

Tax abatement programs can help attract developers and tenants by relieving ongoing tax burdens. Under a tax abatement program, the value of new construction is phased in over time with properties assessed at progressively increasing fractions of their actual value so that property owners do not bear the full burden of their newly created property values for a number of years. These measures provide cost benefits that can be passed along to tenants, and often contribute to tenant relocation decisions. This type of program was implemented in Shenandoah for the First Street District, as it provided an effective stimulus to new investment. The Enterprise Zone area also includes tax abatement incentives.

It must be noted that tax abatement programs are not compatible with tax increment financing (TIF) programs. TIF programs create a funding mechanism, as provided in Virginia's tax increment finance provisions. In general, this type of program requires the designation of a special district, a finding of blight in the district, and the preparation of a redevelopment plan. Property taxes within the district are then "frozen" at a base year level. In subsequent years, as property values appreciate and improvements are made, the property taxes in excess of the base year level—the "increment"—are paid into a special fund (with the base year amount paid into the general fund). This fund is earmarked to either: (1) fund public improvement or redevelopment costs in the district, or (2) repay TIF bonds issued to fund such costs. Since TIF programs depend upon a property tax increment (in excess of the base-year level) for funding, they cannot operate in concert with a tax abatement plan, which essentially waives the payment of the increment.

### Public Funding Issues and Mechanisms

Any strategic steps involving physical improvements and/or new programs will incur costs for design, construction, maintenance, additional public staff, program administration, etc. Potential public funding sources for these costs include contributions from regional jurisdictions and agencies (e.g., Page County, Shenandoah Valley Technology Council, etc.), local bond issues and grants from state or federal government agencies.

Local bond issues might include:

- General obligation (GO) bonds, issued by the Town; or
- Industrial development bonds.

In comparing these various funding sources, the GO bonds are the simplest type of instrument, backed by the full faith and credit of the issuing jurisdictions.

Industrial Development bonds, on the other hand, are issued by an independent Industrial Development Authority (IDA) and repaid from the stream of revenues generated by the bond-financed facility. IDAs can provide effective economic development agencies. IDAs operate independently of elected political bodies. They are empowered to issue tax-exempt bonds and to acquire, own, develop, lease, manage, and dispose of properties for a broad range of private business-related uses. *Virginia Statutes, Section 15.2-4900 et seq.* In order to operate effectively, however, IDAs require staff. Funding to support this can be provided by either: fees, calculated at up to 1/8 of 1percent of the face value of its bond issues; or allocations from the Town and/or County.

## Chapter 5: Population and Demographics

### Introduction

The Comprehensive Plan is designed to be a guide for development and must measure community needs. Decisions concerning these needs are dependent on the number and characteristics of the people to be served. Therefore, a study of population is essential to the planning process.

This chapter will discuss the past trends and present characteristics of the Town of Shenandoah’s population. These trends will be related to the population trends and characteristics of Page County and the area surrounding Shenandoah. The population of Shenandoah will be projected to the year 2050 (as shown on Table 5-B). Because population projections are necessarily based on assumptions about the factors affecting population, projections are subject to significant error. Even with significant error factored into the projections, they are developed as carefully as possible and serve as useful planning tools.

### Historical Trends to Present Population

The Town of Shenandoah has experienced periods of growth and decline in its population throughout its history. These fluctuations are demonstrated in Table 5-A on page 4-2. Between 1970 and 1990, Shenandoah’s population increased by 499 people from 1,714 to 2,213. In the census of 2000, Shenandoah’s population decreased by 335 people to 1,878. The new count showed the 1990 Census was wrong. The 2000 Census was correct. Therefore, an appeal was not necessary, as it was too late for a 1990 Census appeal. The 2020 Census indicates a town population of 2,486, increasing 4.7% from 2,373 in 2010. Age and Sex data are not available from the Decennial Census for 2020. For all data relating to age and sex, the American Community Survey (ACS) for 2020 was used. The ACS 2020 estimates a population of 2,897 +/- 322.

Since the 1930s, the relatively wide fluctuations in the Town and County growth rates have reflected the region’s sensitivity to changes in national economy and a steady decline in household size throughout the country. Shenandoah has a history of having to reinvent itself because of trends occurring throughout the nation at the times of their rise and decline.

**Table 5-A: Historical Rates of Growth**

<b>Shenandoah and Page County</b>					
<b>Year</b>	<b>Shenandoah</b>	<b>(% Change)</b>	<b>Page County</b>	<b>(% Change)</b>	<b>Town’s % of County’s Pop.</b>
1930	1,980	-	14,852	-	13.3
1940	1,829	-7.6	14,863	+0.1	12.3

**Town of Shenandoah: Comprehensive Plan 2022**

1950	1,903	+4.0	15,152	+1.9	12.6
1960	1,839	-3.4	15,572	+2.8	11.8
1970	1,714	-6.8	16,581	+6.5	10.3
1980	1,861	+8.6	19,401	+17.0	9.6
1990	2,213	+18.9	21,690	+11.8	10.2
2000	1,878	-15.1	23,177	+6.9	8.1
2010	2,373*	+26.4	24,042	+3.7	9.9
2020	2,486	+4.7	23,709	-1.4	10.5%

*Source: U.S. Census, NSVRC*

\*(increase partially due to BLA, effective January 1, 2007)

Population Characteristics

Shenandoah is densely populated within the corporate limits. The 2020 population count of 2,486 is distributed on 1,365 acres, resulting in a density of 1.82 persons per acre. For the County, a population of 23,709 is distributed on 195,703 acres, resulting in a density of 0.121 persons per acre. In other words, Shenandoah’s population density is approximately 15 times that of the County as a whole.

Table 5-B displays the distribution of population by age group for 2010 and 2020. During this period, Shenandoah experienced a slight decrease in nine out of the seventeen different age categories. Nevertheless, Shenandoah expects to grow in the future through the development of planned subdivisions and utility extensions.

Shenandoah’s median age remained lower than Page County’s between 2010 and 2020, as shown in Table 5-C. In fact, Shenandoah’s median age decreased from 38.8 years to 30.8 years. The largest age group in Shenandoah is 25-29, at 15.5% of the population. The male population increased more than female population from 2010 to 2020 and account for 53.6% of the population surpassing females in the last ten years.

**Table 5-B: Age and Sex Distribution, 2020 & 2010; Median Age, 2000 & 2010**

Age Group	2020		2010	
	Number	% Of Total	Number	% Of Total
Under 5 years	173	6.0%	161	6.8%
5 to 9 years	200	6.9%	175	7.4%
10 to 14 years	258	8.9%	151	6.4%
15 to 19 years	228	7.9%	138	5.8%

**Town of Shenandoah: Comprehensive Plan 2022**

20 to 24 years	101	3.5%	141	5.9%
25 to 29 years	450	15.5%	146	6.2%
30 to 34 years	136	4.7%	153	6.4%
35 to 39 years	175	6.0%	160	6.7%
40 to 44 years	148	5.1%	159	6.7%
45 to 49 years	196	6.8%	157	6.6%
50 to 54 years	167	5.8%	165	7.0%
55 to 59 years	113	3.9%	160	6.7%
60 to 64 years	105	3.6%	149	6.3%
65 to 69 years	168	5.8%	99	4.2%
70 to 74 years	81	2.8%	88	3.7%
75 to 79 years	68	2.3%	72	3.0%
80 to 84 years	100	3.5%	57	2.4%
85 years and over	30	1.0	42	1.8%
<b>Year</b>	<b>Shenandoah</b>			<b>Page County</b>
2010	38.8			42.443
2020	30.8			45.3
<b>Year</b>	<b>Male</b>		<b>Female</b>	
2010	1,182		1,241	
2020	1,522		1,375	

*Source: ACS 5-year estimates, 2020, NSVRC*

Household size in Shenandoah increased from 2.45 to 2.73 from 2010-2020. Household size in Page County and Virginia also saw modest increases.

**Table 5-C: Household Size, 2000, 2010, 2020**

<b>Year</b>	<b>Shenandoah</b>	<b>Page Co.</b>	<b>Virginia</b>
2000	2.46	2.46	2.54
2010	2.45	2.45	2.54
2020	2.73	2.51	2.6

*Source: 2020 ACS 5-year*

Shenandoah also follows the pattern of Page County with regard to the racial composition of its population. Compared to Virginia, there are a very small percentage of non-whites in the Town, and



slightly more than in the County. This is a long-standing trend for most of the rural portions of the Shenandoah Valley.

**Table 5-D: Racial Composition**

<b>Year</b>	<b>Race</b>	<b>Shenandoah</b>	<b>Page Co.</b>	<b>Virginia</b>
2000	% White	96.8	96.3	72.3
	% Non-White	3.2	3.7	22.6
2010	% White	96.3	95.9	68.6
	% Non-White	3.7	4.1	31.4
2020	% White	92.8	92.9	60.3
	% Non-White	7.2	7.1	39.7

*Source: 2020 U.S. Census, NSVRC*

Projections

The future population projection is an indicator of the Town’s growth potential. The size, type and number of community facilities that should be made available, as well as the potential for industrial, commercial, and residential expansion, are related to future population estimates. Population projections are based on an analysis of past trends and present development and are forecasted out for 50 years. With a relatively small population, unforeseeable events could greatly alter the projections. The establishment or closing of a large industry in or around Shenandoah is an example of such an unexpected event.

The population forecast is also predicated on the assumption that a stable economic and political condition will exist, that no major natural or man-made disasters will occur, and the present social structure will remain essentially unchanged. The estimate is also based on the Town’s current corporate boundaries.

Table 5-E contains the population projections through the year 2040. The Northern Shenandoah Valley Regional Commission provided the projections for Shenandoah. The Weldon Cooper Center for Public Service provided projections for Page County’s population. The Northern Shenandoah Valley Regional Commission derived the projections for Shenandoah by using the average of the percentage of the Town’s population compared to the total population of Page County over the last four decades, which amounted to 9.45 percent. The figures in Table 5-E estimate that Page County’s population will increase by 11.1% and Shenandoah’s population by 6.4%% over a 30 year period.

**Table 5-E: Population Projections**

	<b>2010</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>
Shenandoah	2,373	2,362*	2,447*	2,525*
Page County	24,042	24,995	25,895	26,716

*Source: U.S. Census; Weldon Cooper Center for Public Service; NSVRC*

\*Projections are based on current town’s percentage of county’s population – 9.9%

## Chapter 6: Housing

### Introduction

Housing is a critical issue for any municipality that is planning for its future. The demand for housing is constantly changing and can be influenced by a number of factors such as needs of residents and the actions of local government. Therefore, proper planning is essential to adequately meet a community's housing needs.

The objective of this chapter is to identify the housing needs of the current and prospective population and recommend strategies to meet those needs while ensuring a choice of housing types and locations. This objective is accomplished by analyzing housing data provided by the 2020 American Community Survey 5 year Estimates, and making projections of future needs and devising a strategy to meet Shenandoah's future housing needs.

\*Note- while occupancy data are available from the 2020 Decennial Census, unit data is not. For that reason, the 2020 ACS was used to compile data for this section.

### Housing Stock

According to ACS 2020, Shenandoah has a total of 1,150 housing units, including 1,063 occupied units and 87 vacant units. The vacancy rate is 7.5%. The housing stock within the corporate limits consists primarily of single-family, detached and owner-occupied homes. Renter occupied homes increased by 26.5% from 2010 to 2020 while owner occupied homes increased only 3.3%. This trend follows the development of duplex and multi-family units increasing by 35.6%. Single family units increased modestly by 3.0% between 2010 and 2020. The number of mobile homes decreased from 43 to 28 from 2010 to 2020.

Although Shenandoah's housing stock is generally well maintained, a number of properties, particularly a concentration in the downtown area between U.S. Highway 340 from Maryland Avenue to Junior Avenue and the railroad tracks on the First Street, require attention.

Public sewer serves almost all houses in Shenandoah. Only a small percentage of homes in the Town are served by septic systems.

The Census Bureau measures adequacy of the housing stock only indirectly. The two most common indicators of a substandard unit are overcrowding (defined as 1.01 or more persons per room) and a lack of complete plumbing facilities for exclusive use of the household.

Through the Town's assessment, there are no apparent situations of overcrowding and lack of public facilities within the rented or owned homes or residencies of Shenandoah. Because of this trend, Shenandoah is primed for growth in the years to come. The problem of declining household size will continue to be a problem, but will be addressed in the closing section of this chapter.

### Projections

The housing market must supply enough units to meet the growth in households and, in addition, provide enough surplus units to allow for an adequate vacancy rate and of replacement of the substandard or destroyed dwellings. As discussed in the Population chapter, the average household size has been declining for many years, and this trend is projected to continue.

### Vacancy Rates

An adequate vacancy rate should be maintained in the housing market to provide for movement of households and the creation of new households. Shenandoah needs to allow for transition of its residents and the movement of new residents within the Town. Therefore, it is important that the Town maintain an appropriate level of vacancy without creating an excess of empty houses. Empty houses tend to be houses that are not taken care of resulting in building deterioration and visual blight. The current homeowner vacancy is 2.9%, while the current rental vacancy rate is 18.1%.

### Replacement of Dwellings

Shenandoah's current housing stock has been depleted. Only a few homes in the downtown area are in need of rehabilitation. The Town is extending its real estate tax relief program to include portions of these areas to encourage improvements to houses in this area.

### Summary and Implementation

Shenandoah prides itself on making constant improvements. Housing throughout the community is for the most part in standard condition. Only a few areas are in need of attention and the Town is encouraging rehabilitation by providing tax incentives to property owners. Shenandoah is also making strides to increase the number and type of housing by having extended public sewer to the northern part of the Town in Eppard subdivision.

As a progressive minded small Town with a planned future, Shenandoah will carefully and thoughtfully monitor housing improvement projects over the next several years. The Town also plans to monitor its housing stock, conduct a housing survey within the Town, and ensure adequate land for development to maintain the integrity of the goals of this comprehensive plan.

## Chapter 7: Community Facilities

### Introduction

The term community facilities comprise those buildings and services necessary to provide for the *health, safety, and general welfare of the public*. These facilities include schools, police, fire and rescue services, municipal administrative facilities, water and sewer facilities, park and recreation facilities, health services, libraries, waste collection, the Post Office and other utilities. These facilities and services are supplied by three major entities in the Town of Shenandoah: the Town itself, other levels of government, and private companies and organizations.

The Town of Shenandoah provides water and sewer service, police services, general administration, and development reviews. The Town assists the Virginia Department of Transportation in maintaining the street system and providing for storm water management. It contracts for certain other services such as waste collection.

Other levels of government supply the following: The County of Page operates the school system. The County also works in conjunction with the State of Virginia to provide public health services. The Page County Broadband Authority provides broadband internet service. The State Government is responsible of a large part of the highway system and for many drainage facilities. The Post Office is the only Federal facility.

Private Utility companies provide broadband internet service, electric, gas, telephone and cable TV services.

This chapter describes the facilities and services in The Town of Shenandoah and the surrounding area. It briefly describes the history of these facilities and then analyzes their adequacy and makes recommendations for additions, extensions and the future provision of the various services.

### Town Facilities

#### *Water Supply and Distribution*

At the time of the first Comprehensive Plan in 1977 the Town received its water from the Shenandoah River. The Town now obtains water from wells. The old water treatment plant, located in the river flood plain south of Long Avenue, was built in 1906. In 1977 it was out of compliance with State Health Department Regulations. The plant sent treated water to a 500,000-gallon water tank located east of 10th Street. The peak water use was 300,000 gallons per day, which was 60% of capacity.

The Shenandoah water system is now in compliance with all regulations and uses a system of three (3) wells for the Town water supply. The numbers reflect the planning pool of five wells, two of which are not currently being used. Well #1 was not initially developed and well #4, placed into service in 1989,

was found to be contaminated with trichloroethylene (TCE) and was taken out of service. Well #1 is in the process of being developed now, and it is hoped it will be online by the end of 2022. The remaining three wells are listed below. Also on the chart is information about the two water storage tanks. In 2014, Shenandoah won first place in the state and fourth place in the nation in a water taste competition. The contest was held by the Virginia Rural Water Association.

There are more than 1050 residential, commercial and industrial connections. Total water production for the September 2021 to September 2022 period averaged 0.369 million gallons per day (mgd). See Table 7-A below for average yields for each well during this period.

**Table 7-A: Water Tank Facilities**

Wells				Tanks		
Number	Name	Date of Service	Average Yield	Service Date	Pressure Zone	Capacity
2	10th Street	1985	112gpm	1920s	Low	480,000
3	Trenton Street	1985	186gpm	NA	NA	NA
5	12th Street	1997	192gpm	1985	High	470,000

*Source: Town of Shenandoah*

The current water distribution system in some older sections of The Town of Shenandoah is marginally sized or undersized to the point that fire hydrants do not always provide adequate water to supply modern firefighting equipment. Please refer to Figure 7-A, Water Line Plan.

Conservation of the water as a natural resource and protection from future development that may impede or diminish aquifer flow continues to be a priority of the Town. Flood prevention and minimization of stormwater runoff are also goals of the Town. These goals remain consistent with and are endorsed in the 2012 Regional Northern Shenandoah Valley *Water Supply Plan (WSP)* and *Regional Northern Shenandoah Hazard Mitigation Plan*.

Outcomes of WSP pertinent to comprehensive planning in the Town of Shenandoah include:

- Provide adequate, reliable, and safe water to citizens, balancing the need for environmental protection and future growth.
- Establish a comprehensive and continuous planning process for the wise use of our water resources.

- Future development within or beyond the Town boundary will require further evaluation of the public community water system alignment with the infrastructure listed in the *Northern Shenandoah Valley Regional Water Supply Plan*.

### *Sewage Collection and Treatment*

The Town of Shenandoah is served by a secondary wastewater treatment plant, which was upgraded in 1996 from an average design flow of 0.25 MGD to 0.4 MGD with a peak design flow of 1.0 MGD. The upgraded wastewater treatment plant, which serves the entire Town, will provide both an increase in flow capacity and an improved quality of effluent.

The current average dry weather flow is about 0.18 MGD. The peak wet weather flow is at least 1.1 MGD as a result of infiltration and inflow of ground water and storm water. A partial abatement project for the I/I problem has been completed. I/I abatement projects will continue into the future. This plan will only address the expected average dry flow for the year 2025, which is approximately 0.25 MGD.

In 2012, the Town installed backup generators at the Twelfth Street well and the wastewater treatment plant, to allow for continued water and sewer services in the event of an extended power outage. In 2021, a backup generator was installed at Trenton Well and are planned for the other wells in the future.

### *Waste Collection*

The Town of Shenandoah has a municipal contract, with a private waste removal contractor, to provide weekly collection services within Town jurisdiction. The Town also sponsors a spring clean-up, using Town personnel and equipment. The Town uses the Battlecreek Landfill maintained by Page County, north of the Town along U.S. Highway 340. Currently there is not a recycling program in Shenandoah, but the Town may initiate a recycling program in the future.

### *Wastewater Collection*

The wastewater collection system serving the Town is a conventional gravity sanitary sewer system, which includes trunk sewers, collector sewers, and privately owned laterals serving each customer. Manholes spaced at frequent intervals permit access to the system for maintenance and inspection. All new and replacement lines that are installed are done so using PVC pipe. Due to the renovation in 1996, the Town is currently operating with plenty of extra volume and therefore has set up a system that will be capable of future growth without compromising its ability to operate efficiently. Please refer to Figure 7-B, Sewer Plan.

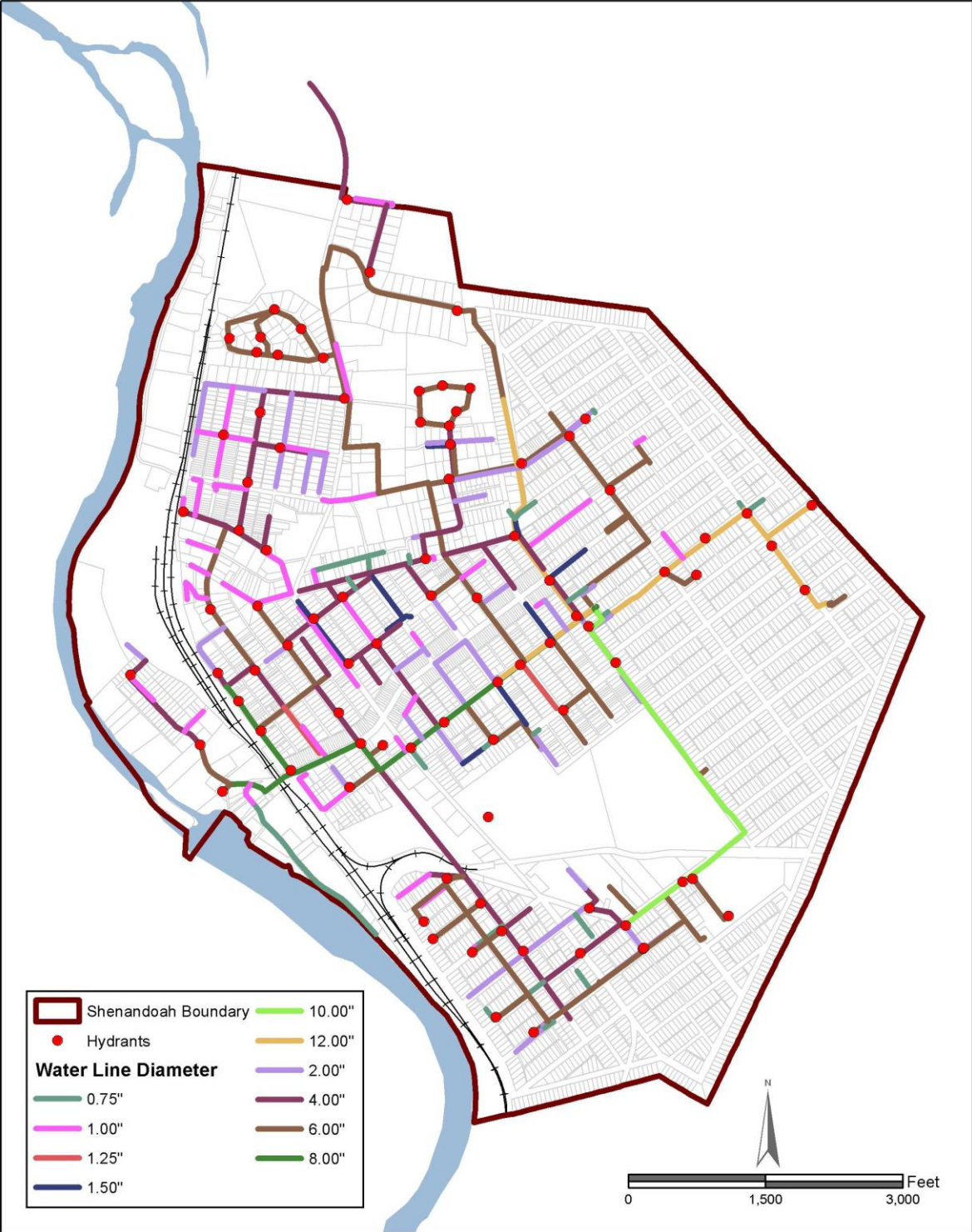
### *Stormwater Drainage*

Shenandoah provides for stormwater drainage to its residents. The stormwater system is a composite of open ditches, culverts, and underground pipes, which relieves run-off during heavy rains. The system is inspected and maintained by the Virginia Department of Transportation (VDOT) on a regular basis.



Figure 7-A

### TOWN OF SHENANDOAH WATER LINE SYSTEM



Data: Page County GIS; NSVRC

## Parks and Recreation

Shenandoah has a community center, playground and tennis courts on Railroad Avenue near the First Street Commercial District. The Shenandoah Recreation League handles most of the Town's organized recreation. The recreation league uses the fields near the VFW on Varina Street, consisting of the three diamonds for little league baseball, softball, and football programs. The Shenandoah River Park and Landing, along the banks of the Shenandoah River, is maintained jointly by the Town and the Virginia Department of Game and Inland Fisheries. Shenandoah hopes to connect the river park and the recreation area on the Big Gem tract in the future.

The Big Gem tract is a 68-acre parcel, which the Town utilizes for a multi-purpose recreation area which features hiking and biking trails, fishing, picnic areas, and special events. Some of the planned features of the park include an arboretum, ball fields, an outdoor amphitheater and service facilities such as restrooms and parking areas. A park on the Big Gem tract could be easily accessible to a number of residents living in neighboring residential areas, as well as employees working at companies in the adjacent industrial park.

In addition to the Big Gem tract, Shenandoah would also like to acquire an abandoned railroad right-of-way located adjacent to the site and the Sullivan tract on the west of the U.S. Highway 340 for recreational purposes. The abandoned railroad right of way runs five miles to the east of the Big Gem tract towards the Shenandoah National Park, and the Town would like to acquire this property and convert it into a walking/ bicycling trail. The Town hopes to acquire the Sullivan tract for additional active use recreation such as campground and to create a connection trail between the Big Gem tract and the river park.

The Town also hopes to identify and secure funding to construct a full service recreation/community center in the future to meet the growing recreation needs in Shenandoah. The Town feels this is a distinct need because of the growing Shenandoah Recreation League. The league is beginning to have difficulties finding adequate space to schedule the youth basketball recreation leagues for the younger citizens of Shenandoah. Therefore, it is with the utmost intent that the Town will begin to focus on securing enough funding to build a state of the art Recreation Facility within the near future. This facility will most likely include several basketball courts, with the possibility of racquetball courts, an indoor batting cage, and community meeting rooms that could also be used for various uses such as exercise classes, seminars, or benefits. One area that the Town might explore is working with the Page County Parks and Recreation in a collaborative effort to achieve this goal. However, with the success that the Shenandoah Recreation League has had in the recent years it would certainly be advantageous for the Town to keep a project of this nature within the corporate limits.

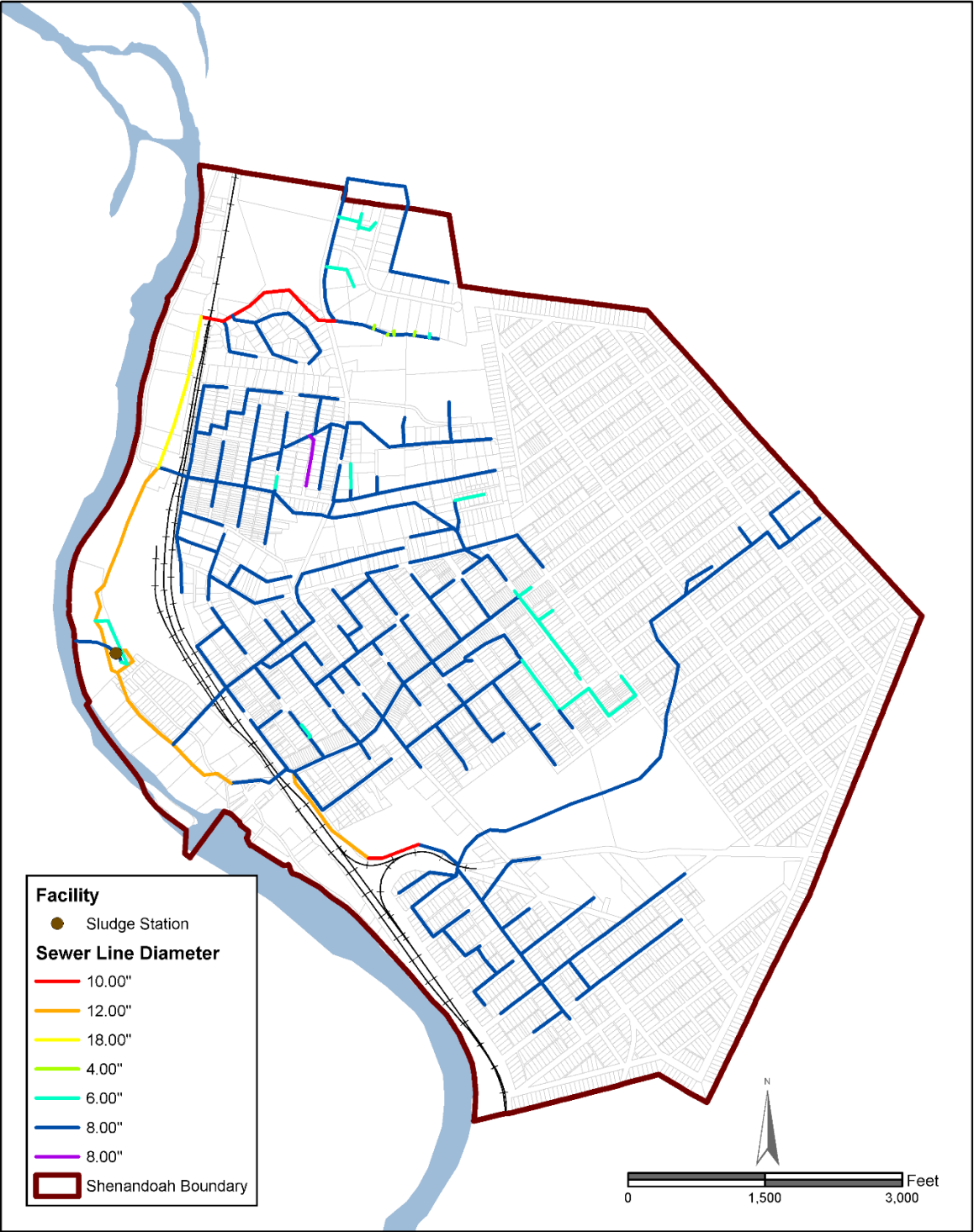
## Police Protection

Shenandoah Police Department is located within the Municipal building on Second Street provides 24-hour police protection to its citizens. A Police Chief and six other officers staff the Police Department.

Page County also has a Sheriff's Department consisting of 62 full-time deputies and 29 part-time deputies. The Sheriff's Department serves the County of Page as well as the Towns within. The Central dispatch office is located in Luray and serves as a dispatcher for all service calls in the Town. In addition to its own exclusive radio frequency, the dispatch network system includes the County Sheriff's, Town Police Departments, and the Virginia State Police. A new radio system is being implemented now to better connect all the first responding agencies.

Figure 7-B

**TOWN OF SHENANDOAH  
SEWER SYSTEM**



Data: Page County GIS; NSVRC

## Town Administration

The day-to-day operations of the Town government are handled by full-time employees, including employees working for the town administration, public works and utility plants.

The administrative staff includes the Town Manager, Assistant Town Manager, Clerk, Treasurer, Systems Manager/Deputy Treasurer and one other part-time administrative personnel. Duties include: water and sewer billings, accounts payable, accounts receivable, payroll, tax collection, zoning administration and development review, and general administration. As Shenandoah's population and land development increases, there will be a need for a Town Planner and Economic Staff to handle planning duties such as development review, zoning, and Economic Development/Tourism.

The Train Museum/Welcome Center/Covid Health Information Center located at 507 First Street is owned by the Town and is set to open in 2022. Staff will include one full-time Curator and up to three part-time employees.

Public works includes all of the utility lines outside of the water and sewer treatment plants. Public works also includes all Parks. The major street network in Shenandoah is handled by VDOT, which includes the streets, sidewalks, and the storm water drainage system. Public Works maintains several streets and all opened alleys. The Public Works staff consists of a Public Works Director and five (5) crew members.

The remaining staff consists of the Water and Wastewater Treatment Plant Chief and Operators. The main function of these employees is to manage the daily operations of the treatment plan and the well water system. They conduct routine testing and maintenance for both water and wastewater.

The Town converted the existing municipal building, a former bank, for office use in 1986.

## Schools

The Page County School Board operates all public schools within the County. Shenandoah Elementary is the only school operated within the Town. The school educates children from kindergarten through fifth grade. This school is located at Fourth Street and Maryland Avenue inside the corporate limits. The facilities include an auditorium, a library, gymnasium, cafeteria, and 21 classrooms. Grades six through eight are taught at the Page County Middle School, which is on U.S. Route 340 and about four and half miles north of Shenandoah. The new Page County High School is behind the middle school. Grades nine through twelve are taught there. Just outside the Town at the former Grove Hill Elementary School site is now used as a private school.

Higher education can be pursued at Bridgewater College in Bridgewater, Christendom College in Front Royal, Eastern Mennonite University in Harrisonburg, James Madison University in Harrisonburg,

University of Virginia in Charlottesville, Mary Baldwin University in Staunton, Blue Ridge Community College in Weyers Cave, Laurel Ridge Community College in Luray and Middletown, and Shenandoah University in Winchester.

The Page County school board has made an extensive effort to keep the schools well maintained and give students every opportunity to succeed in their academic pursuits. The Town has maintained a good working relationship with the school board and plans to continue to work towards the same goals in the years to come.

### Post Office

The Shenandoah Post Office was built in 1950 on Virginia Avenue. The current address of the Shenandoah Post Office is 206 Virginia Avenue. (Please refer to Figure 7-C, Community Facilities)

### Private Companies and Organizations

#### *Volunteer Fire Department*

The Shenandoah Volunteer Fire Department provides fire protection service in the Town of Shenandoah. The volunteer fire department is located at the corner of Second Street and Pennsylvania Avenue and is maintained by approximately forty active members and other members who participate occasionally. The fire department uses the County dispatch system provided by the sheriff's department in the Town of Luray. The fire department owns eight pieces of firefighting equipment, which are housed in a modern five bay brick firehouse. The department's equipment includes: three fire engines, one tanker/pumper truck, one emergency response vehicle, one water rescue boat w/trailer, one dive equipped trailer, and one utility truck.

Shenandoah's Fire Department serves the Town and the area of Southern Page County south of Newport. The area inside the recommended response distance covers a radius of three miles around the town, which also includes parts of eastern Rockingham County.

The Shenandoah Volunteer Fire Company is strictly maintained 100% by volunteers who desire to protect and serve the community. They rely upon fund raisers and donations to operate.

#### *Rescue Squad*

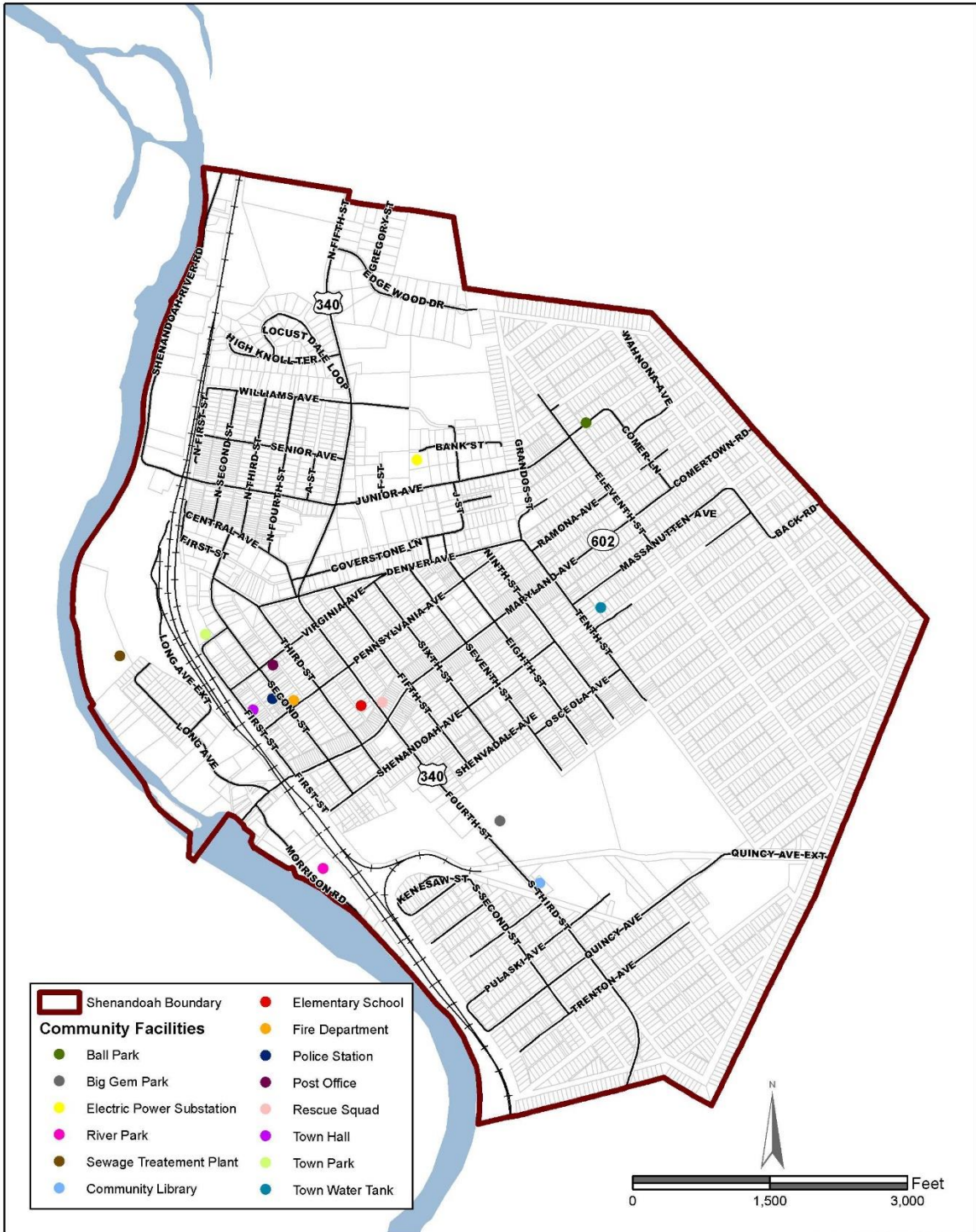
The Shenandoah Volunteer Rescue Squad operated for 53 years as 100% volunteer agency. In 2021, due to staffing issues, the volunteer squad disbanded, and the rescue services are provided by Page County EMS with paid personnel. Volunteers are still able to assist as available. Shenandoah Volunteer Fire Department also assists as EMT members are available. The rescue squad is located at Maryland Avenue and Fourth Street. This facility adequately provides space for the necessary

functions of the rescue squad. The rescue squad has five vehicle stalls, which has two Page County owned ambulances. A mutual aid agreement exists with the surrounding communities.

In the event of an emergency, patients are taken to Page Memorial Hospital in Luray or Rockingham Memorial Hospital in Harrisonburg. All of the staff are highly trained certified Emergency Medical Technicians.

Figure 7-C

**TOWN OF SHENANDOAH  
COMMUNITY FACILITIES**



Data: VDOT, NSVRC



### Library

The library within the Town is a part of the Massanutten Regional Library system. Another library in the Massanutten Regional Library system is located in Luray. The Shenandoah Community Library was recently renovated and carries approximately 8,000 volumes. The library provides five computers for public use, free WiFi, and reading programs. For a fee, the library offers copying and faxing. The library is located on U. S. Highway 340 next to the Big Gem Park.

### Electric Power, Gas, Telephone, Cable TV, Internet

Private companies provide electric power, gas, telephone, internet services, and cable television services for Shenandoah. The Shenandoah Valley Electric Cooperative supplies electric service throughout the Town and surrounding areas. Several distributors of LP gas service the Town and surrounding sections. Century Link provides local telephone service throughout Page County. Comcast Cable provides cable television service. Several vendors offer high speed internet services in Town.

### Summary

There have been many changes and improvements to the community facilities available in the Town of Shenandoah over the past few years. The Town expects its revitalization projects to generate enough revenue in the future to assist with additional upgrades and maintenance to community facilities in Shenandoah.

## Chapter 8: Transportation

The transportation system makes possible the movement of people and goods, thereby serving all community activities. Without good transportation links, the Town will likely have congested traffic, poor street patterns, and miss opportunities for growth. The capacity of the Town's transportation affects not only the quality of life for residents, but also the ability of Shenandoah to attract and retain businesses and residents.

For the purposes of this Comprehensive Plan, two separate categories of the transportation system have been considered. These categories are: roads, which provide transportation facilities for automobiles, trucks, and pedestrians; and public transportation, which includes trains, buses, and airplanes. The analysis of the road and transportation systems within the Town will be broken into these categories as well as providing the traffic counts for the roads within the Town and analysis for the future of Shenandoah's transportation system.

### Roads

The existing road system of Shenandoah contains approximately 22.96 miles of streets within the corporate limits. Almost all of the roads within the Town are now owned and maintained by the Virginia Department of Transportation (VDOT). (Please refer to Figure 8-A, Functional Road Categories).

U.S. Highway 340 is classified as a Minor Arterial road and runs directly through the Town. In roughly the center of Town, U.S. Highway 340 intersects with State Route 602, which is classified as a Major Collector road. State Route 603 from Rockingham County past Fleeburg is also a Major Collector. The remaining streets in Shenandoah are considered local roads; however, they are still managed and owned by VDOT. These roads/ streets are relatively narrow and carry a light volume of low speed traffic to adjoining areas and the Minor Collector roads and Minor Arterial road of U.S. Route 340.

**Table 8-A: Traffic Volumes**

Street/ Route	From – To	2012 Annual Average Daily Traffic (AADT)	2018 Annual Average Daily Traffic (AADT)
U.S. Route 340	Rockingham Co. Line- Junior Ave.	5,800	5,961
U.S. Route 340	Junior Ave.- Rt. 650	6,200	6,800
Maryland Ave./ Rt.602	Rockingham Co. Line - U.S. Rt.340	4,600	4,442
Maryland Ave./ Rt.602	U.S. 340 – Rt. 711	2,700	2,367
First St./ Rt. 683	Maryland Ave. – Second St.	930	818
Railroad St./ Rt. 683	Second St. – Junior Ave.	340	351 (2015)
Shenandoah River Rd. / Rt. 683	N. Second St. – NCL Shenandoah	260	363
Quincy Ave./ Rt. 704	U.S. Rt. 340 – E. Quincy Ave.	720	549 (2015)
Junior Ave./ Rt. 706	First St. – U.S. Rt. 340	210	250
Senior Ave./ Rt. 712	Second St. - U.S. Rt.340	260	240 (2015)
Williams Ave./ Rt. 729	Second St. – U.S. Rt. 340	160	187 (2015)
Williams Ave./ Rt.729	U.S. Rt. 340 – E. Williams Ave.	200	236 (2015)
Virginia Ave./ Rt. 1004	First St. – U.S. Rt. 340	1200	1,015 (2015)
Virginia Ave./ Rt. 1004	U.S. Rt. 340 – Sixth St.	620	457 (2015)
Denver Ave./ Rt.1006	Fifth St. – Tenth St.	490	354 (2015)
Pulaski Ave./ Rt. 1007	U.S. Rt. 340 – Dead End	380	306 (2015)
Pennsylvania Ave./ Rt. 1016	First St. – Second St.	280	284 (2012)
Pennsylvania Ave./ Rt. 1016	Second St. – Third St.	510	459 (2015)
Pennsylvania Ave./ Rt. 1016	Third St. – U.S. Rt. 340	770	858 (2015)

Pennsylvania Ave./ Rt. 1016	U.S. Rt. 340 – Fifth St.	370	368 (2012)
Pennsylvania Ave./ Rt. 1016	Fifth St. – Sixth St.	270	274 (2012)

*Source: Virginia Department of Transportation, 2022*

Closer examination of the data above shows there has been a slight decrease in traffic on town roadways between 2012 and 2018.

Analysis

U.S. Route 340 continues to be Shenandoah’s most heavily used road. Routes 602 and 683 have also remained heavily used due to the Town’s vicinity to Rockingham County and access to Elkton and Harrisonburg. Traffic volumes are not anticipated to increase significantly due to the limited growth occurring in the County and the observation of only moderate changes to the counts on US 340 from 2012 to 2018. Moreover, Land Use Plan does not call for the expansion of non-residential uses within the Town Limits.

VDOT uses a screening tool to identify safety needs on roadway segments and at intersections called Potential for Safety Improvement (PSI). Needs are determined based on the difference between the observed number of crashes and the anticipated number of crashes based on roadway characteristics such as traffic volume, number of lanes, and geographic context. There is one segment identified within the Town in the latest 2016-2020 PSI dataset, located on Route 602 from just west of Morrison Rd to Route 947-Rinacas Corner Rd in Rockingham County. Historical crashes along this segment are concentrated across the river in Rockingham County. No PSI intersections are located within the Town Limits.

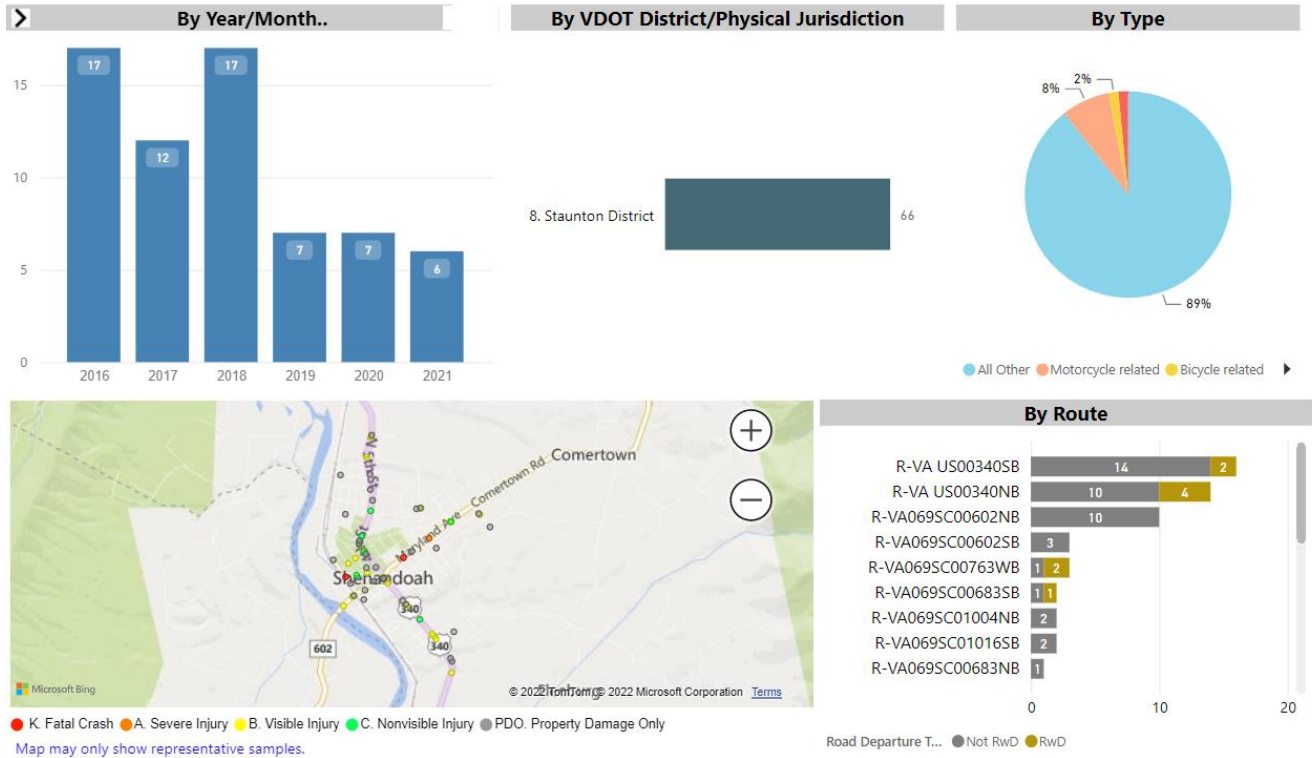
Crashes within the Town Limits from 2016-2021 were reviewed using VDOT’s Crash Analysis Tool, shown in Figure XX. Two fatal crashes and one severe injury occurred within this period:

- In 2019, a pedestrian was fatally struck by a vehicle on 1<sup>st</sup> St between Virginia Ave and Pennsylvania Ave.
- In 2020, a fatal crash occurred involving a vehicle that rear-ended a yard tractor on Route 602 near 7<sup>th</sup> Street.
- In 2021, a vehicle turned left from Route 602 onto 10<sup>th</sup> St and was struck by an oncoming motorcycle causing a severe injury.

There does not appear to be an identifiable trend among the 66 crashes within the Town Limits during the 2016-2021 period that could be mitigated with a capital transportation project. Instead, there are spot locations that could be monitored and considered for future maintenance-level treatments, such as the signalized intersection at US 340 and Route 602 and unsignalized intersections where sight line obstructions are present.

Figure 8-A

Summary of Crashes within Town Limits from 2016-2021



The Virginia Statewide Transportation Plan (VTrans) is prepared for the Commonwealth Transportation Board (CTB) by the Office of Intermodal Planning and Investment (OIPI). VTrans identifies and prioritizes locations with transportation needs using data-informed transparent processes. Projects that address needs may become eligible for state funding under the SMART SCALE program and receive priority consideration in VDOT’s Revenue Sharing program. VTrans identifies three mid-term needs within the Town, which are discussed below:

- Roadway safety need on Route 602 from just west of Morrison Rd to Route 947. This location matches the aforementioned PSI location, and its designation appears to be related to a concentration of crashes on the eastern side of the segment in Rockingham County.
- Roadway safety need on US 340 from just south of Shenandoah Ave to Trenton Ave. Five injury crashes occurred on this segment from 2018-2021, four of which occurred in 2018. Three of these injury crashes involved vehicles running off the road into fixed objects to avoid an animal or object in the road, while one was a rear-end crash due to following a turning vehicle too closely while distracted, and one was a sideswipe crash caused by a wide right turn. There does not appear to be a trend in these crashes that could be clearly mitigated by changes to the roadway features.

- Need for Transit Access to Activity Centers throughout the town, with the Town of Elkton being the nearest Activity Center identified in VTrans. There is no existing or planned transit service in the Town of Shenandoah.

The one area that the Town does wish to address is the need for better pedestrian traffic patterns. The Town hopes to address the issue of improving sidewalks, walking trails and bike paths. Along with the issue of bike paths the Town also hopes to address the idea of adding bike lanes to some of the major thoroughfares throughout Town. The worst areas have been addressed by the First Street streetscape improvement project completed in 2003. The Virginia Avenue project was also planned to address some of these issues, but VDOT removed this project from their Six Year Plan in 2009 due to funding constraints. More areas of concern will be addressed within the section of Future Plans and Implementation within this chapter. Since VTrans does not identify any pedestrian or bicycle needs in the Town, consideration would need to be given to designation of an Urban Development Area with non-motorized user needs in order to be eligible for funding through the SMART SCALE program.

### Public Transportation

Shenandoah currently does not have any formal means of public transportation. Due to the size of the community, and other socioeconomic factors there is not a justified cost-benefit. Although, the park and ride programs are not considered public transportation per se, there is a well-used park and ride parking lot within the town on the west side of the railroad track before crossing the Route 602 Bridge. To more effectively use this park-and-ride lot, it is important to determine the destinations of current users. The Town may also look towards coordination with the Northern Shenandoah Valley Regional Commission's Ride Smart Program to help coordinate carpools and vanpools lot as they already coordinate such programs and services for the Northern Shenandoah Valley region. The Ride Smart Program is run through the Northern Shenandoah Valley Regional Commission and Commuter Connections (Metro-Washington Council of Governments).

### Air Transportation

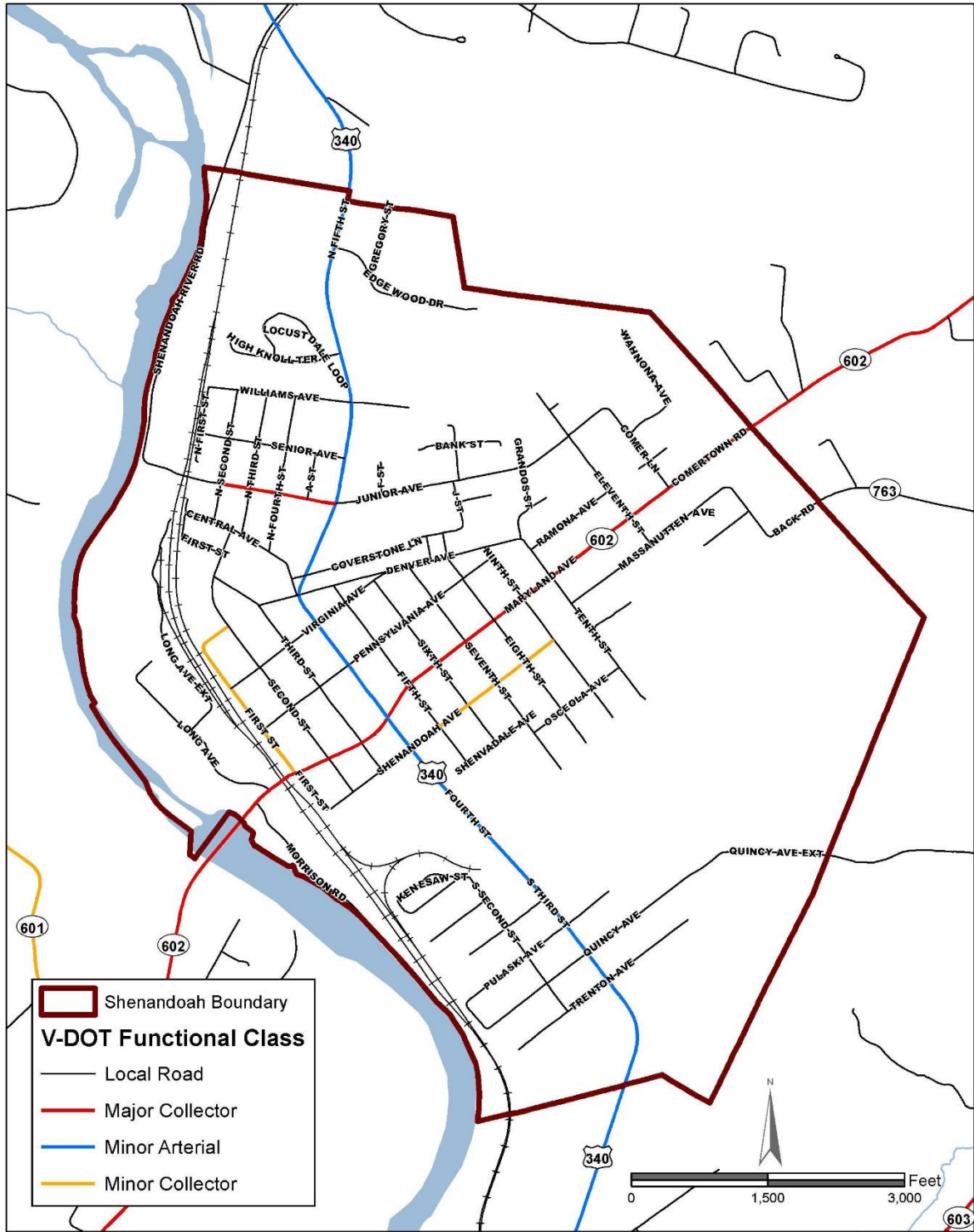
A general utility airport is available in Luray, at Luray Caverns Airport. The closest commercial airport with passenger service is Shenandoah Valley Regional Airport, which is south of Harrisonburg. The closest International Airport is Washington Dulles International Airport, which is approximately ninety-six miles from Shenandoah.

### Railroad Service

Shenandoah is proud that it continues to be an important station on the Norfolk and Southern Railroad. This line is designated for freight only and there is no passenger service available to Shenandoah. This rail-line is still considered a mainline route and continues to carry, rail traffic on a daily basis. As freight rail traffic is projected to increase, it will be imperative that the town look closely at proposed future volume or facility improvement plans and coordinate with local rail providers.

Figure 8-B

### TOWN OF SHENANDOAH FUNCTIONAL ROAD CATEGORIES



## Future Plans and Implementation

Shenandoah, as discussed at length in the previous chapters, is a growing community. Planning assumptions that have and will continue to inform decision-making regarding future transportation improvements include: sustained population growth (since 2012), renewed growth in local employment and industries, and expanded and future location of critical infrastructure such as water and sewer facilities. The Town of Shenandoah expects the preceding factors, discussed in previous sections of this Plan, to drive the need for improved and expanded transportation infrastructure including roads, parking and recreational amenities (bicycle and pedestrian facilities). The Town has several transportation improvement projects slated for the coming years with many more on the discussion table. The Northern Shenandoah Valley Regional Commission *2035 Rural Long Range Transportation Plan* (RLRTP), adopted in 2011 by the Town of Shenandoah and Page County, identifies five (5) project priorities that will affect future development in and around the Town (see Figure 8-B). These projects are listed as follows. The Virginia Department of Transportation (VDOT) Staunton District Office provided cost estimates based on the included projects. It's important to note that having a co-located VTrans need has become highly relevant for the pursuit of state funding for transportation projects since the 2011 adoption of the RLRTP. Among the RLRTP project recommendations listed here, only Project 4 located outside the Town Limits might be eligible for SMART SCALE funding because it contains safety need segments. None of the projects identified within the Town would be eligible for SMART SCALE funding unless an Urban Development Area with safety and operation needs were to be designated in the project location.

### (RLRTP Project # 3) US 340 from Rockingham Co. line to SCL of Shenandoah (Both Operation & Safety Deficiency):

*Short-term add "Watch for Turning Vehicles" signs along corridor in advance of major intersections and commercial areas; Long-term upgrade horizontal and vertical alignment to current standards, including full-width lanes and shoulders. Estimated Cost: \$700/sign; \$5,700,000 for long-term upgrades*

### (RLRTP Project # 4) US 340 from NCL of Shenandoah to Riverbend Road (Operational Deficiency):

*Long-term reconstruct road to address geometric deficiencies (including full width lanes and shoulders for a 4 lane road section). Note: US 340 widens ~ 6.7 mi north of Shenandoah at Riverbend Road to 11-12 ft lanes with wide shoulders. Estimated Cost: 40,000,000*

### (RLRTP Project # 11) VA 602 (Comertown Road) from VA 711 to VA 603 N (Safety Deficiency):

*Long-term reconstruct road to address geometric deficiencies (including full width lanes and shoulders). Estimated Cost: \$6,000,000*

### (RLRTP Project #49) US 340 from VA T-602 to NCL of Shenandoah (Operational Deficiency); and



*Long-term widen to urban four-lane roadway with median (Shenandoah). Estimated Cost: \$15,000,000*

(RLRTP Project #50) VA T-683 (Junior Avenue) from US 340 to VA 683 (Safety Deficiency)

*Long-term widen to urban two-lane roadway (Shenandoah). Estimated Cost: \$6,000,000*

*VDOT Disclaimer: This cost estimate should be regarded as planning level only, and preliminary in nature. Variations from actual project costs will/may result from additional factors such as design exceptions, value engineering, utility relocation, and environmental impacts. As projects move forward in the project development process, emerging details will support the refinement of these costs.*

The Town of Shenandoah should monitor development as it pertains to these recommendations in the future. The Town of Shenandoah can recommend changes to prioritized projects in cooperation with VDOT and Page County. VDOT is responsible for maintenance and should be included in any discussion that affects transportation networks as outlined in *Chapter 729 of the Local/State Plan & Program Consistency* (2012).

Town officials also hope to increase the amenities to the citizens of Shenandoah by working on improving signage within the Town as for Tourism purposes. This will certainly be a goal of the Town due to the anticipated tourism increases as well as the success of the Big Gem Project as a recreational area and the revitalized central business district. The Town also hopes to include more biking/ walking paths throughout the town. This issue will mostly be addressed as plans for the Big Gem Recreational area are finalized. The final area that the Town plans to address within the coming years is the need for more parking. This is a growing concern for most localities as the population increases and the number of drivers on the roads increase. The Town plans on studying the feasibility of adding some more parking lots in areas where over-crowding and parking are a problem. These issues will need to be reviewed as the Town continues to grow and issues that deal with tourism are brought to the forefront of discussion.

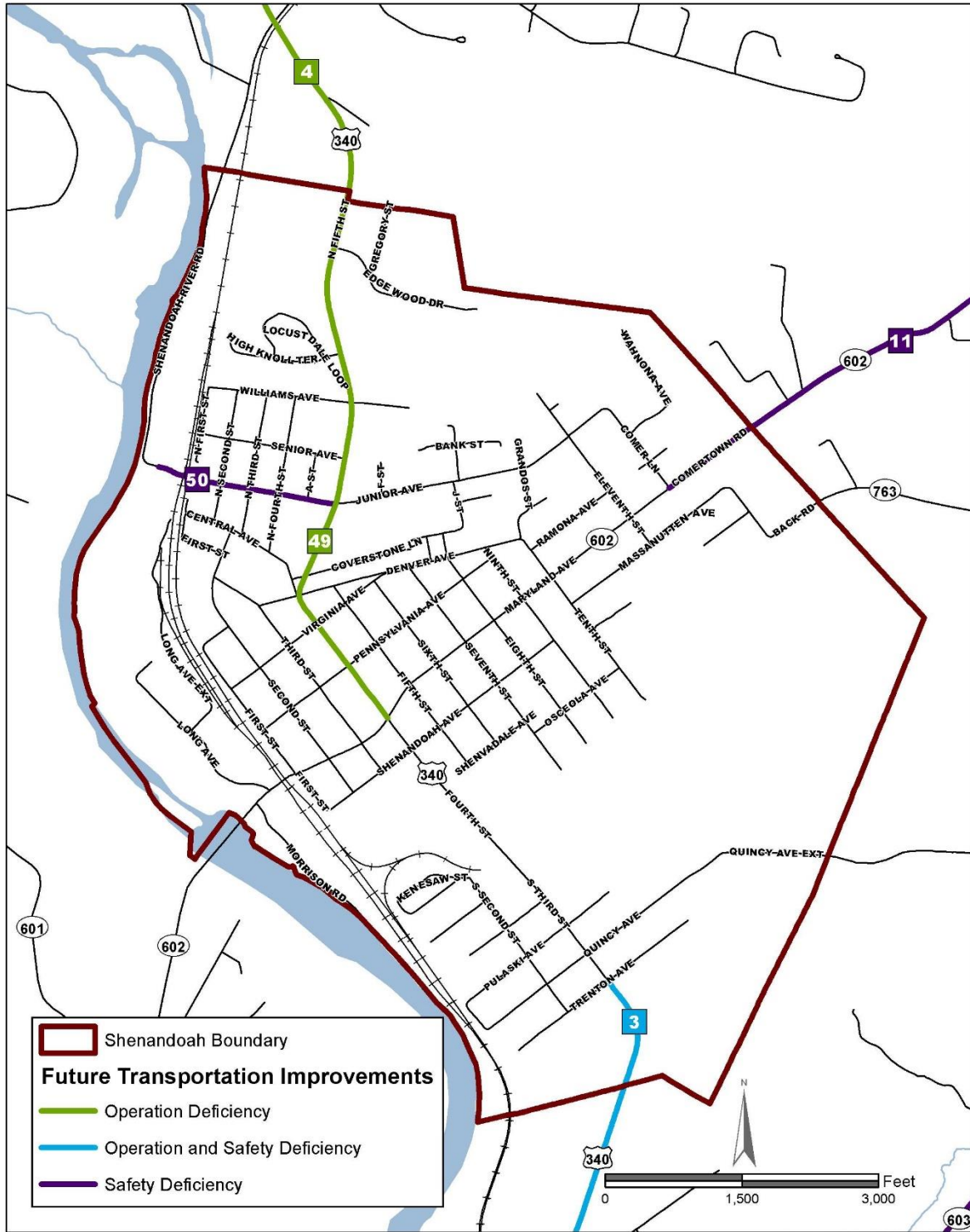
To conclude, additional transportation needs not included in the RL RTP for future transportation improvements, specifically addressing recreational and tourism needs include:

- Improved signage to direct residents and visitors to local attractions;
- Installation of new shared-use (bicycle and pedestrian) trails; and
- Expanded parking in the Town's downtown core.

*Note: These transportation needs are still preliminary and need further discussion and planning within the Town staff and local decision-making body.*

Figure 8-C

### TOWN OF SHENANDOAH FUTURE TRANSPORTATION IMPROVEMENTS



## Conclusion

Shenandoah must address the foregoing projects thoughtfully and methodically, monitoring the presence of issues and the need to pursue project funding. Each project will advance the Town's growth and development, while maintaining the small-town atmosphere that defines it. For Shenandoah to fulfill its potential, Town officials must seek state and federal grants to augment anticipated revenue from increased levels of tourism to develop and implement projects vital to Shenandoah's growth and continued responsiveness to the needs of its citizens.

*Shenandoah is a progressive minded small Town with a planned future!*

## References

1. Code of Virginia, Section 15.2-22
2. County of Page, *Comprehensive Plan*, 2020
3. Northern Shenandoah Valley Regional Commission, *2035 Rural Long Range Transportation Plan*, 2011
4. Northern Shenandoah Valley Regional Commission, *Northern Shenandoah Valley Regional Water Supply Plan (WSP)*, 2012
5. Northern Shenandoah Valley Regional Commission, *Regional Hazard Mitigation Plan*, 2012
6. 2020 American Community Survey 5 Year Estimates
7. US Census Bureau, Decennial Census, 2020
8. Virginia Department of Transportation, *Local/State Plan & Program Consistency: Planning Elements-Chapter 729*, 2012

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