



THE SOUTH FREDERICK CORRIDORS PLAN

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BRIEFING BOOK



The Livable Frederick Planning and Design Office

Frederick County Government
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Frederick, MD 21701



The South Frederick Corridors Plan

Corridor Planning for the South Frederick Triangle and Ballenger Creek East

Briefing Book





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Introduction

In September 2019, Frederick County adopted the Livable Frederick Master Plan (LFMP), laying out a vivid framework for the future of the county centering around four themes: Our Economy, Our Environment, Our Health, and Our Community. Implementing this robust vision will require multi-faceted participation among a wide variety of members of the Frederick County community. As a part of this implementation, corridor planning will commence for an area of Frederick County that has been a major economic center for the last few decades.

This economic center, composed of existing commercial and industrial land to the south of Frederick City along Urbana Pike (MD355) and Buckeystown Pike (MD85), possesses a density of economic activity so great that it shifts the county's economic center of gravity to the south and east. These "South Frederick Corridors" are composed of land along MD355 between the Monocacy National Battlefield and just south of Frederick City (the South Frederick Triangle), and along MD85 between I-70 and north of Buckeystown (Ballenger Creek East). They constitute 20% of the county's jobs, 15% of the county's business establishments, and 15% of the county's total wages¹. In terms of economic significance in the county, this is second only to Frederick City.

Among the many factors that will be involved in developing the South Frederick Corridors Plan (SFCP) are goals related to reinforcing and creating economic strengths and assets, supporting existing business and industries, and fostering innovation and opportunity. These goals appear in the *Our Economy* section of the LFMP. In terms of physical planning, the LFMP lays out the related demands that must be met in future years. These involve:

- Enhancing economic activity (as well as social welfare) through settlement patterns that make services, jobs, and amenities more accessible to a wider range of people;
- Providing economic growth opportunities and demand satisfaction by creating the types of walkable, accessible, and interesting places that are increasingly sought after by workers and employers;
- Stimulating economic development by creating places that provide unique experiences and that serve as points of attraction from across the region for both consumption and production;

- Making our economy more equitable through the creation of centralized communities that result in the development of a wider spectrum of affordable housing options;
- Building our economy on a foundation of functional infrastructure that can lower household transportation costs and create lifestyle improvements (such as reducing the time spent sitting in traffic or enabling health promoting activities such as walking and biking for transport) by developing places that reduce the dependence on automobiles through multi-modal transportation and that provide interconnected road networks that afford rather than inhibit the distribution of trips across multiple routes;
- Supporting optimal returns on infrastructure investments and long term solvency through development strategies that promote the maximum use of existing systems;
- Building resilience in our economy by adopting sustainable development patterns that promote the conservation of natural resources and rural land, the efficient use of energy, and the reduction of driving; and,
- Supporting the community demands of a future workforce and their families for places that promote positive social outcomes with neighborhoods that are designed to enable serendipitous interactions with neighbors, foster community, and reduce social isolation.

All of these demands point to supply, which in this case is fundamentally connected to the physical design of a place. The physical design of places is intertwined with the potential to realize the economic, social, and lifestyle goals of a community. Different types of physical environments will allow different types of opportunities in terms of access to jobs, services, and amenities. Therefore, achieving the outcomes stated above can be enabled - and must be supported - by the physical configuration of a place.

The LFMP concludes that an important aspect of achieving these economic, health, environmental, and community outcomes is the development of a larger share of places in Frederick County that are more centralized, more walkable, and more functionally diverse. This entails a design approach that:

- Reduces the distance between origins and destinations;
- Increases the options for moving between origins and destination; and,
- Establishes spatially compressed land use patterns that provide a diversity of housing options and a mix of compatible land uses that are accessible by walking, biking, mass transit, and ride hailing, and driving.

The future economic significance of the South Frederick Corridors depends in part on its ability to embody this kind of physical design through a gradual redevelopment metamorphosis. The existing suburban, automobile-oriented pattern of development in the South Frederick Corridors supported this economic center over the last several decades, but as evidenced in the LFMP, this pattern is no longer adequate to meet the demands of the coming decades. Ensuring the continued economic status of the South Frederick Corridors requires a re-imagining of the area that embodies all of the serendipitous and mutually reinforcing aspects of any vital urban neighborhood. This strategic effort must include some areas in Frederick County composed of 1) higher concentrations of population, 2) complimentary land uses that are spatially and proximately combined to enhance access between origins and destinations, and 3) a transportation infrastructure that is physically designed to afford usage in multiple formats; for cars, mass transit, walking, biking, and as “public” or common space.

However, realizing these kinds of physical places in the real world typically requires a refined level of infrastructure investment, more so than the incipient and disconnected systems typically employed for suburban development. In terms of feasibility, this implies the possibility of prohibitive costs for services. In this case however, the South Frederick Corridors area represents a windfall for Frederick County due to its existing, and fundamentally sound, infrastructure.

The South Frederick Corridors have benefitted from a massive amount of infrastructure investment at the federal, state, and county levels over the last several decades. This concentration of infrastructure, that has underpinned the economic growth of the South Frederick Corridors over the last fifty years, is the very thing that will leverage the continued economic vitality of the area over the next fifty, as it continues to evolve under the guidance of the LFMP. *These existing location-based endowments, such as its unparalleled access to and from regional locations and proximity to Frederick City, cannot easily be replicated elsewhere and provide a foundation upon which the physical environments of the future can be built in a fiscally conservative and responsible manner.*

This central purpose of the South Frederick Corridors Plan, namely the area's transformation into a vital and livable urban district, requires redevelopment. This is an approach to planning and land development that has not previously been undertaken comprehensively in Frederick County. Since the 1950's, development in Frederick County (outside of its municipalities) has occurred almost entirely in the form of the conversion of rural or agricultural land to suburban land, colloquially known as *greenfield development*. There has been little to no redevelopment of land that had already undergone that conversion.

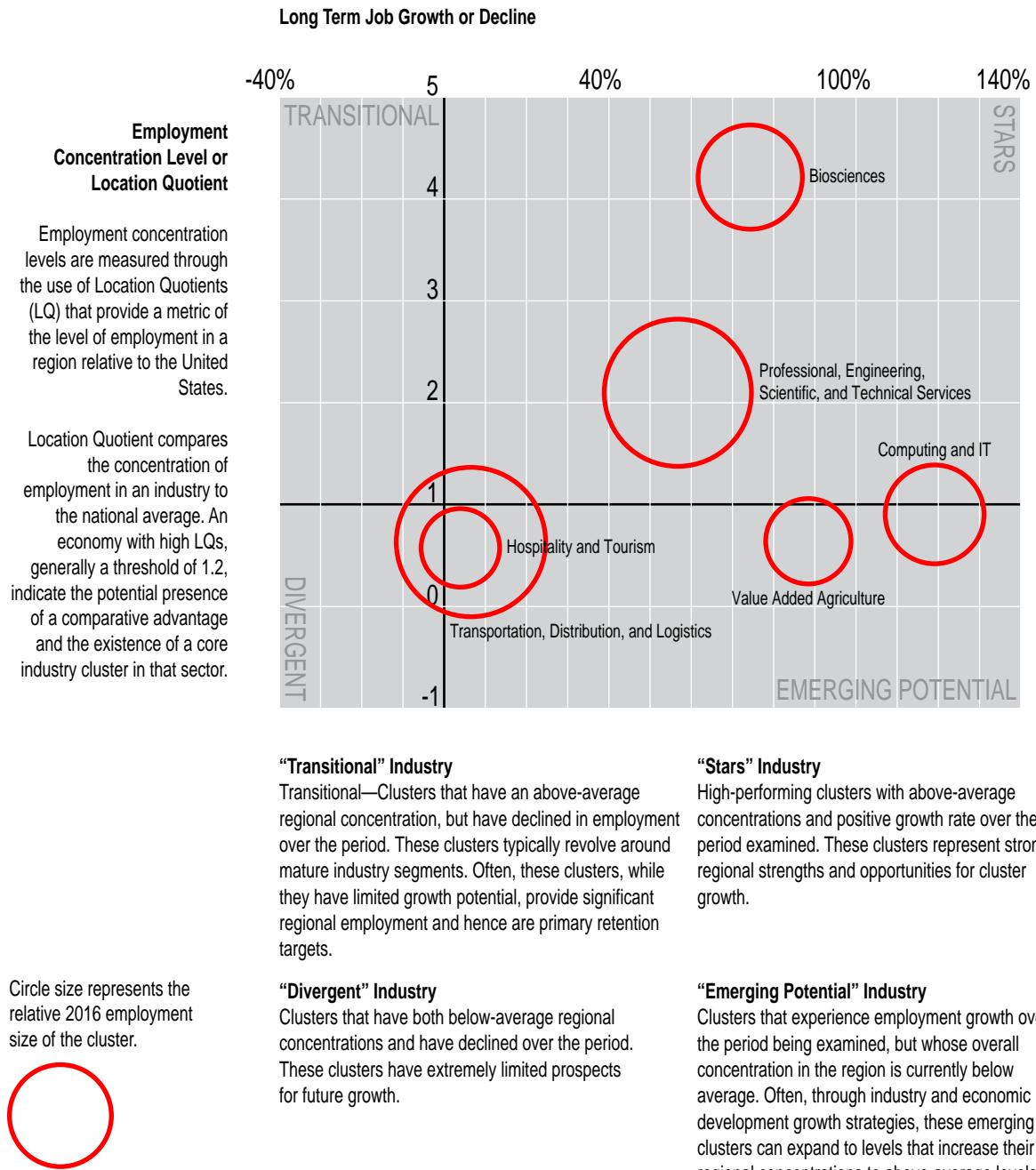
This may not seem unusual given that redevelopment is often employed to counteract a process of economic disinvestment in land, and so far this has not yet been a significant issue within the jurisdiction of Frederick County. However, redevelopment must play a central role relative to managing growth through the implementation of the LFMP. As the LFMP describes, there should not be a sole emphasis on the development of rural land around the periphery of existing developed land. Rather a share of future growth should be directed to previously developed areas where the presence of existing infrastructure can leverage any resulting additional service demands.

Redevelopment in the South Frederick Corridors presents one of the best options for ensuring that Frederick County is prepared for the demands of the future. Planning initiatives such as the South Frederick Corridors Plan will ensure that the Livable Frederick Comprehensive Plan continues to evolve, remain relevant, and respond flexibly to circumstance, all while maintaining a keen focus on a central vision for the future of Frederick County.

Demand Outlook

The SFCP will employ a data-driven and rational planning process as an important aspect of the development of the plan to determine the quantity of job and household growth that can reasonably be absorbed through coordinated redevelopment. The following data provide a point of reference for that future process.

Frederick County Cluster Dynamics



According to the U.S. Bureau of Labor Statistics, Location Quotients (LQs) are ratios that allow an area's distribution of employment by industry to be compared with a reference or base area's distribution (in this analysis, they were compared with the national average). If an LQ is equal to 1, then the industry has the same share of its area employment as it does in the reference area. An LQ greater than 1 indicates an industry with a greater share of the local area employment than is the case in the reference area and an LQ lower than 1 indicated a lower share. LQs are used to measure the concentration of employment in a particular economy with high LQs (generally a threshold of 1.2 is used) indicating the potential presence of a comparative advantage and the existence of a core industry cluster in that sector.

Job Competitiveness

The Frederick County Office of Economic Development commissioned a report for the purpose of identifying important economic development strategies. A targeted industry cluster analysis relating local industry growth with a factor that combines the local share of jobs in an industry to the share of jobs in that industry nationally was conducted. This analysis was not a forecast, but rather was a retrospective look at the performance of different industry clusters in Frederick County between 2001 and 2016. Six core clusters were identified that drove overall growth in the county, with clusters categorized based on their influence on overall growth. The illustration on the previous page summarizes this analysis.

Place Attractiveness

An assessment of growth was conducted for the LFMP that evaluated the preferences of different types of households and job categories for different kinds of physical places. A basic conclusion of this assessment is that a significant share of growth in both households and jobs will demand physical places that are designed to support more centralized and functionally diverse environments that enable transportation using a variety of different options, or *modes*.

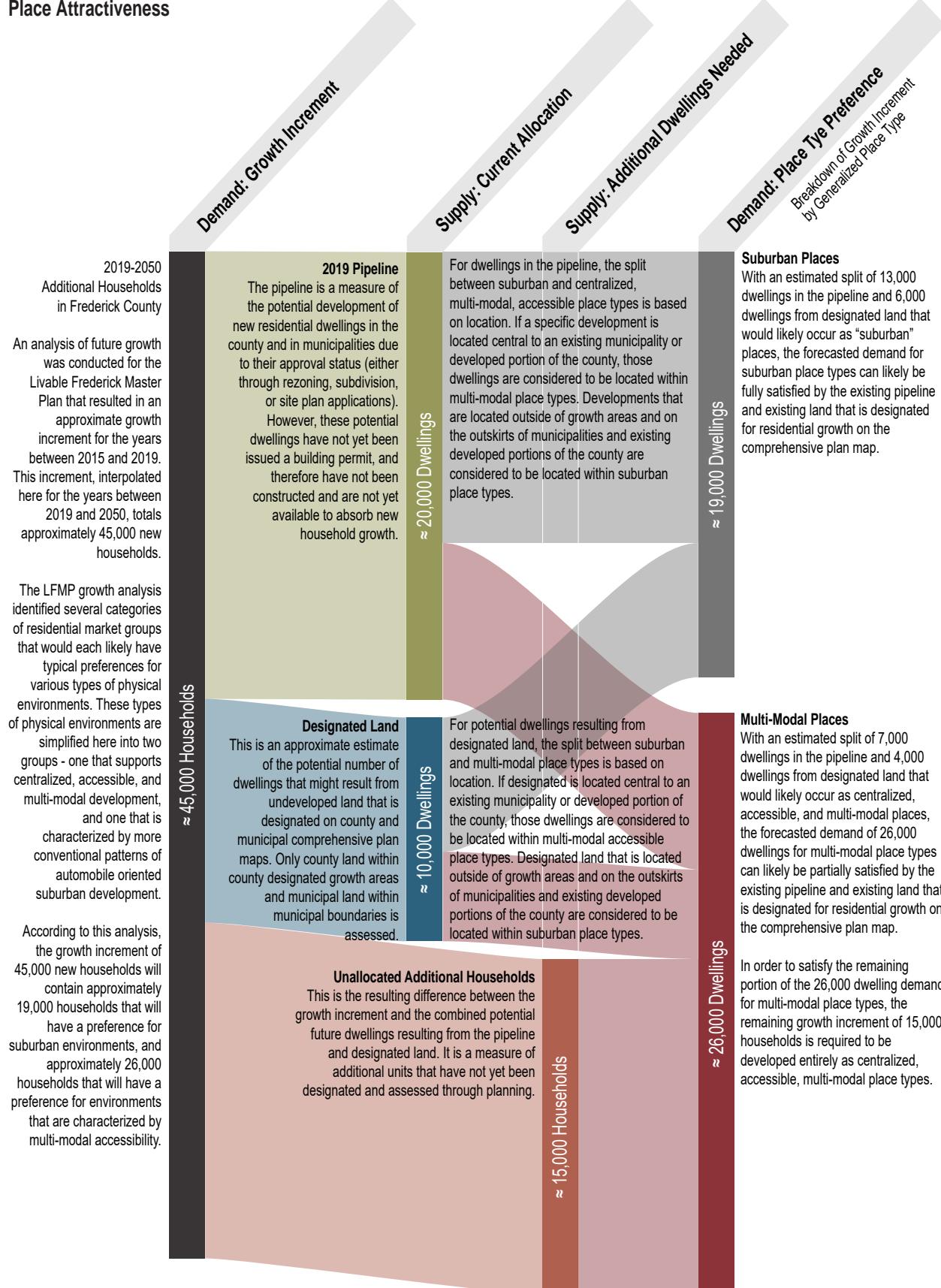
In past decades, the suburban office park was the dominant land development format when it came to the facility preferences of many companies. However, location preferences for companies have broadened in recent decades to include a marked increase in the desire to locate in walkable and more centralized locations².

There are many reasons for this shift related to: attracting and retaining talented workers; supporting creative collaboration; understanding location as an asset to brand identity and corporate culture; the centralization of operations; and, being closer to customers, businesses partners, and service providers. Modern companies are also beginning to take a *triple bottom line* approach³ that has led them to seek places that can provide walkable, live/work/play (mixed use) neighborhoods, convenient access by a range of transportation options, and sustainable facilities, services, and institutions.

Industry groups that are projected to grow in Frederick County over the next several decades include consumption, science and technology, office, healthcare, and education jobs, together amounting to over 70% of all projected job growth in Frederick County between 2015 and 2050.⁴ Walkable, centralized environments are likely well-suited to the locational requirements and potential preferences of many of the companies within these industries.

Projected residential growth will also be well-served by walkable, centralized environments. A growth analysis conducted for the LFMP identified a countywide increment of 45,000 new households between 2019 and 2050 (interpolated from 2015-2050 projections). While a share of the need for these additional dwellings will likely be satisfied by the existing pipeline of development in the near future, and by land that is currently designated for residential development on the Comprehensive Plan Map in the longer term, a significant demand gap of 15,000 dwellings through the year 2050 remains, with most of these households identified as groups that would likely seek walkable, centralized places.

Place Attractiveness





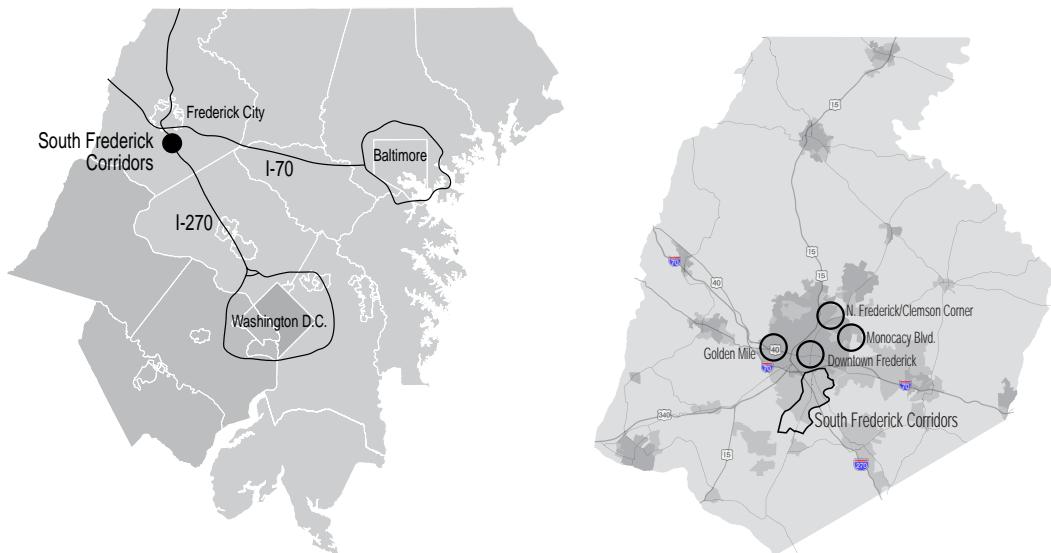


Data Book

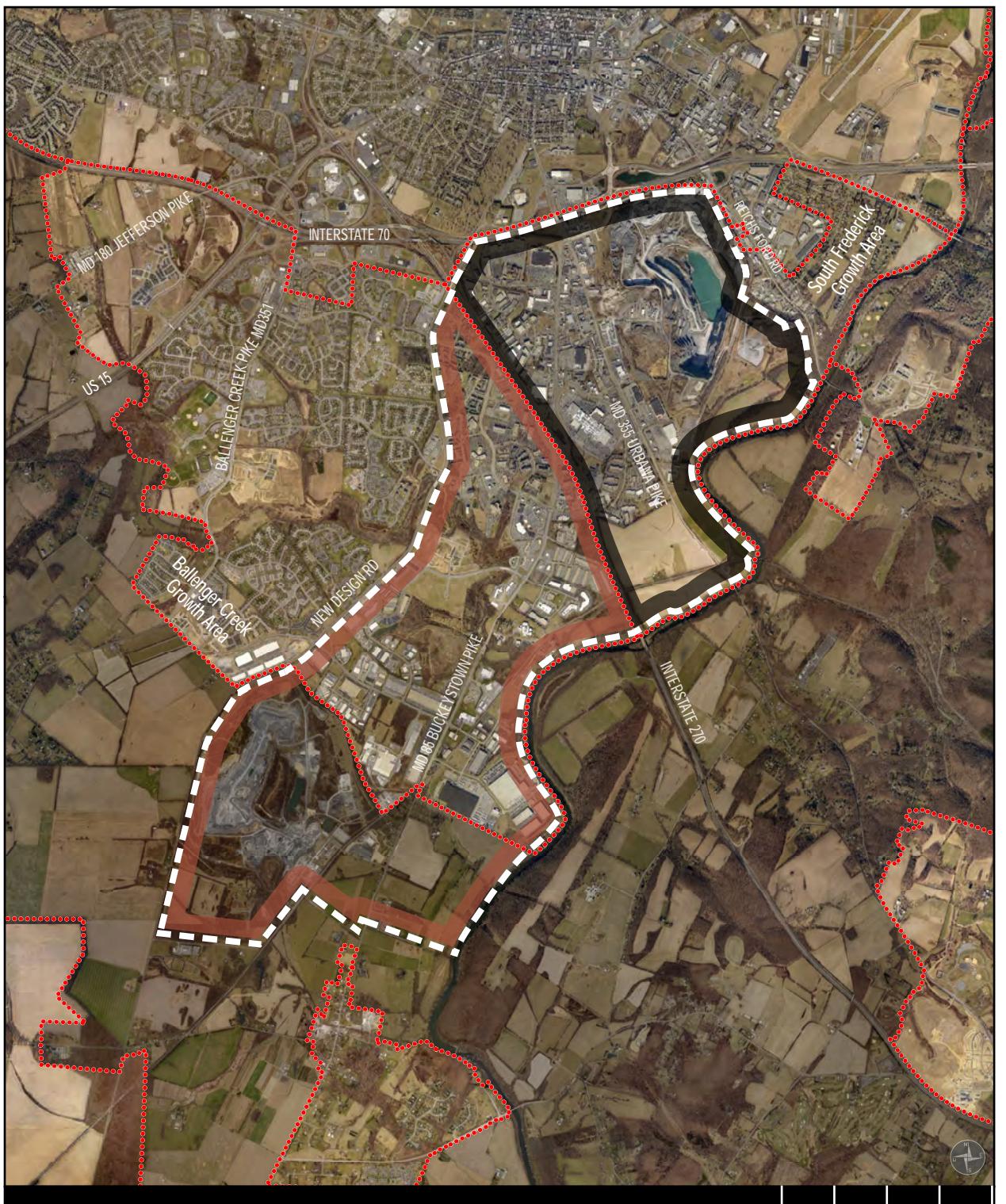
Planning Area Description

The South Frederick Corridors are located at the intersection of two interstate highways, three state roads, and a commuter rail line, providing direct regional connection to the overlapping market region of the cities of Washington, D.C. and Baltimore, Maryland. This region includes Central Maryland, Northern Virginia, three counties in the Eastern Panhandle of West Virginia, and one county in South Central Pennsylvania. It is the most educated, highest-income, and fourth largest combined statistical area in the United States.

Existing infrastructure in the South Frederick Corridors includes two interstates (I270 and I70), two state highways (MD85 and MD355), and a commuter rail station (MARC). There is also access to water and sewer facilities with sufficient treatment capacity to support higher intensity development. Interstate 70 runs along the northern border to the SFC planning area, connecting to Baltimore City Maryland to the east and



South Frederick Corridors Planning Area



- South Frederick Corridors Planning Area
- South Frederick Triangle
- Ballenger Creek East
- Community Growth Areas

Washington County Maryland and beyond to the west. Interstate 270 roughly bisects the SFC planning area and leads south to Washington D.C. and Montgomery County Maryland.

The South Frederick Corridors area is one of several economic centers in central Frederick County in the vicinity of Frederick City. These other centers include:

- The Golden Mile: a retail center along MD144 within the western portion of the City of Frederick
- North Frederick/Clemson Corner: predominantly a concentration of retail uses with some office uses located along MD26 between US15 and Monocacy Boulevard.
- Central Frederick City: retail, dining, and office in the downtown along Market Street with major employers such as Frederick Memorial Hospital, Hood College, and Fort Detrick located in proximity to the downtown.
- Monocacy Boulevard: industrial, research, and other office uses located along Monocacy Boulevard between MD26 and Gas House Pike.

The South Frederick Corridors are located in central Frederick County along the southern boundary of Frederick City. They are composed of portions of two Community Growth Areas that are identified and described on the Comprehensive Plan Map and in the Livable Frederick Master Plan. The South Frederick Triangle is a portion of the South Frederick Community Growth Area. Ballenger Creek East is a portion of the Ballenger Creek Community Growth Area.

The far eastern portion of the South Frederick Growth Area, on the northeast side of Reich's Ford Road along Quinn Orchard Road, is not included in the South Frederick Triangle study area because it is geographically discontinuous from lands along MD85 and MD355. Ballenger Creek East encompasses retail, office, and industrial land uses extending to New Design Road to the west, excluding the remaining portion of the Ballenger Creek Community Growth Area, which is largely residential.

Planning Area Comparisons

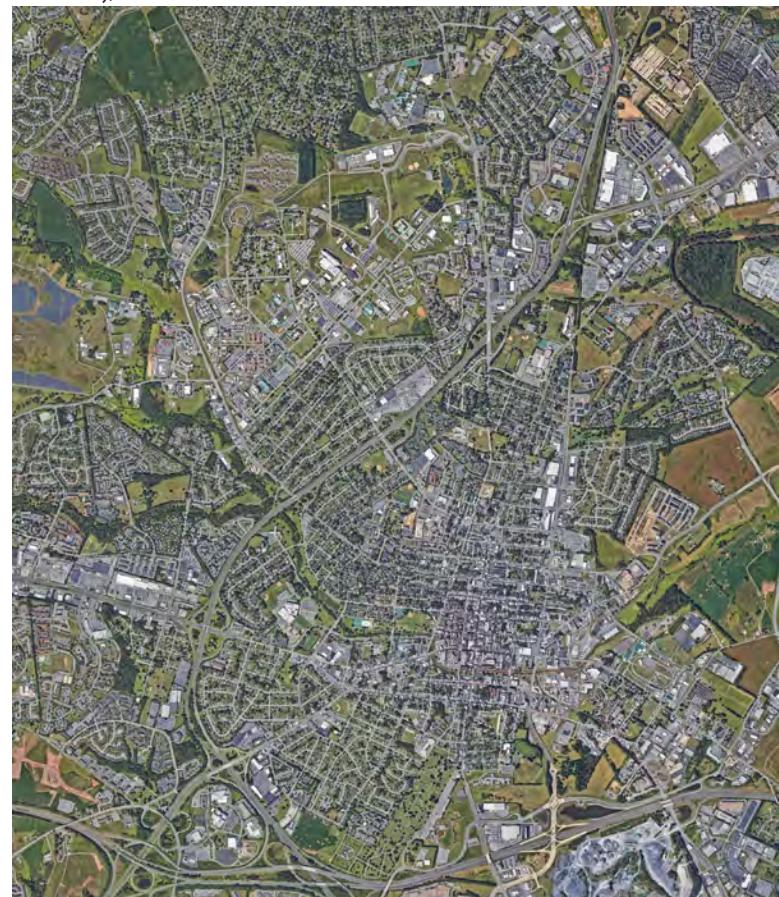
The following pages provide a visual comparison of aerial views of the South Frederick Corridors study area and aerial views of Frederick City, Washington, D.C., and Baltimore. All of the aerial images provided are shown at the same scale, with the boundaries of the images equating to 7 kilometers high by 6 kilometers wide. At first glance, it is striking to see that places like Washington D.C. and Baltimore, which generally convey a sense of extensive physical magnitude, are actually relatively similar to the South Frederick Corridors in terms of overall land area.

However, there are clearly some significant differences. First is the degree to which the same amount of land is productively utilized. It is easy to hypothesize that quantitative measures of land productivity, such as tax revenue per acre, would likely be far greater in Washington, D.C., Baltimore, and Frederick City than in the South Frederick Corridors, which consumes larger quantities of land for ostensibly lower quantities of economic activity.

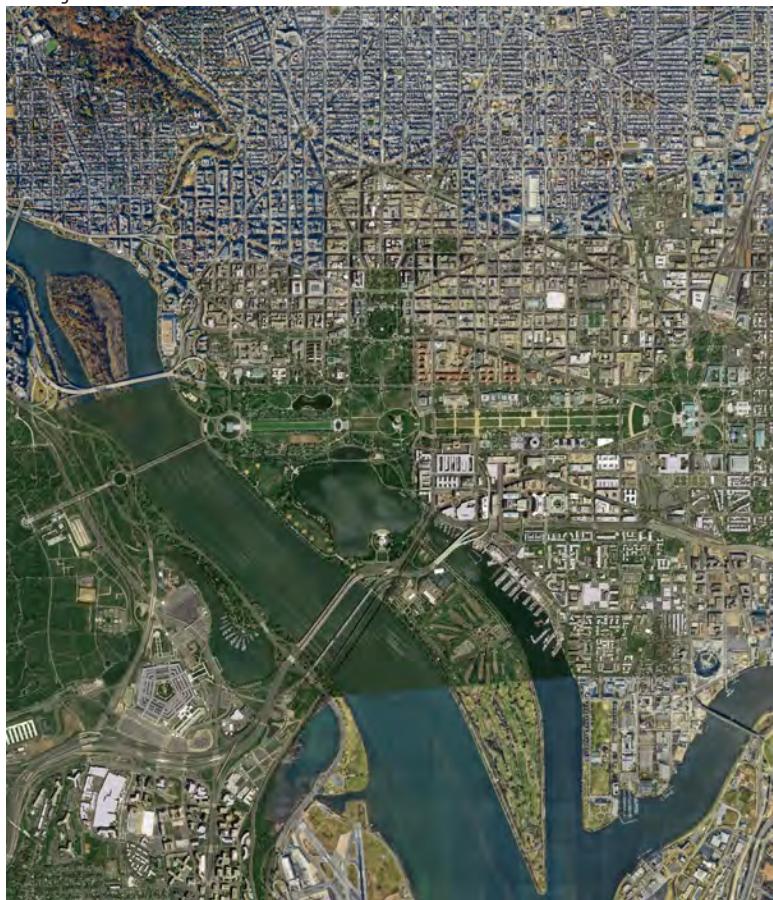
South Frederick Corridors



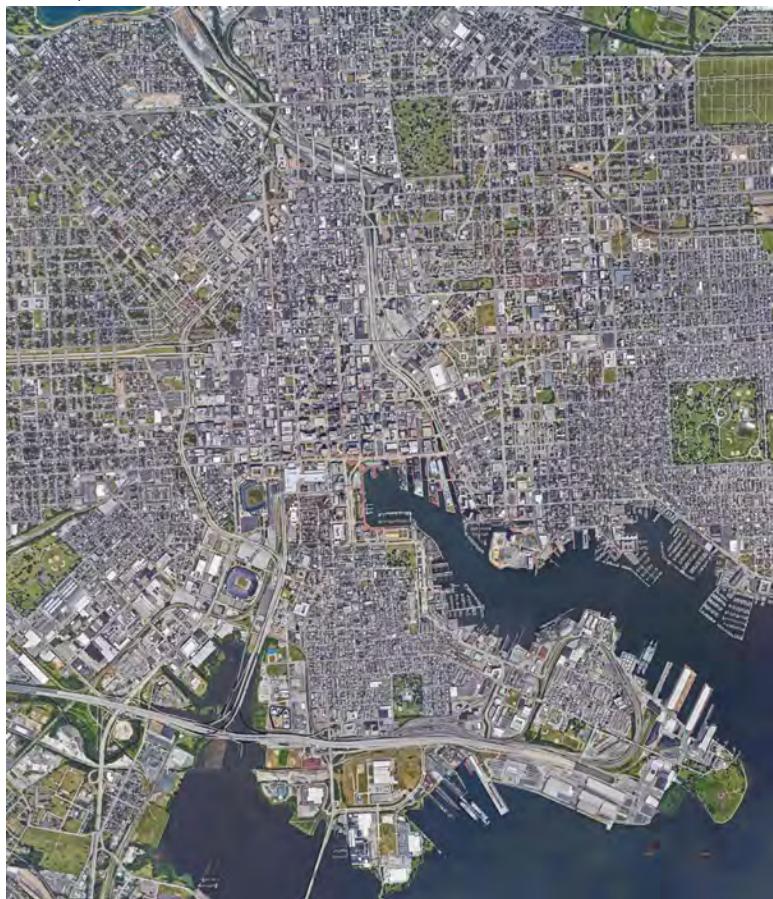
Frederick City, MD



Washington D.C.



Baltimore, MD



By way of illustration, using assessed value per acre as a measure of land productivity, an equivalent land area in downtown Frederick City has an assessed value per acre 2.9 times greater⁵ than the assessed value per acre in the South Frederick Corridors. This illustrates that even with the presence of large retail and office uses in the South Frederick Corridors, the existing pattern of land use may not be maximizing its productivity.

Additionally, this comparison makes it clear that the South Frederick Corridors planning area has not reached a condition of "total build out" relative to the physical ability to accommodate additional development. While most land parcels are currently developed, the intensity of that development can clearly be increased given appropriate regulatory and infrastructure interventions.

Finally, the physical character of the South Frederick Corridors notably lacks the attractive features that are possessed by many streets in Washington D.C., Baltimore, and downtown Frederick City. Much of this difference is the result of a concern in these cities for the design of streets that make walking a functional and enjoyable means of transportation. The South Frederick Corridors, by contrast, is designed solely for automobile based transportation, with large distances between origins and destinations and infrastructure design that makes walking dangerous if not impossible.

Historical Development

The South Frederick Corridors Planning Area encompasses an area of Frederick County that has come to play a pivotal role as an important regional and local commercial center, but this was not always the case. Throughout most of the history of Frederick County, the South Frederick Corridors were characterized by rural and agricultural land uses. Subsequent to World War II however, population growth, regional infrastructure investment, and changes in traditional development patterns transformed the South Frederick Corridors into its current state.

Context

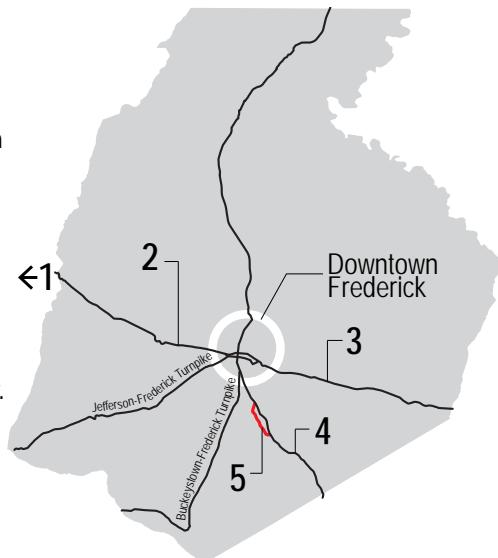
Prior to World War II, downtown Frederick City was the only location in central Frederick County with commercial significance. In this period, downtown Frederick City served as a commercial and manufacturing center, with timber, mining of limestone and iron ore, and tanning being the predominant industries during the early 19th century, shifting in the late 19th century to dairy processing and canning.

In the latter half of the 20th century, infrastructure expansion and population growth contributed to a geographic redistribution of commercial and industrial activity in and around Frederick City. This began with the development of the Golden Mile along US40 west of downtown Frederick, and continued with the growth and development of the South Frederick Corridors. Later, a new employment and commercial center began to emerge along MD26 and the Monocacy Boulevard area in the northern portion of Frederick City.

The following series of diagrams illustrate the development of the significant endowments of infrastructure that underlie the potential for redeveloping the South Frederick Corridors to support its continued economic prominence.

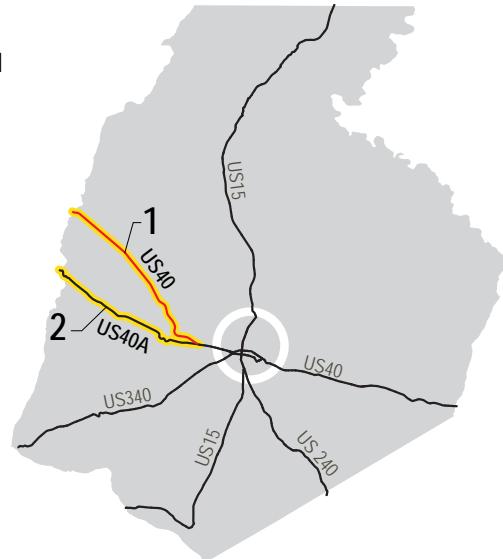
1920

1. National Road begun in 1811, connected Cumberland, MD and St. Louis, MO.
 2. Middletown Turnpike and 3. Baltimore Turnpike part of chain of turnpikes chartered by MD connecting Baltimore to the National Road. Completed in 1824 and referred to as the eastern extension of the National Road.
 4. Georgetown Turnpike chartered by MD in 1805.
 5. Georgetown Turnpike realigned at Araby. Creates Araby Church Road.
- Frederick City is the dominant commercial center in the county.



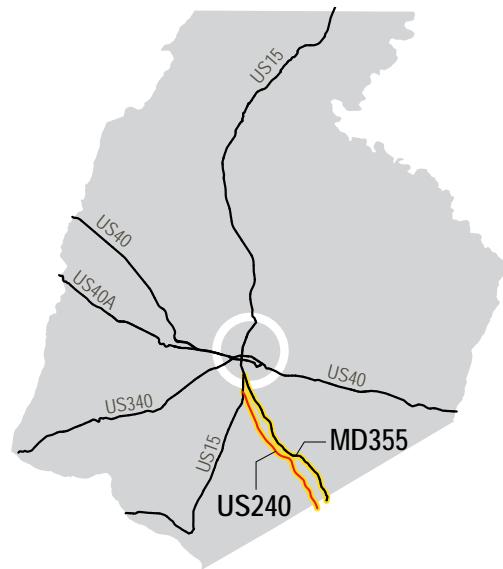
1948

1. New alignment of US40 constructed between Frederick and Hagerstown.
2. Pre-existing alignment of US40 becomes US40A.



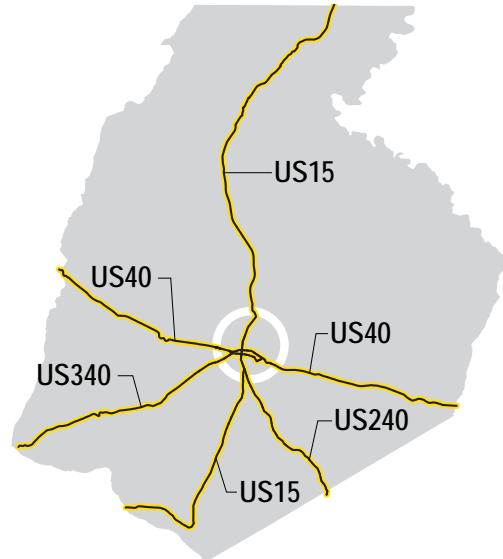
1953

- New alignment of US240 constructed alongside previous alignment.
Previous alignment eventually designated MD355.



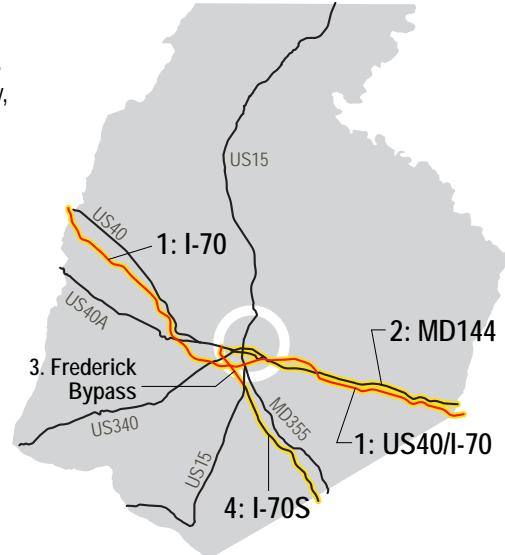
1926+

- U.S. Highway System adopted in 1926.
Baltimore and Middletown Turnpikes designated US40 as part of the U.S. Highway System.
Georgetown Turnpike designated US240.
Frederick-Jefferson Turnpike designated US340.
Frederick-Buckeystown Turnpike designated US15.



1959

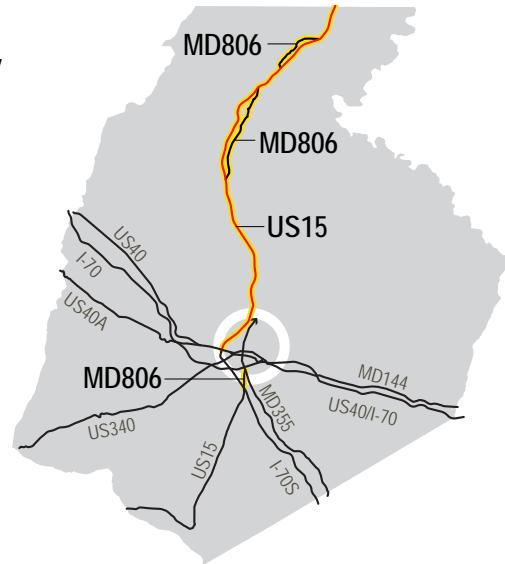
1. I-70 construction begins as part of US Highway Act of 1956. First Interstate Highway. Parallels US40 east of Frederick City, and splits off from US40 west of Frederick City.
 2. Old alignment of US40 designated MD144.
 3. Frederick Bypass completed up to US40.
 4. US240 decommissioned and redesignated I-70S along the same right of way.



1960's

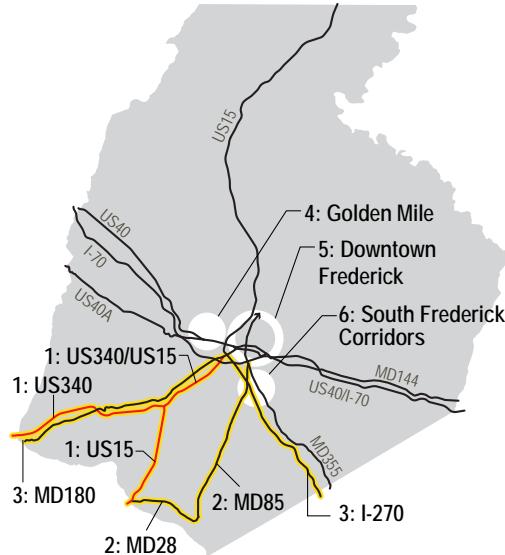
Frederick Bypass completed and US15 north of Frederick City improved.

Old alignment of US15 designated MD806.



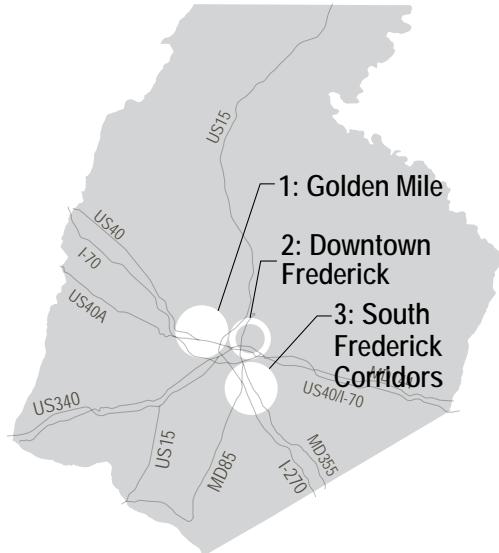
1970's

1. US340 constructed and US15 realigned south of Frederick City.
 2. US15 south of Frederick City redesignated MD85 and MD28.
 3. US340 redesignated MD180 and I-70S redesignated I-270.
 4. Golden Mile in Frederick City development begins.
Frederick Towne Mall Opens in 1972.
 5. Decline of Downtown Frederick City begins as modern commercial space develops along Golden Mile.
 6. Development along the South Frederick Corridors begins.



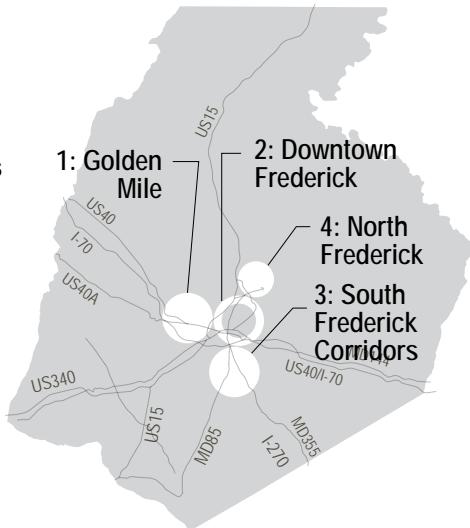
1970's and 80's

1. Continued growth of Golden Mile in Frederick City.
2. Decline of Downtown Frederick City continues, accelerated by Flood of 1976.
- Carroll Creek flood control project begun in late 1970's, beginning revitalization of Downtown Frederick.
3. Growth of South Frederick Corridors continues, accelerated by construction of FSK Mall in 1979.



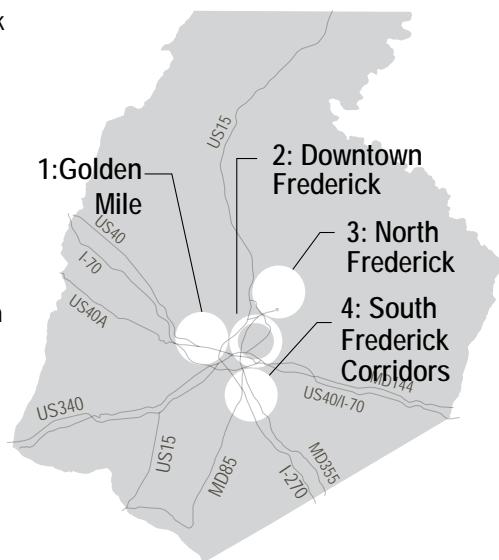
2000

1. Continued prosperity of Golden Mile in Frederick City, building stock begins to approach end of economic lifespan.
- Frederick Towne Mall in competition with FSK Mall. Beginning of decline for Frederick Towne Mall as major anchor tenant relocates to FSK Mall.
2. Downtown Frederick City revitalization continues as center for government, professional, and leisure activities.
3. Growth of Southeast Corridor.
4. New regional retail and industrial center around the North Frederick area begins to develop.



2010

1. Revitalization efforts considered for Golden Mile in Frederick City.
- Frederick Towne Mall in decline.
2. Downtown Frederick City revitalization successful. Serves specialized role in the region.
3. Continued growth of North Frederick area as retail and industrial center.
4. South Frederick Triangle built out under current development paradigm. Prime area for redevelopment as high density mixed use sector.



Planning Area

In the early 1950's, the planning area was largely agricultural, with some residential and transitional roadside businesses. Since then, the area has grown into one of the most intensively developed geographic areas of Frederick County.

Several factors have contributed to the growth of the planning area. Along with the existence regional transportation connections in the form of three state roads (MD85, MD355, and MD144), beginning in the 1950's additional regional scale infrastructure systems were constructed in the form of two interstates (I270 and I70). In 1978, the Ballenger Creek Water and Sewage System was completed, providing previously unavailable water and sewer service capacity. In the 1980's, the Maryland Area Regional Commuter (MARC) Train Service along the Brunswick Line and Frederick Spur was established. These infrastructure investments, along with proximity to downtown Frederick, contributed to the growth of the South Frederick Corridors as a regional economic center.

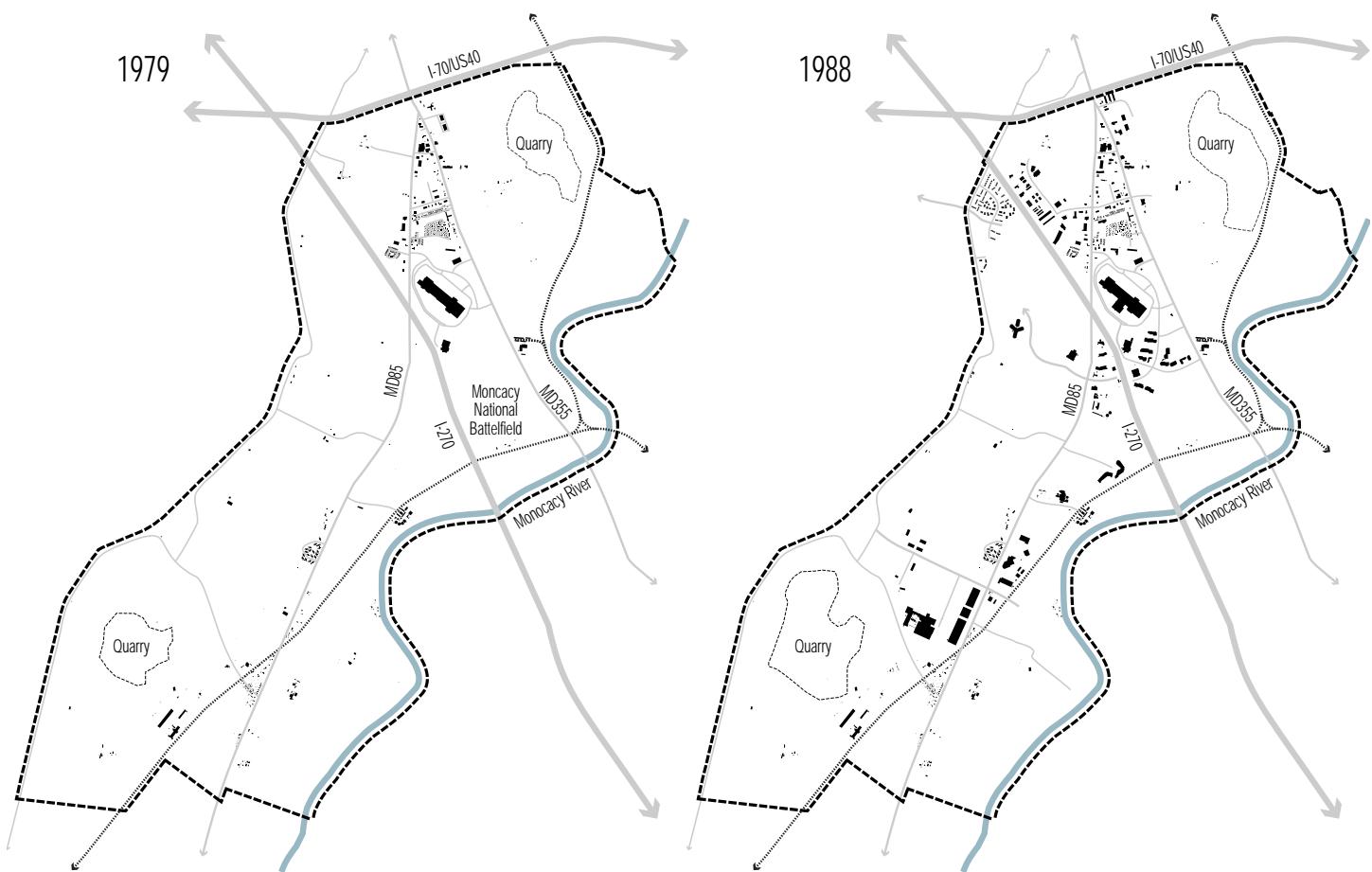
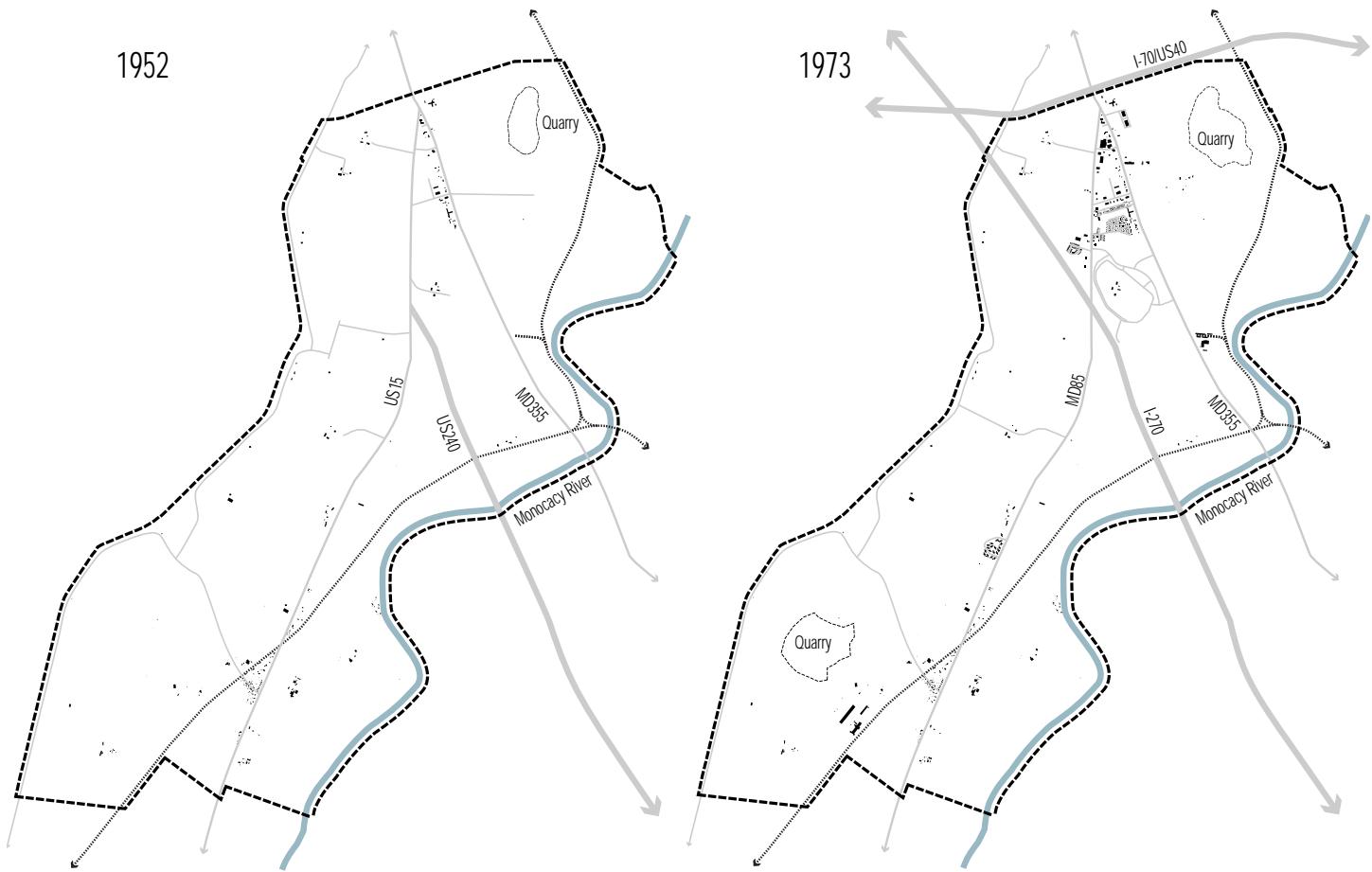
The associated images provide a vivid illustration of the transformation that the South Frederick Corridors have undergone in the last several decades. To an observer in the 1930's, this transformation would have been difficult to imagine. The transition from rural landscape to suburban center occurred slowly, not instantaneously, and required the active participation of planners, developers, property owners, and elected officials.

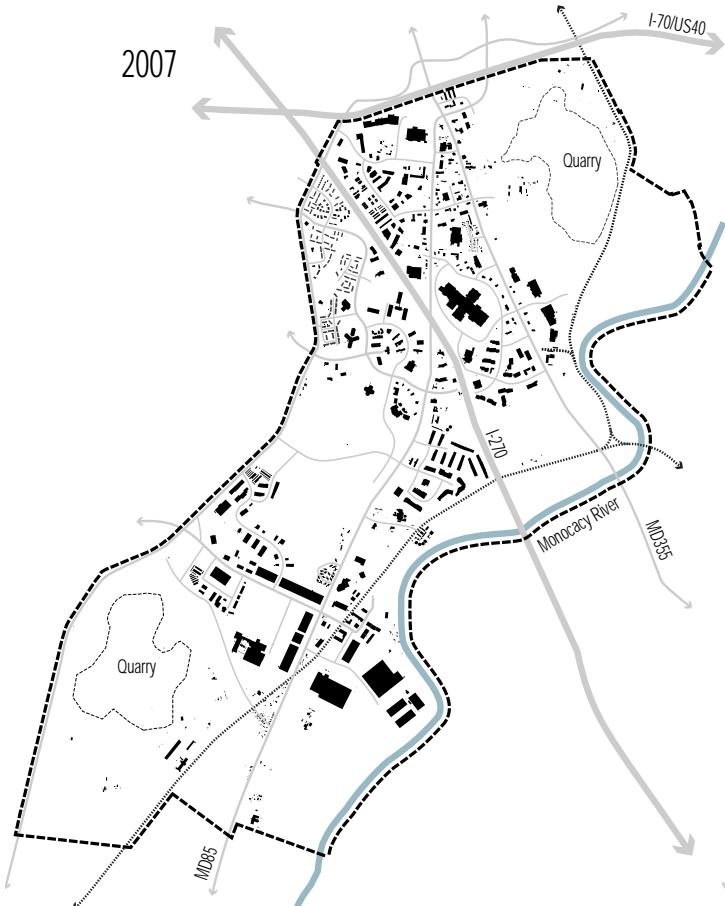
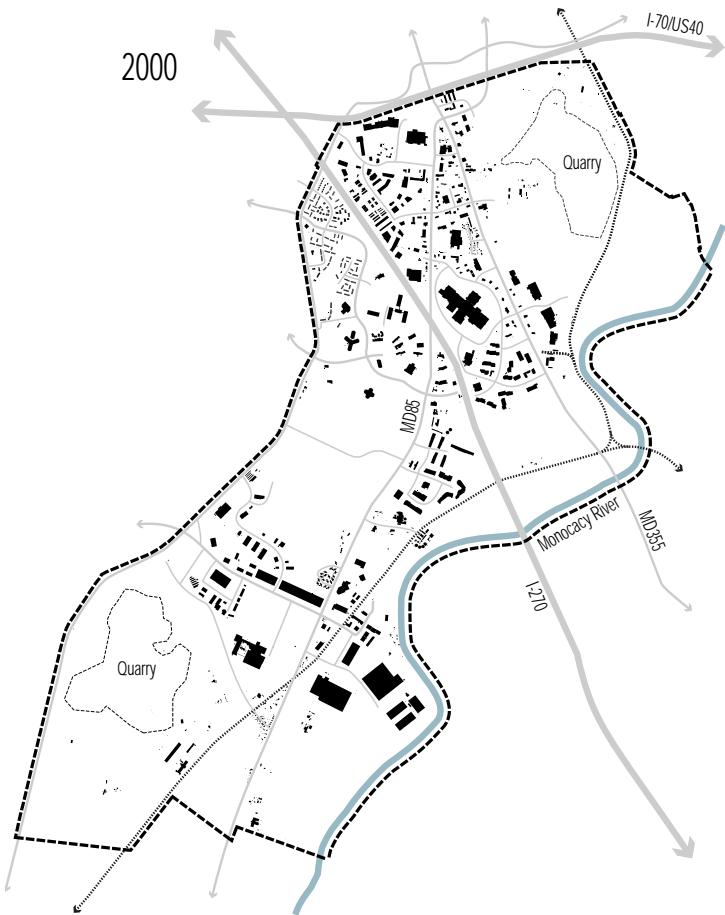
Similarly, new proposals for improving the South Frederick Corridors will emerge incrementally over a long period of time. As demonstrated in previous decades, land use changes do not occur overnight. In this respect, it makes sense to think ambitiously. Aspirational ideas often appear impractical or infeasible when assumed to occur instantaneously. However, as the diagrams above illustrate, given enough time, big changes do occur. The primary question facing the county at this moment, is whether those changes will reflect the outcomes preferred by members of the Frederick County community, or whether they will merely be the result of a piecemeal and uncoordinated cacophony of individual decisions.

At the heart of this question is a notion about the type of physical place that should be realized in the future through the continued development of the South Frederick Corridors. While the place that exists now has provided gains in terms of economic activity and community amenity, it has also resulted in losses in terms of physical character.

For example, throughout most of the county's history the South Frederick Corridors planning area was commonly tied to an identifiable physical feature located at the intersection of what would come to be MD85 and MD355. A line of evergreen trees was planted at this intersection, ostensibly to provide screening for the Locust Level estate house, which fronted these two well-traveled roads. The evergreen trees soon became the dominant characteristic at this intersection, which met at an oblique angle forming a point. Thus the name "Evergreen Point" emerged and became a common reference - a landmark - for this location just to the south of Frederick City.

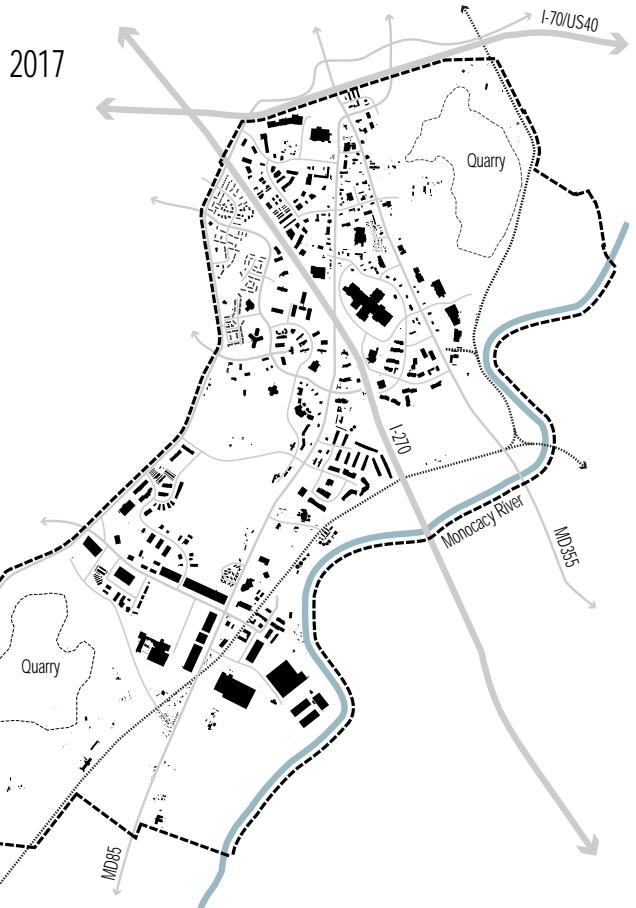
Landmarks such as these are one type of distinct aspect of physical places that afford the creation of vivid mental images associated with those places. As we think about the physical places we inhabit, these mental images form a kind of map in our minds, helping us develop a cohesive overall picture of the places we live.





For a long time, the notion of an actual Evergreen Point was a simple and clear part of this picture. As the corridors developed, the simple clarity of this condition was lost. In its place grew an environment that possessed few of the characteristics that could easily support legible, cohesive, and place-based evocative images. Today, if taken as a whole, the South Frederick Corridors are a seemingly haphazard collection of developed sites characterized primarily by an abundance of dispersed, low rise, large format buildings, surrounded by expansive - and grossly underutilized - parking areas.

This circumstance was never inevitable, and can certainly be greatly improved. Consider downtown Frederick City, which possesses a vivid clarity in its own physical form - the same kind of clarity that the evergreens at the intersection of MD85 and MD355 once provided. It is possible, if we plan boldly and with a shared vision, to regain this quality through gradual redevelopment. This consideration must be foremost in our minds as we embark on a plan for the future of the South Frederick Corridors.



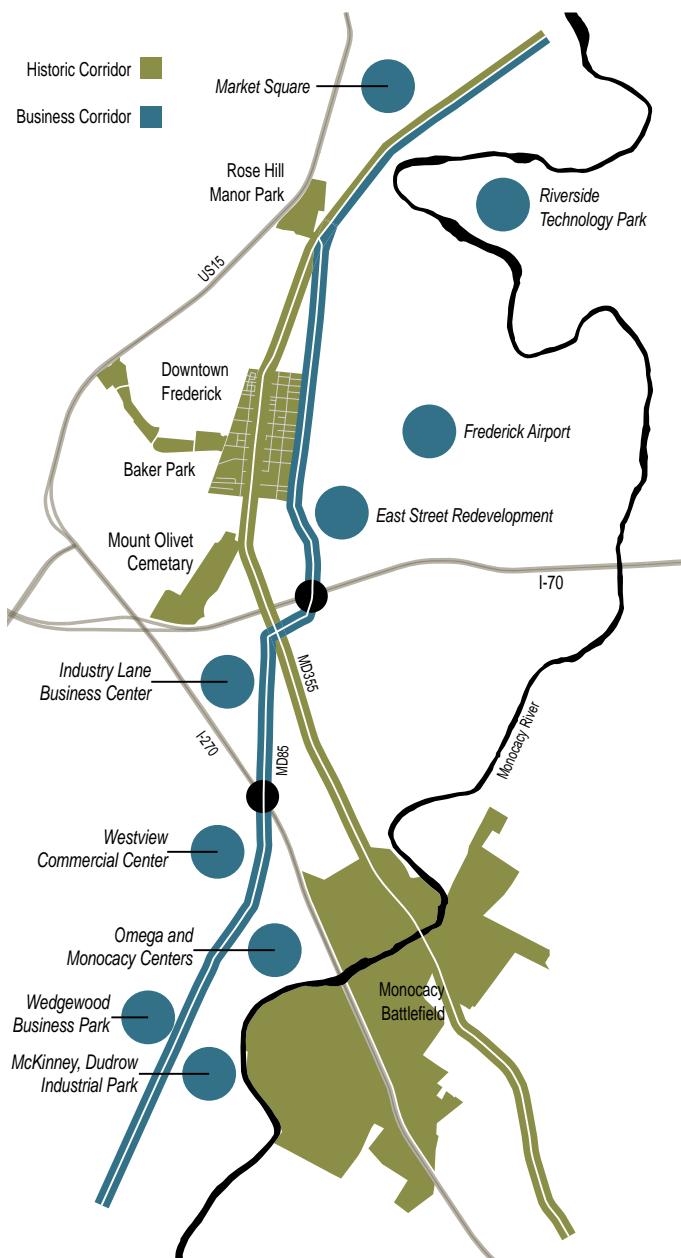
Thematic Corridors

Historic Corridor

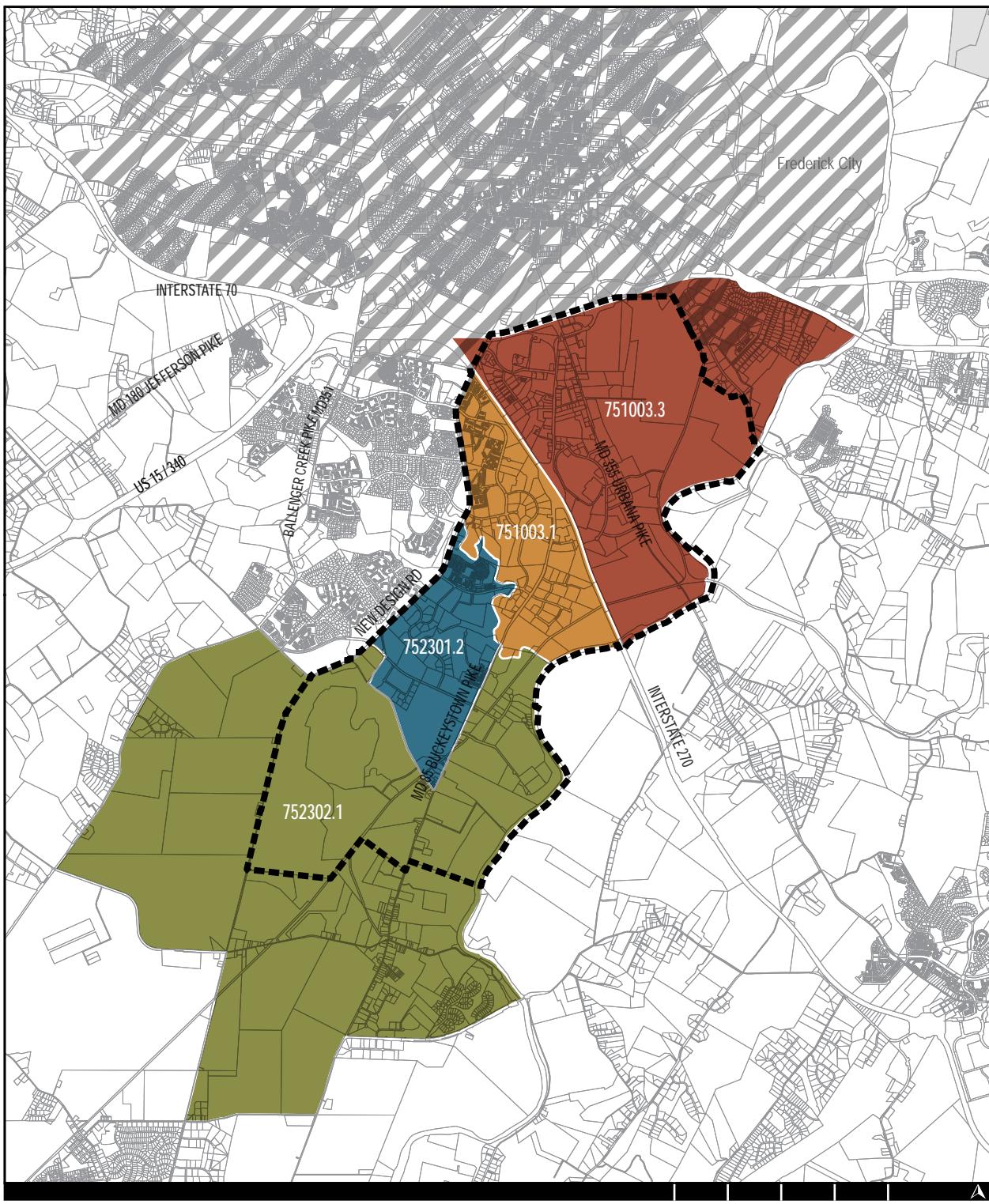
MD 355, Urbana Pike, is not only a historic road whose general alignment has been roughly the same since the pre-colonial era, but it also connects several significant historic places through Frederick County and Frederick City. In the southern portion of the South Frederick Triangle, MD355 crosses the Monocacy National Battlefield. As it continues north, MD355 passes several other historically significant places, such as Mt. Olivet Cemetery where Francis Scott Key is buried, the Historic District of Downtown Frederick, Baker Park, and Rose Hill Manor (the retirement home of Thomas Johnson the first Governor of Maryland). These landmarks are illustrated below.

Business and Industry Corridor

MD85 connects significant centers of business and industry in Frederick County and through Frederick City. A large industrial center is located in Ballenger Creek East along MD85 and includes the Westwood Business Park, the McKinney and Dudrow Industrial Parks, and the Omega and Monocacy Centers. North of this is the Westview Commercial Center with mixed use development containing retail and office uses. In the South Frederick Triangle, Frederick Industrial Center contains a concentration of commercial and business services. As MD85 becomes East Street in the City of Frederick, redevelopment is planned for a mix of housing, retail, and office uses. This area is adjacent to the Frederick Airport Industrial Area. Further north, East Street terminates into other adjacent roads that lead to the North Frederick commercial area and the Riverside Technology Park.



Census Block Groups

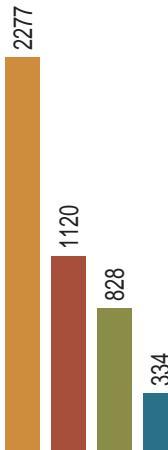


- Study Area
- Block Group 752302.1
 - Block Group 752301.2
 - Block Group 751003.1
 - Block Group 751003.3

Demographics

American Community Survey⁶ 2017 data from the U.S. Census is provided below for a variety of topics. Data is filtered by census blocks groups, two of which extend beyond the boundary of the study area proper. These are block groups 751003.3 and 752302.1. Census block groups relative to the South Frederick Corridors study area are shown on the map labeled "Census Block Groups."

Resident Population

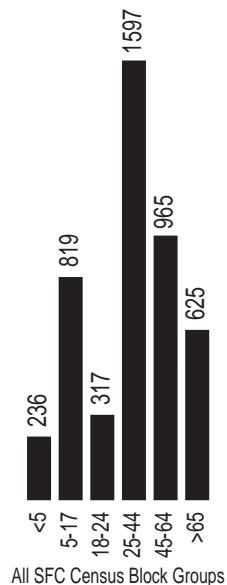
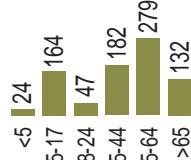
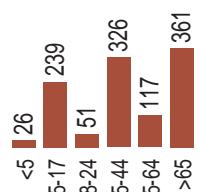
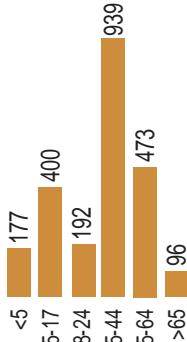
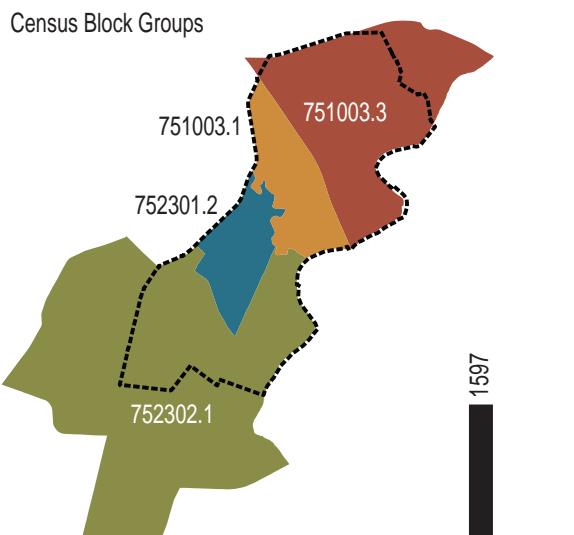


4,559 total residents in all four Census Block Groups counted in the 2017 US Census American Community Survey (ACS).

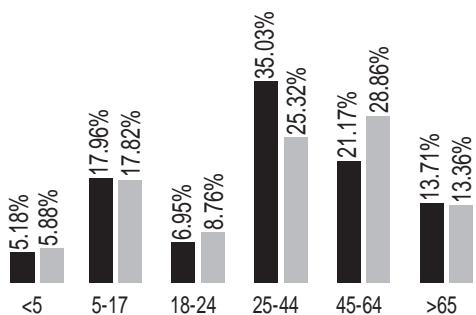
This is approximately 2% of the total ACS Frederick County resident population.

The resident population in Census Block Group 751003.3 is largely outside of the planning area.

Total Number of Residents



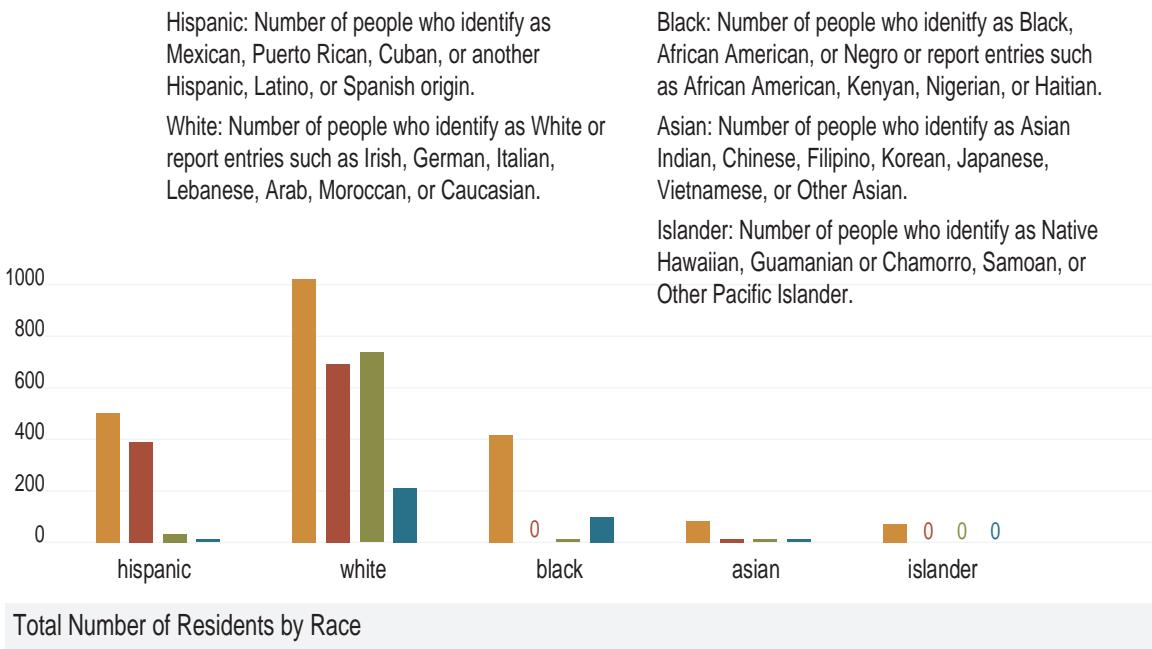
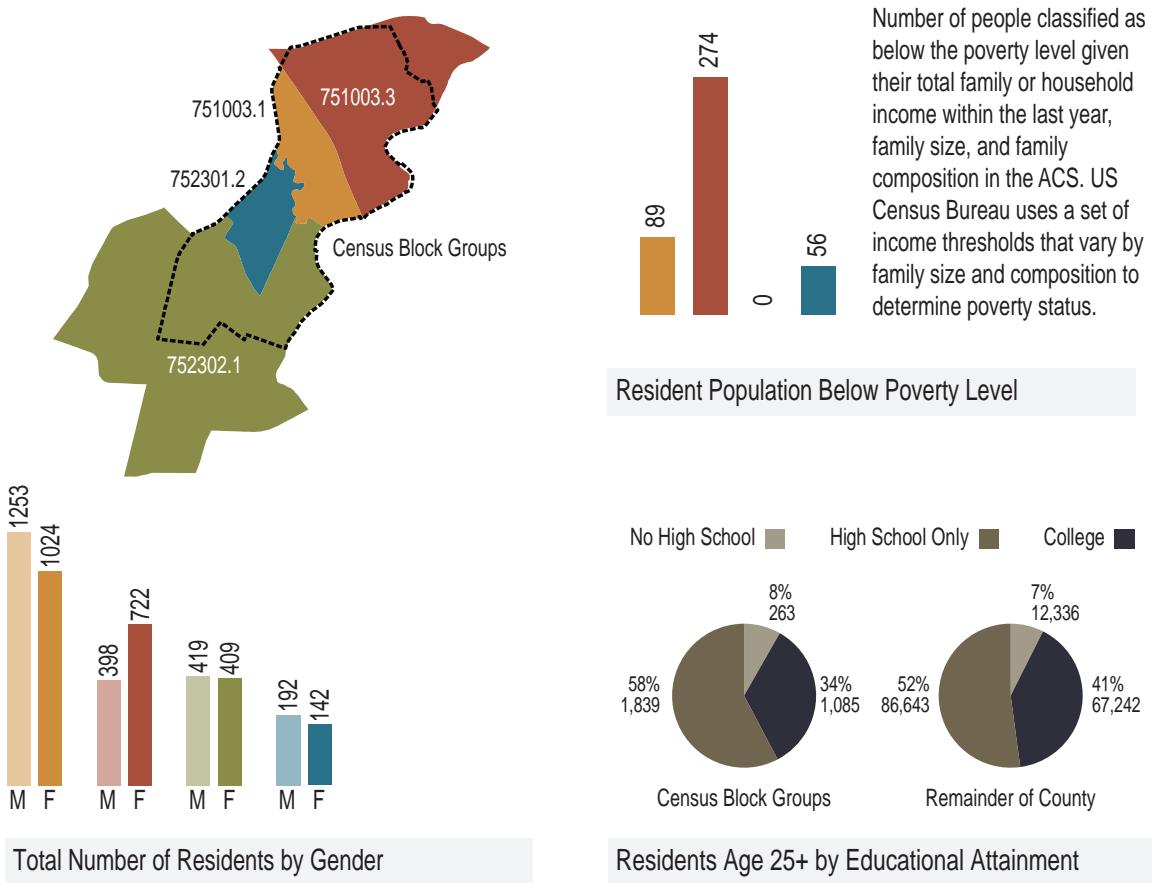
Total Number of Residents by Age Group



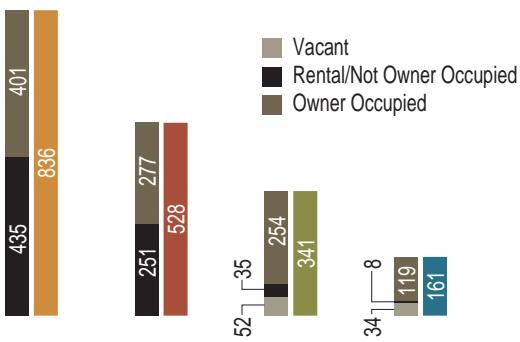
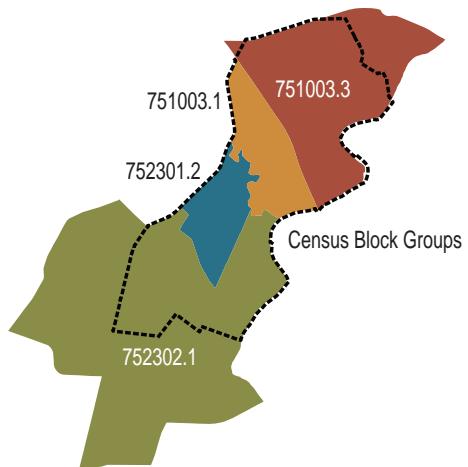
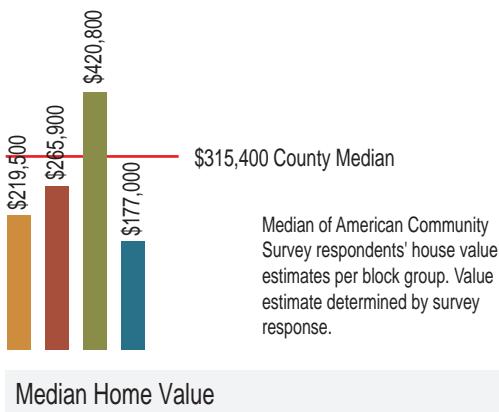
The resident age distribution within the Census Block Groups of the planning area generally mirrors the age distribution of the entire county with the exception of the 25-44 and 45-64 age groups. The planning area contains a higher rate of younger adults and a lower rate of older adults than the county as a whole. Housing affordability and proximity to downtown Frederick City may play a role in this difference.

■ Remaining County
■ South Frederick Corridors Census Block Groups

Share of Resident Population by Age Group

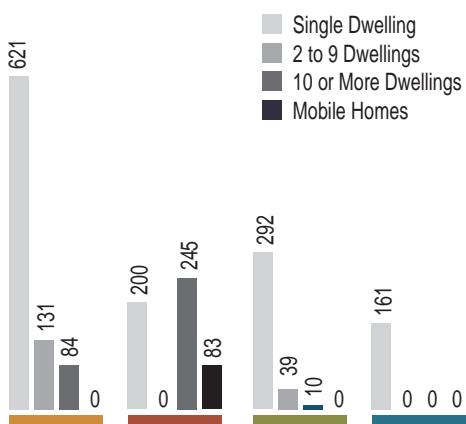


Housing



Countywide, the census blocks of the South Frederick Corridors planning area constitute approximately 2% of all owner occupied, 3% of all rental/not owner occupied, and 2% of all vacant housing units in the county.

Housing unit number is composed of ACS living quarters in which the occupant(s) live separately from any other individuals in the building and have direct access.



The census blocks of the South Frederick Corridors planning area constitute approximately 2% of all single family detached dwellings in the county, 3% of dwellings located in buildings of 2 to 9 units, and 3% of dwellings located in buildings of 10 or more units. Notably, the planning area contains 11% of all mobile homes in the county.

Employment

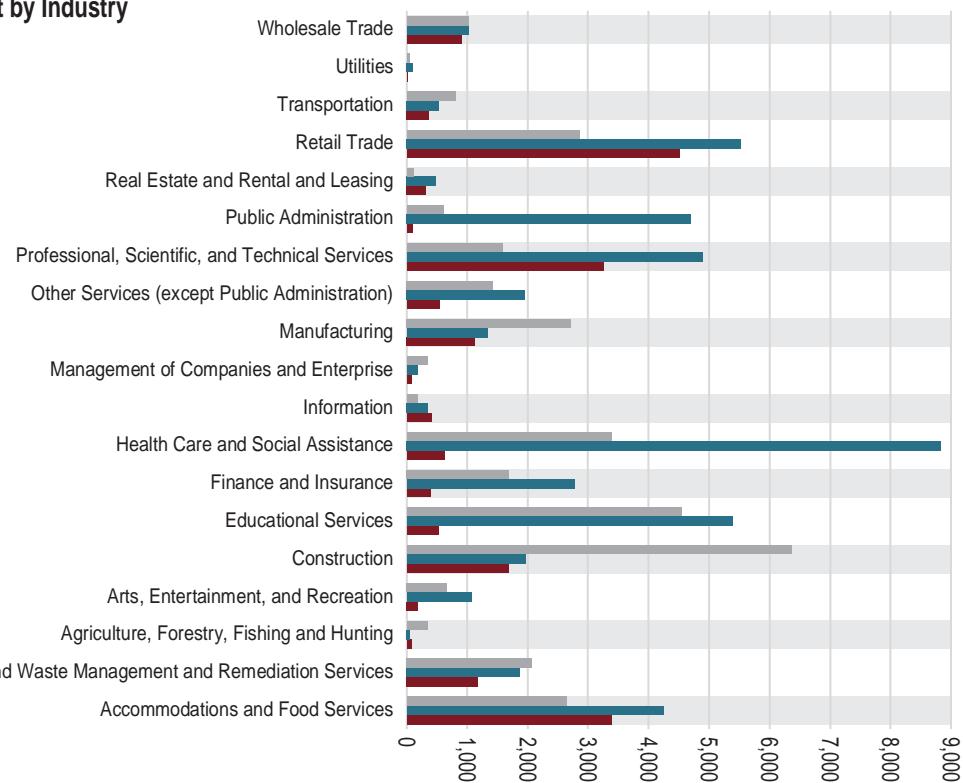
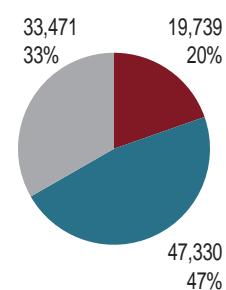
The Quarterly Census of Employment and Wages⁷ (QCEW) program, administered by the Federal Bureau of Labor Statistics, publishes a quarterly count of employment and wages reported by employers covering more than 95 percent of U.S. jobs by industry. This data was combined with data from Infogroup⁸ to provide additional information. The following data displays number of jobs and number of business establishments in the South Frederick Corridors, overall and by sub-area for the year 2017.

Overall, the South Frederick Corridors constitute 20% of the county's jobs, 15% of the county's business establishments, and 15% of the county's total wages. With only 15% of the county's total wages allocated to 20% of the county's total jobs, the South Frederick Corridors tends to contain lower paid jobs. This may be related to the dominance of retail, food service, and accommodation industries in the planning area. The three largest industries by employment in the South Frederick Corridors planning area are Retail Trade, Accommodations and Food Services, and Professional, Scientific, and Technical Services. By total wages, the three largest industries are Professional, Scientific, and Technical Services, Retail Trade, and Construction. By number of establishments, the three largest industries are Retail Trade, Professional, Scientific, and Technical Services, and Accommodations and Food Services.

2017 Jobs, Establishments, and Wages

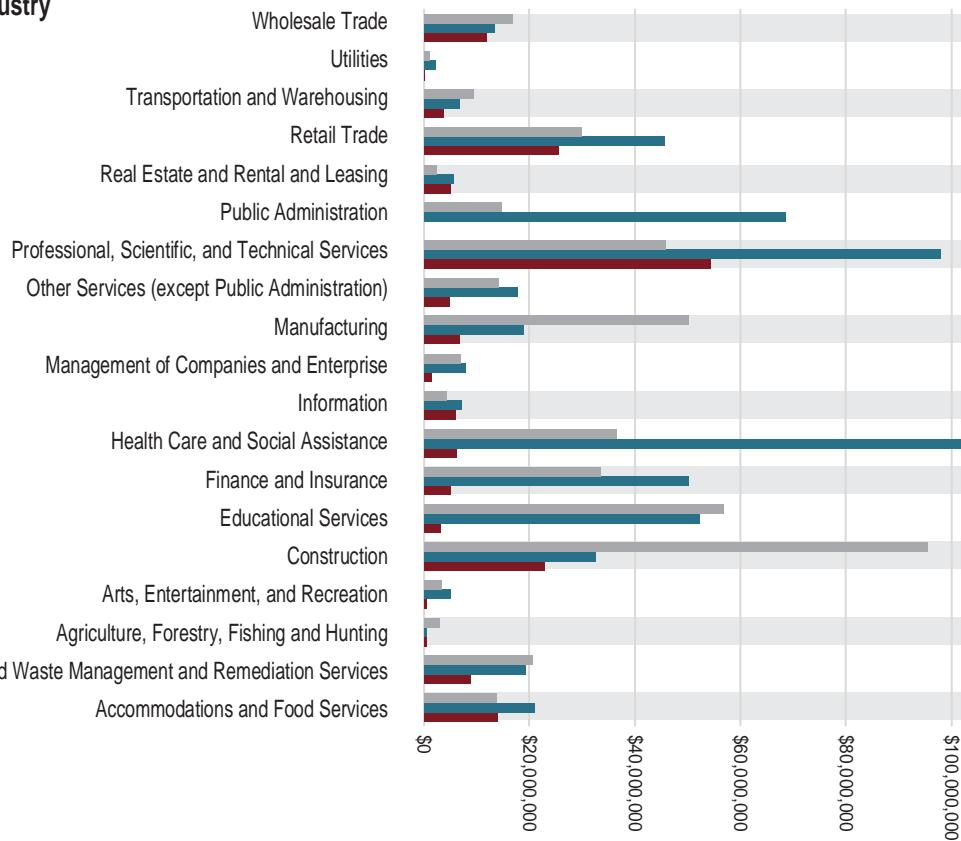
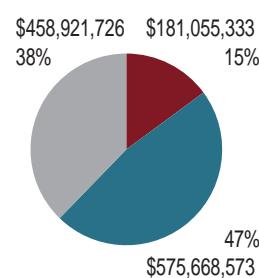
2017 Average Employment by Industry

- South Frederick Corridors
- City of Frederick
- Remainder of County



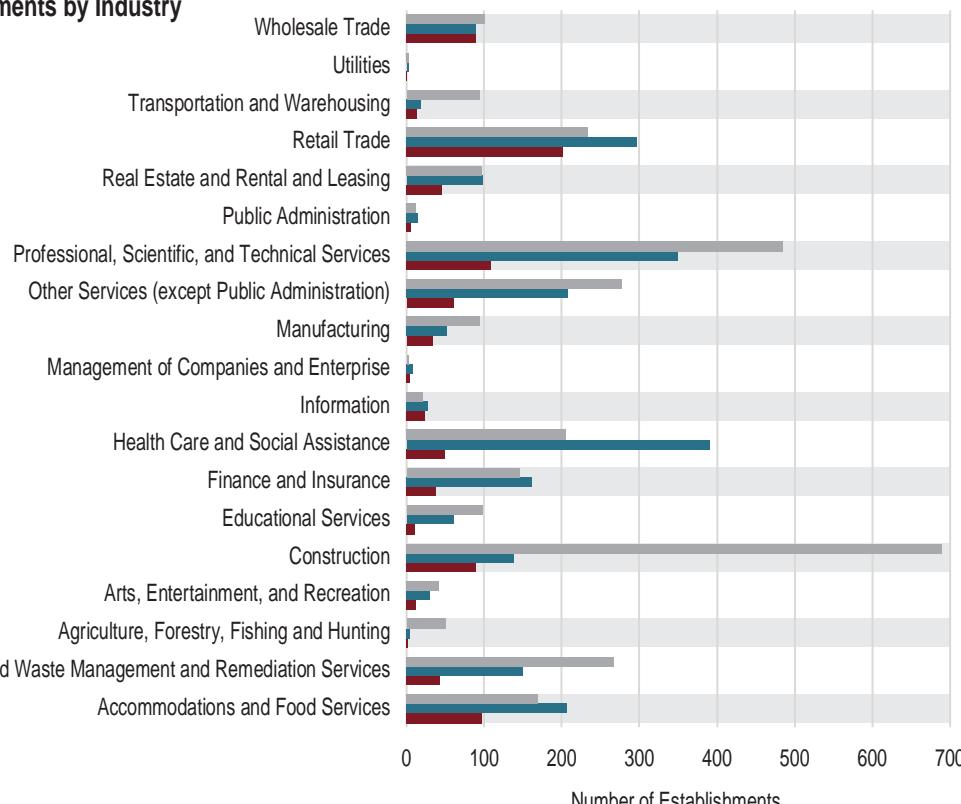
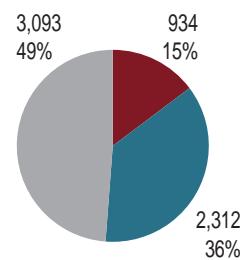
2017 Total Wages by Industry

■ South Frederick Corridors
■ City of Frederick
■ Remainder of County



2017 Number of Establishments by Industry

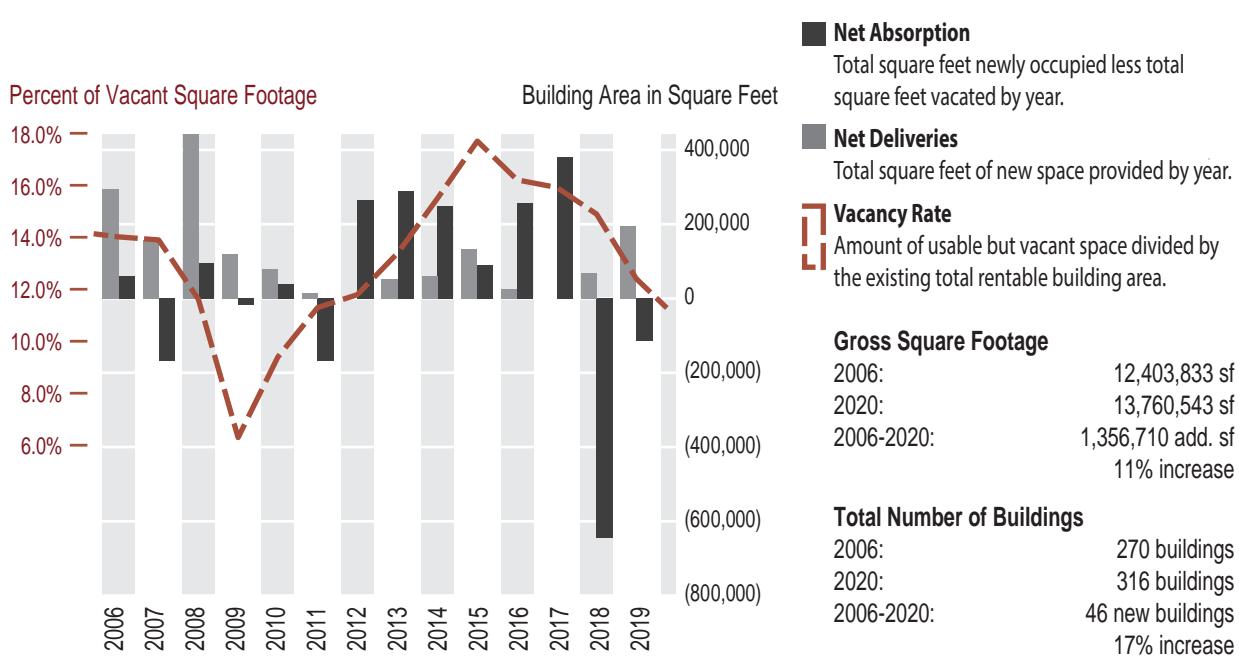
■ South Frederick Corridors
■ City of Frederick
■ Remainder of County



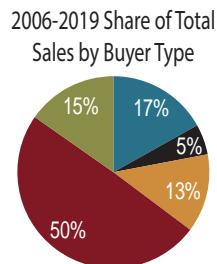
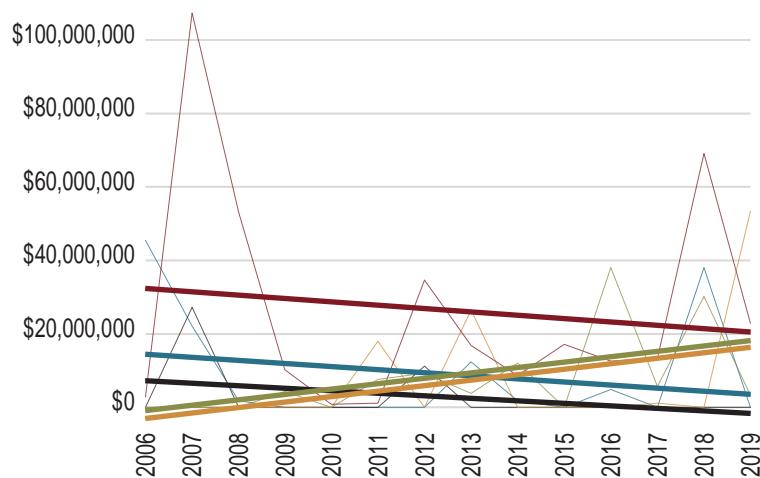
Commercial Land

Information related to commercial land for the years 2006 through 2020 was compiled for the planning area using CoStar[®] data.

Planning Area Commercial Building Supply and Development Activity



2006-2012 Commercial Building Supply

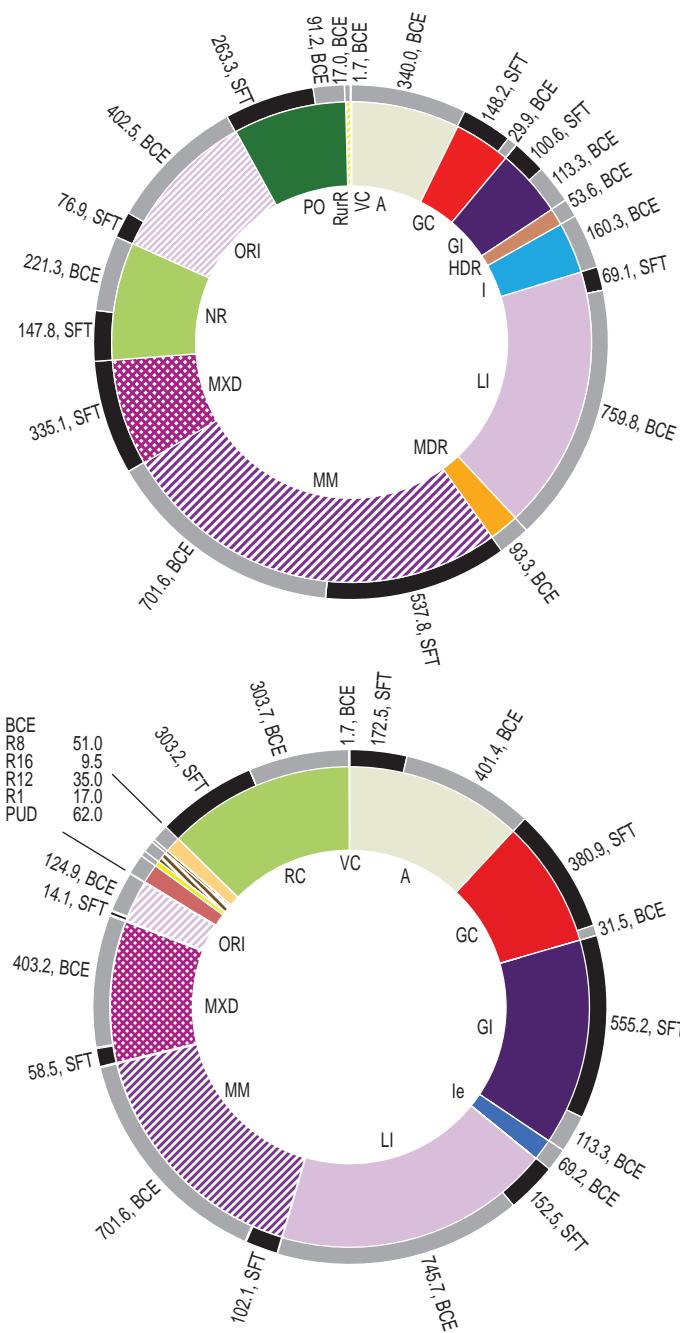


The chart displays trend lines with data points in the background. Trend lines indicate that Private, REIT, and Institutional buyer types have been declining while Private Equity and User buyer types have been rising.

2006-2012 Real Estate Sales Volume by Buyer Type

Land Use and Zoning

The Zoning Map illustrates different categories of uses that are allowed by law to occur on property. The Comprehensive Plan Land Use Map illustrates the allocation of existing and future land use designations, roadway alignments, and community facilities. It is a tool for planning and does not dictate the allowed uses on property. A measure of the potential change to existing land use that is represented by the Comprehensive Plan Map can be attained by combining land use categories and their equivalent zoning districts into seven groups and comparing designated land area for each group. This analysis results in the following potential land use difference between the Comprehensive Plan Map and the resulting zoning: Agricultural -5%; Commercial -5%; Industrial -5%; Residential 0%; Institutional +2%; Mining +10%; and Resource/Open Space +3%.



Comprehensive Plan

- A - Agricultural / Rural
- NR - Natural Resource
- PO - Public Parkland / Open Space
- RurR - Rural Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- VC - Village Center
- GC - General Commercial
- LI - Limited Industrial
- ORI - Office / Research / Industrial
- GI - General Industrial
- MXD - Mixed Use Development
- MM - Mineral Mining
- I - Institutional

- South Frederick Triangle (SFT)
- Ballenger Creek East (BCE)

Zoning

- A – Agricultural
- RC – Resource Conservation
- R1 – Low Density Residential
- R8 – Middle Density Residential
- R12 – High Density Residential
- R16 – High Density Residential
- PUD – Planned Unit Development
- GC – General Commercial
- GI – General Industrial
- LI – Limited Industrial
- ORI – Office/Research/Industrial
- MXD – Mixed Use Development
- MM – Mineral Mining
- Ie – Institutional

Natural Resource: This land use designation is applied to identify significant natural resource features to provide guidance for the application of the Resource Conservation zoning district and other resource protection strategies. The Natural Resource designation also supports the delineation of boundaries for growth areas and helps to identify potential greenway linkages within and between growth areas. This is primarily applied to mountain areas, contiguous forest, major streams, and the State of Maryland Green Infrastructure features.

Public Parkland/Open Space: This designation is applied to parkland that is primarily under local, state, or federal ownership, publicly-owned natural areas for the protection of watersheds that supply public water, and some large private property holdings with active conservation measures. Corresponding zoning districts include Resource Conservation, Agricultural, and some residential zoning districts.

Agricultural/Rural: This designation is applied to areas outside of growth areas that include active farmland, fallow lands, and residential lots and subdivisions that have been developed under the Agricultural zone. The corresponding zoning district is Agricultural (A).

Rural Community: The Rural Community designation is applied to older "crossroads" villages located throughout the county's agricultural areas and generally composed of homes, churches or other community buildings, and businesses. This designation supports the retention of rural and historic character and advocates infill development using individual well and septic systems. They are not identified as growth areas. Corresponding zoning districts include R-1 Low Density Residential, Village Center (VC), and General Commercial (GC).

Rural Residential: This designation is applied to existing major residential subdivisions, outside of growth areas, that are served by wells and septic systems. Rural Residential areas are not intended to be served by public water/sewer, should only allow for continued build-out and infill of existing lots/subdivisions, and should not be expanded into surrounding agricultural properties. Corresponding zoning districts are R-1 and Agricultural.

Low Density Residential: This designation is applied within growth areas and where public water/sewer is available or planned. The targeted density range is 3 – 6 dwellings (du)/acre. This designation may be applied to older developments within a growth area that may still rely on individual well/septic systems. Corresponding zoning districts include R-3, R-5 and PUD.

Medium Density Residential: This designation has a density range of 6 – 10 dwellings/acre with public water/sewer, generally resulting in attached dwellings such as townhouses. Corresponding zoning districts include R-8 and PUD.

High Density Residential: The intent of this designation is to support the development of multi-family housing. The density range is >10 dwellings/acre. Corresponding zoning districts include R-12, R-16, and PUD.

Mixed Use Development: This designation is intended to facilitate redevelopment and transit oriented development (TOD) opportunities in existing developed areas adjoining underutilized commercial, industrial, and employment areas, and vacant or underutilized commercial/employment corridors. It supports mixed use development that includes residential, commercial, office/employment, and institutional uses, and medium to high densities especially within TOD projects. Corresponding zoning districts include the Mixed Use Euclidean zone and the Mixed Use Floating Zone.

Village Center: The intent of the Village Center designation is to accommodate a mix of commercial uses and residential uses within existing communities. Can be applied to growth areas where public water/sewer is available and to communities that rely on individual well/septic systems. The corresponding zoning district is Village Center (VC).

Commercial and Employment Designations

General Commercial: This designation supports general retail, small-scale office, business/personal service uses, and highway services. General Commercial uses are primarily provided within growth areas, with the exception of existing, isolated commercial uses. The corresponding zoning district is General Commercial (GC).

Office/Research: This designation is applied to areas planned for professional office and research and development uses. The corresponding zoning district is Office/Research/Industrial (ORI). This designation also allows for the application of the Mixed Use Development (MXD) floating zone.

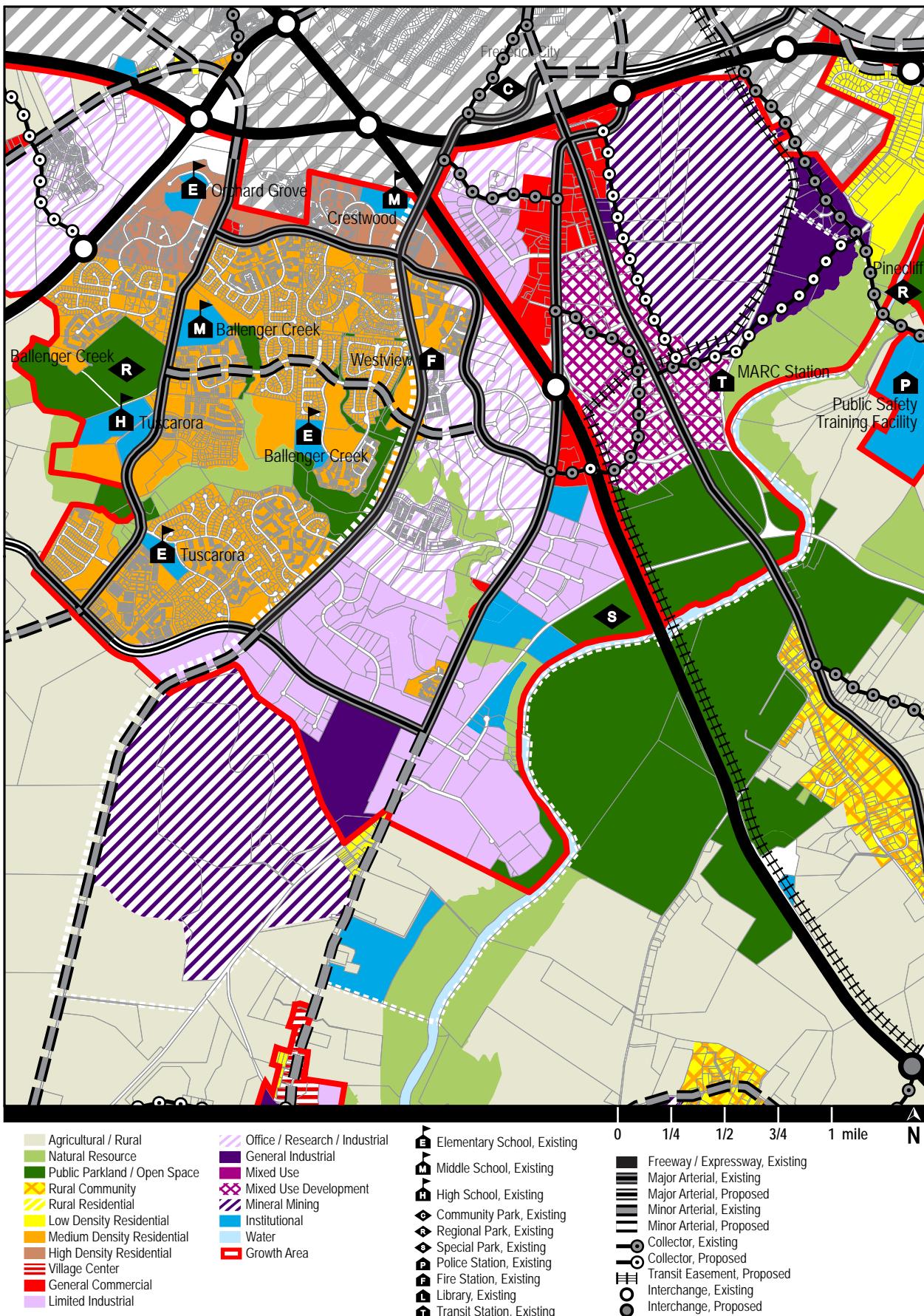
Limited Industrial: This designation supports warehousing, wholesaling, and limited manufacturing, as well as office and research/development. This is predominantly applied within growth areas that have access to public water and sewer. The corresponding zoning district is Limited Industrial (LI). This designation allows for the application of the MXD floating zone.

General Industrial: This designation supports heavy industrial and manufacturing uses, as well as land uses typical in Limited Industrial developments. The corresponding zoning district is General Industrial (GI). The GI district also permits mineral mining activities.

Mineral Mining: This designation is primarily applied to areas under active mining operations and more recently has been applied to areas where future mining and associated activities may occur. The corresponding zoning district is Mineral Mining (MM).

Institutional: This designation is applied to public and governmental uses such as schools, libraries, public safety facilities, and water/sewer facilities. The corresponding zoning is generally Institutional (I).

Existing Comprehensive Plan Map



§ 1-19-5.220. AGRICULTURAL ZONING DISTRICT (A).

The purpose of the Agricultural District (A) is to preserve productive agricultural land and the character and quality of the rural environment and to prevent urbanization where roads and other public facilities are scaled to meet only rural needs.

§ 1-19-5.210. RESOURCE CONSERVATION ZONING DISTRICT (RC).

The purpose of the Resource Conservation Zoning District is to allow low intensity uses and activities which are compatible with the goal of resource conservation to be located within mountain and rural wooded areas. Areas within this district include mountain areas, rural woodlands, and cultural, scenic, and recreation resource areas. Environmentally sensitive areas within the resource conservation zone, including FEMA floodplain, steep slopes, wetlands and the habitats of threatened and endangered species, will be protected from development.

§ 1-19-5.230. RESIDENTIAL ZONING DISTRICTS.

(A)(1)The purpose of the residential density districts is to promote healthful and convenient distribution of population with sufficient densities to maintain a high standard of physical design and community service. Residential density districts will conform to the County Comprehensive Plan and will be located within areas identified for residential development. The districts, as a group, are intended to provide for a variety of dwelling types and densities and to offer housing choices at various economic levels. It is further the intent to establish various densities of residential developments in order to efficiently and effectively provide for necessary public services and facilities. The following residential density districts and maximum densities are hereby established.

§ 1-19-5.240. COMMERCIAL ZONING DISTRICTS.

(A)The purpose of commercial districts is to provide sufficient and convenient locations throughout the county for commercial uses, serving the needs of local areas, the larger community, and regional users.

(B)The Village Center District (VC) is intended to reinforce and enhance the historically mixed-use areas within rural communities and designated growth areas. The district provides for the location of a variety of limited commercial uses and a range of housing types while maintaining the compatibility of new development with existing development through design standards. A mix of uses is encouraged in the village center either within a single structure or as separate uses located throughout the district.

(C)The General Commercial District (GC) is intended to provide general retail commercial and business services. The general commercial district will be located on roads with a minimum classification of collectors as designated by the County Comprehensive Plan.

(D)The Mixed Use District (MX) is intended to provide for a mixture of residential, commercial, and employment uses served by publicly owned community water and sewer within growth areas for the purpose of redevelopment and in-fill where identified by a County Comprehensive Plan land use designation of Mixed Use.

§ 1-19-5.250. INDUSTRIAL ZONING DISTRICTS.

(A)The purpose of the industrial districts is to provide for the development of varied industrial uses that would supply needed employment opportunities for the county. Industrial development has inherent characteristics that require special attention and protection. Due regard must be given to industrial needs for adequate site locations with concentration on terrain, availability of water and sewer systems, transportation, and compatibility with surrounding development.

(B)The Limited Industrial District (LI) is intended to provide adequate area for development of industrial uses whose operations have a relatively minor nuisance value and provides a healthful operating environment secure from the encroachment of residential uses and protected from adverse effects of incompatible industries.

(C)The General Industrial District (GI) is intended to provide areas for industries involving manufacturing or processing and for those industrial uses which cannot meet the performance criteria of the Limited Industrial District.

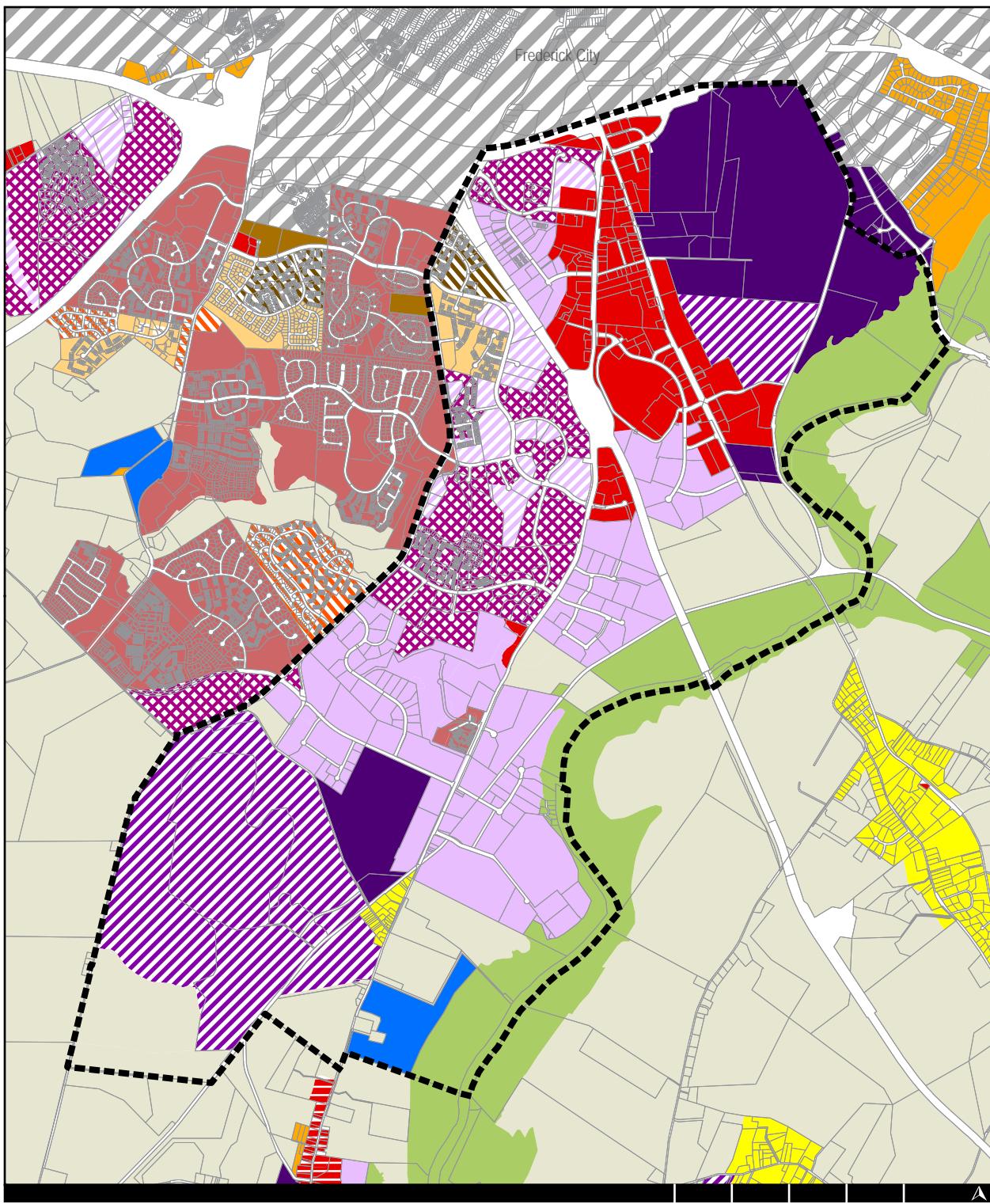
(D)The Mineral Mining District (MM) is a floating zone established for the purpose of providing for the development of needed mineral resources in areas where such resources exist subject to adequate safeguard for the conservation of the environment.

(E)The Office/Research Industrial District (ORI) is intended to provide for the development of office, research and limited manufacturing uses in high visibility locations along major highways. Development in this district shall be characterized by an absence of nuisances in a clean and aesthetically attractive setting. This district shall permit limited manufacturing, fabrication or assembly operations which would, by nature of the product, or magnitude of production, be compatible with research, professional or business offices. Commercial uses shall be limited to those which are primarily oriented towards servicing those businesses located within the Office/Research Industrial District.

§ 1-19-5.260. EUCLIDEAN INSTITUTIONAL ZONING DISTRICT (Ie).

The Euclidean Institutional Zoning District is established to provide for college or university, public school within the Agricultural Zoning District, private school, private school in conjunction with a place of worship, or residential treatment center in conjunction with a private school within the Agricultural or Resource Conservation Zoning Districts, and a continuing care retirement community (CCRC) within the Agricultural and R1 Zoning Districts, in existence or with final site development plan approval on June 15, 2009.

Existing Zoning Designations



- | | | |
|---------------------------------|--------------------------------|----------------------------------|
| A - Agricultural | R12 - High Density Residential | ORI - Office/Research/Industrial |
| RC - Resource Conservation | R16 - High Density Residential | MX - Mixed Use |
| OSR - Open Space Recreation | PUD - Planned Unit Development | MXD - Mixed Use Development |
| R1 - Low Density Residential | VC - Village Center | MM - Mineral Mining |
| R3 - Low Density Residential | GC - General Commercial | Ie - Institutional |
| R5 - Middle Density Residential | GI - General Industrial | |
| R8 - Middle Density Residential | LI - Limited Industrial | |

Water and Sewerage Plan Classifications:

Tracts of land where publicly-owned community water and/or sewer facilities are proposed to be extended by developers or where the County or municipalities anticipate that development may occur within 20 years may be assigned a classification with the suffix "Development" or "Dev.". A "Dev." designation means that the extension or construction of publicly-owned community systems or facilities is dependent upon developer or land owner action and funding.

NPS – No Planned Service:

A classification assigned during the Comprehensive Planning Process to land that is not planned or projected to be served by publicly-owned community water or sewer systems within the timeframe of the current County Comprehensive Plan.

PS – Planned Service:

A classification assigned during the Comprehensive Planning Process to an area shown on the Comprehensive Plan for growth utilizing publicly-owned community water and/or sewer systems, or within the Community Growth boundary of a community to be served by public water and sewer in the adopted County Comprehensive Plan, within the 11-20 year time period. Properties within this classification have designations other than Agricultural/Rural or Natural Resource on the County Comprehensive Plan.

S-5/W-5 – Mid-Range Plan Phase:

A classification assigned through the Comprehensive Planning Process where improvements to, or construction of, publicly-owned community sewerage or water systems are planned within the 7-10 year time period. Properties classified S-5/W-5 are not required to, but may, connect to the community system.

S-4/W-4 – Concept Evaluation Phase:

A classification assigned through the piecemeal application process to properties having an S-5/W-5 classification, and designated residential, commercial, or industrial, or in general, a category other than Agricultural/Rural or Natural Resource on the most recently adopted County Comprehensive Plan, and where improvements to, or construction of, publicly-owned community sewerage or water systems are planned within the 4-6 year time period. Properties classified S-4/W-4 shall connect to the public system when service lines abut the property.

S-3/W-3 – Preliminary Design Phase:

A classification assigned through the piecemeal application process to properties where improvements to, or construction of, publicly-owned community sewer or water systems are planned to be completed and operational within 3 years. If applicant has not obtained approved water and sewer improvement plans for onsite work within three years or the Preliminary Plan/Site Plan/Phase II Plan expires, they may lose their "3" classification and revert to the "4" classification at the next amendment cycle. Properties classified S3/W-3 shall connect to the public system when service lines abut the property.

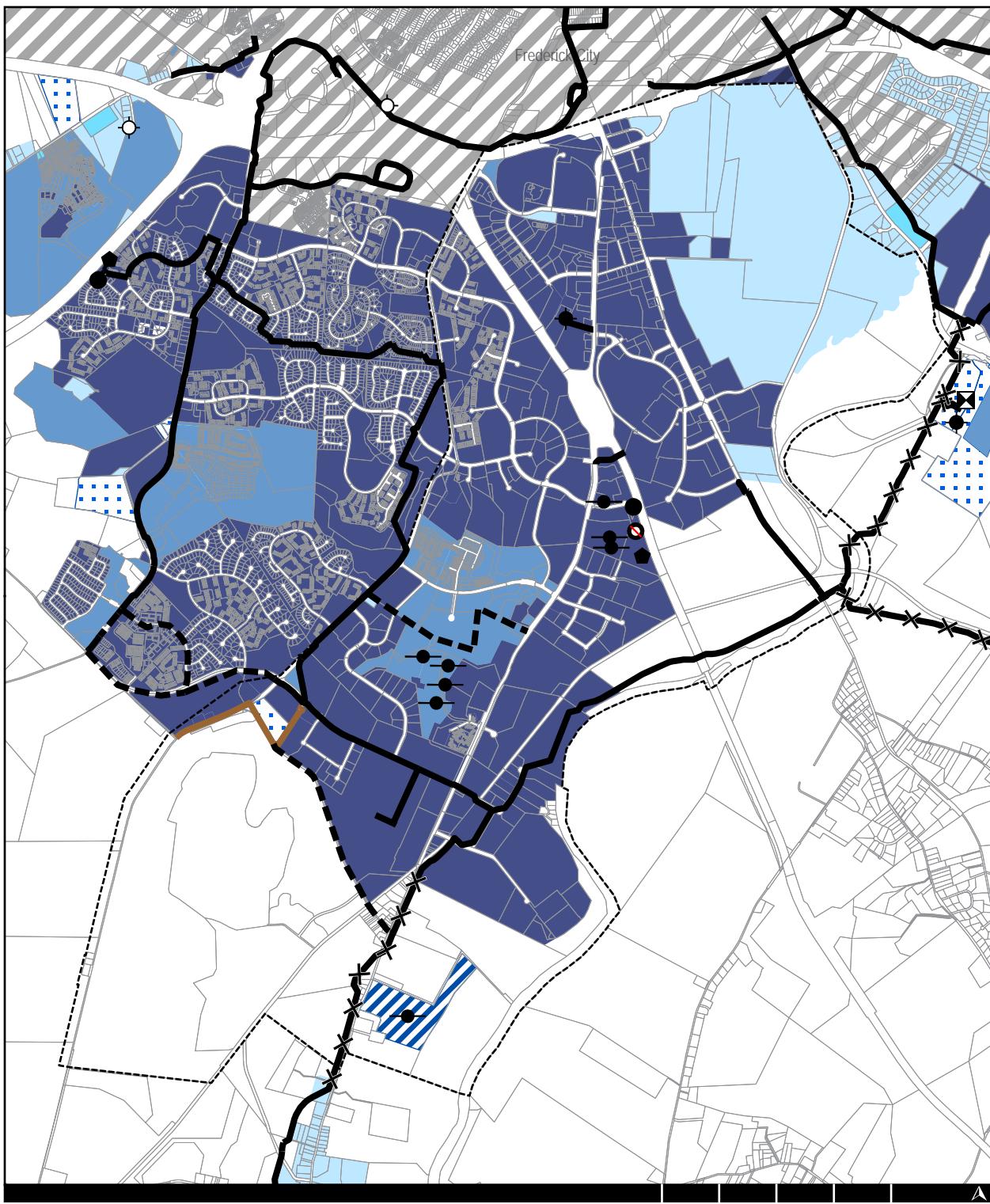
S-2/W-2 – Engineering Phase:

This classification is not mapped. Properties are assigned this category by County staff.

S-1/W-1 – Existing Service:

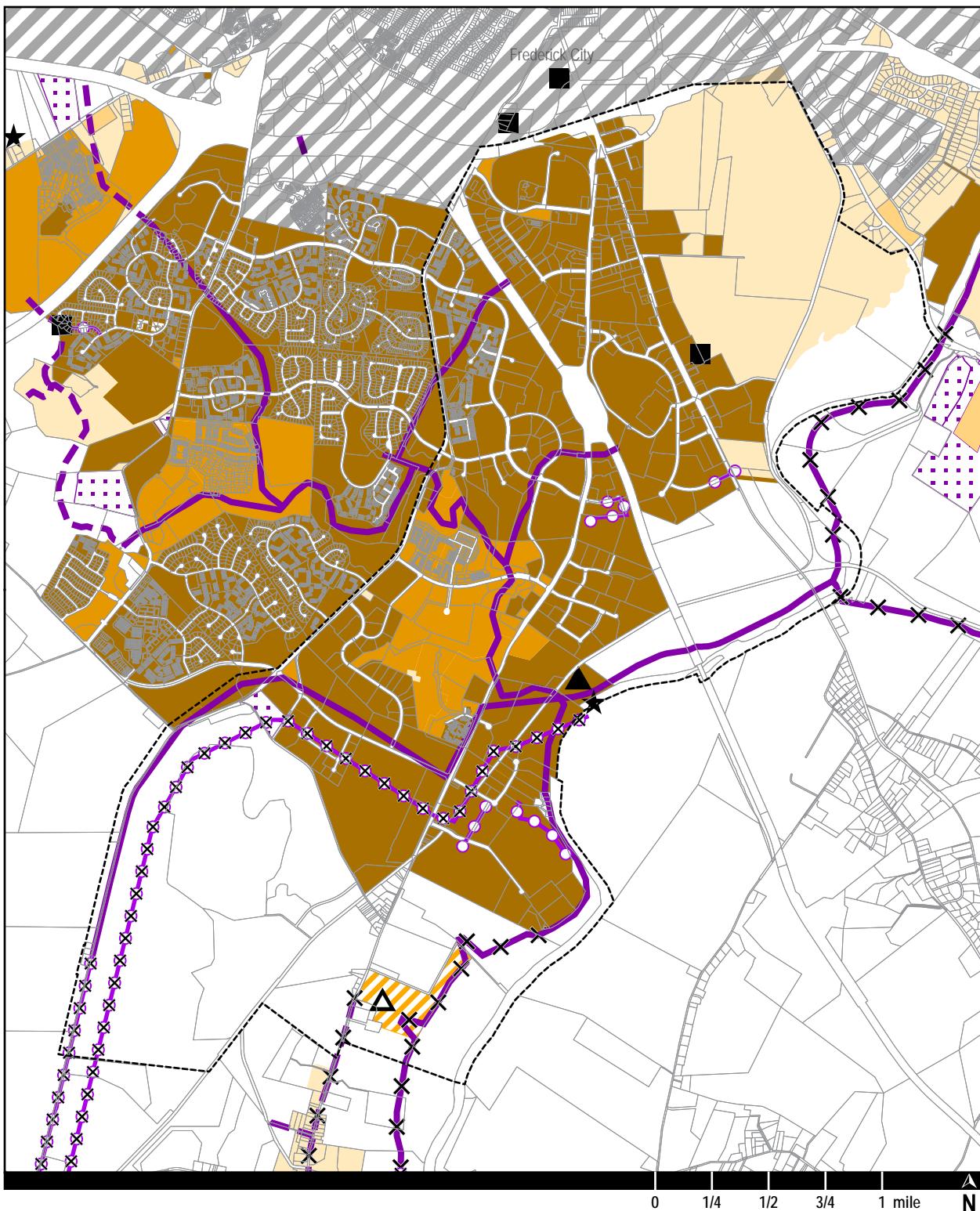
A classification assigned to properties where publicly-owned community sewer or water systems are existing and are connected to and serving a structure on the property. Properties are assigned this classification by County staff to reflect projects recently completed or structures connected to the public water or sewer system.

Existing Water Designations



- NPS
- Multi-Use
- W-1; W-1 DEV
- W-3; W-3 DEV
- W-4; W-4 DEV
- W-5; W-5 DEV
- PS
- Existing Elevated Storage Tank
- Existing Ground Storage Tank; Existing Water Tank
- Existing Booster Pumping Station
- Existing Water Pumping Station
- Existing Well
- Planned Elevated Storage Tank
- Active Backup Water Treatment Plant
- Existing Water Line
- Proposed Water Line
- Existing Denied Access Water Line
- Existing Non-Potable

Existing Sewer Designations

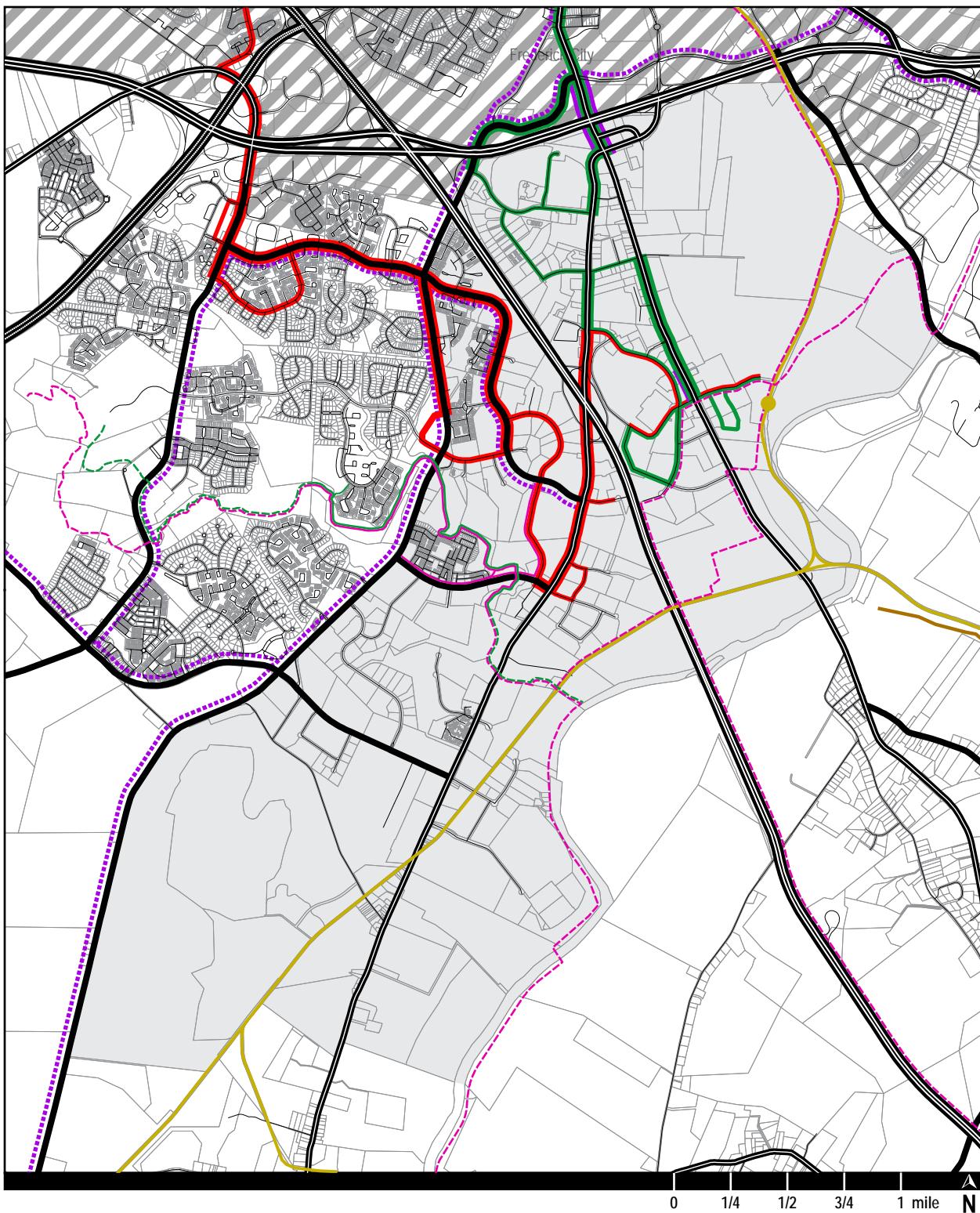


- Existing Pumping Station
- Planned Pumping Station
- ★ Existing Point of Discharge
- ★ Planned Point of Discharge
- ▲ Existing Wastewater Treatment Plant
- △ Planned Wastewater Treatment Plant

- Existing Line
- X Existing Line, Denied Access
- Existing Forced Main
- X Existing Forced Main, Denied Access
- Planned Line
- X Planned Line, Denied Access

- M-U
- NPS
- S-1; S-1 DEV
- S-3; S-3 DEV
- S-4; S-4 DEV
- S-5; S-5 DEV
- PS

Existing and Planned Transportation Infrastructure

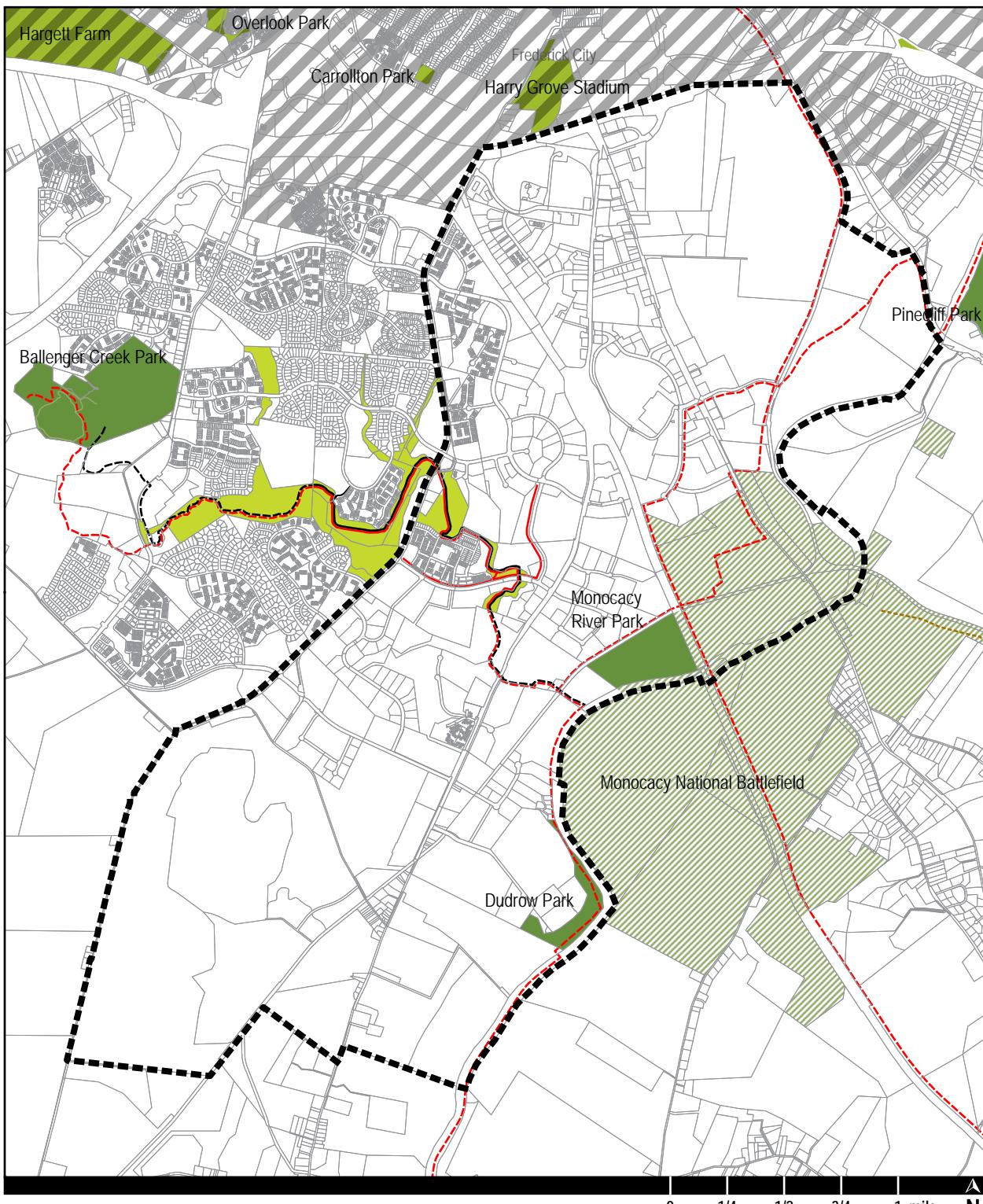


Interstate
U.S. Highway
State Highway
Major County Road
CSX/MARC Rail Line
MARC Rail Station

TransIT Route 10
TransIT Route 20
On-Street Bikeway Existing
On-Street Bikeway Proposed
Multi-Use Trail Existing
Multi-Use Trail Proposed

Ballenger Creek Trail Existing
Ballenger Creek Trail Proposed
Natural Surface Trail Proposed

Recreation



■ County Park
■ Federal Park
■ Municipal Park
■ Open Space

— Ballenger Creek Trail Existing
- - - Ballenger Creek Trail Proposed
- - - Natural Surface Trail Proposed
— Multi-Use Trail Existing
- - - Multi-Use Trail Proposed

	2019 State Rated Capacity	2019 Actual Enrollment	% of State Rated Capacity
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Elementary School

Ballenger Creek	614	571	93%
Butterfly Ridge	734	649	88%
Carroll Manor	595	551	93%
Lincoln	656	571	87%
Oakdale	624	793	127%
Orchard Grove	598	601	101%
Spring Ridge	523	449	86%
Tuscarora	580	713	123%
Urbana	725	797	110%

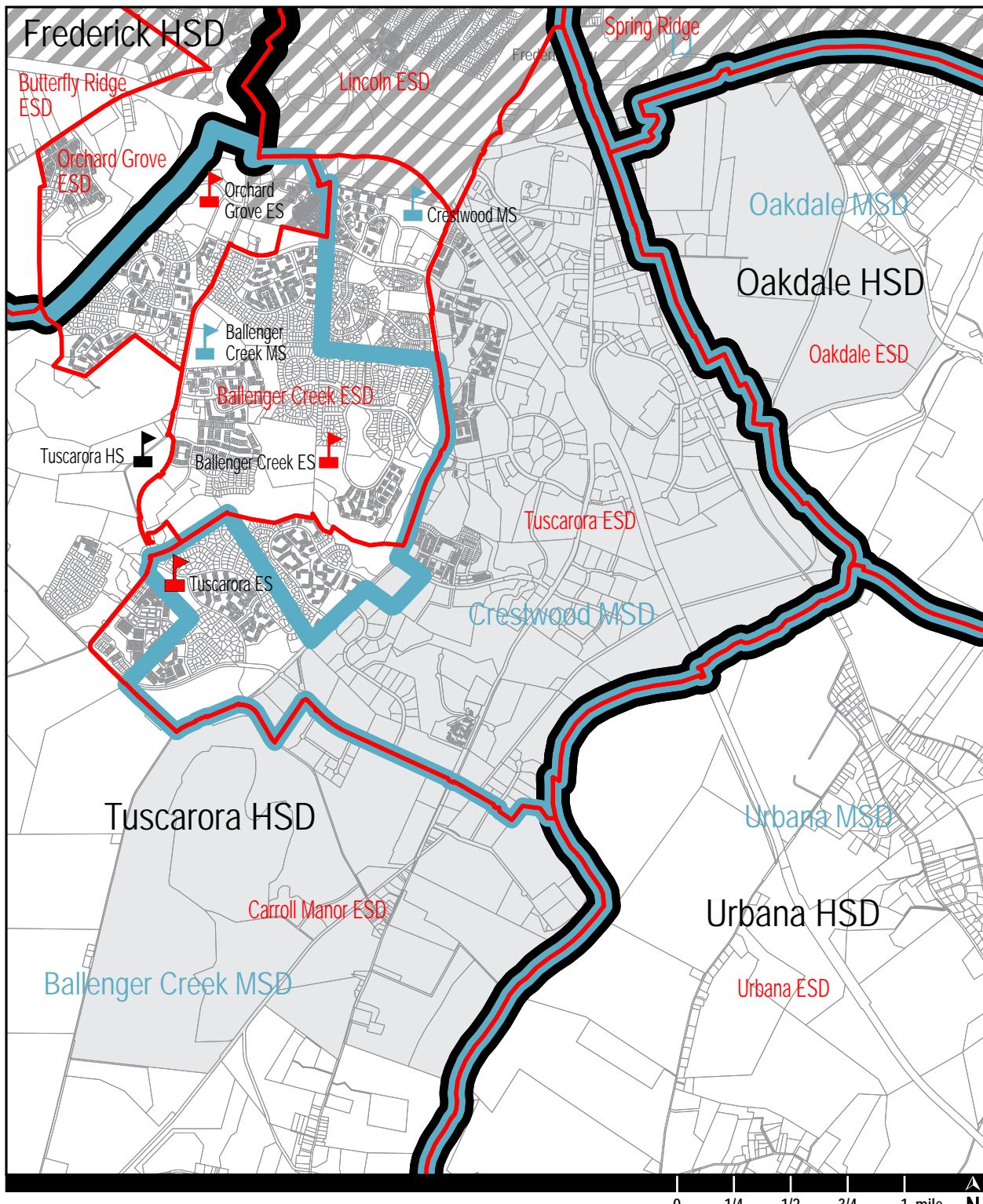
Middle School

Ballenger Creek	859	818	95%
Crestwood	850	690	81%
Oakdale	775	872	113%
Urbana	1020	1021	100%

High School

Frederick	1601	1508	94%
Oakdale	1535	1263	82%
Tuscarora	1749	1586	91%
Urbana	1831	1853	101%

School Districts



- High School (HS) District (HSD)
- Middle School (MS) District (MSD)
- Elementary School (ES) District (ESD)

FRO Easements

These easements are perpetual (forever) easements that provide forest conservation mitigation for development projects. These projects range from residential subdivisions to commercial development projects.

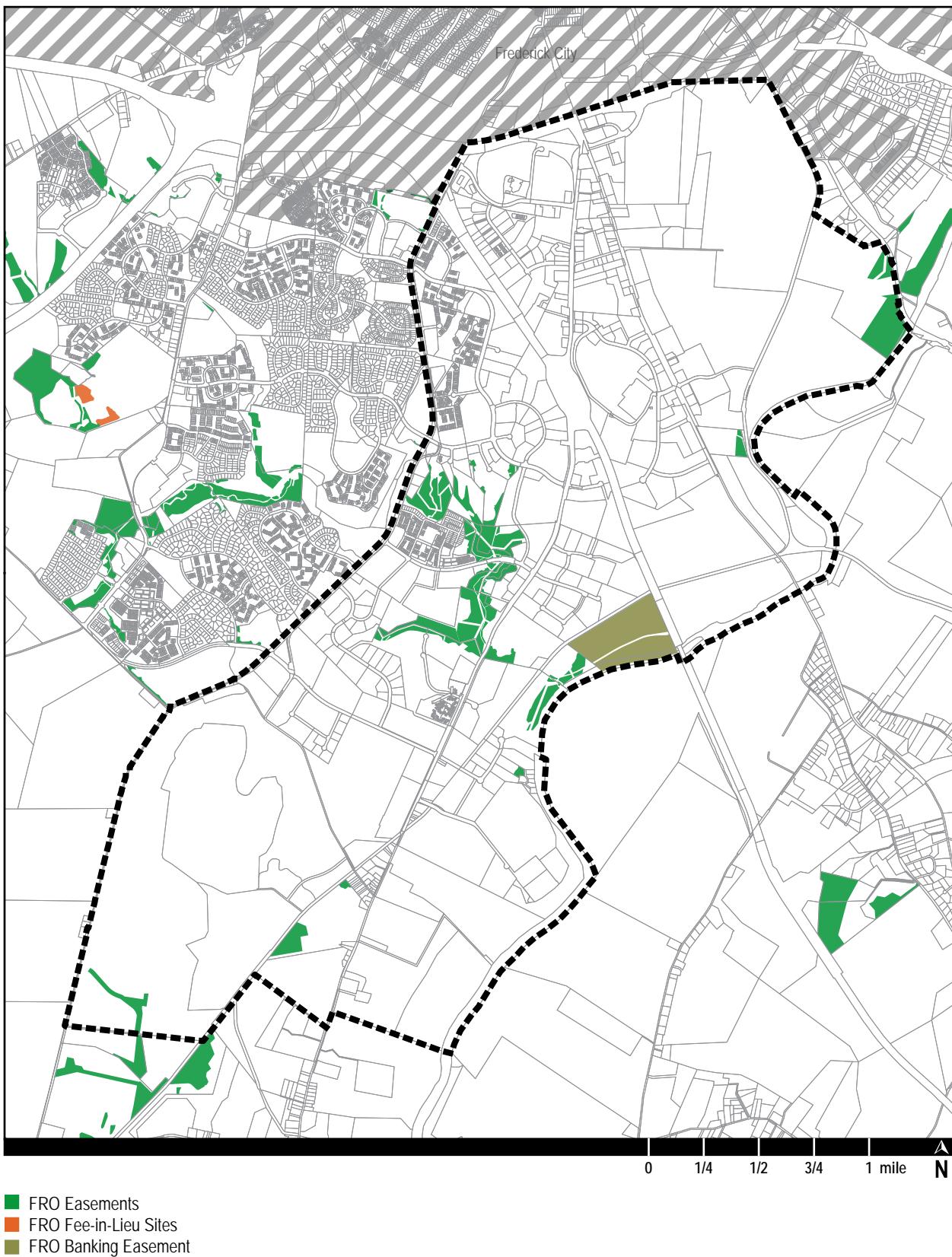
FRO Fee-in-Lieu Sites

These forest planting sites are selected by the County for the purpose of spending the fee-in-lieu mitigation dollars collected from development projects. Fee-in-lieu mitigation is a last resort option and may only be used for development projects requiring less than $\frac{1}{4}$ acre of mitigation.

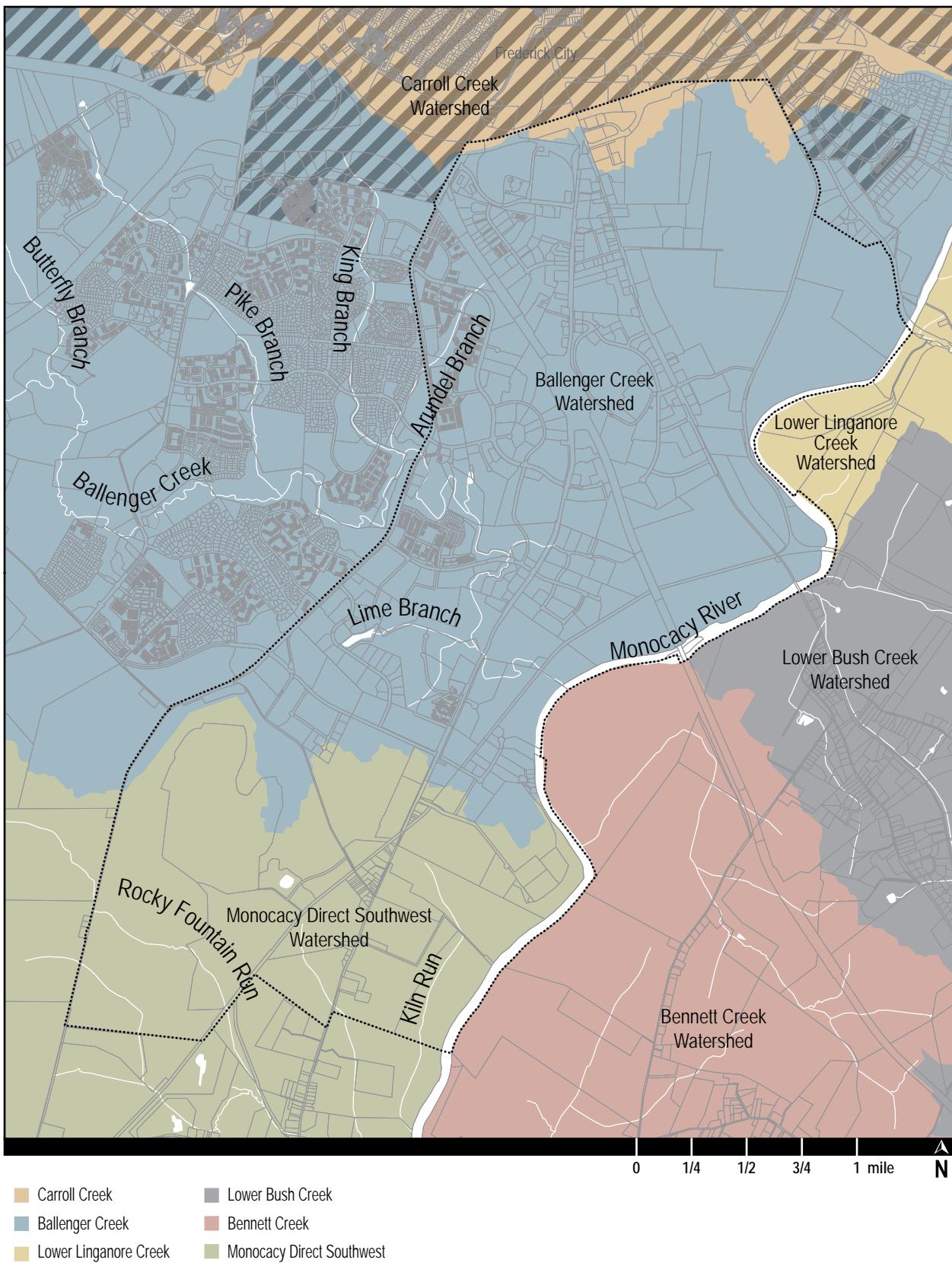
FRO Banking Easements

These easements are perpetual (forever) easements that are established as a part of the Forest Banking Program. This program is voluntary and allows for land owners to place forest conservation easements over their properties for the purpose of selling "credits" to provide an off-site mitigation option for development projects.

Forest Preservation



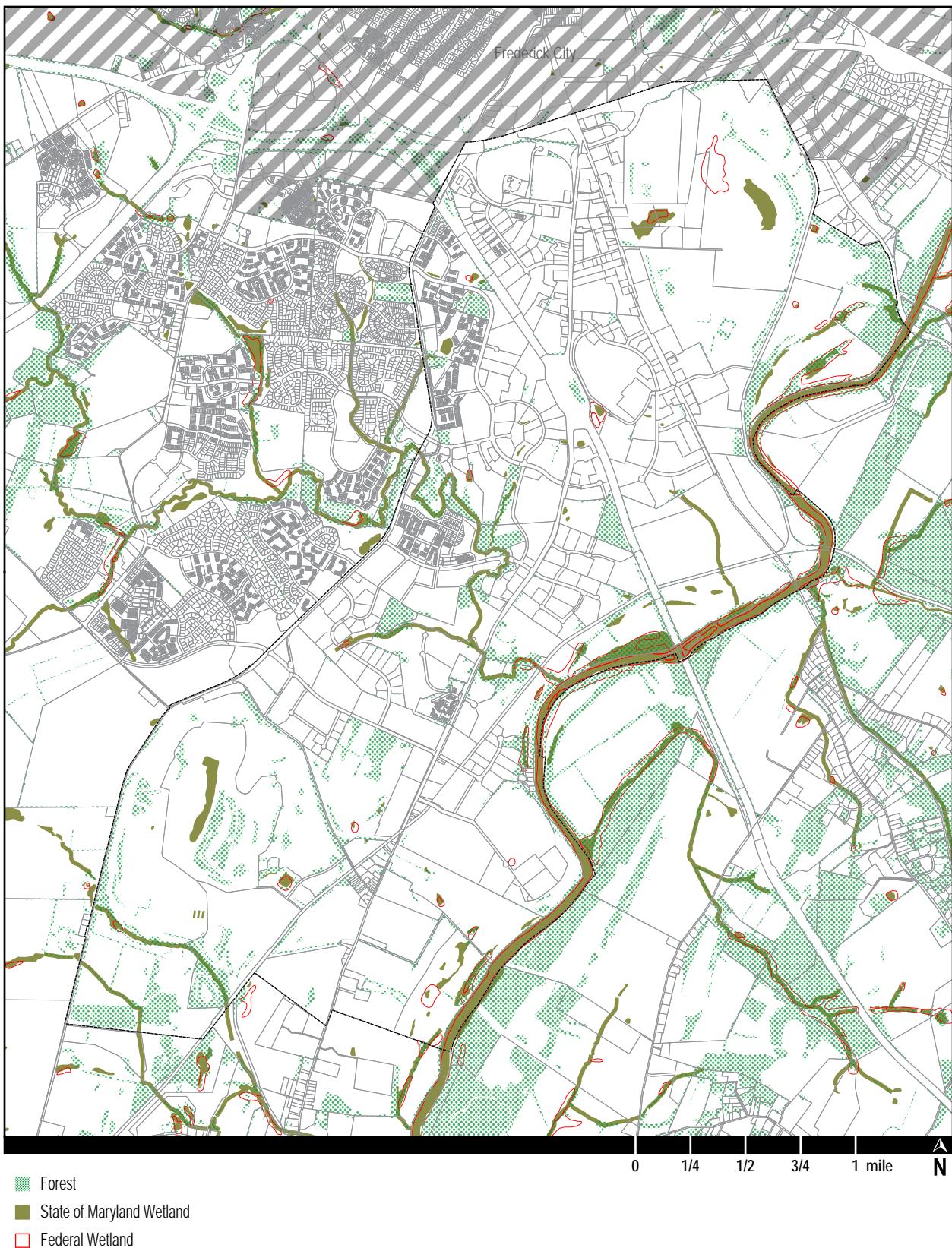
Watersheds



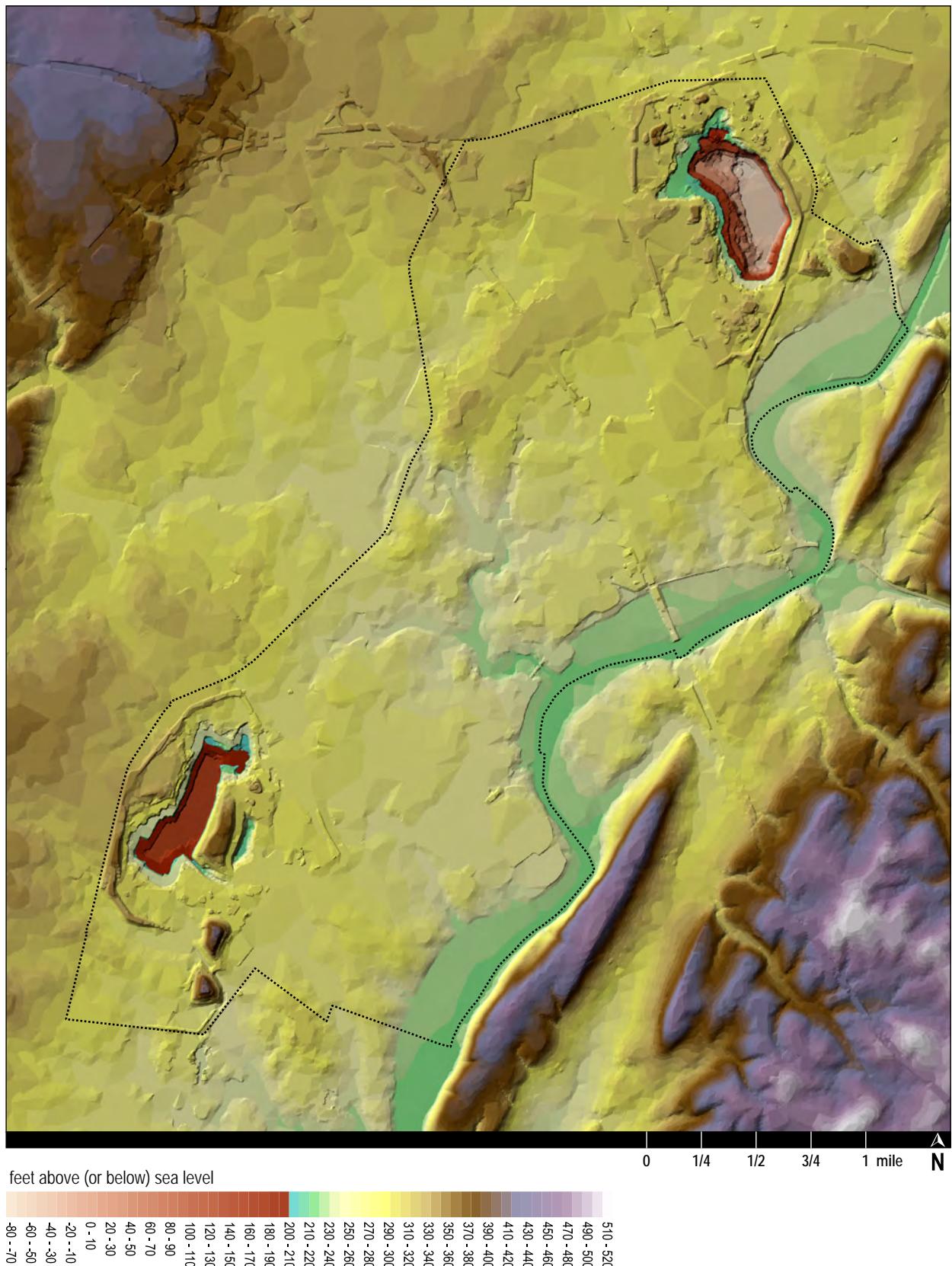
Hydrography



Wetlands



Topography



County Register Sites

CR-14-01 Graff Farmstead

F-3-106	Lewis Fout House
F-1-098	Lime Kiln Methodist Church
F-1-186	Lime Kiln Survey District
F-3-102	Linden Grove
F-3-103	Lynch Farm, site
F-1-078	Manassas J. Grove House
F-1-079	Manassas J. Grove Tenant House
F-3-151	Manchester
F-3-131	Maple Homestead
F-3-053	Mercer-Todd Farm
F-3-105	Microbiological Associates Building
F-3-042	Monocacy Battlefield
F-7-139	Monocacy Crossing
F-7-117	Monocacy River Bridge
F-1-068	Mount Hope
F-1-020	N.H. Engle House
F-1-177	Nicodemus-Hildebrand Farmstead
FHD-0096	Old Hammacker Memorial Showroom
F-3-234	Oliver Wren Property
F-3-223	Park Hall
F-7-054	Pennsylvania Monument
F-1-038	Philip Sinstock House
F-3-061	Prospect Hall
F-3-236	Residence at 6453 Jefferson Pike
F-1-075	Robert Grady House
F-3-100	Rocky Creek Farm
F-1-023	Rufus Zimmerman House
F-1-111	Sophie Graff Bacon House
F-1-067	St. John's Reformed Church
F-3-231	The Best Farm
F-7-053	Vermont Monument
F-1-026	W. Ramsburg House
F-3-104	William Howard Farm, site
F-1-099	William J. Grove House
F-3-160	William Ogle House
F-7-047	Worthington House

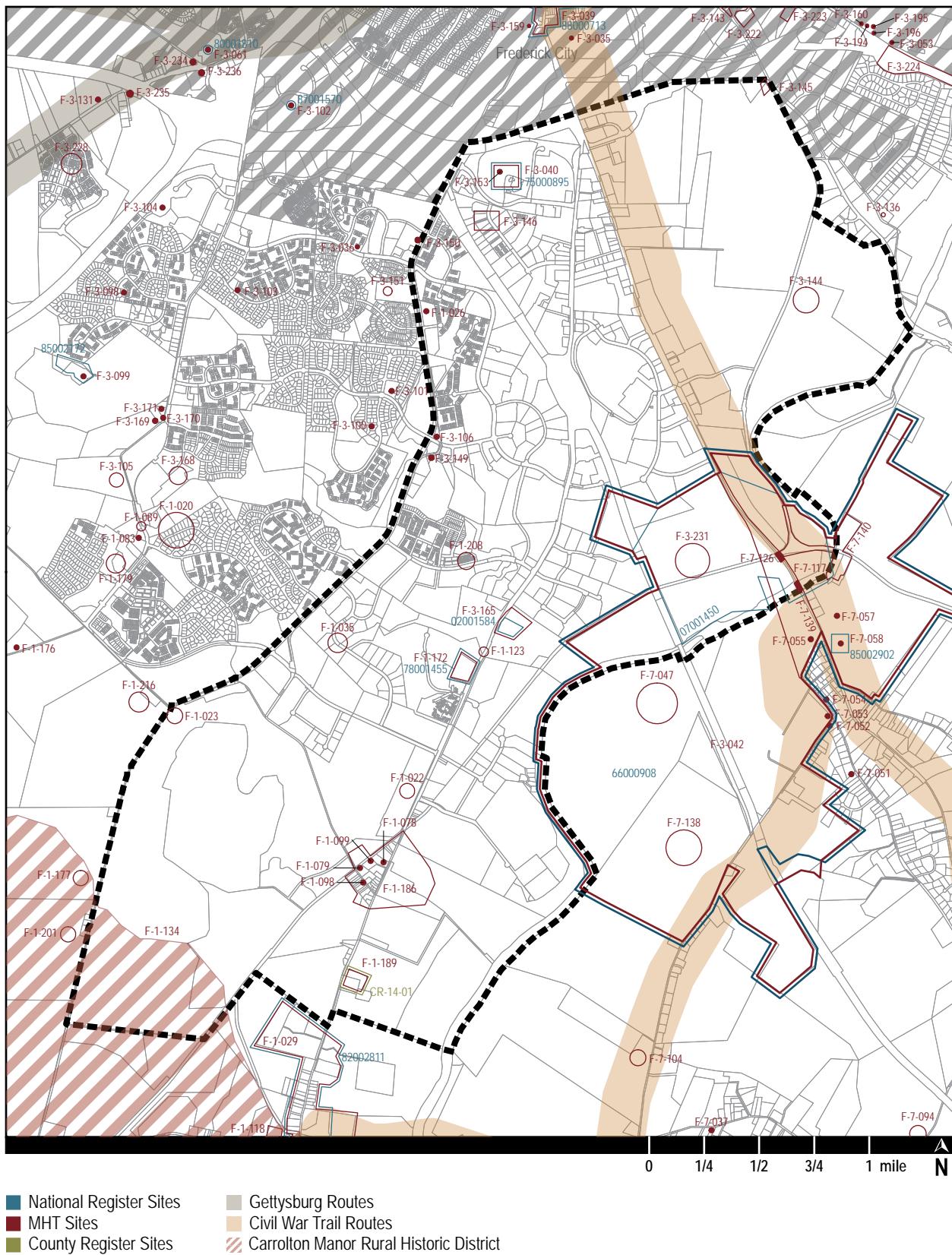
Maryland Historic Trust Sites

F-7-052	Araby Methodist Episcopal Church
F-7-057	Araby Mill
F-7-051	Araby School
F-7-055	Araby Toll House
F-1-172	Arcadia
F-1-074	Augustus Nicodemus House
F-7-138	Baker-Geisbert Farm
F-3-098	Bellevue
F-1-123	Bridge 10012
F-1-089	Bridge 10057
F-7-126	Bridge 10084
F-1-029	Buckeystown Historic District
F-1-076	Buckeystown School
F-1-062	C.F. Thomas Brickyards
F-1-134	Carrollton Manor Rural Historic District
F-1-189	Clifton on the Monocacy
F-3-136	Crum-Reich House
F-1-037	Cyrus Bushrod Poole House
F-1-032	Daniel Baker House
F-3-036	Daniel Scholl House
F-7-104	David O. Thomas Farmstead
F-1-065	Donald Duley House
F-1-216	E.D. Zimmerman Manor Property
F-3-235	Edward Howard Property
F-1-039	Edward Snouffer House
F-1-201	Eli Nicodemus Farmstead
F-3-159	Francis Scott Key Monument
F-3-222	Frederick City Abattoir Company
F-3-039	Frederick Historic District
F-7-140	Frederick Junction
F-3-056	Frederick Survey District
F-3-224	Frederick-Baltimore Transportation Corridor
F-3-143	G. Trummel & E. South Street Houses
F-7-058	Gambrill House
F-3-165	George Markell Farmstead
F-1-066	George Sharp House
F-3-099	George Widrick House
F-3-101	Grafton Fout House
F-3-040	Guilford
F-3-153	Guilford Tenant House
F-3-228	Harry M. Howard Farm
F-1-064	Herman Gosnell House
F-3-145	Hoke-Grove House
F-3-144	J.C. Motter-S.C. Simmons House
F-1-121	Jack Harris House
F-1-035	Jacob M. Bushey House
F-1-022	Job Dix Eichelberger House
F-1-030	John Buckey House
F-3-035	John Loats Farm
F-1-109	John Morningstar House
F-1-083	John Phleeger House
F-1-208	Keefer-Markell Farmstead
F-1-179	Kemp-Thomas Farmstead
F-1-063	Kerwin Semon House
F-3-146	Lease-Waters Farm

National Register Sites

NR-1460	L'Hermitage
NR-0200	Frederick Historic District
NR-0901	George Widrick House
NR-0938	Gambrill House
NR-0483	Arcadia
NR-0994	Linden Grove
NR-0336	Guilford
NR-0641	Prospect Hall
NR-0206	Monocacy Battlefield
NR-0674	Buckeystown Historic District
NR-1324	George Markell Farmstead

Historic Preservation



- National Register Sites
- MHT Sites
- County Register Sites
- Gettysburg Routes
- Civil War Trail Routes
- Carrollton Manor Rural Historic District

IPP - Installment Purchase Program

The Installment Purchase Program (IPP) purchases easements on farmland through the use of Installment Purchase Agreements. This agreement pays farmers tax-free interest over a period of 20 years with a balloon payment at the end of the term.

MALPF - Maryland Agricultural Land Preservation Foundation

A State of Maryland land preservation program aimed at preserving prime farmland for future food and fiber production by paying farmers to extinguish their development rights.

Rural Legacy

The Maryland General Assembly enacted the Rural Legacy Program in 1997 as part of the state's Smart Growth initiatives to protect large contiguous areas called Rural Legacy Areas. This program promotes natural resource based industries, provides greenbelts, preserves critical habitats for native plant and wildlife species, and protects riparian forests and wetland.

CREP - Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program is a part of the Conservation Reserve Program (CRP), the country's largest private-land conservation program. Administered by the Farm Service Agency (FSA) CREP targets specific state or nationally significant conservation concerns, and federal funds are supplemented with non-federal funds to address those concerns. In exchange for removing environmentally sensitive land from production and establishing permanent resource conserving plant species, farmers and ranchers are paid an annual rental rate along with other federal and non-federal incentives as applicable per each CREP agreement. Participation is voluntary, and the contract period is typically 10-15 years.

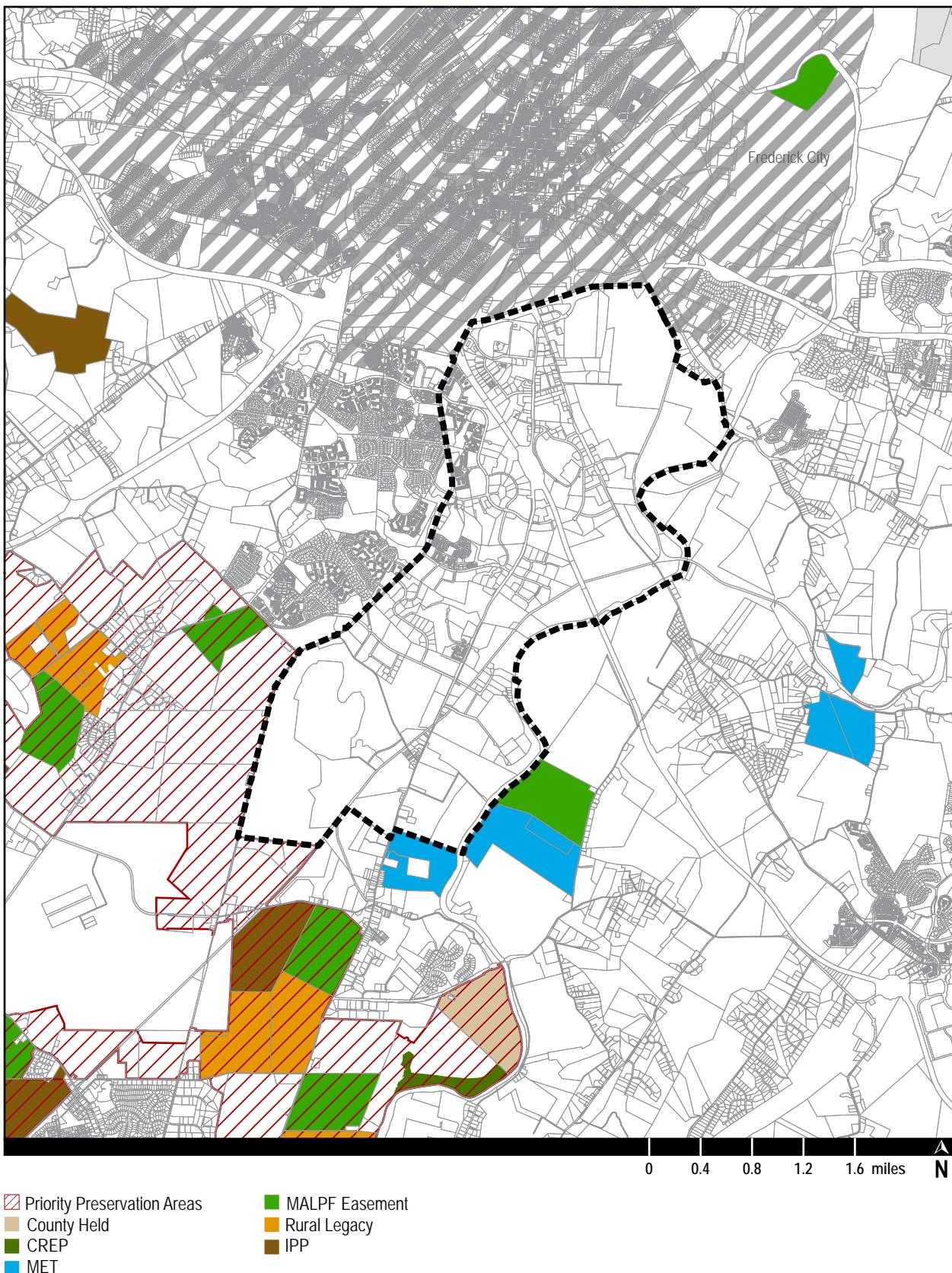
PPA - Priority Preservation Areas

As a part of the State of Maryland Certification criteria for agricultural preservation programs, Priority Preservation Areas must be established in county comprehensive plans.

MET - Maryland Environmental Trust

The Maryland Environmental Trust is a statewide local land trust governed whose goal is the preservation of open land, such as farmland, forest land, and significant natural resources. The primary tool for doing this is the conservation easement, a voluntary agreement between a landowner and the MET Board of Trustees.

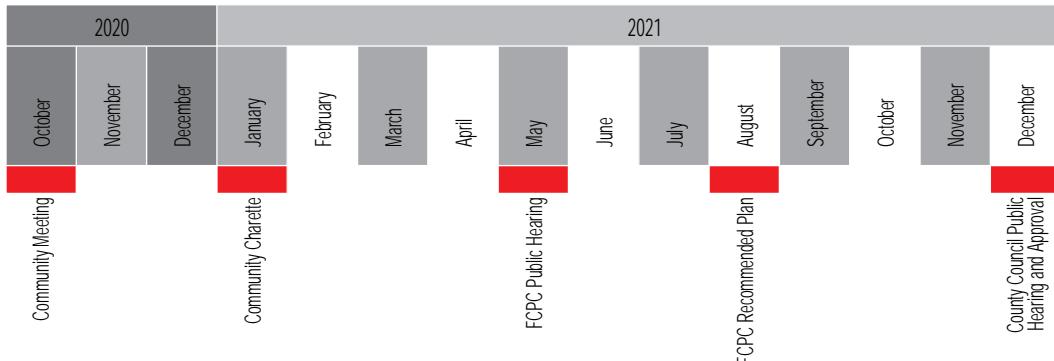
Agricultural Preservation





Schedule

The following schedule identifies significant milestones and possible timeframes, but is conjectural. Ultimately, the actual timetable will be dependent on variety of factors and may be adjusted based on issues that might arise during the planning process, the degree of participation, and the needs of stakeholders.



Planning Strategies

The Livable Frederick Master Plan is focused on achieving an end goal of livability, as defined by a community-based vision, participatory policy development, and rational analysis of future trends. This is a proactive, rather than reactive, approach to planning because it doesn't solely focus on responding to circumstance, but rather makes the intentions of the community a primary piece of long term goals.

Similarly, the South Frederick Corridors Plan must be proactive about the desired outcomes of the planning process and future development in the area. A vision for the area must be defined. Without a clear vision, there is no frame of reference, no gauge by which to measure future efforts for making the plan a reality. For example, without a vivid representation of the preferred physical form of an area, there is no guidance for writing appropriate regulations to make that form a reality. The result would likely be the generic and haphazard impression that is a characteristic of many modern day physical environments.

The following is a list of potential planning strategies to consider as a clear outcome-based vision for the South Frederick Corridors is realized.

Mixed Use

Mixed-use refers to a type of development that blends residential, commercial, cultural, institutional, or entertainment uses into one space, where those functions are to some degree physically and functionally integrated. It is a characteristic of many towns and cities that developed prior to the emergence of the automobile.

The South Frederick Corridors is not a mixed use environment. While some Mixed Use Development zoning is applied to an area along Guilford Drive in the northern portion

of the South Frederick Triangle, the result of this floating zone application is akin to conventional Euclidean zoning because the various land uses, that include retail and office, are not physically combined, or particularly complimentary. Rather, as is the case in the remainder of the South Frederick Triangle, land uses are horizontally partitioned from one another. Therefore the advantages of mixed use environments related to enabling walking, biking, and mass transit, as well as creating lively and interesting places, are impeded.

Mixed use in the South Frederick Corridors makes sense because a major aspect of the LFMP vision is to create a larger share of environments that are walkable and accessible to multiple modes of transportation. As previously described in this report, the South Frederick Corridors is an ideal location to begin implementing this strategy. However, people will not generally walk unless the walk serves some purpose and can provide access to some service or amenity that is not currently directly in front of them. Mixed uses that are “vertically” integrated, where different but complementary uses are located within the same structure and in proximity to other similarly planned structures, is one answer to enabling a greater share of walkable environments.

Resources:

Municipal Research and Services Center: Mixed Use Development

<http://mrscc.org/Home/Explore-Topics/Planning/Development-Types-and-Land-Uses/Mixed-Use.aspx>

National Association for Industrial and Office Parks (Commercial Real Estate Development Association): An Empirical Study of the Efficacy of Mixed-Use Development - The Seattle Experience

<https://www.naiop.org/-/media/Research/Research/Research-Reports/An-Empirical-Study-of-the-Efficacy-of-Mixed-Use-Development/ARES-AnEmpiricalStudyoftheEfficacyofMixedUseDevelopment.ashx>

Interconnectivity

Since World War II, road networks have been typically designed such that development is accessed from arterial roads, and without direct linkages between adjoining developments through an interconnected local road network. Arterial roads are most often state roads that are intended to serve long distance and regional access needs. Newer development often ties into these networks through a minimal number of access points. Therefore, even if new developments are highly interconnected internally, vehicles trips accessing the larger road network are funneled through a minimal number of points. Over time, this reliance on the arterial network of roads results in a system where all local trips are by car, and which all funnel to arterial roads, resulting in longer trips, unnecessary congestion, and an inefficient and inconvenient system. In the extreme, people may drive long distances to visit destinations that are physically only hundreds of feet away.

The South Frederick Corridors is composed almost solely of arterial roads, and these roads are designed to serve cars. Local roads in the area are minimal, and when present, are also designed to serve cars. This makes any other method of travel precarious at best.

Interconnectivity in the South Frederick Corridors is essential to improve walkability, access to multiple modes of transport, and to help mitigate traffic congestions. Multiple

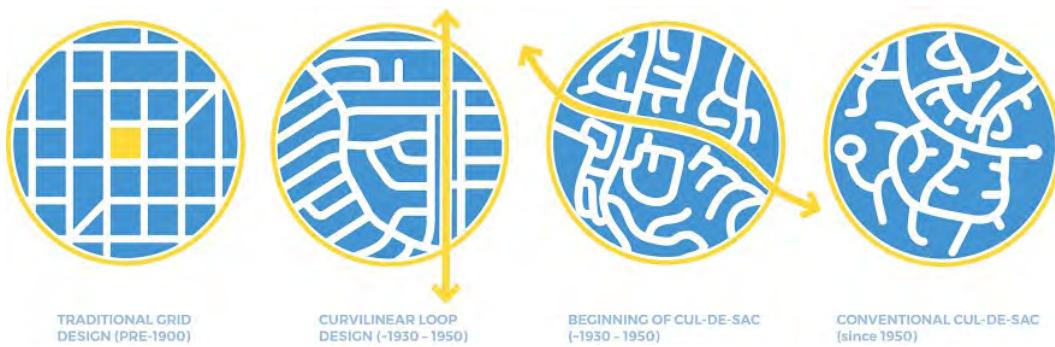


Illustration from the Congress for New Urbanism website.

options that connect origins and destinations can spread the load of local transportation by providing a release valve for the typical funneling of trips onto arterial roads. Walking and biking also become easier when an interconnected road network provides a more optimal bearing to access a variety of destinations, rather than the conventional need to follow a circuitous path from an origin, through an aerial, to a destination.

Resources:

Street Networks 101

<https://www.cnu.org/our-projects/street-networks/street-networks-101>

Connected Streets and the Next Generation of Urban Mobility

<https://medium.com/sidewalk-talk/connected-streets-and-the-next-generation-of-urban-mobility-8357f397772d>

Street Connectivity is Negatively Associated with Physical Activity

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3166746/>

Eco-District

Eco-Districts are places that are planned according to standards that reduce ecological footprints by integrating objectives of sustainable development. Several organizations provide rating and certification systems for development that achieves these standards.

The South Frederick Corridors are designed and built without consideration of these types of standards. However, as the need to adapt to the environmental challenges of the present becomes irrefutable, applying the standards of, or seeking certification as, an Eco-District or similar system will be a necessity. The South Frederick Corridors can serve as a model for Frederick County and for the region if it grows according to these sustainable patterns.

Resources:

A Guide to Four Leading Platforms for Sustainable Districts

<https://livingbuilding.kendedafund.org/2017/11/03/guide-four-leading-platforms-sustainable-districts/>

Ecodistricts

<https://ecodistricts.org/>

2030 Districts Network

<https://www.2030districts.org/>

US Green Building Council LEED for Neighborhoods

<https://www.usgbc.org/guide/nd>

Living Community Challenge

<https://living-future.org/lcc/>

Transit Oriented Development

Transit Oriented Development (TOD) involves the concentration of a compatible mixture of uses within walking distance of a transit station. A primary focus is to support the greater use of mass transit, often by locating higher density residential and employment uses within ¼ to ½ mile of a transit station. Transit-oriented development should be designed such that access to transit is maximized by interconnected streets that are attractive, convenient, and safe for pedestrians and bicyclists.

The South Frederick Corridors contains an existing MARC commuter rail station that is currently accessed primarily through large parking facilities adjacent to the station. There is an opportunity to consider leveraging the ridership of this station through development that is designed to function using transit for many of its transportation needs.



Design study of mixed use transit oriented development at the Monocacy MARC Station conducted by Maryland Transit Administration Office of Capital Programming

Resources:

The Transit Oriented Development Institute

<http://www.tod.org/>

TDM Encyclopedia: Transit Oriented Development - Using Public Transit to Create More Accessible and Livable Neighborhoods

<https://www.vtpi.org/tdm/tdm45.htm>

Analysis of Transit-Oriented Development (TOD) in Washington, D.C. and Baltimore Metropolitan Areas

<https://www.sciencedirect.com/science/article/abs/pii/S0967070X14000055>

Center for Urban Transportation Research, University of South Florida: Impacts of Transit Oriented Development on Public Transportation Ridership

<https://www.nctr.usf.edu/wp-content/uploads/2012/07/576-10.pdf>

Form-Based Codes

Form-based codes are land development regulations. They focus on the physical form of development rather than the conventional zoning emphasis on the separation of land uses. They provide for an appropriate mix of uses while address the relationship between building facades and surrounding spaces, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. Form-based codes are drafted to implement a specific community plan and to achieve a community vision,

therefore regulations are keyed to a regulating plan that designates the prescribed form of development.

The physical configuration of the South Frederick Corridors is in part a result of zoning regulations that do not address cross-parcel issues of physical place design. The physical relationship between buildings and their surroundings is minimally addressed through generic measures related to screening, setbacks, and lighting. This has contributed to the unwalkable, haphazard, and uncoordinated character of the area.

As a vision and community plan are developed for the South Frederick Corridors, an essential ingredient for their implementation is the adoption of form-based codes.

Resources:

Form-Based Codes Institute at Smart Growth America

<https://formbasedcodes.org/>

Development Incentives

In cases where it is difficult for developers to demonstrate project viability for development that supports a vision for the South Frederick Corridors, development incentives can be explored. Development incentives are varied, but generally include non-prescriptive measures that are geared toward making certain projects, such as affordable housing or capital improvements, more financially feasible. These include density bonuses, tax and fee abatement, reduced mitigation requirements for public facilities and resources, and reduction in development requirement quantities.

One such incentive for development, the Opportunity Zone, is already in place in the South Frederick Corridors. The Opportunity Zone program is a nationwide initiative administered by the U.S. Treasury that provides federal tax incentives for investment. There are three opportunity zones in Frederick County, one in Brunswick City, one that encompasses the southern portion of Frederick City, and one that includes majority of the South Frederick Corridors.

Find information about opportunity zones in Frederick County here: <http://bit.ly/2pBWPlj>

Connected and Autonomous Vehicle (CAV) Systems

As we begin to consider the possibilities for the redevelopment of the South Frederick Corridors planning area, it is important to also consider the impacts of new and emerging technologies on our built environments. The development and refinement of connected and autonomous vehicles (CAVs) is quickly transforming not just the machine technology, but also, and perhaps most importantly, the systems and economic models that deliver mobility to individuals and communities. The term "CAV" represents the compound notion of two closely-affiliated innovation trends:

Automated Vehicles: Cars, buses, taxicabs, and vans that utilize technology to replace the driving tasks of a human driver.

Connected Vehicles: Vehicles that "talk" to their environments including infrastructure (roads, bridges, lights, signals), other vehicles, and pedestrians.

Connected autonomous vehicles are, therefore, a system of coordinated technologies utilizing new mechanical and computer engineering solutions in tandem with high-speed, real-time, communications networks to produce significant improvements in vehicular safety, reductions in commute times and traffic delays, vastly reduced emissions, and a more efficient movement of freight.

Some short-and mid-term technological advances will allow for quick moving, connected “vehicle platoons” on highways, automated parking systems, CAV shuttles and local circulator transit vehicles, and automated ride-sharing vehicles. These technologies have been embraced by the private sector companies that currently provide an array of services and products including ALL major automobile manufacturers, online sellers, tech and data companies, freight services, and communications infrastructure companies.

With the focus on multi-modal accessibility in the South Frederick Corridors planning area, the county should establish the foundation for this new transportation reality by striving to adopt strategies, and pursue initiatives, that create a fertile environment for CAV systems in these corridors.

Endnotes

1 Quarterly Census of Employment and Wages (QCEW), U.S. Bureau of Labor Statistics, 2017

Annual Average

2 Core Values: Why American Companies are Moving Downtown, Smart Growth America, 2015

3 "The triple bottom line (TBL) is a framework or theory that recommends that companies commit to focus on social and environmental concerns just as they do on profits. The TBL posits that instead of one bottom line, there should be three: profit, people, and the planet. A TBL seeks to gauge a corporation's level of commitment to corporate social responsibility and its impact on the environment over time." *from www.investopedia.com*

4 Woods and Poole Economics, Inc. via Renaissance Planning, 2015

5 Based on Maryland Department of Assessments and Taxation assessed value for 2019. Planning area boundary contains 5104.4 acres. Total assessed value of all land in planning area for 2019 is \$1,747,878,100. Total Frederick City assessed value used in this analysis was derived by overlaying the planning area boundary onto Frederick City and including those properties that were located within the boundary. The Frederick City total assessed value within the overlaid boundary for 2019 is \$4,979,413,800.

6 The American Community Survey is an ongoing survey by the U.S. Census Bureau designed to obtain data on a more frequent basis than the centennial update using the concept of a rolling sample (or continuous measurement). Ongoing, monthly data collection is aggregated on a yearly basis, enabling annual data releases, which is combined as "period" estimates.

7 Quarterly Census of Employment and Wages (QCEW), U.S. Bureau of Labor Statistics, 2017 Annual Average

8 Infogroup is a provider of marketing services and data.

9 CoStar Group is a provider of information, analytics and marketing services to the commercial property industry.



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