



**DIVISION OF PLANNING AND ZONING
FREDERICK COUNTY, MARYLAND**

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TO: Board of County Commissioners

FROM: Eric Soter, Division Director

THROUGH: John Thomas, Principal Planner II, Transportation
Jim Gugel, Chief of Comprehensive Planning

DATE: April 6, 2010

RE: MD 85/MD 355 Transportation Land Use Connections Study

ISSUE

Funded through the Metropolitan Washington Council of Governments (MWCOC) Transportation & Land Use Connections (TLC) Program, the MD 85/MD 355 Transportation Oriented Design Study has been completed. The study and report were prepared by Parsons Brinckerhoff consultants.

BACKGROUND

The research, recommended improvements and public outreach undertaken as part of this study will assist the County in developed a more detailed corridor and community plan for the study area and surrounding land uses. The plan also includes planning level cost estimates and recommended time frames for implementation of suggested improvements. The specific scope of the project included the following:

- Initial project scoping session with project stakeholders;
- Setup of a project web site to provide opportunities for public information and public comment including a public comment interactive mapping application;
- Prepare and implement project and surrounding area employee, commuter, land use surveys;
- Hosted community workshop to discuss potential changes in land use;
- Perform an opportunities and constraints analysis with respect to feasible changes in land use in the area;
- Make recommendations for improvements to the existing project area bicycle, pedestrian and public transportation networks with respect to safety and connectivity;
- Provide design recommendations for a passenger transfer center in the project area;
- Production of final report of recommendations, implementation plan and presentation to project sponsor(s) and the general public.

RECOMMENDATION

- Presented for information only

The Frederick County Planning Commission reviewed this report on March 17, 2010.

MD 355/MD 85 Transportation Oriented Design Study



Frederick County, Maryland

Sponsored by

Metropolitan Washington Council of Governments TLC Program

Report prepared by Parsons Brinckerhoff's PlaceMaking Group

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Introduction

Project Background

In early January 2008, the Frederick County Board of Commissioners initiated its Growth Management Initiative to update the County wide Comprehensive Plan and Zoning Map and enhance the Adequate Public Facilities Ordinance. Since then the County Planning Commission, through the work of Frederick County Division of Planning, has been preparing the updated plan. A draft plan has been presented by the Frederick County Planning Commission in July 2009 and has been forwarded to the Frederick Board of County Commissioners for their review. A Board of County Commissioners (BoCC) Draft Plan was released in December 2009 and will be considered for adoption in early 2010.

The draft update of the Comprehensive Plan identifies numerous communities and corridors for detailed plans focused on land use analysis, design recommendations and redevelopment opportunities. The MD 355/ MD 85 corridor is one of those designated corridors. It is viewed as a priority for coordinated transportation and land use planning primarily because of its existing and proposed multi-modal transportation networks and because it is considered a gateway into Frederick City. The Draft Comprehensive Plan states that this corridor “represents the County’s most significant opportunity for redevelopment”.ⁱ

To address the corridor’s designation, Frederick County sought assistance with preparing a more detailed assessment of the area. The purpose of the MD 355/MD 85 Transportation Oriented Design Study is twofold: 1) identify ways to enhance transit oriented development through short-term bicycle, pedestrian, and transit improvements and 2) review long-term land use recommendations for the area.

More specifically, this study accomplishes several activities. It assesses the study area’s current conditions, including current and future land use and zoning, for compatibility with transit oriented development; traffic conflicts; capacity constraints; and circulation conflicts between different modes of transportation. To learn the important issues key stakeholders were interviewed; commuter bus and rail passengers, area employees, and customers at the Francis Scott Key Mall and other consumer centers were surveyed; and an online survey and map-based comment form were available to receive input as well.

The study assesses opportunities and constraints to redeveloping the study area into a mixed use, transit-oriented area and makes access and land use recommendations that will help the County realize its goals for the area. Finally, the study offers an assessment for the construction of a multi-modal transfer center at the Monocacy MARC station.

TLC Program

This project was funded through the FY2009 Metropolitan Washington Council of Government's Transportation/Land-Use Connections program. MWCOG's TLC program provides focused consultant assistance to local jurisdictions working on creative plans and projects that integrates transportation and land use planning. MWCOG TLC program has identified strategies it would like the studies it funds to address. Frederick County's MD 355/MD 85 Transportation Oriented Design Study addresses the following MWCOG TLC strategies:

- Integrate transportation and land use planning at all scales;
- Build and plan for communities today and in the future with a mix of jobs, housing, and civic uses;
- Develop housing affordable to a range of incomes around regional transit networks;
- Foster public involvement in planning transportation choices and great places;
- Broaden regional mobility choices and improve safety and access for alternative modes;
- Maximize existing investments and effectively link new infrastructure by focusing development around transit; and
- Improve the health of communities in the environment through development.

Chapter 1: Existing Conditions

At 663 square miles, Frederick County is Maryland's largest county, bordered by Pennsylvania to the north, Virginia to the southwest, Montgomery, Carroll, and Washington Counties, Maryland, to the south, east, and west respectively. It was created in 1748 from parts of Prince George's County and Baltimore County. In 1776, it was divided to create Washington County to the west and Montgomery County to the south. The rest remained Frederick County. In 1837, the eastern part of Frederick County combined with Baltimore County to create Carroll County. Frederick County had, in the past, been considered part of Western Maryland. Now, with the expansion of housing and jobs out of DC into Montgomery and Frederick Counties, Frederick County is more closely aligned with the Washington Region.

Because of its proximity to Washington, DC, which is approximately 45 miles away, Frederick has recently experienced a great deal of growth. The US Census estimates Frederick County's 2009 population to be 234,444 people. This represents a 20.1 percent increase over the 2000 population. As a comparison, Maryland experienced a 6.4 percent population increase between 2000 and 2008. The County's largest employers are Fort Detrick Military installation, Frederick County Board of Education, Frederick Memorial Medical services, Frederick County Government, and Bechtel.ⁱⁱ

1.1 The Study Area

The project study area is within the Frederick Southeast Community Growth Area, which is one of three subareas of the Frederick Planning Region. The boundaries of the Frederick Southeast Community Growth Area are I-270, I-70, and MD 144. The study area is just south of Frederick City and is a subset of the Growth Area. The study area is defined as: MD 355 from the north boundary of the Monocacy National Battlefield to Grove Road, Holiday/Spectrum Drives from MD 355 to MD 85 including the Francis Scott Key Mall, and Genstar Drive MD 355 to Monocacy MARC Station. Figure 1 shows the study area and portions of the surrounding growth area.

The existing land use within the study area is predominantly commercial, office, and industrial uses and includes the Francis Scott Key Mall, the County's largest mall. There is very limited residential in the area – only a 38-dwelling unit mobile home park, which includes 15 mobile homes and 23 RV trailers, located at Shields Drive near Lowe's.

Figure 1: Monocacy Study Area & Surrounding Area



MD 355/MD 85 TRANSPORTATION ORIENTED DESIGN AND LAND USE STUDY



The Francis Scott Key Mall is a major feature.

The character of the study area is very auto-oriented. It is bounded by four- and six-lane divided highways with commercial, office, and industrial uses set far back from the roadway. Some of the roads have sidewalks, but to access the buildings from the sidewalk, it is necessary to enter at the vehicle entrance/exit points and cross large, pedestrian-unfriendly parking lots, such as the 33-acre surface parking lot surrounding the Francis Scott Key Mall.

The study area's two most dominant features are the Francis Scott Key Mall and Monocacy National Battlefield. The 706,200 square foot mall opened in 1979 and was remodeled in 1991. More than 80 retailers are within this one-story property, and for 85 percent of the retailers this is their only location in Frederick County. It is the only active enclosed mall in Frederick County, and the closest enclosed mall competition is more than 20 miles away. As such, it draws its clientele from a regional as well as local base. The mall's anchors are Macy's, JC Penney, Sears, Value City Furniture, Ethan Allen, and Barnes & Noble. It is owned and operated by Pennsylvania Real Estate Investment Trust.

iii

Monocacy National Battlefield was created by an act of Congress in 1934, but since funds were not federally appropriated for land acquisition for over 50 years, it did not open to the public until 1991. A small visitor center at 5201 Urbana Pike (MD 355) was opened in June 2007 and is adjacent to the developed area and MARC station. The Battle of Monocacy or "The Battle that Saved Washington, DC" is significant because while the July 9, 1864 battle was the Confederacy's only victory in the north it also represented a defeat. Union troops delayed the Confederate force at Monocacy, which allowed defenses around Washington, DC to be strengthened and reinforcements to be sent. This delaying action resulted in strengthened Union troops being able to save Washington, DC from capture by the Confederacy.

The number of visitors to the Monocacy National Battlefield in 2008 was 31,276, averaging more than a 30 percent annual increase since 2006. The battlefield's 1,647 acres can be accessed through a 6-mile round trip auto tour on public roads and through

walking trails that can be accessed from different points along the auto tour route. There is no public transit to the battlefield.^{iv}

1.2: Current Land Use and Zoning



The area is dominated by commercial land uses.

General Industrial.^v The 2002 Frederick Region Plan land use designations for the land adjacent to the study area are Mineral Mining and General Industrial along the eastern edge; General Industrial and General Commercial to the north; Office/Research, Resource Conservation, and General commercial on the western edge; and Resource Conservation on the south side.

The current zoning in the study area is General Commercial, General Industrial, and Limited Industrial. Outside the study area the land is zoned Limited Industrial and General Commercial to the north; Mineral Mining to the east; Agricultural to the south; and General Commercial, Planned Unit Development, and Office Research to the west. The existing zoning for the areas adjacent to the study area conforms to the 2002 Frederick Region Plan land use designations except on the western side. There, the land use and the zoning designation is Limited Industrial. See Figures 2 and 3.

Figure 2: 2002 Land Use

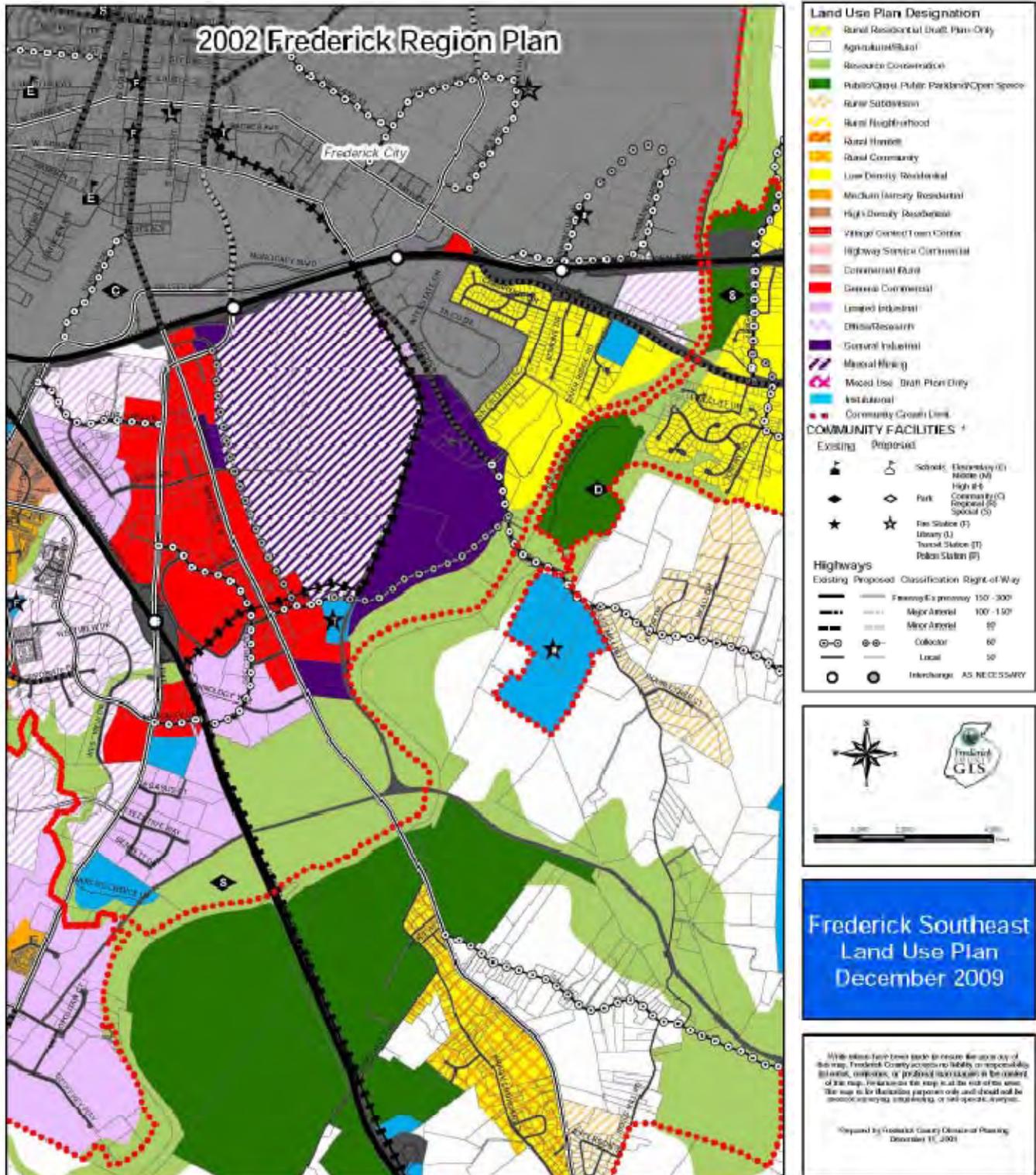
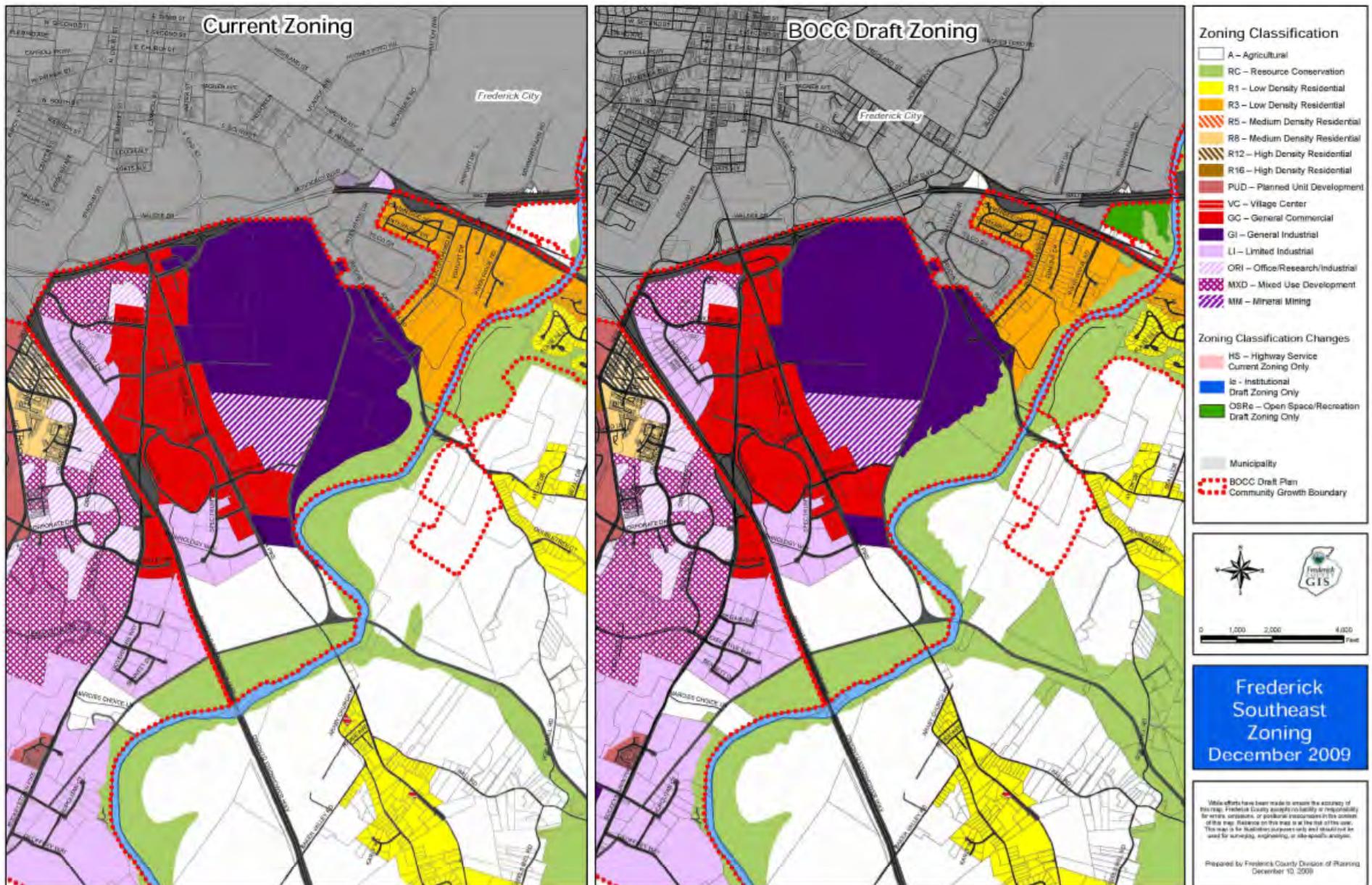


Figure 3: Existing and Proposed Zoning



1.3: Future Land Use

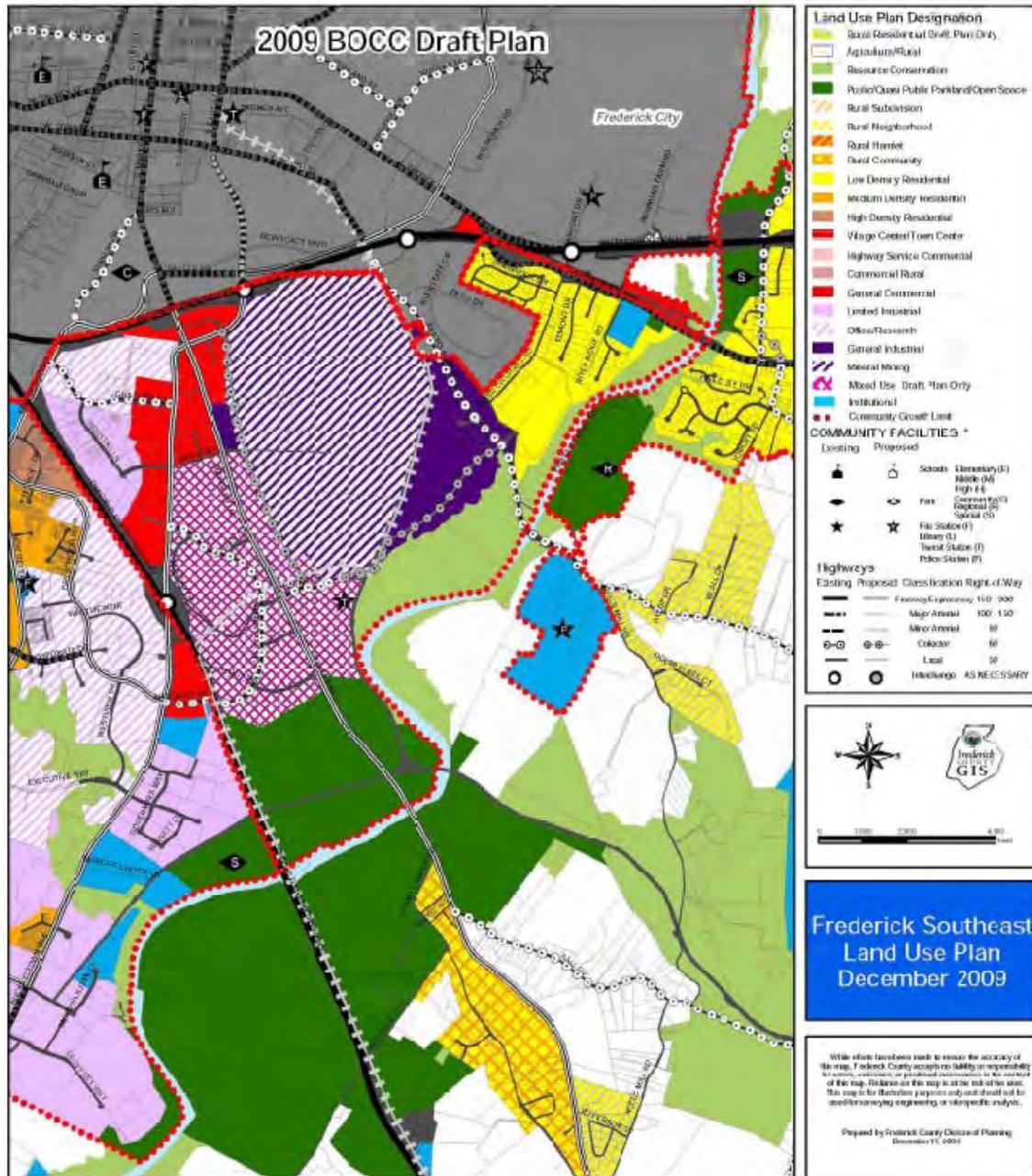
The proposed future land use for the entire study area is mixed use. The County's Public Hearing Draft Plan (May 2009) defines the mixed use zone as:

This new land use category is intended to facilitate redevelopment and transit oriented design (TOD) opportunities in existing developed areas adjoining underutilized malls, industrial or commercial areas or office parks, and vacant or underutilized commercial/employment corridors. In particular this designation would support mixed use developments, which include residential, commercial, office/employment, and institutional uses. For residential uses this Plan would support medium to high densities especially with TOD projects. The uses may be integrated both; vertically (different uses within the same building) and horizontally, on the same property and/or within the same project limits. The extent to which the amount of residential development is required versus permissible on a particular parcel will be identified at the time of corridor and community plan reviews. Application of the mixed-use designation is not intended for general application throughout the county and should be carefully considered.

The implementation of the mixed use land use designation may be through a mixed use Euclidean zone, or through the application of a revised mixed use floating zone. The creation of a mixed-use Euclidean zone and amendments to the current mixed-use (MXD) floating zone provisions are needed to allow for the zoning changes to be put into effect.^{vi}

The land use plan designations for the areas adjacent to the study area in the 2009 Public Hearing Draft have not changed from the 2002 Frederick Region Plan with the exception of some land adjacent to the southwest corner of the study area, which has gone from Resource Conservation and General Commercial to Office/Research. See Figure 4.

Figure 4: Draft Land Use Plan



1.4: Potential Development in the Study Area

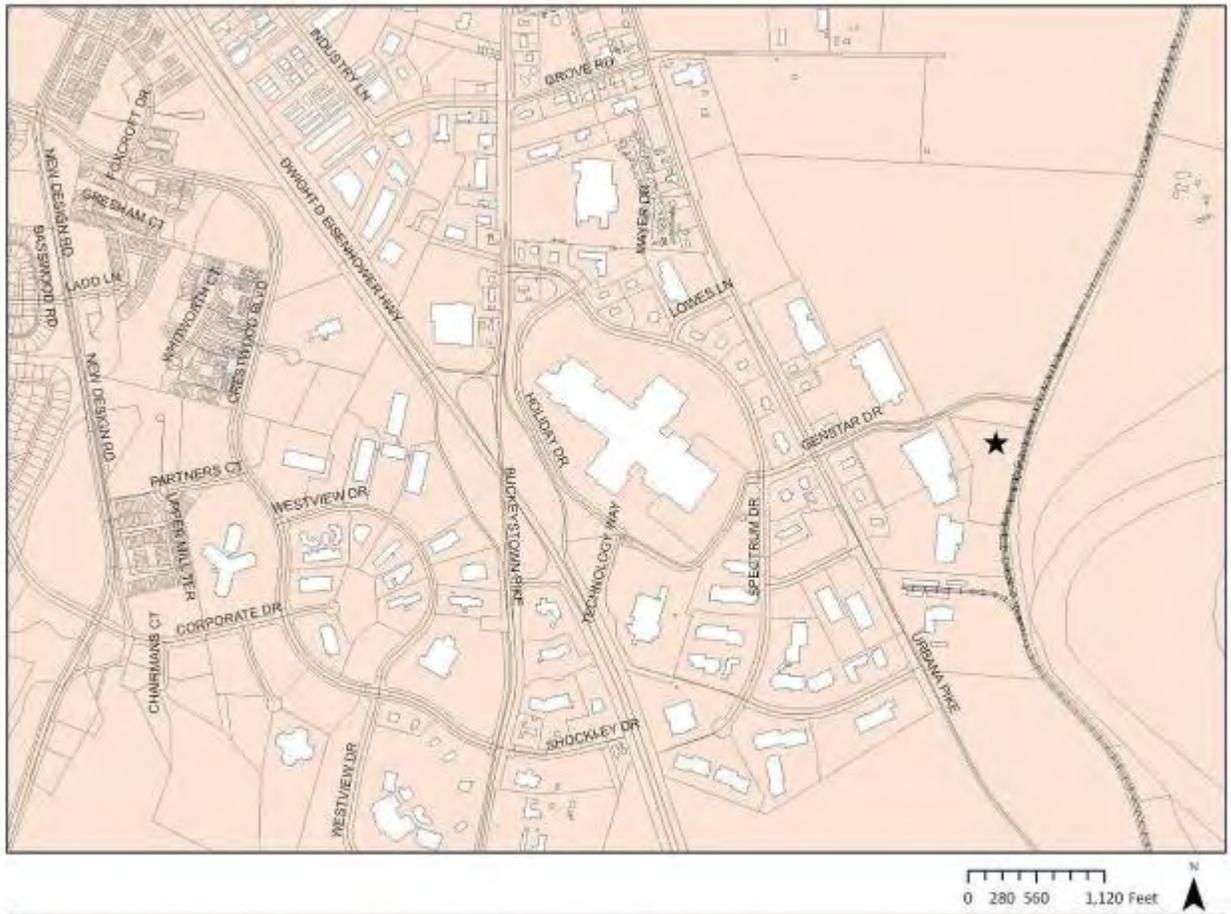
The Community Plan for the Frederick Southeast Community Growth Area indicates that there are no pipeline dwellings (un-built dwellings or units in approved developments) within the subarea or the study area. It does indicate that within the mixed use area (which is the same as the project study area) there is the potential for approximately 1,000 new dwelling units, which would be facilitated through redevelopment.^{vii}

The 2009 Public Hearing Draft Plan identifies three issues and opportunities facing the Frederick Southeast Community Growth Area and they are applicable to the smaller, project study area. The three issues and opportunities are summarized below:

- The Southern Gateway to Frederick City is the County's "most significant opportunity for redevelopment". To be successful it should focus on maximizing the transit opportunities around the Monocacy MARC station through mixed-use development.
- MD 85, MD 355, and I-270 provide the area with tremendous access. However, these major roads also create barriers as there are a limited number of ways to cross them. Frederick County proposes to study the feasibility of realigning and extending roads so that connections can be created. These connections could include the extension of Spectrum Drive over I-270 to Shockley Drive and connections between Crestwood Boulevard over I-270 to Grove Road/Industry Lane.
- There are opportunities within the Growth Area to create more local connections and expand the internal road network.^{viii}

The Public Hearing Draft Plan indicates that the Frederick Southeast Community Growth Area's water and sewer service is the same as the Ballenger Creek Community Growth Area. The Plan indicates that the New Design Road Water Treatment Plan has capacity to serve 39,672 equivalent dwelling units. This is more than enough to serve the potential dwellings in Ballenger Creek and Frederick Southeast. However, the Ballenger Creek/McKinney Waste Water Treatment Plant has excess capacity to serve 1,952 equivalent dwelling units. Because this is well below the 4,855 potential dwelling units in the Ballenger Creek and Frederick Southeast Community Growth Areas,^{ix} it may be necessary to construct additional sewer capacity before residential can be realized in the study area's mixed use area. Expansion of the McKinney Waste Water Treatment Plant which will aid in facilitating growth in this area is underway as of Fall 2009. Another issue to consider is that the land within the study area is comprised of approximately 65 individual parcels. Many of them are fairly large, especially around the mall. The smallest parcels are those located between Grove Road and Shields Drive. Ownership characteristics will influence how easy or difficult it will be to assemble property into a more development-friendly size. However pedestrian scale design can often be difficult to achieve on large parcels unless emphasis is placed on smaller building footprints and internal road networks. See Figure 5.

Figure 5: Parcels in the Study Area



MD 355/MD 85 TRANSPORTATION ORIENTED DESIGN AND LAND USE STUDY

1.5: Access and Circulation

Station location and access



The Monocacy MARC Station is located at the terminus of Genstar Drive in Frederick, Maryland (see Figure 6). Genstar Drive provides direct access to Urbana Pike/MD-355, a major north-south thoroughfare connecting Frederick County south

through Montgomery County, to the border of Washington DC. The station is bordered by a shopping center to the west, Monocacy National Battlefield to the southeast, and a mineral quarry to the north; the only access to the station is provided from MD-355 via Genstar Drive.

The Monocacy station is also within one mile of Buckeystown Pike/MD-85, a north-south road that connects Frederick, Buckeystown, and Adamstown in Maryland. Approximately one mile from the station, MD-85 intersects with I-270, a major interstate highway connecting Frederick with the Washington Beltway to the south.

Figure 6: Monocacy Station Area

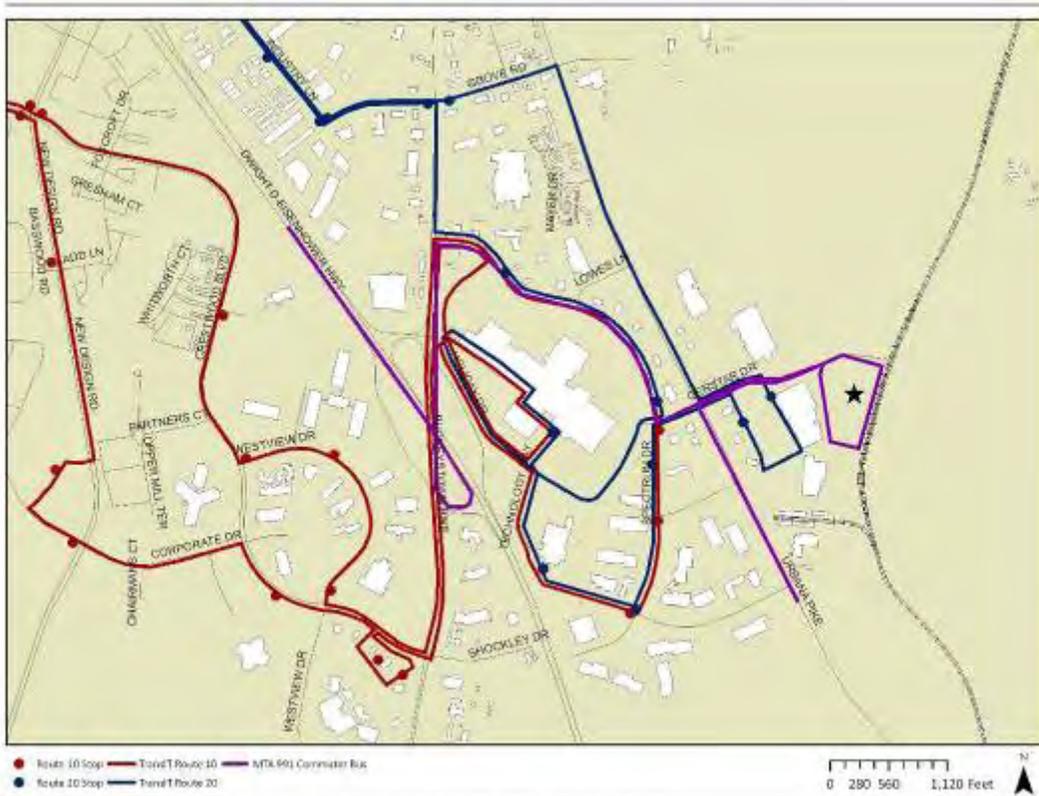


MD 355/MD 85 TRANSPORTATION ORIENTED DESIGN AND LAND USE STUDY

Transit service

The Monocacy station is served by commuter rail, commuter bus, and local bus service. These services are detailed in the “Frederick County Guide to Commuter Routes, Times, & Options,” a brochure created jointly with TransIT and the Maryland Transit Administration. While the various services have staggered peak times to reduce congestion at the station, the significant number of morning departures and afternoon arrivals at the station creates delays in the immediate station area.

Figure 7: Transit Service



MD 355/MD 85 TRANSPORTATION ORIENTED DESIGN AND LAND USE STUDY

MARC service

The Maryland Area Regional Commuter (MARC) Train is a regional rail service that operates 84 weekday trains on three routes: the Brunswick Line, the Penn Line, and the



Camden Line. MARC service began in 1984, and the Monocacy station opened in 2002 as one of two stations on the extension of the Brunswick Line into Frederick City. See Figure 8 for the map of the Brunswick Line and the Monocacy station's location.

The Brunswick line serves approximately 7,800 commuters daily (March 2009 figure). Of

The MARC station parking lot.

those commuters, approximately 1,700 commuters board in Frederick County, and approximately 400 commuters board on the Frederick extension specifically. In 2009, there were approximately 250 daily boardings at the Monocacy Station.

The Monocacy station occupies approximately seven acres of a 10-acre parcel, and provides 870 parking spaces. The Monocacy station is the only high-level platform on the Brunswick line. This allows for faster boarding. While the station is surrounded by vacant land to the north, east, and south much of it is undevelopable. To the north of the station is the LaFarge Quarry, a 500-acre active quarry. To the east of the station is a 200-acre resource conservation district along the Monocacy River. South of the station is the Monocacy Battlefield. The 15-acre Riverview Shopping Center site and a currently vacant 18-acre parcel present the most promising opportunities for redevelopment near the station.

The September 2007 MARC Growth & Investment Plan details, through 2035, system-wide capacity improvements and expansions to the MARC system. By 2015, MTA plans to increase the daily trains serving the Monocacy station from three to six, doubling the capacity and frequency of the Frederick Branch. Capital investments for 2015 include two tracks along the CSX Old Main Line. Plans for 2020 include more frequent service, limited reverse peak service, and expansion of off-peak service. By 2035, plans include expanded reverse peak service and weekend service for the line.

Figure 8: Brunswick Line of MARC System



Image Source: MTA Maryland

The Monocacy Station is served by three morning and three evening trains. The morning trains depart hourly, at 5:18 AM, 6:11 AM, and 7:16 AM. The evening trains arrive from Washington DC at 5:14 PM, 6:50 PM, and 7:59 PM.

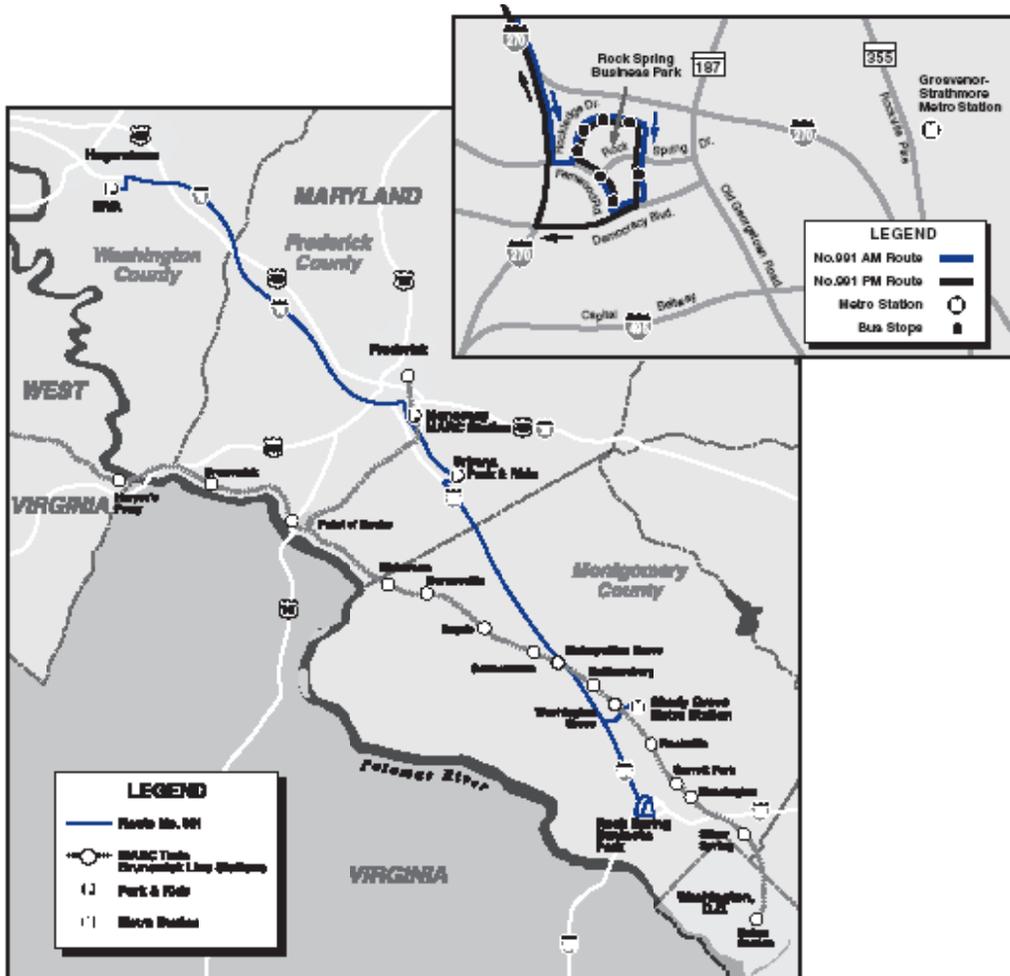
While ridership projections for the station itself are not available, the I-270/US-15 DEIS projects that transit trips of all modes will grow 451% between 2000 and 2030, with a growth of 8,410 trips. This figure includes MARC, MTA commuter bus, and local bus transit service.



MTA commuter bus

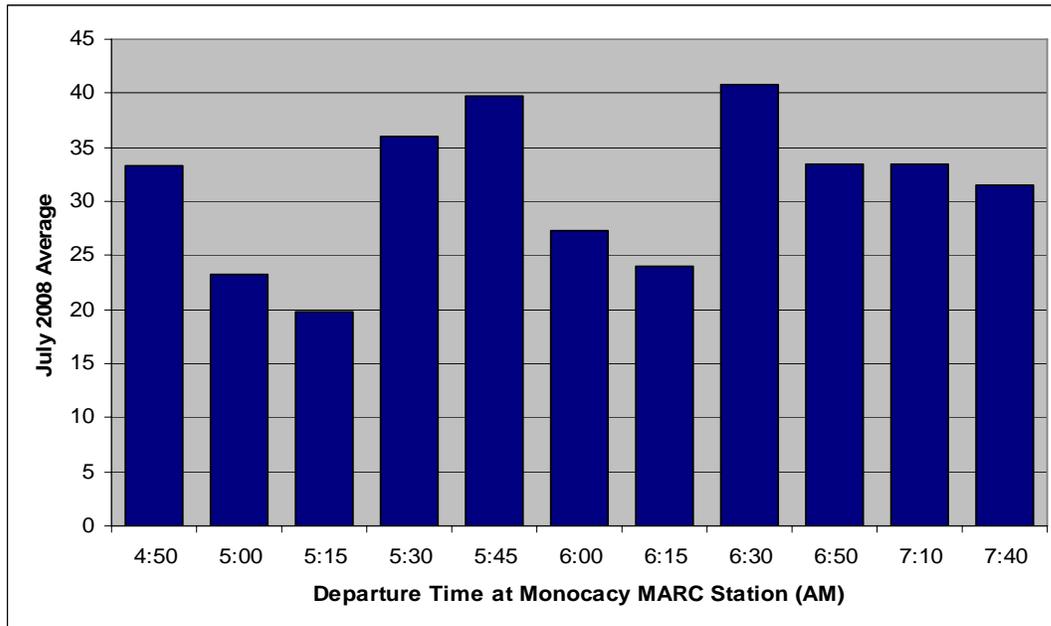
MTA Route 991 commuter bus service comes to the Monocacy station several times during the morning and afternoon peak periods. Route 991 offers express service via I-70 and I-270 between Hagerstown and the Rock Spring Business Park, with stops at the Monocacy MARC Station, the Urbana Park & Ride, and the Shady Grove Metrorail Station (see Figure 9). See Figures 10 and 11 for average

Monocacy boardings and alightings per bus in July 2008.



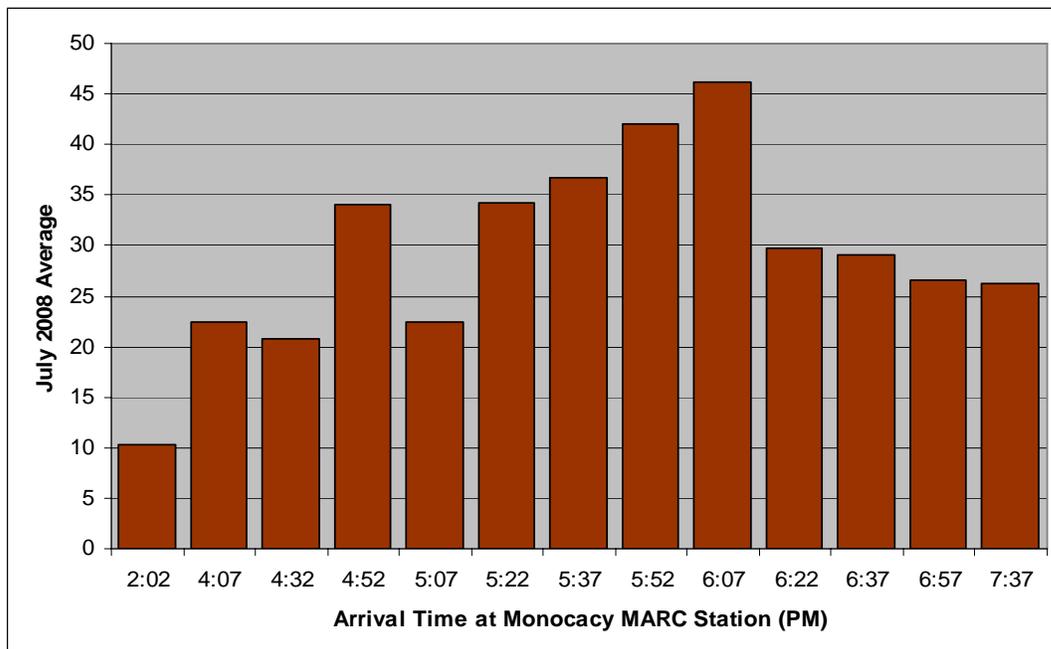
Source: MTA Maryland

Figure 10: Number of Passengers Departing from Monocacy Station in AM Peak Period



The morning boardings peak at 6:30 AM, with an average of 41 boardings on that bus, with the 5:45 AM departure following closely behind at 40 boardings. The most passengers in any given hour-long period are at the Monocacy station departing between 6:30 AM and 7:40 AM. During that period, an average of 139 passengers arrived at the station.

Figure 11: Number of Passengers Arriving at Monocacy Station in PM Peak Period



The evening arrivals peak with the 5:30 PM train, which arrives at the Monocacy Station at approximately 6:07 PM daily. The busiest hour in the evening peak at the Monocacy station is between 5:22 PM and 6:07 PM, when the 4:45, 5:00, 5:15, and 5:30 buses arrive at the station. During that 45 minute period, an average 159 passengers arrive at the station. Combining 991 commuter bus ridership with MARC boardings, there are more than 600 daily a.m. regional passenger trips originating from the Monocacy MARC station.

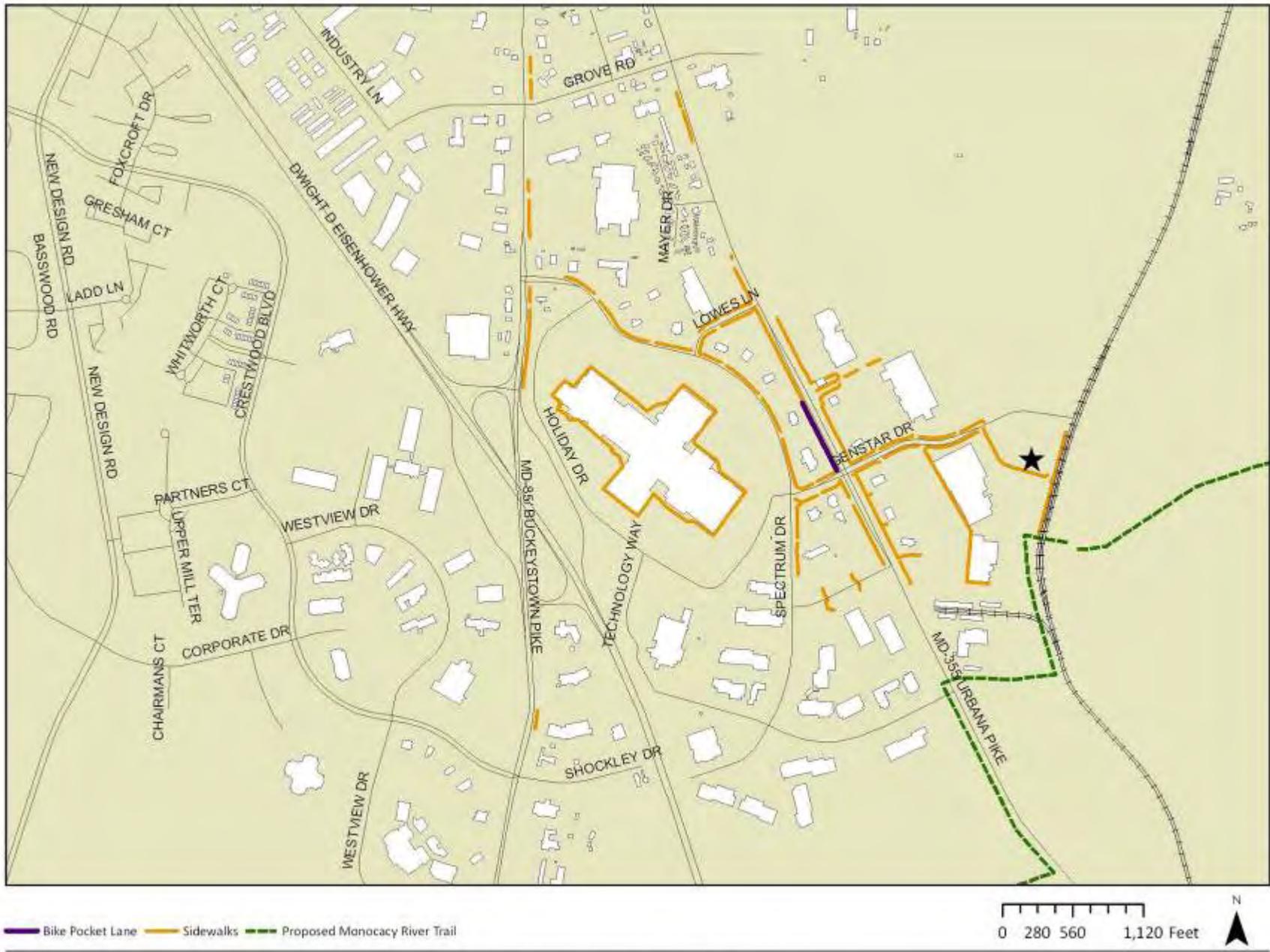
Local bus service

The station area is served by two TransIT routes, Route 10 and Route 20. Route 10 is the Mall-to-Mall Connector, connecting Frederick Towne Mall and the Francis Scott Key Mall. While the Route 10 bus typically does not stop at Monocacy station, it will service the station upon request. The Route 10 bus operates on 45 – 75 minute headways throughout the day. TransIT Route 20 is the Francis Scott Key Mall Connector, which links the mall, several shopping centers, and downtown Frederick. While this route typically does not service the Monocacy station, it does offer timed MARC transfers in the morning and evening peak periods. It also offers non-timed transfers with MTA's 991 Commuter bus. The Route 20 bus has half-hour headways during weekday peak periods and hour headways midday, evenings, and Saturdays.

Pedestrian and bicycle access

The Monocacy station is located in a car-oriented area of Frederick County and pedestrian and bicycle facilities are limited. The station's location amidst big box retail stores like Home Depot, Target and Bed Bath & Beyond, which are surrounded by large surface parking lots, is not conducive to pedestrian or bicycle activity. Despite this, there are some non-motorized connections in the area as well as a proposed regional trail (see Figure 12).

Figure 12: Pedestrian and Bicycle Facilities



Pedestrian facilities



Most intersections in the area lack crosswalks or sidewalks.

This area of Frederick County has limited pedestrian facilities, with several missing links in the pedestrian network. Sidewalks, shown on Figure 12 in orange, are present around Francis Scott Key Mall, along Spectrum Drive, and along Genstar Drive. These sidewalks connect to the Monocacy MARC station, though crosswalks are

missing at several key intersections, such as Genstar Drive and MD-355 and Spectrum Drive and Holiday Drive. Additionally, there are no crosswalks or pedestrian facilities of any kind along Buckeystown Pike/MD-85. This is a missed opportunity as a number of townhouse developments have been built west of Buckeystown Pike and if sidewalks were present in the area a number of residents could have the opportunity to walk to such attractions as the Francis Scott Key Mall or other retail options in the area.

The parking lot configurations within the study area have been designed to give priority to vehicles, creating perceived conflict and safety issues for the pedestrian. Lack of internal sidewalks and sidewalk connections between main retail areas and out parcels also hinder internal pedestrian movement.

During site visits, sidewalks were found to be in various states of maintenance, and only one sidewalk (along Genstar Drive from the Monocacy Station) was found to be used by a pedestrian.

Bicycle facilities

While the area has the potential to be a bicycle-friendly area, with both recreational/battlefield and commuting bicycling possible, there are few facilities for bicyclists to use. The area has no signed bike lanes, with the exception of a bicycle pocket lane on MD-355 north of Genstar Drive. There are shoulders along sections of MD-355, and while not continuous, they provide some opportunity for bicyclist access. Aside from these, there are no bicycle facilities in the area. Additionally, there are no "Share the Road" signs or other indicators that bicyclists use the roads in the area. Recently completed improvements to MD 85 & MD 355 just north of the study area do include some accommodations for cyclists in the form of shoulders and intersection bicycle pocket lanes. No bicyclists were noted during site visits, though there is some bicyclist usage at peak hours in the area.

Proposed Monocacy Greenway

The Monocacy River Trail, shown on Figure 12 in green, is a proposed shared-use path along the Monocacy River. As part of the Monocacy River Greenway, the trail would connect north Frederick City (Glade Creek) to the C&O canal at the Potomac River. While specific alignment in the project area has not been identified, the trail could generally run parallel to the Monocacy River floodplain from the north, cross over the railroad tracks near the MARC station and continue south to the Monocacy National Battlefield Visitor Center, before coming back out to MD 355 to head south towards the Battlefield and Ballenger Creek. This shared-use path would improve bicycle and pedestrian access to the station from the surrounding area and could ultimately provide connections to the City of Frederick to the north and the C&O Canal to the south. This is an unfunded project that is included as a priority regional bikeway and trail project by the Metropolitan Washington Council of Governments (MWCOG). It is also part of the Grand History Loop, a conceptual plan for a non-motorized transportation route between Gettysburg, Washington DC, Annapolis and Baltimore.

Parking

The Monocacy MARC station has 870 parking spaces in two adjacent surface parking lots. These parking spaces are shared between commuter rail, commuter bus, and carpool/vanpool passengers. The parking lots appeared approximately $\frac{3}{4}$ full during several site visits, with no capacity issues noted during typical weekdays.

The surface parking lots are similar to much of the parking provided in the area. The character of this area includes big box retail surrounded by surface parking lots and suburban office parks with surface parking lots. The Monocacy parking lots occupy approximately 6.5 acres, but they are not the largest expanse of parking in the area: the Target shopping center next to the MARC station occupies 7.8 acres, and the Francis Scott Key Mall provides approximately 30 acres of surface parking.



A bicycle rack at the Monocacy station.

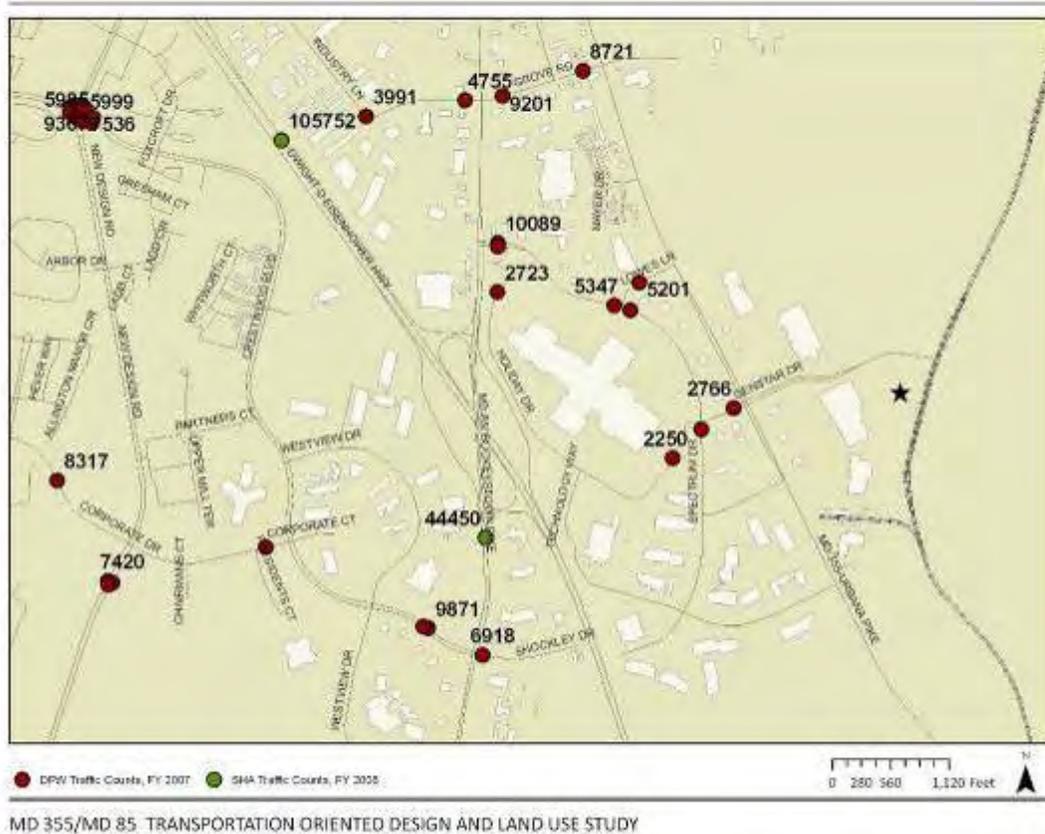
In addition to the adequate vehicular parking, there is bicycle parking as well. Ten new bicycle racks were installed in June 2009, replacing the old rack and adding capacity. Typical existing demand is between three and five bicycles. MTA policy only allows collapsible bicycles on

MARC trains, so additional bicycle parking is needed at stations to encourage additional bicycle access to the station. TransIT and commuter bus riders may also consider biking should adequate facilities be available. No bicycle racks were visible at any of the commercial properties in the study area.

Roadways

Traffic counts are available for some of the roadways in the area, and provide an indication of daily traffic volumes at particular locations (see Figure 13).

Figure 13: FY 2007 Traffic Counts at Selected Intersections (Average Daily Traffic)



According to the FY2007 traffic counts from the Division of Public Works, the highest volumes of traffic on county roads (10,089 vehicles) are found in the area is located on Spectrum Drive approaching Buckeystown Pike. Other high-volume locations include Crestwood Drive west of Buckeystown Pike (9,871 vehicles), Grove Road east of Buckeystown Pike (9,201 vehicles), and Grove Road west of Urbana Pike (8,721 vehicles).

According to the Maryland State Highway Association (SHA) traffic counts, which are recorded for all state major roads, both MD-85 and I-270 are experiencing extremely high average weekday traffic volumes (see Table 1). Interstate 270 carries over 112,000

vehicles daily, while MD-85 carries nearly 50,000 vehicles daily. It is interesting to note that traffic volumes fell on both roads from 2006 to 2008, with each road reducing traffic volumes by more than 2,000 vehicles per weekday. These drops in traffic could be attributed to the slowdown of the economy, as well as the re-routing of trips due to the completion of I-70 improvements such as New Design Road. However, during this same period MD 355 experienced a gradual increase in traffic volumes.

Table 1: Average Weekday Traffic Volumes, 1996 and 2005-2008

	1996	2005	2006	2007	2008
MD-85, 0.2 miles south of I-270	28,725	54,475	51,560	51,311	48,451
MD 355, 0.4 miles south of MD 85	13,525	18,250	18,072	19,830	19,241
I-270, 0.4 miles south of New Design Rd	81,975	103,325	114,390	114,386	112,097

Congestion and Capacity Constraints

While the study area has excellent access to the interstate highway system, the local traffic circulation options are very limited due to natural and man-made impediments. Since the Monocacy River, the LaFarge Quarry and the MARC/CSX rail line block possible road connections to the east and the Monocacy National Battlefield precludes local roads to the south, the study area must rely upon local road connections from the west and north. The limited access controls on I-270 also determine where road connections and bridge crossings can take place. For years, all traffic had to come into the study area via either MD 85 or MD 355. With the construction of Guilford Road to New Design Road, motorists now have a third option. With the recent opening of the East Street bridge over I-70, there is the potential for a significant shift in travel patterns to and from the study area. Historically, MD 85 has been the main street for this area with MD 355 getting less traffic. With several new shopping centers along MD 355, the MARC train station, and access to downtown Frederick City via the East Street connection, MD 355 will likely serve a great role in moving traffic through the study area.

The study area has benefited from the recent widening of both MD 355 and MD 85. However, since the land use pattern of this area is predominately commercial with a significant number of driveway access points and no median control, the capacity improvements have provided only marginal improvement in traffic congestion. Evening traffic backups are not as severe as they were a few years ago. But, as traffic volumes continue to rise, the level of service will decline.

With the widening of both the MD 355 bridge over I-70, and the East Street bridge, the bottleneck north of the study area has been significantly improved. To the south, however, the I-270 bridge continues to constrain road capacity on MD 85 to two lanes in and two lanes out of the study area. Local traffic circulation has also been impeded by the current land use pattern of commercial lots lining MD 85 and MD 355 with very few

east-west roads. Grove Road provides the only direct connection between the two state roads. Spectrum Drive/Lowes Lane/Genstar Drive offers a circuitous alternative to get from the west to the east side of the study area. This lack of parallel east-west connectors causes traffic to travel farther on MD 355 and MD 85 to get to their final destination. This is particularly true for truck traffic.

Adjacent corridor network analysis

The interstate highway system around the study area has changed significantly in recent years. The improvements to I-70 that have been recently completed, as well as those under construction, have been in the works for decades. For years, I-70 and I-270 were connected by partial interchanges that required westbound I-70 travelers to use MD 85 to go south on I-270 and northbound I-270 travelers to use this same road to go eastbound on I-70. This roadway configuration and travel pattern created a fertile environment for commercial development along MD 85, which helped promote the land uses and lot configuration of the study area. With the construction of the full interchange between I-70 and I-270, interstate traffic does not have to use MD-85 for long distance travel – allowing MD 85 and MD 355 to serve more local and intra-county trips.

The completion of Phase 2B and 2C of the I-70 interstate improvements will move the bottleneck on I-70 further to the east. With the completion of Phase 2D, currently funded for design and construction, I-70 will be a six-lane divided highway facility from Howard County through the City of Frederick. Included in Frederick County's Highway Needs Inventory, are future plans to extend the six-lane capacity of I-70 to the Washington County line.

Historically, the traffic congestion at the confluence of northbound I-270 and westbound I-70 has been problematic, especially on Friday afternoons and the day before holiday weekends when vacationers want to leave the Washington, DC region. Recent interchange improvements have significantly improved the congestion, but backups still routinely occur and will get more frequent as traffic volumes increase. Traffic on this portion of I-270 is projected to increase by 76% in 2030 over the Average Daily Traffic volume of 80,000 vehicles in 2000. This is the largest percentage increase of any segment of the I-270 corridor (see Table 2).

Table 2: ADT Volumes Percent Growth under No-Build Conditions

Location	2002 DEIS Projections			Current Projections		
	1998 ADT	2025 ADT	Percent	2000 ADT	2030 ADT	Percent
	Volumes	Volumes	Growth	Volumes	Volumes	Growth
I-270: Shady Grove Road and I-370	174,900	254,000	45%	210,000	247,000	18%
I-270: MD 124 and Middlebrook Road	119,600	213,500	79%	142,500	186,600	31%
I-270: MD 118 and Father Hurley Boulevard	83,100	130,200	57%	96,000	148,000	54%
I-270: MD 109 and MD 80	68,350	102,800	50%	74,000	113,800	54%
I-270: MD 80 and MD 85	71,250	125,600	76%	80,000	141,000	76%
US 15: Opossumtown Pike and MD 26	68,700	80,400	17%	76,000	85,500	12%
US 15: Hayward Road and Biggs Ford Road	35,700	61,900	73%	41,125	62,300	51%

Source: I-270/US 15 Multi-Modal Corridor Study Public Hearings Brochure, June 2009

Recognizing the need for more road improvements in the area the I-270/US 15 Multi-Modal Corridor Study has been planning additional improvements to the I-270 corridor. The Alternatives Analysis/Environmental Assessment (AA/EA) phase of the project is under public review at this time. The time frame for the construction of the proposed improvements identified in the Multi-Modal Corridor Study is unknown.

Planned roadway improvements

There are a number of other roadway improvements planned for this area in addition to I-70 and I-270. One of Frederick County’s priority state road projects is to improve MD 85 (Buckeystown Pike), from English Muffin Way to north of Grove Road. According to SHA’s 2008 published Highway Needs Inventory for Frederick County, the total costs for a multi-lane upgrade of this 2.1 mile section of road would be \$184 million. The MD 85 Planning Study has been completed and has proposed a three-phase implementation plan. According to SHA’s project web site, the MD 85 Phase 1 involves a new interchange at MD 85 and I-270, along with roadway improvements to MD 85 between Spectrum Drive and Crestwood Boulevard. Phase 2 of the Planning Study extends from Spectrum Drive northward to tie-in with the recently-completed improvements near Guilford Drive. Phase 3 extends southward from Crestwood Boulevard to English Muffin Way, and includes the replacement of the bridge over Ballenger Creek. Improvements generally widen MD 85 to a four- to six-lane median divided roadway.

As pointed out in the SHA’s project reporting, the Phase 1 interchange design will need to be compatible with long-term improvements proposed as part of the I-270/US 15 Multi-modal Study. The existing two I-270 bridges over MD 85 will be removed and replaced with a longer, wider structure that will have room for the additional lanes required on MD 85 to accommodate the design year traffic (2030). Northbound MD 85 will expand from the existing two-lane section under the bridge to five lanes: A double-left that exits to I-270 North, two through lanes, and an acceleration/deceleration lane for the loop ramps. Southbound MD 85 will expand to four lanes: A double-left that exits to I-270 South and two through lanes.

To date, \$5.66 million has been expended on this project. Phase 1 of the project is currently funded for design only. Phases 2 and 3 still need additional funds to complete engineering and construction; funding for these improvements is not available at this time.

There are two other transportation projects on the planning books that affect the study area. The SHA's Highway Needs Inventory identified the long term need for a 5.7 mile multi-lane reconstruction of MD 355 (Urbana Pike) from north of Urbana to MD 85. The total cost of this project was estimated in 2008 to be \$114 million, but this project is not currently funded for any phase. The other project shown on the County's comprehensive plan is a proposed bridge over I-270 connecting Shockley Drive with Spectrum Drive. This would provide another alternative route into and out of the study area.

Peak period travel conflicts between modes

The congestion issues in the area are primarily auto-oriented, as most of the transportation network in the area is car-focused. Since the peak morning travel period for the MARC train and the commuter bus riders is before the retail stores open, there is very little conflict between these modes during the morning rush hours. However, given the limited access into and out of the study area, afternoon returning commuter buses must work their way up I-270, which is always congested, and through the local road network to the MARC train station. Departing commuter bus and MARC riders also have to work their way back through the local road network to the interstate system to go home. Since there are numerous restaurants and retail stores in this part of the County, the PM peak period traffic has greater peak volumes than the AM peak period.

Chapter 2: Opportunities and Constraints

2.1: Market Strengths and Weaknesses

Frederick County's continued economic success is partly dependent on the strength of the Washington Region, which has been able to remain strong during this economic downturn. In addition, the presence of Fort Detrick, other Federal employers, and spinoff jobs associated with the Federal agencies will likely allow Frederick County to see continued job growth. The County's target industries are: agriculture, bioscience, advanced technology, and manufacturing. Frederick County's growth industries are tourism, education services, healthcare, and retail.^x

In a March 2007 briefing to the County Commissioners, Colonel Mary R. Deutsch, Commander, US Army Garrison, Fort Detrick, MD stated that Fort Detrick is expected see 225 new jobs as a result of BRAC. However, planners expect an additional 1,200 jobs as a result of expansion by related employers like SAIC and the National Cancer Institute. The new demand for housing is projected to be 950 dwelling units, and it is felt that Frederick County's current pipeline can accommodate this demand.^{xi} The Monocacy MARC Station is not mentioned on Fort Detrick's directions page; the lack of reverse commute service currently makes it impossible for workers to travel by MARC to the installation.

2.2: Opportunities

The study area has many varied assets that future development should take advantage of.

Transportation Opportunities:

Access: I-270/I-70 and MD 85/MD 355 provides the area with tremendous regional and local access, which allows people to get in and out of area very easily. This adds to the appeal of the area as a place to live and work.

The planned shared-use path along the Monocacy River creates additional modes of access into and within the area. The path will also add a much desired recreational opportunity. The planned shared-use path will increase the additional quality of life benefits for residents and could become an attractive asset that draws people to the area.

Proximity: Because of the area's proximity to downtown Frederick, the study area can capitalize on spillover demand for services and amenities not being met in Frederick, or not ideal in character for downtown Frederick. As each area grows, the focus should be on complimentary growth, not competitive development.



Visibility: The study area has extensive through-traffic, which provides significant “eyeballs” seeing what’s available in the area. As the volume of people who pass through the area increases, the number of people who may find an opportunity to “stop and shop” also increases. The volumes of traveling public could provide “free advertising” for proposed new housing and mixed use developments.

Future Transportation: The County's continued advocacy for a transit-way along I-270 to the Monocacy MARC station and into Frederick's downtown demonstrates the County's interest in achieving this long term project. A future transit-way will provide additional multi-modal access to and from the area, and has the potential to entice additional economic development and residential demand in the future. Demand for such a project would depend on increased residential and commercial density in the corridor.

Economic Development:

Stability: The area is economically stable, despite the current recession. This will make it easier to attract new development due to the demonstrated ability to remain strong given the diverse economy and the spin-off jobs related to growth at Fort Detrick and other federal agencies and related services. The area also has reasonably high income

levels, which adds to the attraction, particularly for commercial development as well as high-end jobs.

Existing Assets: The area has a high-end corporate presence, which can serve to attract development, especially hotel, retail, and entertainment. It also provides signals to other similar high-end corporate businesses that this is a great place to base headquarters functions as well as to serve the federal and advanced technology businesses already nearby.

The area also has nearby “rooftops” needed to adequately support existing retail. Having enough of the “right kind” of residents is critical to continuing to attract high-end retail development. Planning for more housing can only increase the appeal for commercial development.

The Mall, which has a 2 percent vacancy rate and is very stable, provides a recognized reason to come to the area. It serves as a very large regional attractor as there is limited shopping of this extent with a 10-15 mile radius of the area.

The Monocacy Battlefield is a destination that, through increased visibility, could attract more visitors to the area, who can in turn take advantage of area services. The area needs to capitalize on the value the Battlefield has to its vitality, and the Battlefield needs to work with the commercial community to encourage more cross-advertising and marketing venues.

The limited number of parcels and owners in the study area could ease land assembly if necessary for more intense development. Assembly of many small, underutilized parcels could provide great opportunities for desired development, and may provide more enticement for quicker development opportunities.

The auto dealerships along MD 355 and the low-intensity development along Grove Road could present initial redevelopment opportunities, as these parcels could be more profitable developing into a different, more intense purpose.

2.3: Constraints

Future redevelopment of the area will be constrained by the following issues.

Transportation:

Physical Barriers: While I-270, I-70, MD 85, and MD 355 provide the area with valuable access, these roads also create significant barriers and limit east/west travel within the study area and between the study area and the surrounding neighborhoods. Traffic is forced to go north-south, predominately on MD 85 and MD 355. Connection between these two roads is limited, resulting in increased traffic volumes on MD 85 and MD 355

for travel within the area. Travel to the west of MD 85 is hampered by I-270. Connection to the primarily residential area west of I-270 is gained through circuitous movements. This lack of interconnectivity creates traffic issues and an in-hospitable environment for pedestrians and bicyclists.

The Monocacy River and the railroad tracks are also barriers that limit east/west movements. Similar to I-270, MD 85, and MD 355, these features force people to travel north/south, usually on MD 85 and MD 355.

Traffic: Perceived high traffic speeds on MD 355 and MD 85 have a negative impact on pedestrian and cyclist comfort. This makes it very hard to attract these users to the area. The current car dependent nature and design of the roadway system will be difficult to create into an all encompassing, pedestrian and bicycle friendly locale. The high traffic volumes on MD 85 and MD 355 further constrict the existing roadway system, though recent improvements to the I-70 and M85 intersection has resulted in the

Limited Transit Service: MARC and TransIT services are very limited. MARC caters to the work population traveling south to Montgomery County and the District of Columbia in the morning peak hours, bringing those commuters back in the evening. Mid-day and reverse commute service is non-existent. Frederick County TransIT service provides Meet-the-MARC shuttle and Connector Route feeder service to the downtown Frederick MARC Train Station with limited timed transfers to the Monocacy MARC Train Station. TransIT's system ridership remains predominately transit dependent in nature. The limited frequency and nature of the services of both MARC and TransIT hinder their ability to attract ridership. Providing services for area related work trips and for recreational opportunities such as the Monocacy Battlefield would benefit the development of a more livable community. The planning for transit and land use needs a more integrated approach if both are to succeed.

Economic Development:

Stability: The area's economic vitality of the area is a boon especially given the current economic conditions. However, it is very difficult, if not impossible to redevelop a thriving area without causing additional barriers and levels of confusion and frustration. A long-term vision with orchestrated implementation in concert with existing businesses will be important.

While many of the businesses in the area are very successful, the sales per square foot are not high enough to support structure parking at this time. Land is still affordable, and incentives do not yet exist to encourage more dense commercial development.

Low intensity development along Grove Road could provide early redevelopment opportunities. The small parcels and fractured ownership, however, will make it difficult

and possibly expensive to assemble the lots into a parcel that is of sufficient size to be attractive for more dense development than is currently there.

Competition with Downtown Frederick: Downtown Frederick is a pleasurable historic downtown with an eclectic grouping of shops, restaurants and antique boutiques surrounding the City and County Government core. It maintains a strong character that attracts a different type of commercial development as well as being a wonderful community to live, work and play. Growth plans for the study area should not be competitive with the character of Downtown Frederick. Doing so may cause a drain on the economic well being of the downtown, but will not enable competitiveness on housing desires between the two areas. Given the current character of the two areas, it is easy to see how plans for the study area can complement, rather than compete with the Downtown, creating a win-win situation for the region.

Land Use:

Existing Urban Design: The area's current car-dependent nature and design will be hard to overcome, and it will be difficult to create an all-encompassing walkable, pedestrian-friendly district given the wide streets and perceived fast-moving traffic. The sidewalk network is not inter-connected, and there are limited intersection crossings for safe pedestrian movements. Fortunately, this is a short-term constraint. Targeted investments can quickly and fairly easily provide interconnected sidewalks and improved pedestrian and bicycle crossing.

Management of rights of access has not been sufficient along MD 355 and MD 85, resulting in nearly continuous curb cuts along these roads. This produces a potentially unsafe and difficult-to-navigate environment for vehicle, pedestrians and bicyclists. The likelihood of rear-end collisions increases as auto turning movements taking advantage of the access increases. In addition, it creates an unsafe environment for pedestrians and bicyclists due to conflicts caused by the auto turning movements. Recent improvements on MD 355 have decreased access points somewhat resulting in increased safety for all on-road modes.

Urban amenities like street lights, street trees, and street furniture are not abundant in the study area. Increasing these amenities can help add to creating a more pedestrian-friendly and walkable character for the area. It is not difficult or costly to install these amenities, but it may be hard for the county to justify the expenses prior to walkable, mixed use development occurring.

Land Constraints: The Monocacy Battlefield prevents the study area's ability to develop to the South, and the active quarry limits development to the east and north. In addition, they both serve to decrease the perception of connectivity to these areas.

The area's geology is prone to sinkholes. This feature will increase construction risks and costs. It will also make awareness about impervious surface impacts and storm water management more important than may typically be required.

Existing Land Use: Residential alternatives added to the study area may compete with available nearby housing, which could hurt the overall residential success of the area. There is a need to gain a more detailed understanding of area's housing demand and supply and plan for complimentary residential development. More than likely, multi-family residential will be appropriate for this area.

Existing Infrastructure: While the availability of water may be sufficient, the water infrastructure in the area (i.e., pipe dimensions) may need to be upgraded and expanded to serve any proposed increased density. The water requirements of the existing development are very different from that of mixed use development with a residential component. Replacing or supplementing the water pipes could be a costly improvement and should be considered in the planned and implemented development in the area.

The need for additional sewer capacity is likely. Similar to water, the sewer requirements and usage rates for the existing development are different from the proposed and desired. As of the fall of 2009, the expansion of the McKinney Waste Water Treatment Plant is underway and growth in this study area should be phased with the facilities expansions.

Chapter 3: Multi-modal Transportation Center Needs Assessment

An assessment of the potential for a multi-modal transportation center in the area was done for both the Francis Scott Keys Mall area and the MARC station. Currently each location provides a different opportunity for multi-modal transportation. The question the assessment attempted to address is which makes the most sense, and what would be the components of the center given the current conditions of the area and the recommendations for its future.

3.1: MARC Station Multi-modal Center

The MARC station serves as the confluence of several modes in the study area, including commuter rail, commuter bus, Frederick County Transit bus service, and vehicular traffic to the station's park-and-ride and kiss-and-ride lots. Local taxi services the station also. This station already functions as multimodal transfer center, serving and facilitating connections between commuter rail, commuter bus, and Transit bus. The only mode of transportation, save freight movements, missing from the current station is intercity bus. While not impossible, given the access to the interstate, it is unlikely that intercity service would consider a stop at the MARC station. Intercity service tends to prefer downtown locations where folks have increased access to the station, especially those that are transit dependent.

Currently the service limitations of MARC provide little incentive for planning a more concrete multi-modal center. There is little congestion in the station area, and the pavilions provide enough shelter from the elements given that many folks remain in their vehicle until the bus or train arrives during inclement weather. However, as ridership increases, the parking lot becomes more congested; thought might be given to enclosing portions of the pavilion to provide more shelter from rain, snow, wind and the cold.

As the area builds out, adequate space should be retained to allow for expansion of the current small depot at the station. Increased bi-directional travel will play to more need for connections to other parts of the region as well as other modes such as Amtrak, or transportation to a regional airport. Parking could be structured and integrated into a more elaborate multi-modal station. Station attendants as well as kiosks for purchasing MARC, Amtrak, and other transit service tickets could be located within the station. In addition, office space as well as restaurants and small retail may be appropriate. At this time, there is inadequate justification for such a facility, but thought should be given in the planning for the land to reserve opportunities should the increased transit services come to fruition.

3.2: Francis Scott Key Mall

The Francis Scott Key Mall is a major TransIT hub, as well as a major destination on TransIT routes. It is unlikely that MARC users would park at the mall and take transit or walk to the MARC station because of the unpleasant pedestrian environment. These characteristics make the mall a logical place for a bus transfer center that would improve both mall access and bus-to-bus transfers, rather than a multi-modal transportation center.

According to the Mall, there are no plans to change the structure and function of the Mall. The current parking is needed and in the foreseeable future, will not be structured. The nature of the transportation to the Mall will remain dominantly auto-oriented. However, surprisingly, over 10% of the commuters to the mall arrive there by bus – a very impressive figure.

The Mall services as a location not only for a transit destination, but as a transfer location for bus services. Today the stop is unsheltered and difficult to locate. Waiting benches and shelter from the elements are non-existent. Given the good percentage of folks who take transit to the Mall, and the added element of a transit transfer location, the Mall could benefit from an ideal bus transfer center. Such a center could provide benches, shelter, real-time arrival and departure information as well as serve as a notification that TransIT is here – providing an addition incentive to take transit. There are many transit transfer centers across the country that could serve as models, but whatever design is selected, it should complement and enhance the architecture of the Francis Scott Keys Mall.

A sample of architecturally significant bus transfer centers are provided on the following pages. Each has its own style that fits within the context of the area, and provides a sense that this is a special place, not just a basic bus drop-off, boarding place.

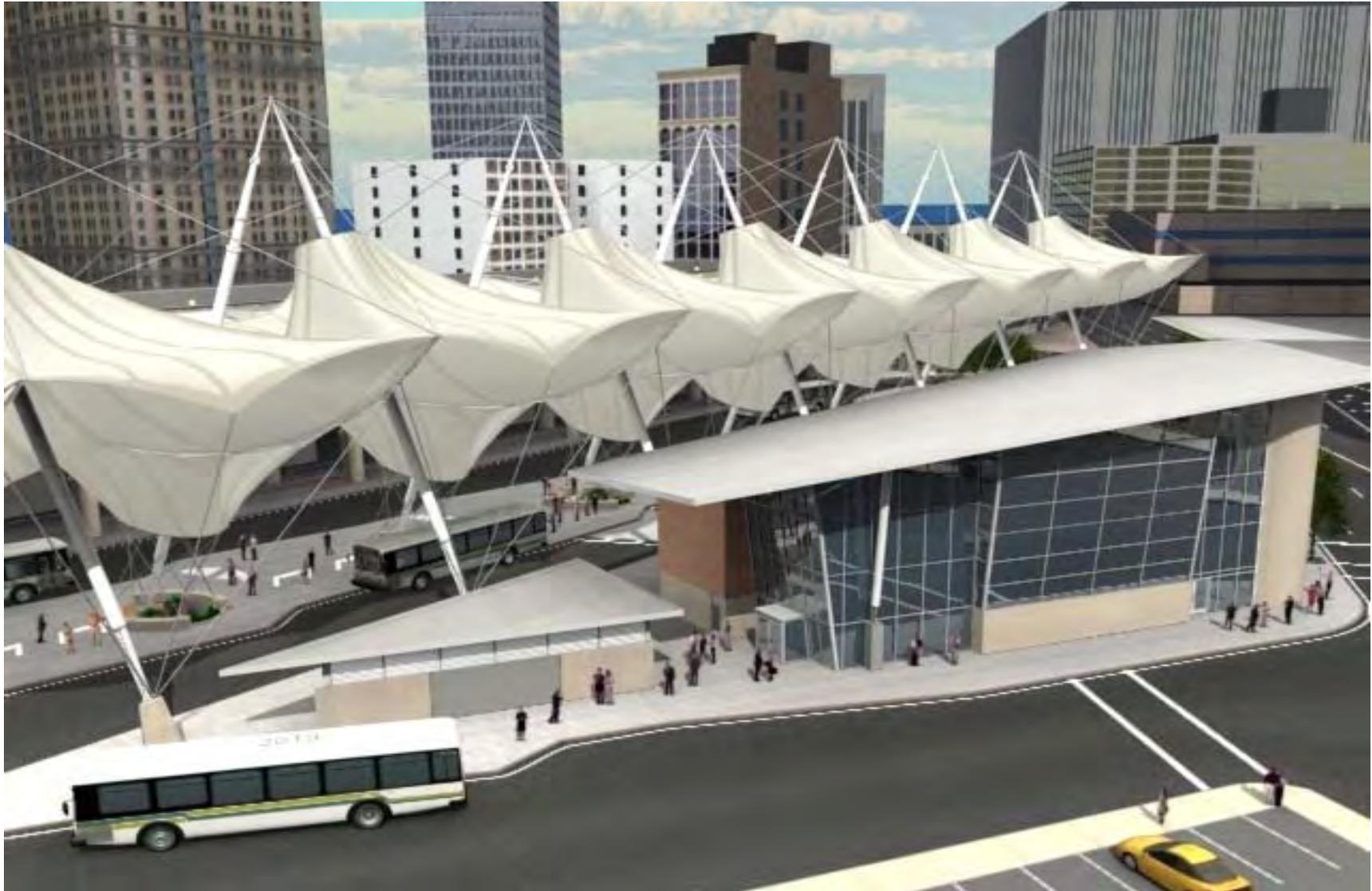
Figure 14: Example of Bus Transfer Center in Los Angeles, California



Figure 15: Example of Bus Transfer Center in Olympia, Washington



Figure 16: Rendering of Bus Transfer Center in Detroit, Michigan



Chapter 4: Recommendations

The following recommendations are based on public input from stakeholder interviews, on-line and in-person surveys, as well as the outcomes from two public work sessions. The information from the public and the foregoing analysis and observations provided excellent information and insight in the formation of these recommendations.

4.1: Transportation Recommendations

Short Term

There are several short term transportation improvements Frederick County can make. The recommendations focus on improving the pedestrian and bicycle environment in and around the study area. By taking steps to develop better conditions for walkers and bicyclists, the chances of seeing increased use of these modes improve. The improvements are not expensive and are relatively easy to implement if there is the will to do it. But because there is not a culture of walking or biking in the area, it is easy for county officials to direct funds to other, more obvious, concerns and needs.

It is important to recognize that the study area does not currently provide an environment that is conducive to safe pedestrian and bicycle movements. It is not a place that folks readily think of as a pleasant place to walk, or bike around. Once improvements are made, it may take awhile for the non-motoring public to embrace, however having the improved conditions will be vital to attracting more walkers and bikers in the short term and more walkable, pedestrian-friendly development in the long term.

Specific improvements are shown on Figure 17 and include:

- Improve pedestrian crossings at the following intersections: MD 85 and Spectrum Drive, MD 355 and Holiday Drive/Genstar Drive, Lowes Lane at Spectrum Drive and both Spectrum Drive at Holiday Drive intersections.
- Construct sidewalks along major roadways
- Provide Improved street lighting and new street furniture to enhance the pedestrian experience and encourage additional pedestrian presence in the area.
- Construct passenger transfer center at the FSK Mall.
- Continue striping bike lanes on area roads, and enhance bicycle connections (paths and trails) that link Downtown Frederick, the Monocacy Battlefield, the Monocacy MARC Station, and the Francis Scott Key Mall.
- Make bicycle improvements to MD 355 between Monocacy Battlefield and downtown Frederick.
- Provide improved bicycle parking at Lowes, FSK Mall, and Target.
- Promote pedestrian and bicycle safety through signage and law enforcement.

Long Term

In the long-term, Frederick County needs to take bold steps to improve the movement of vehicles through and around the study area. The recommended improvements propose constructing an additional 4.2 miles (along the center line) of roadways. The new construction would reconfigure the transportation network into a modified grid pattern so that new east-west connections are made and local and through traffic could be more evenly distributed. Currently, Grove Road and Spectrum Drive (FSK Mall's ring road) are the only two ways move across the study area. In turn, traffic is forced to go north/south, MD 85 and MD 355, which increase traffic volumes on these roads and makes them less hospitable for pedestrians and bicyclists.

In addition to creating new east-west travel routes within the study area, it is also recommended that the county create a new north/south road east of MD 355. The reasons for this are twofold. 1) Removing some of the through traffic from MD 355 will allow the road to function more of a Main Street rather than as a throughway. 2) The new road can provide rear access to the large parcels that are along it. This would allow the existing retailers to continue operations while the portion of the parcel that fronts MD 355 (currently parking) redevelops in a more pedestrian-friendly and walkable manner.

Also, Frederick County should construct the planned shared use path along Monocacy River including access points at the Monocacy MARC Station and the Monocacy Battlefield. The path would provide residents with recreational opportunities and additional quality of life benefits, which could attract new residents to the area. It would also provide an additional non-motorized transportation option between the City of Frederick and the area. Providing dedicated bicycle and pedestrian access to Monocacy Battlefield is would likely attract more people to the area, who can in turn take advantage of area services.

Specific improvements are shown on Figure 18 and include:

- Extend Grove Road and Lowes Lane to the new road east of MD 355.
- Extend Shields Drive to create an additional east-west connection between MD 85 and MD 355.
- Provide a connection over I-270 at Shockley Drive.
- Realign and extend Spectrum Drive and Holiday Drive to cross new road creating the connection over I-270.
- Extend Genstar Drive past the MARC station to create a connection to Reich's Ford Road.
- Create a parallel road approximately 1200 feet east of MD 355 to provide alternative access for local traffic and provide access to parcels west of the new road.

- Create a shared-use path along the Monocacy River.

4.2: Land Use Recommendations

Short Term

The short term land use recommendations focus on making the study area more likely to attract the mixed use development Frederick County desires in the study area. As an initial step, Frederick County should modify its current mixed-use zoning district. The County drafted the mixed use regulations to accommodate new planned, mixed-use projects; they were not written to promote redevelopment. To facilitate the recommendations identified for the study area they would have to be revised.

Frederick County has one mixed-use zoning district – Mixed-Use Development (MXD). The MXD district is a floating zone that requires the Board of County Commissioners to approve the concept plan as part of the rezoning application, which also sets the maximum permitted land use mix percentages. Currently, for a property to be eligible to apply for the MXD floating zone the site has to be:

- Designated Office/Research or Light Industrial on the County’s Comprehensive Plan
 - *Under the proposed Comprehensive Plan, the study area is designated Mixed-Use, and as such would not meet the current requirement.*
- Have at least W-4, S-4 classification on the Water and Sewerage Plan
 - *The study area meets this requirement; it is W-1,S-1*
- Found consistent with the "Community Concept" of development as described in the Comprehensive Plan.
 - *Since the proposed Comprehensive Plan designates this area for mixed-use development, the study area should satisfy this requirement.*
- Located adjacent to existing or planned arterial roads
 - *The study area is surrounded arterial roads.*
- Have a minimum of 50 contiguous acres under one owner or multiple owners filing a joint application
 - *Several of the larger commercial properties may be able to meet this application criterion (the FSK Mall would), but the adjacent smaller properties would not qualify – inhibiting a unified mixed-use development concept.*

While residential uses are permitted in the MXD zone, the regulations, as a whole, are oriented toward office, retail and light industrial development. Residential development cannot exceed 25% of the project acreage. Residential is not required to be included in the mix of uses, and if included triggers a higher percentage of open space than commercial or employment land uses. The combined residential and commercial portions of the project cannot exceed 40% of the gross project area.

The regulations are very flexible, allowing for the potential of a high-quality mixed use development. But, since there are very few standards, an applicant is not required to integrate mixed-uses vertically and could satisfy the minimums by having isolated uses placed on the site. Furthermore, the regulations contain no design guidelines, thereby providing no direction on the visual appearance the community wants for the area.

Preparing the study area for increased water and sewer demands is another early land use step that must be taken. Residential and mixed use developments have heavier water and sewer demands than the existing low density office and retail uses currently on the site. The County must develop a short term capital improvement plan for water and sewer accompanied by a plan for build out.

Long Term

In the long term, Frederick County would realize its goal of turning the auto-dominated study area into a vibrant, mixed use, walkable, livable place. MARC service would be expanded to be more frequent, and provide reverse commute services from the South, providing an opportunity to capture more employment, potentially more visitors, and more shoppers; adding to the vibrancy of the area without additional traffic congestion. Figure 18 describes a potential land use pattern that capitalizes on the new road network and maximizes attraction to the Monocacy MARC station and the Monocacy National Battlefield. Mixed and retail uses make up the bulk of the area around FSK Mall. More dedicated retail uses would occur at the mall, the northwest corner of the study area, and along Genstar Drive. Offices uses would be concentrated in the northeast and southwest corners of the study area. Residential areas would be adjacent to the MARC station and in the southeastern end of the study area and along the Monocacy Battlefield. By placing the residential development here, it takes advantage of the beautiful vista provided by the Battlefield, and can serve to buffer the area from the activities of the retail and office development. As the study area increases the number of residences, it will be important to provide active green space or playgrounds in the residential areas to provide improved livability and encourage a sense of community.

4.3: Economic Development Recommendations

Short Term

Similar to the land use section, the short term economic development recommendations are designed to create an environment that attracts the mixed use development Frederick County desires in the study area.

Because area retail rates per square foot aren't yet high enough to support structured parking, the County could finance this investment as part of an effort to accelerate the

development of a more pedestrian friendly environment. One possible strategy for financing such an improvement – and other infrastructure needs in the area – is the creation of a tax increment financing (TIF) zone or business improvement district (BID) to cover preparatory infrastructure costs. Another step the county could take is to proactively purchase and assemble small lots into larger, more developable parcels and then aggressively seek buyers and developers for them. Consideration for the designation of a priority redevelopment area would also help encourage development in an area especially due to the limitations on development present due to the high cost of the construction of a new interchange at MD 85 & I-270.

Figure 17: Short Term Transportation Improvements

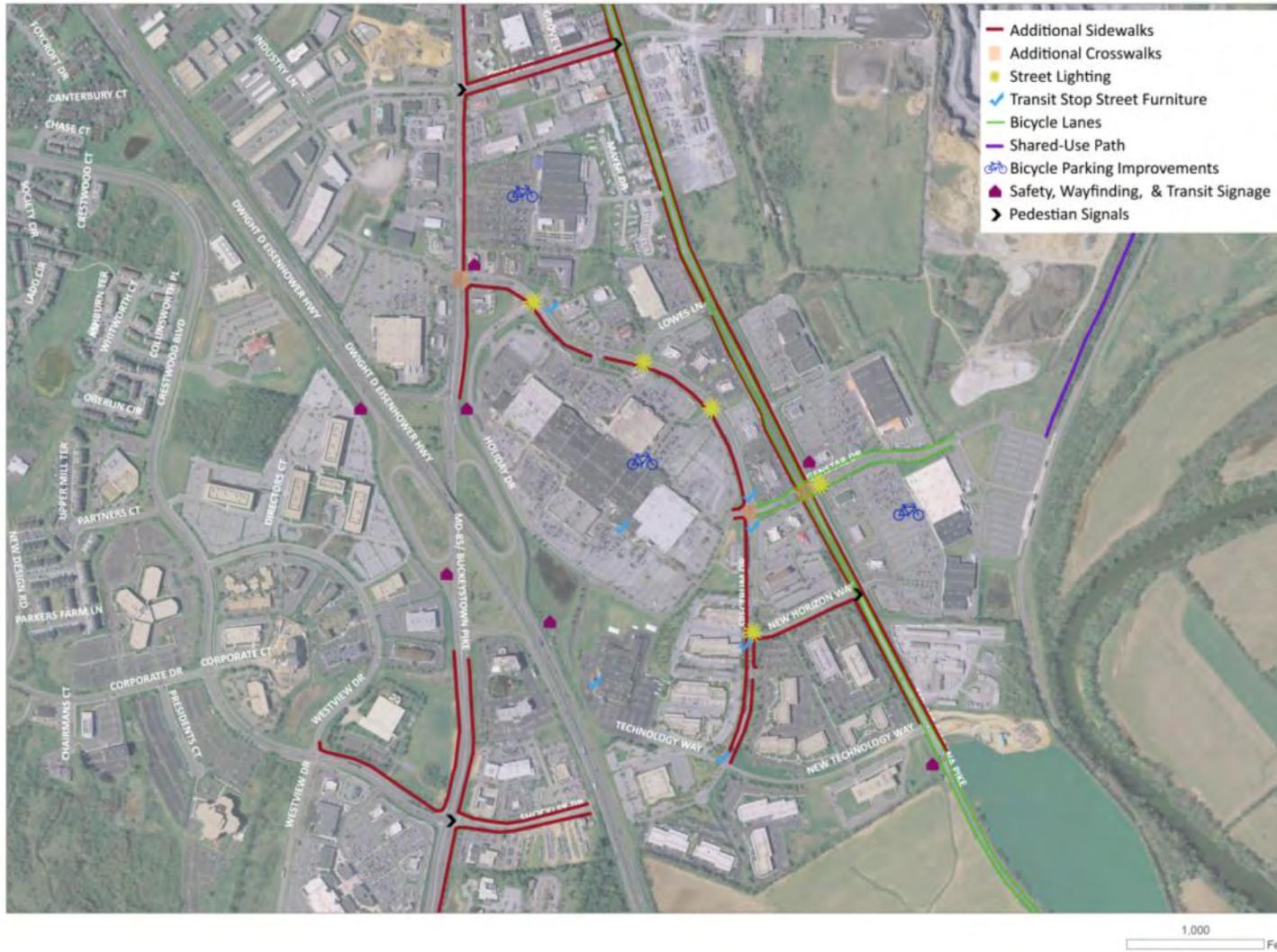
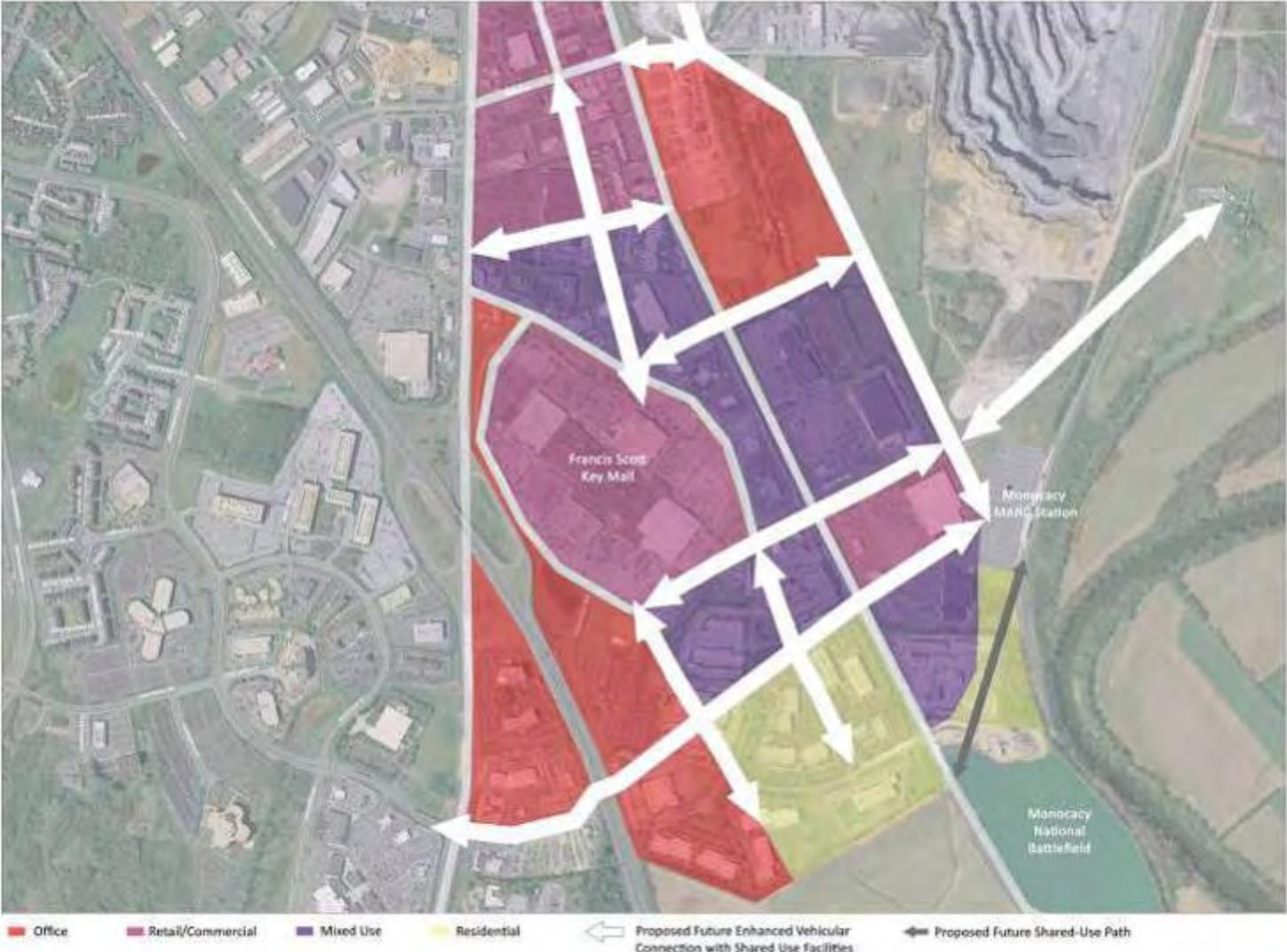


Figure 18: Proposed Future Land Use and Transportation Network



4.4: Implementation

The following table shows the actions, time frames, costs, and responsible parties for implementing the recommendations put forth in this report.

	Time Frame	Cost (000)	Responsible Party/Parties	Possible Funding Sources
TRANSPORTATION				
Short-term				
Pedestrian Facilities				
Additional Sidewalks (3 miles)	5-8 years	\$1,900 - \$2,500	SHA, County	Enhancements, sidewalk program, general fund, developer
Additional Crosswalks (striping) (see figure 17)	1-3 years	\$15 - \$18	SHA, County	Maintenance funds, spot safety
Street lighting	5-8 years	\$950-\$1,200	SHA, County	Streetscape, general fund, developer
Transit Stop Street Furniture	1-3 years	\$7 - \$10	MTA, County	MTA local bus program, private businesses
Pedestrian Signal Improvements (see figure 17)	5-8 years	\$50-75	SHA, County	Maintenance funds, spot safety, CIP/CTP
Bicycle Facilities				
Bicycle Lanes (striping)	1-3 years	\$35 - \$42	SHA, County	Maintenance funds, enhancements, general fund
Path Connections - City of Frederick / Mono NB VC	5-8 years	\$4,000 - \$5,200	SHA, County	Enhancements, developer, private businesses
Bicycle Parking Improvements	1--3 years	\$5 - \$10	SHA, County, Private	
Safety, wayfinding & Transit signage	1-3 years	\$50 - \$68	SHA, County, DBED, MTA	Tourism funds, spot safety, general fund, private businesses, MTA
Commuter Bus				
Additional Service - Shady Grove / CCT	1-5 years	TBD	MTA	State, Federal
Additional Service - ICC / Baltimore	5-8 years	TBD	MTA	State, Federal
Passenger Transfer Center	5-8 years	\$150-\$250	MTA, County, Private	State, Federal, General fund, developers, Special Taxing District
Long-term				
Roadways				
Reconfigured grid network	5-15 years	\$28,000 - \$35,000	County	General fund, developers, Special Taxing District
Bridge over I-270	10-20	\$32,000 -	County	General fund, developers, Special Taxing District

	Time	Cost (000)	Responsible	Possible Funding Sources
	years	\$40,000		
Relocated MD 355	10-20 years	\$15,000 - \$18,000	SHA	SHA Primary Road funds, developers, Special Taxing District
Additional Connection Genstar to Reichs Ford Road	10-20 years	\$9,000-\$15,300	Developer	developers
Pedestrian/Bicycle Facilities				
Sidewalks throughout grid	5 - 15 years	\$4,350 - \$4,500	County	General fund, developers, Special Taxing District
Bike lanes throughout grid	5 - 15 years	\$275 - \$320	County	General fund, developers, Special Taxing District
Shared use path through Battlefield / Ballenger Creek	8 - 12 years	\$1,900 – \$ 2,275	County, SHA	Enhancements, private businesses, Taxing District, Developers, NPS
MARC Rail				
Additional MARC and TransIT Peak Service	5-8 years	See MARC G&I Plan	MTA	State, Federal
Reverse Commute Service	8-12 years	See MARC G&I Plan	MTA	State, Federal
LAND USE				
Short Term				
Complete Detailed Corridor Plan for Area	1-2 years		County Planning	
Consider Priority Redevelopment Area Designation for area	1-3 years		County	
Adopt LID principles	1 - 3 years		County Planning	
Zone MD355-Grove Rd. for Live/work	1 - 3 years		County Planning	Need More Public Outreach Here (these parcel owners are very involved)
Revise Design Guidelines	1 - 3 years		County Planning	
Redefine Mixed Zoning, MXD, PUD, TOD	1 - 3 years		County Planning	
Long Term				
Residential Development	5 - 15		County, Developers	Could add State as partner as owner Rail Station Parcels

	Time	Cost (000)	Responsible	Possible Funding Sources
	years			
Mixed Development	5 - 20 years		County, Developers	Could add State as partner as owner Rail Station Parcels
ECONOMIC DEVELOPMENT				
Short Term				
Establish Taxing District	5-15 years		County, Legislature	
Create a Corridor Retail Assoc.	5- 15 years		Business community	
Long Term				
TOD Development Incentives	5-15 years		County, Legislature, State	

ⁱ Frederick County's Future, Draft Public Hearing Plan – May 2009 Page 11-46

ⁱⁱ <http://www.discoverfrederickmd.com/fastfacts/index.cfm>

ⁱⁱⁱ http://www.preit.com/leasing/detail/property_overview/23

^{iv} <http://www.nps.gov/mono/index.htm>

^v Comparison between 2002 Frederick Region Plan and 2009 Public Hearing Draft Plan Land Use Plan Designations

http://www.co.frederick.md.us/documents/Planning/Countywide%20Comp%20plan%20Update/Public%20Hearing%20Draft/FredSouthComp_090506.PDF

^{vi} Descriptions of the Land Use Plan Designations

http://www.co.frederick.md.us/documents/Planning/Countywide%20Comp%20plan%20Update/Public%20Hearing%20Draft/Land_Use_Plan_Designations.PDF

^{vii} Frederick County's Future, Draft Public Hearing Plan – May 2009 Page 11-45

^{viii} Frederick County's Future, Draft Public Hearing Plan – May 2009 Page 11-46

^{ix} 3,760 dwelling units in Ballenger Creek, 1,000 dwelling units in the mixed use area of Frederick Southeast, and 95 low density dwelling units in Frederick Southeast

^x Frederick County's Future, Draft Public Hearing Plan – May 2009 Page 08-1 through 08-8

^{xi}

http://www.co.frederick.md.us/documents/Board%20of%20County%20Commissioners/Commissioner%20Jan%20H%20Gardner/BRAC%20Presentation%203_9_07.pdf

Appendix: Public Involvement

Throughout the planning process, multiple efforts were made to gather information from the community and ask for recommendations for the future. The public outreach process for this project involved two in-person surveys in August 2009 (one during the morning rush hour at the Monocacy MARC Station, one during an afternoon at the Francis Scott Key Mall), an online survey that was active from August 2009 through December 2009 and a website that allowed location-specific comments, and two public meetings. The public outreach comments are included below.

In-Person Survey Results

Monocacy MARC Station

On the morning of Wednesday, August 5, 2009, morning passengers at the Monocacy MARC station were surveyed as part of the MD-355/ MD-85 Transportation Oriented Design Study. In total, 148 usable responses were collected.

The responses were collected between 5:50 AM and 7:40 AM. Responses from the first two departures were mixed, while the subsequent departures were categorized by time. The responses came from the following time periods:

Train or Bus	Number of responses	Percent of Total
6:00 AM Bus or 6:11 Train	30	20.3%
6:15 Bus	15	10.1%
6:30 Bus	23	15.5%
6:50 Bus	22	14.9%
7:10 Bus	19	12.8%
7:16 Train	26	17.6%
7:40 Bus	13	8.8%

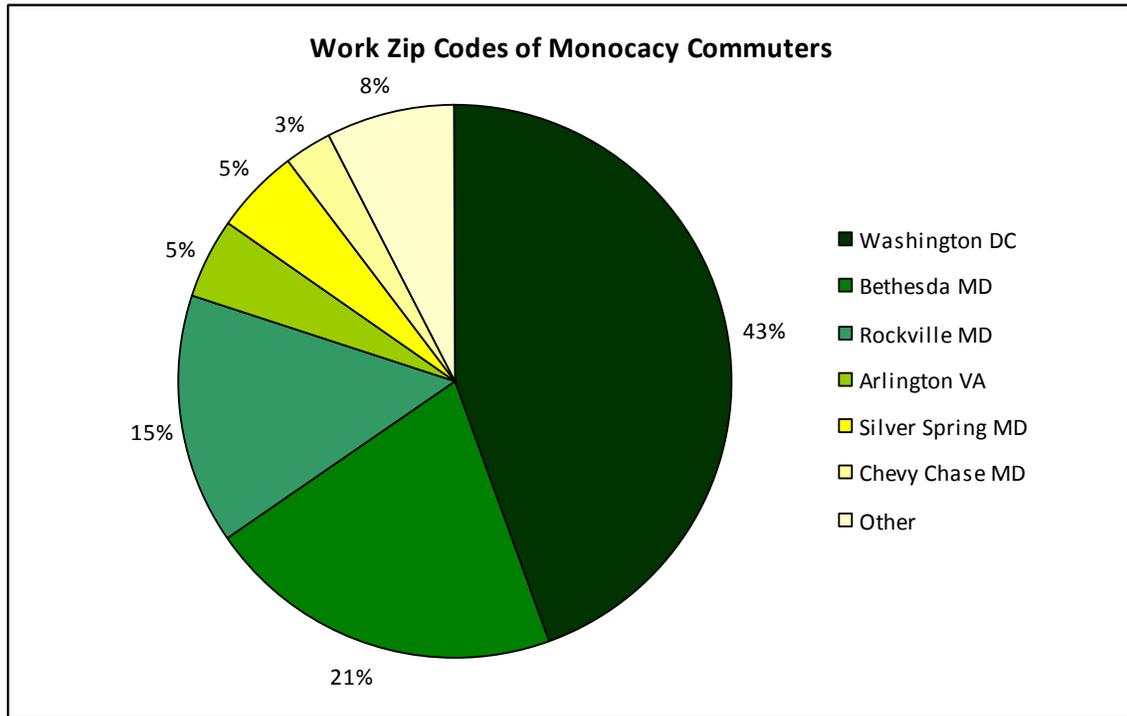
Q1: Are you on your way to work?

Four respondents indicated that they were not on their way to work. Their surveys were unusable as work zip code information was inaccurate or not provided, times per week information was not provided, and the back questions on travel behavior were not answered. These four respondents were tourists using the system, and because of their incomplete surveys their answers were not included in the 148.

Of the 148 usable surveys, all indicated that they were on their way to work.

Q3: What is your work zip code?

Of the 144 respondents who answered this question, 44% worked in Washington DC, 21% worked in Bethesda MD, and 15% worked in Rockville MD. Five percent worked in Arlington VA, another five percent worked in Silver Spring MD, and three percent worked in Chevy Chase. Eleven other respondents worked in other Maryland zip codes.



Q4: How often do you take the commuter bus or train from Monocacy station?

Options: Less than once a week, 1-2 times a week, 3-5 times a week

Of the 148 respondents, the vast majority (92.5%) said that they take the commuter bus or train 3 to 5 times per week. Only six respondents take the bus or train less than once a week, and five take the bus or train 1 to 2 times per week.

Q5: How did you get to the station?

Options: By car, Bicycle, Walking, Transit

The majority (94.6%) of respondents got to the station by a car, with only 8 out of 148 respondents arriving by transit. All of the people who arrived by transit took the MTA Bus 991.

Note: As questions 6 and 7 were on the reverse side of the survey card, nearly 1/5 of respondents did not complete the final two questions. The following analysis disregards those responses, so the total number of usable responses for questions 6 and 7 is 122 respondents.

Q6: If you used a car to get to the station, what would need to change in order for you to use transit, bike, or walk to the station? Please be as specific as possible.

This question was a free-form response, but a number of trends emerged in participants' responses. Though the response was open-ended, four main topics emerged from responses:

Comment	Number of responses
Would need transit routes that serve my area	46
Would need more frequent or convenient transit times	27
Would need to live closer to the station	20
Would need better bike lanes or paths	13

Other comments that were raised include the need for earlier TRANSIT service to get to the station (5 comments, including two transit-users) and the need for an express bus route to the station (2 comments). Ten respondents indicated that nothing would make them take another mode of transportation to the station, and two indicated that there were no other modes that would take as little time as driving.

Q7: Would you like to live closer to the Monocacy MARC station?

Options: If yes, what would need to change in order for you to live closer? If no, why not?

Of the 122 respondents to this question, 78.7% said no, and 21.3% said yes. Of those who would not like to live closer to the Monocacy MARC station, there were four main reasons:

Comment	Number of responses
I like my current lifestyle/home/neighborhood	41
Housing is too expensive in this area	13
There are no housing options here, it is too commercial	13
I live close enough to the station already	13

Many respondents cited their happiness with their rural or suburban lifestyles as reasons for not wanting to live closer to the station. Other comments included: living

close to the train would be noisy (3 responses) and the area is too congested (2 responses).

Of those who are interested in living closer to the station, the most common concerns were not being able to sell a house in this economy (10 comments), and not having affordable housing options in the area (7 comments). Many respondents commented on the commercial nature of the area as something that would need to change in order to live near the station.

The following are a sample of comments to the final question:

- Yes. Put housing at the station area. Build a garage, put apartments on top.
- Yes, but I would need to win the lottery.
- No. I may mean destroying the historic district to achieve that.
- No. Where would I live? Home Depot?
- No. We all can not live by the Metro.
- No. Move the station closer to my farm.
- No. I live in a great neighborhood surrounded by trees and quiet, and work in a city—I need the peace.
- No. I don't like the city.
- No, I love rural MD.
- No. Currently living within walking distance of children's school; besides, it's virtually impossible to sell house in this economy.

Francis Scott Key Mall

Parsons Brinckerhoff, along with County staff, conducted an in-person survey of shoppers at the Francis Scott Key Mall on August 21, 2009. Participants were offered a coupon for a local store for completing a short survey on transportation behaviors. Sixty-eight (68) responses were collected over a three-hour time period.

Q1: What is your home zip code?

- 35 from Frederick (51%)
- 5 from Thurmont (7%)
- 4 from Monrovia (6%)
- 4 from Mount Airy (6%)

Q5: How will you get there?

- 54 will drive (79%)
- 7 will ride with someone (11%)
- 5 will take TransIT (4 on Route 10, 1 on Route 20)
- 2 will be picked up (both took TransIT to the mall)

Q6: How far is that location from here?

- 41 said more than 5 miles (60%)
- 21 said 1-5 miles (31%)
- 6 said less than 1 mile (9%)

Q7: What improvements would make you more likely to...

Take transit?

- 8- bus route that serves my neighborhood
- 5- safer or cleaner transit
- 4- cheaper fares
- 4- fewer stops
- 2- more information about transit schedule and stops
- 2- bus needs to be on time
- 2- more frequent service
- 1- weekend transit service
- 1- a 'green' vehicle

Walk?

- 12- improved sidewalks in the area
- 3- walking trails in the area
- 3- less traffic on area roads
- 1- wheelchair ramps on sidewalks
- 1- free water

Bike?

- 11- safe bike trails or paths in the area
- 6- larger shoulders on roads or bike lanes
- 2- rest stops along the way
- 1- bike parking
- 1- trees along pike paths for shade
- 1- bike racks on all buses

8- I'd need to live closer to consider transit, biking or walking

9- Nothing could get me out of my car

Online Survey Results

SurveyMonkey Survey

A survey created through SurveyMonkey was advertised locally beginning in August 2009. The survey remained active for five months, through the end of December 2009. During that time, 28 responses were collected. The survey was widely distributed in the bicycling community; therefore, many responses skew heavily towards bicycle-centric improvements.

Q1: What is your primary reason for visiting the study area?

- 82% shop here
- 64% eat here
- 25% live here
- 21% work here
- 14% take commuter bus from here
- 4% take commuter rail from here
- 4% take TransIT from here

Q2: How often do you visit the study area?

- 30% visit once or twice a week
- 26% visit three to five times a week
- 26% visit six times or more a week
- 18% visit less than once a week

Q3: How do you usually get to the study area?

- 80% drive a car and park
- 21% bike
- 11% were dropped off
- 7% took TransIT
- 7% took commuter bus
- 7% rode with someone who parked

Q4: How far do you travel to get to the study area?

None of the online responses were from the study area. The majority (54%) of respondents traveled one to five miles to reach the study area, while 46% traveled more than five miles.

Q5: Which of these travel methods would you consider using to get to the study area?

Because of the advertising in the bike community, the vast majority of respondents (75%) would consider biking here. 32% of respondents would take transit, and 10% of respondents would walk in the area. 18% of respondents wouldn't consider any method other than driving to the area.

Q6: What would need to be different for you to use the options listed above?

The vast majority of respondents (22 of the 25 who answered this question) mentioned bike improvements, such as bike lanes, wider shoulders, and better traffic control. Other comments included improved TransIT service and sidewalks.

Q7: What are the two best things about the study area?

Many respondents mentioned the MARC station and transit service in the area, the Monocacy battlefield, the diversity of retail, or the plentiful shopping and dining outlets in the area.

Q8: What suggestions do you have for Frederick County to keep the study area's best things strong?

Many respondents listed short-term pedestrian and bicycle improvements, such as sidewalks and bike lanes, that would make it easier to travel within the study area. Many other comments concerned traffic and recommended improving congestion to capitalize on the study area's assets.

Q9: What are two things about the study area that you don't care for?

Every response to this question concerned traffic congestion. Other issues mentioned were the Francis Scott Key Mall and strip retail, and the barrier presented by I-270.

Q10: What suggestions do you have for Frederick County to improve those elements?

Most respondents suggested bike lanes and pedestrian improvements to ease traffic in the area. Many others suggested encouraging smart growth or walkable development.

Q11: Have you recorded your site specific comments on the interactive map at http://65.220.60.166:8080/frederick_county/comments.htm?

The majority of respondents (26 of 28) had not recorded comments on that website.

Q12: How did you find out about this survey?

Many respondents (47%) heard about the survey through a friend, 24% saw it in a newspaper ad, 24% heard about it through the County, and 6% heard about it at the community meeting. Specific bicycle-oriented community groups, such as www.thebikesite.com and Frederick Pedalers Cycling Club, were mentioned multiple times in the responses.

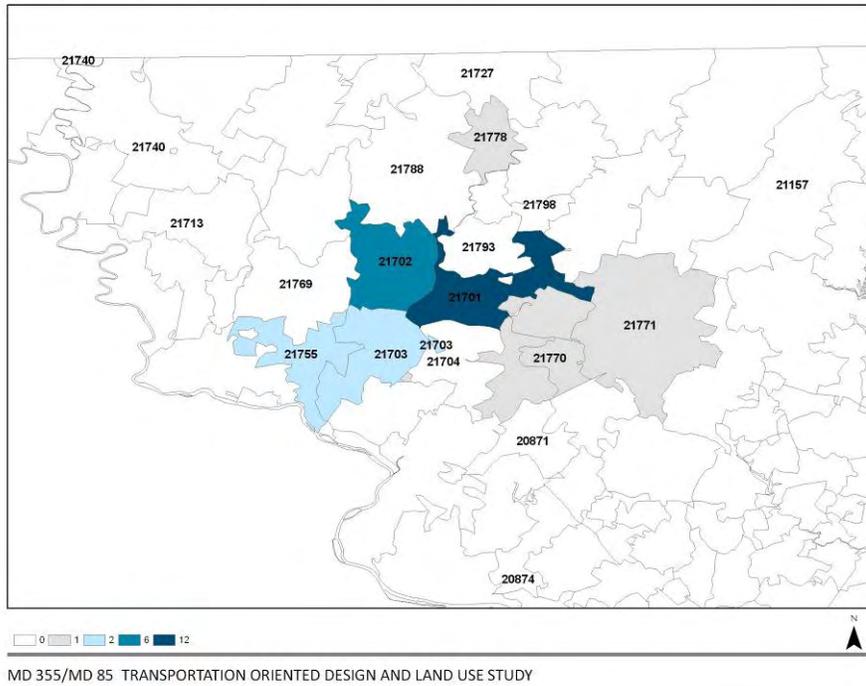
Q13: What is your work zip code?

Two respondents were retired, but the nearly half (13 of 27) worked in the Frederick area. Seven worked in Rockville, and one each worked in Washington DC, Bethesda, Silver Spring, Gettysburg (PA), and York (PA).

Q14: What is your home zip code?

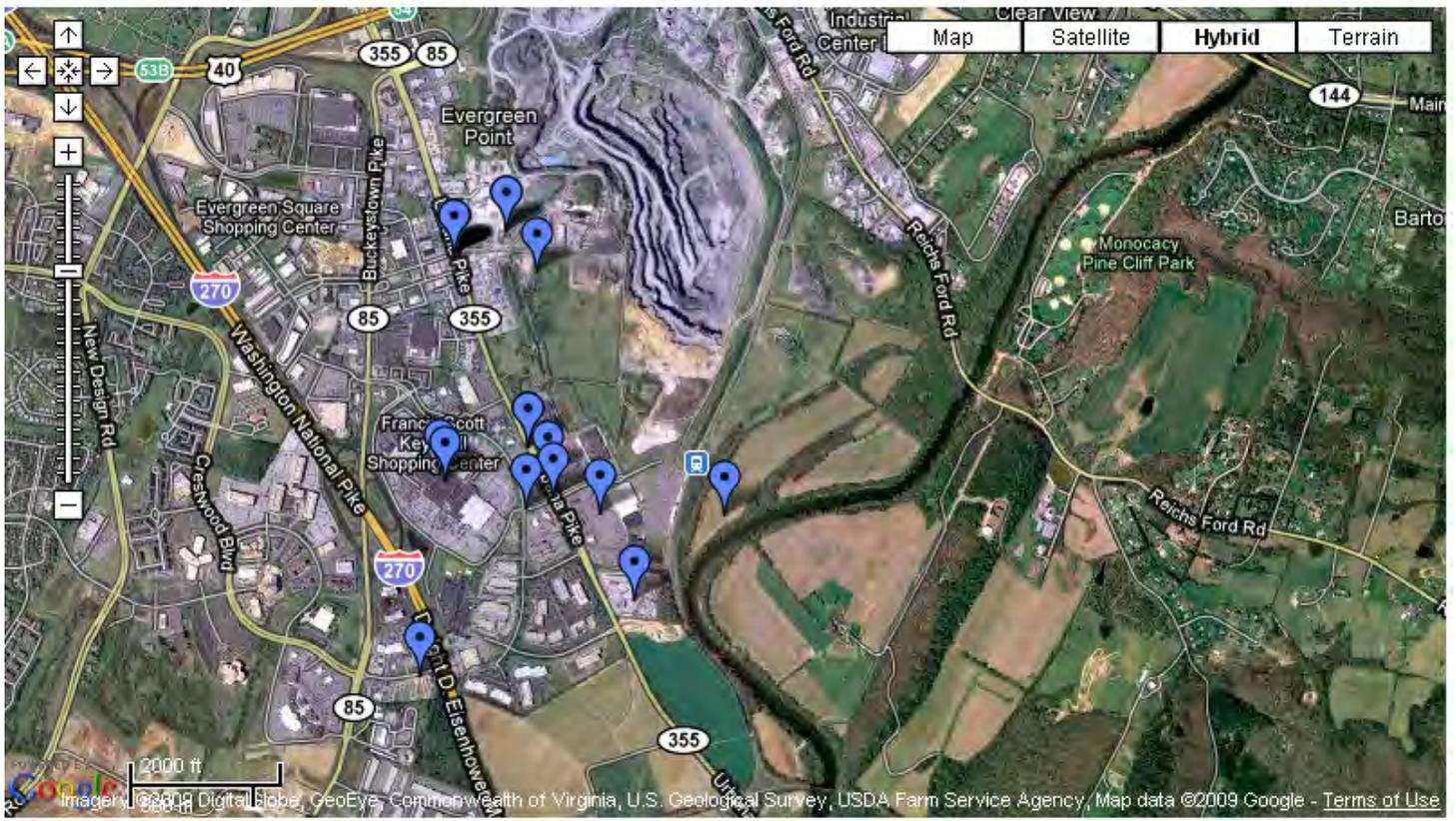
The majority of respondents lived in the Frederick area. Survey responses are mapped below.

Home Zip Codes of Online Survey Respondents



Website With Location-Specific Comments

The project website included an interactive map that allowed people to click on the map and then provide a location specific comment. 15 comments were received. The locations of the comments are shown on the map below, and the comments and their general location are listed in the table.



Comments

- Access over or under I270 here would greatly reduce traffic on 85 and at the mall entrance at the north end of Spectrum Drive. Currently, all traffic is forced onto 85 to get on the other side of I270.
- As part of my bicycle commute each morning, I turn onto Route 355 from Grove Road and ride south in the right hand lane until I make a left onto Genstar Drive. Drivers speeding down 355 don't like me being in their way, but it is not safe for me to ride right up on the shoulder due to debris in the gutter and needing to make the left turn at Genstar. As a vehicular cyclist, I also do not ride on the sidewalk as I do not wish to obstruct the path of pedestrians using it. I have been honked at several times along this stretch and do my best to remain highly visible to drivers coming up behind me. It would be much "better and safer" if there were a protected, practical alternative for cyclists to use to reach the Monocacy train station from downtown.

General Location

Shockley Drive/I-270

Grove Road/355

Comments	General Location
<ul style="list-style-type: none"> As part of my morning bicycle commute, I turn right onto Route 355 from Grove Road and ride south until I turn left onto Genstar Drive. This is the most dangerous part of my commute each day, and I do my best to remain visible to the drivers behind and beside me on 355. Some drivers are often impatient to pass me and honk or swerve close to where I am riding. I am often forced to take the right lane because it is safer to do so than ride far to the right hand shoulder, due to debris buildup in the gutter and the left turn I need to make at Genstar. As a vehicular cyclist, I do not ride on the sidewalk as I do not want to obstruct the way of pedestrians using it. It would be much safer if there were a practical, protected route for cyclists to use to get from downtown to the Monocacy train station, and it would be much appreciated! 	Grove Road/355
<ul style="list-style-type: none"> Golf Course 	Quarry north of Grove Road/ West of 355
<ul style="list-style-type: none"> Here is where I have to turn left from Route 355 to Genstar Drive. I usually try to cross over into the left lane to get into the left turn lane at the intersection, which is allowed and required of cyclists by Maryland state law. 	Holiday Drive/355
<ul style="list-style-type: none"> How can the reuse of the Wick lumber site to assist in providing ped connections to the Monocacy Battle Field Visitors Center? Who do we contact at the NPS to solicit their opinion to help our case? 	Quarry north of Grove Road/ West of 355
<ul style="list-style-type: none"> I ride my bicycle one mile along Route 355 every morning to get to the Monocacy train station and ride the 991 commuter bus to work. It is a dangerous stretch with high speed traffic and I would feel much safer with a protected bike lane to use in order to get there. 	Grove Road/355
<ul style="list-style-type: none"> It's a walk but I've done it, there are no crosswalks or easy ways to get to one from the other. Construction caused some additional barricades. 	parking lot south and east of Genstar Drive/355
<ul style="list-style-type: none"> More Trees 	FSK mall
<ul style="list-style-type: none"> Need Pedestrian Improvements to get from Mall to Target 	Spectrum/Holiday
<ul style="list-style-type: none"> Not being situated close by residential areas, I don't see this study providing solutions for city-wide use of pedestrian or bicycle pathways to and from these retail locations. The only changes could be to service users more efficiently and safely who are already within this light industrial and retail zone. 	FSK mall
<ul style="list-style-type: none"> Real bike lanes and protected boxes at the intersections. 	355/middle of mall area
<ul style="list-style-type: none"> The speed limit should be reduced to 35 mph in this area. It is 50 mph - much too high. 	355/middle of mall area
<ul style="list-style-type: none"> Waterfront Homes 	Quarry area
<ul style="list-style-type: none"> We need a multi-use trail along river from Battlefield/Train Station to City of Frederick 	open space east of station

Public Meetings

County staff and the consultant team held two meetings with the public. The first meeting was held August 27, 2009 at SHA offices near the study area, and attracted county staff, state staff, and approximately five members of the public. The meeting was held in a workshop format, with a short presentation outlining the goals of the study. Much of the meeting was spent listening to the public's recommendations on transportation and land use improvements. The following issues and opportunities were identified during this meeting:

Transportation Issues:

- Lack of east-west connections in the area for cars/bikes/pedestrians
- MD-85/I-270 intersection is congested
- The area is inherently bad for biking—winding lanes with low visibility and cars traveling at high speeds
- Distance and safety are deterrents to walking along the roads in the area

Transportation Opportunities:

- New bike trails in the area will provide improved east-west access and could eventually connect to Downtown Frederick
- MD-85 has funded plans to eventually include bike lanes and sidewalks
- Shockley/Spectrum connection has been in plans since 2002 and would greatly improve east-west access in the area
 - o Future plans should include strong bike and pedestrian component
 - o Access could continue along New Technology Way and connect through to the MARC station and north, parallel to MD-355
 - o The parallel road could either be a bypass (thus encouraging walkable commercial development on 355) or a commercial strip (thus leaving 355 as it exists as a through street)
- Short-term pedestrian connections, such as sidewalks, crosswalks, pedestrian crossing signals, and street lights, would be useful between the mall and nearby hotels
- Once the area becomes more dense, on-street parking should be encouraged
- Improve TRANSIT stops with shelters, benches, amenities
- Install bike racks and bike lockers at TRANSIT stops and the MARC station
- Build the ped/bike friendly infrastructure before the change in land use to make it easier to redevelop the area in the long term
- Master plan shows 270 transitway terminating in this area, or further in Downtown Frederick, which could lead to future multi-modal transfers

Land Use Issues:

- Existing MARC station does not lend itself to TOD with 'back door' view of big box stores

- Current surface parking lots don't encourage walking or biking or provide an inviting streetscape
- With a 98% occupancy rate, there is no pressure to redevelop the mall with outward-facing retail/streetscapes

Land Use Opportunities:

- Re-orient retail in the Riverview area towards the MARC station
- Use Rockville Town Center as a guide for good, inviting, walkable development
- Development of residences near MARC station should be accompanied by pedestrian improvements along Genstar Drive and Holiday Drive
- Empty commercial uses south of the mall could be transformed into mixed-use development
- Corporate office park could be transformed with streetscape improvements and orienting development toward the street, not parking lots
- The northern part of the study area will most likely redevelop sooner than the mall and southern office park areas and will determine the transformation of this area

The second meeting was held November 18, 2009, at the County Offices in Frederick. Approximately 30 members of the public attended, with a large presence of members of the bicycling community. This meeting was a final presentation of the recommendations of this study.



MD 355/MD 85 Transportation Oriented Design Study

March 17, 2010

PlaceMaking Group of
Parsons Brinckerhoff



Frederick County Division of Planning
Transportation

1

What We Will Cover



- Study Purpose
- Existing Conditions
- What is TOD?
- Access and Land Use
Recommendations

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2

Study Purpose

Enhance potential for transit oriented development:

- Short-term bicycle, pedestrian, and transit improvements
- Long-term land use recommendations



Funded by Metropolitan Washington Council of Governments' Transportation/Land Use Connections Program

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3



Study Activities

- Assessed Current Conditions
- Identified Important Issues
- Evaluated Opportunities and Constraints
- Conducted Multimodal Transfer Center Needs Assessment
- Recommend Land Use and Access Improvements

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Issues and Opportunities

2009 Public Hearing Draft Plan

- Significant opportunity for redevelopment
- Maximize transit opportunities around the Monocacy MARC station
- Area has tremendous access, however the major roads create barriers
- Create more local connections
- Expand the internal road network

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Existing Conditions

- Current Land Use
 - Commercial
 - Office
 - Industrial uses
 - Very Limited Residential
- Current Zoning
 - General Commercial
 - Institutional
 - Limited and General Industrial
- Future Land Use
 - Mixed Use

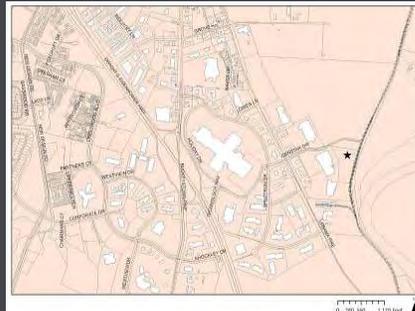


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Future Development Potential

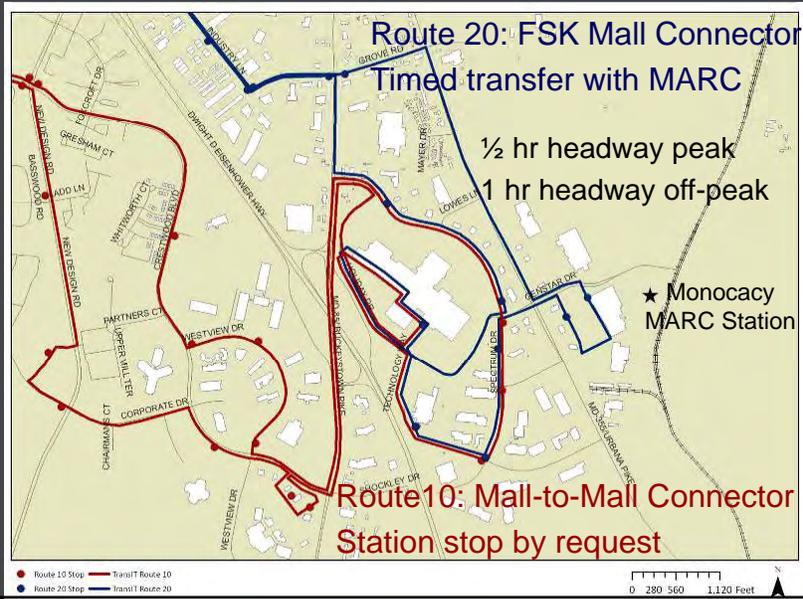
- No pipeline dwellings
- Undeveloped land potential for 1,000 dus
- Water capacity is adequate
- Waste water capacity could be issue
- Approximately 65 individual parcels



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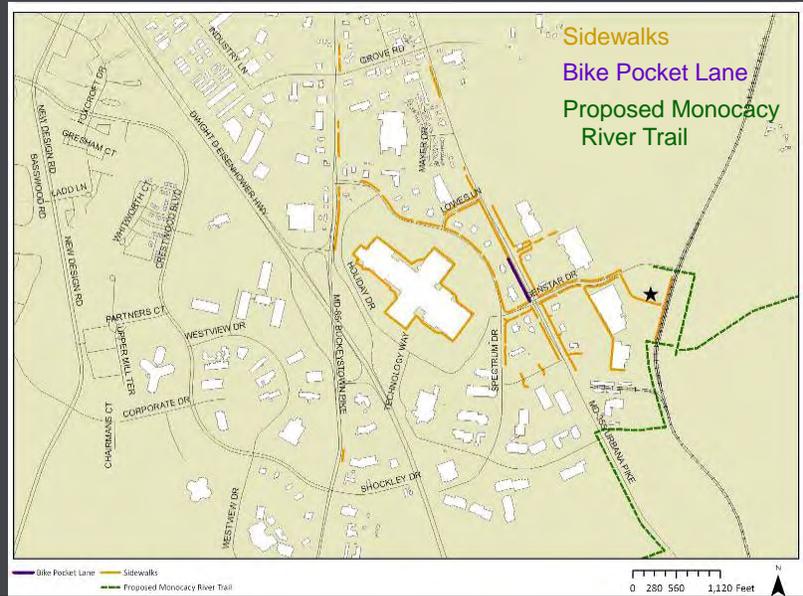
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Transit Service - TransIT



11

Bicycle and Pedestrian Facilities



12

Roadways

- Excellent state and interstate access
- Limited internal local access
- Lack east/west connections
- Limited access management
- MD 85 in study area is one of County's priority road improvements



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13

What You've Told Us

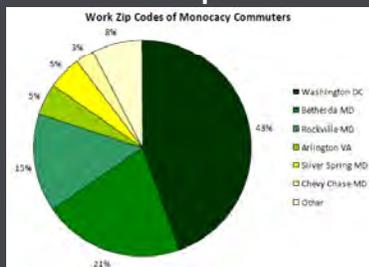


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Survey Results: Monocacy Station

- Wednesday August 5, 2009
- 5:50am – 7:40am
- 6 buses, 2 trains
- 148 responses



Parsons Brinckerhoff



15

Survey Results: Monocacy Station

- 70% live Frederick Area
- 98% going to work
 - 44% Washington DC
 - 21% Bethesda MD
 - 15% Rockville MD
- 93% ride 3 to 5 times a week
- 95% arrived by car
 - All TransIT passenger took MTA 991



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5

Survey Results: Monocacy Station

What would need to change for you to not drive a car to the station?

- 38% transit by my home
- 28% more frequent/convenient transit
- 16% live closer to station
- 11% bike lanes or paths
- 8% nothing



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17

Survey Results: Monocacy Station

Would you like to live closer to the station?

Yes – 21%

No – 79%

But...

- Not able to sell home
 - No affordable housing in area
- Like current home
 - No affordable housing in area
 - No housing options
 - Already live close to the station
 - Would be noisy

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18

Survey Results: Francis Scott Key Mall

- Friday August 21, 2009
- 1:00pm – 5:00pm
- 70 responses



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Survey Results: Francis Scott Key Mall

- 51% live Frederick Area
- 63% came from home
- 78% going home after



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Survey Results: Francis Scott Key Mall

- 79% drove and parked
- 10% drove with someone else
- 10% took TransIT
 - 71% Route 10: Mall-to-Mall Connector
 - 29% Route 20: FSK Mall Connector
- Most going back same way
- 11% would need to live closer to the mall to not drive
- 13% will always drive



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Survey Results: Francis Scott Key Mall

Needed Improvements:

Transit

- 28% Bus routes that serve my neighborhood
- 17% Safer or cleaner transit

Walk

- 60% Improved sidewalks
- 15% Less traffic on area roads

Bike

- 50% Bike trails and paths
- 27% Wider shoulders or bike lanes

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Survey Results: Online Survey

- Link from project website from August – present
- 15 responses
- 60% would like to be able to bike to the area, 27% would like to take TransIT here, and 13% would like to walk here



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Survey Results: Online Survey

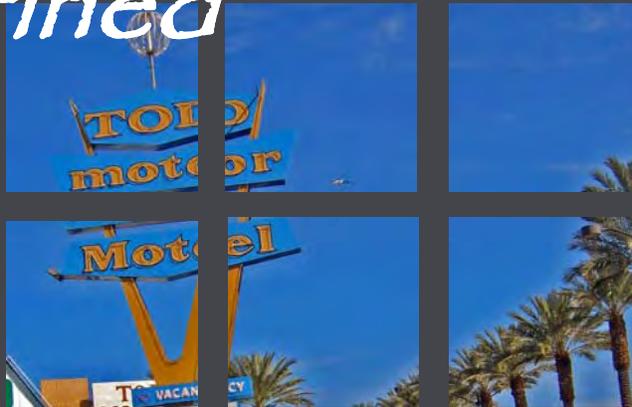
- Area suggestions:
 - Bike lanes on roads
 - Shared use paths connecting with downtown Frederick
 - Speed limit enforcement
 - Crosswalks and pedestrian improvements



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TOD Defined



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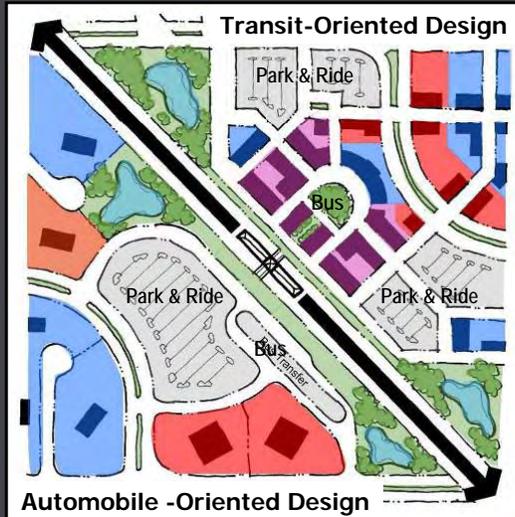
When we say TOD...
what do we mean?

TOD
motor
Motel

- A 5 minute walk to everything
- Close to home, office, shopping and civic spaces
- A place where transit greets special places

TOD VACANCY

Auto or Development Oriented?



- Both designs:
 - Same land uses
 - Same transit
 - Transit station*
 - 800 Park & Ride*
 - 12 Bus Transfer*
 - Same cost
- One encourages TOD at the station
- One separates the station from the community

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TOD Benefits

- TOD can help:
 - Reduce regional traffic by 5%
 - Increase regional transit ridership by 5%
 - Decrease local infrastructure costs by 25%
 - Reduce air pollution and related effects



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Reduced Transportation Costs

- US families #2 expenditure is transportation
- Savings of \$8 - \$12K per year
- More money for other things!



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Planning for TOD Matters

“Build it and they will come” has not happened

Planning building blocks:

- Regional Vision
- Local Leadership
- Help w/ Funding
- Station Area Plans
- Streamlining TOD



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Pleasant Hill BART, Contra Costa, CA 30

Link to a Bigger Strategy

TOD as “means to an end” to achieving community objectives

- Part of community’s vision for growth
- Basis to gain greater broader support & success
- More than transit
- Building partnerships essential



State Center TOD Strategy,
Baltimore MD

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Opportunities and Constraints



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Opportunities

Transportation

- Strong access from I-270, I-70 and MD 85, MD 355
- Extensive through traffic
- Proximity to downtown Frederick
- Planned shared-use path along Monocacy River

Land Use

- Vacant and underutilized parcels primed for redevelopment
- Limited number of parcels and owners could ease land assembly costs

Constraints

Transportation

- Roads create barriers that limit east-west travel
- Road and building design constrains bike and ped access
- Disconnected pedestrian facilities
- Traffic congestion

Land Use

- Car-dependent design is hard to overcome
- Quarry and battlefield constrain development
- Economic success of area makes redevelopment difficult
- Competition with downtown Frederick

Multimodal Transit Center Needs Assessment



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Multimodal Transfer Center at FSK Mall

- Limited opportunity to provide true multimodal transfers here
- Increased TransIT ridership and service is expected
- Need more visible, safe transit bus and transfer area



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Multimodal Transfer Center at MARC Station

- Monocacy MARC station is already a multi-modal center, with commuter rail, commuter bus, and local bus service
- Greyhound or other intercity bus service unlikely due to current limited work-based MARC commuter service
- Future demand to expand existing MARC station facility, possibly as joint development opportunity

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Examples of Bus Transfer Centers

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Los Angeles, CA



Olympia, WA



Access and Land Use Recommendations



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Transportation Recommendations (Short Term)

- Improve pedestrian facilities (sidewalks, crosswalks, lighting, benches) in the area, especially around the mall
- Expand bicycle facilities, with new striped bike lanes and additional off-road paths



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Transportation Recommendations (Long Term)

- Reconfigure transportation network to improve east-west connections and create street grid system
- Create road connection parallel to MD 355
- Provide a connection over I-270 at Shockley Drive



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Land Use Recommendations (Short Term)

- Implement a Main Street program
- In the upcoming Comprehensive Plan:
 - Establish design guidelines for this area
 - Revise existing MXD zoning to create sub-districts within the study area
 - Incorporate low-impact development guidelines



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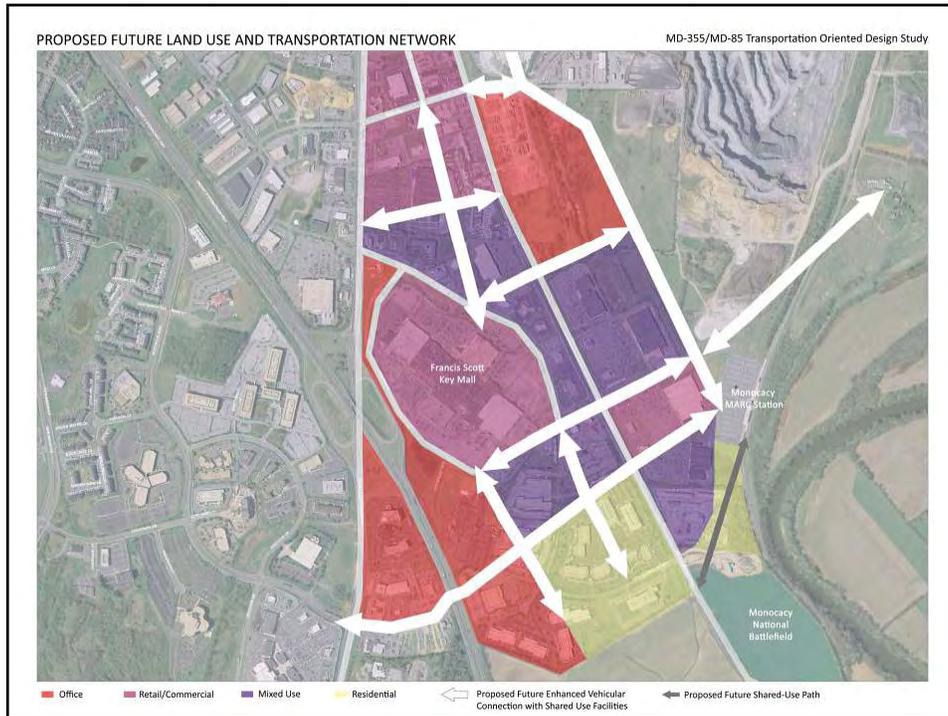
Land Use Recommendations (Long Term)

- Encourage residential uses near the MARC station and retail and mixed uses along MD 355 and near the mall
- Plan for active green space or playgrounds



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Next Steps

- Implementation – short & long term
- Detailed Corridor / Community Plan

Thank You!

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