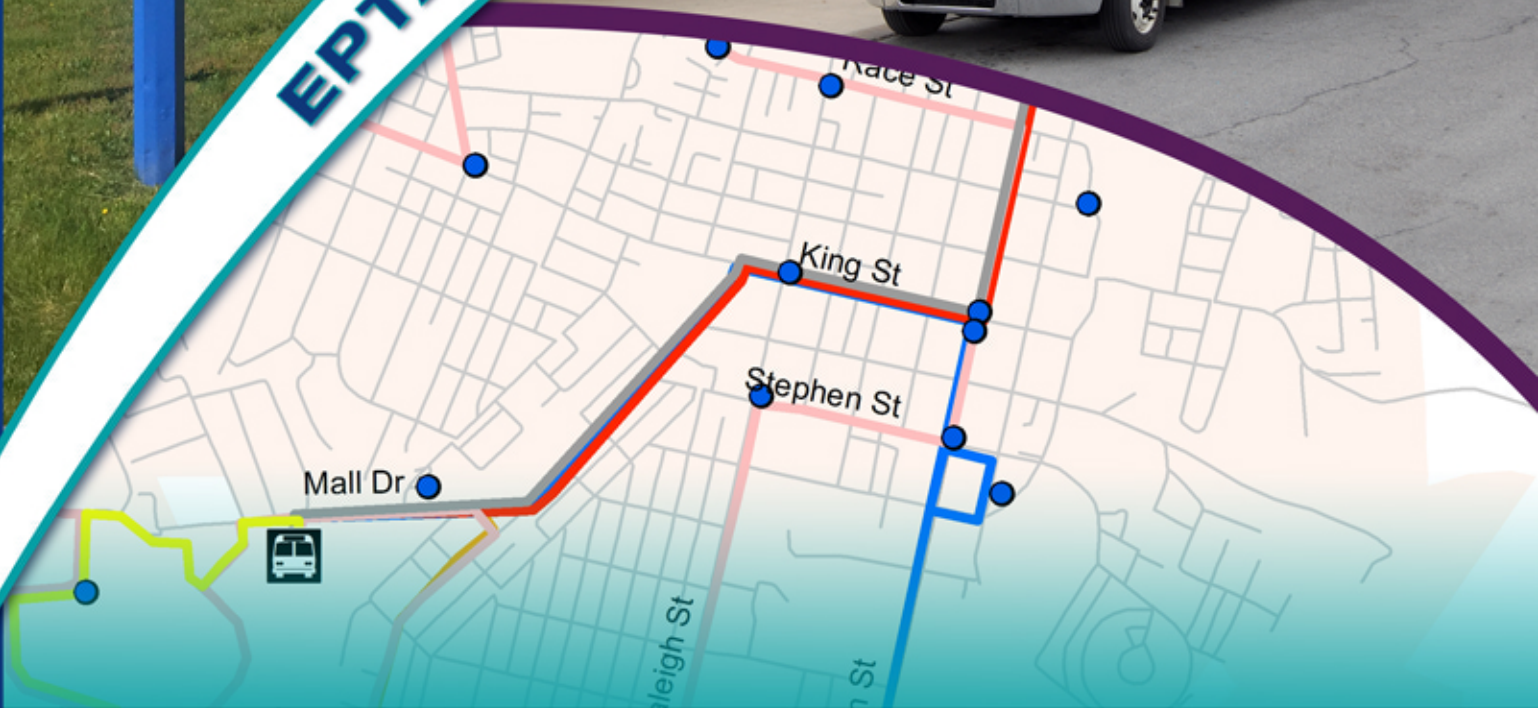




# EPTA Bus Transfer Point Study



Submitted to :  
**Hagerstown/Eastern Panhandle  
Metropolitan Planning Organization**

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Submitted by :  
**Michael Baker International, Inc.**



Presented to :  
**Eastern Panhandle Transit Authority**





## Table of Contents

Acknowledgements.....	ii
Introduction .....	1
Background .....	1
Purpose of Transfer Facilities.....	3
What makes a good transfer facility? .....	3
Study Process .....	5
Site Selection Analysis.....	6
Design Requirements.....	7
Transfer Facility Site Evaluation Criteria .....	8
Public Meeting .....	9
Assessment Summary .....	10
Detailed Transfer Facility Site Analysis .....	11
Existing Site Conditions .....	11
Operational Impacts .....	15
Annual Revenue Miles, Revenue Hours, and Operating Costs .....	17
Annual Deadhead Mileage and Hours .....	18
Future Considerations.....	19
Traffic Analysis and Recommendations.....	19
Conceptual Design .....	21
Platform and Canopy .....	21
Drivers’ Lounge .....	21
Vehicular and Pedestrian Access .....	21
Construction Cost Estimate.....	24
Implementation Strategy .....	25
Pre-Construction Activities .....	25
Construction Activities .....	25
Funding Sources.....	27
Conclusion.....	29
Appendix A: Environmental Assessment .....	30
Appendix B: Public Input.....	32
Appendix C: Newspaper Articles.....	37



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*Prepared for:*

Hagerstown/Eastern Panhandle Metropolitan Planning Organization



*Presented To:*

Eastern Panhandle Transit Authority



*Prepared by:*



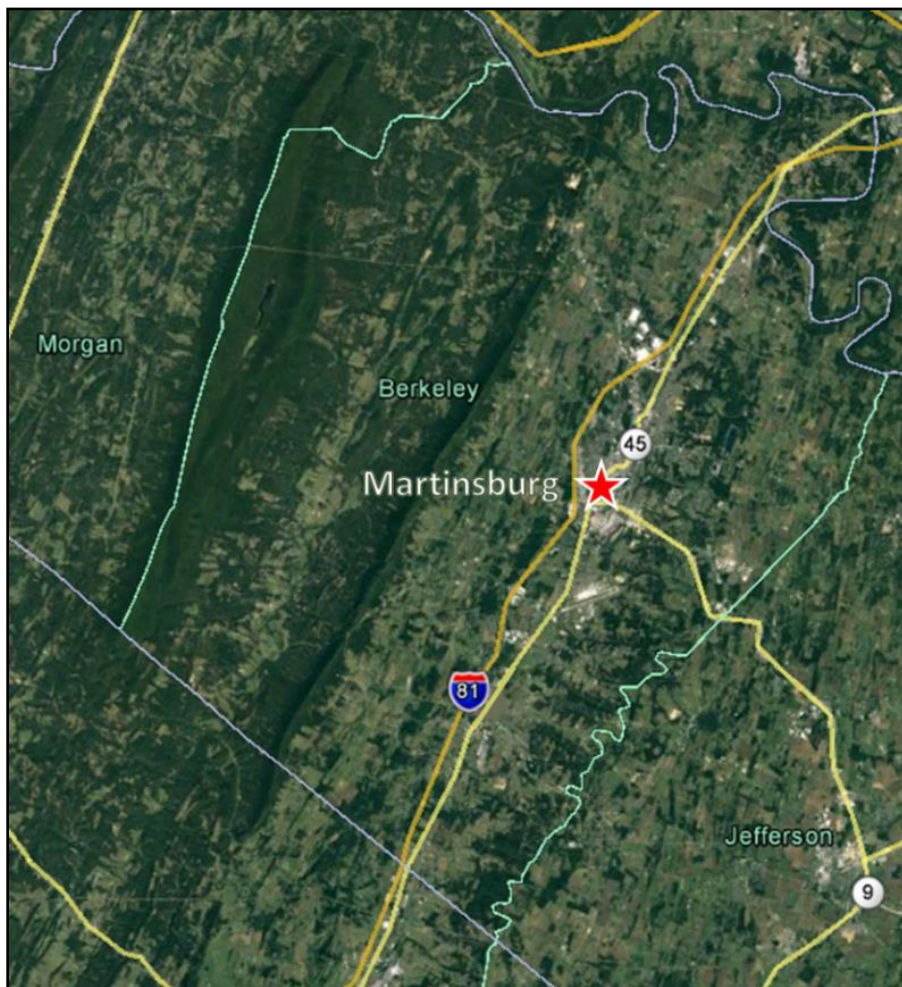
## Introduction

### Background

The Eastern Panhandle Transit Authority (EPTA) was established in 1976 under Chapter 8, Article 27 of the Code of West Virginia. It began as a small rural West Virginia state transit service, providing bus routes in Berkeley, Jefferson, and Morgan Counties. Today, EPTA offers nine fixed route services, demand response service, and has experienced a 14.5 percent increase in ridership in the past three years. Approximately 101,000 people, 38,000 households, and 39,000 jobs are located within 1.25 miles of the EPTA fixed-route system, based on the estimates from the U.S. Census Bureau’s 2010-2014 American Community Survey (ACS) and 2014 Locational Employer-Household Dynamic (LEHD) index.

The City of Martinsburg is the largest city in the Eastern Panhandle region of West Virginia and serves as the seat of Berkeley County, the second largest and second fastest growing county in West Virginia. While the history of Martinsburg is tied to its location on the rail system within the region, the sustained growth of Martinsburg and Berkeley County results from their adjacency to Interstate 81 and proximity to the Baltimore-Washington Metropolitan Area.

**Figure 1: Martinsburg's location within Berkeley County**





Martinsburg serves as the hub for the EPTA transit system. For many city residents, this service is their only link to work, shopping, healthcare facilities, and other necessary destinations. EPTA currently uses the Caperton Transportation Center in downtown Martinsburg as its main transit center for seven of the routes. The train station serves MARC’s Brunswick line with commuter rail service to Washington, D.C., and the Amtrak Capitol Limited with service to Washington, D.C., Pittsburgh, and Chicago. While the downtown location and multimodal connectivity is ideal, there are several operational issues associated with this site that make it inadequate for EPTA, including:

- Cobblestone pavement on Martin Street causing wear and tear on the buses
- Space for only two buses to load/unload passengers at once
- Lack of layover space
- Lack of adequate turning space for buses in the parking lot
- Lack of public or staff parking

**Figure 2: Overcrowding of facilities at Caperton Transportation Center**



This study represents a joint effort between the Hagerstown/Eastern Panhandle MPO, EPTA, the City of Martinsburg, and Berkeley County to evaluate alternative locations for a bus transfer center. The study included stakeholder outreach and a public information session to assist in identifying viable locations. Additional meetings and discussions focused on identifying a preferred site that provided the physical attributes needed for a bus transfer center, allowed for possible land acquisition, ensured safe pedestrian and bicycle access and adequate flow for bus traffic, and was supported by City and County officials. The preferred site was identified near Foxcroft Towne Center off of Mall Drive (Route 11/14). The study provides an evaluation of potential EPTA route changes to serve this new transfer point and provides a planning level design assessment of the site and facility.

## Purpose of Transfer Facilities

Transfer centers are large off-street multimodal bus stops where buses on different routes converge to allow riders the opportunity to change buses or transfer to other modes. Off-street transfer stations typically accommodate more routes, different types of transit vehicles, and a larger volume of passengers who may stay for longer periods than on-street stops. Typically, buses circulate within transfer stations, requiring a site with adequate area to allow multiple buses to enter and exit bus bays without blocking other movements. “Park and Ride” or “Kiss and Ride” facilities may also feature surface or structured parking stalls that may be exclusive or shared with adjacent development.

Having a dedicated off-street transfer station has many benefits to the transit operator, as well as the community and surrounding businesses. Transfer stations improve convenience and bus operations. Many buses are able to load and unload passengers at the same time, enabling passengers to easily switch from one bus route to another without having to leave the site. A well-designed and integrated transfer center can also improve the public’s perception and awareness of transit. Thoughtful architectural design that incorporates local cultural characteristics can not only greatly enhance the acceptance of the transfer facility, but can also frame the center as a gateway to the community. When done well, transfer centers can spur redevelopment around the site by providing businesses with more customers. Finally, with more people taking transit, the need for parking downtown is decreased. Complete community involvement in the planning of a new transit center is vital to ensure it includes functions deemed important and beneficial by the community, and to help ensure community support for the facility.

## What makes a good transfer facility?

This study evaluated potential sites using a number of criteria. Overall, a bus transfer facility should be **safe, convenient, cost-effective, functional, and flexible**.

### *Safety*

Safety is “the state in which the risk of injury to persons or damage to property is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management”<sup>1</sup>. Safety involves the protection of people and property, and is important financially as well as to maintain a positive public image. Financially, injuries on site or property damage can be very costly. Also, if the transit system is perceived to be unsafe, the public is less likely to ride. Generally, the following principles can help improve safety:

- Avoidance of bus and pedestrian conflicts
- Avoidance of bus and automobile conflicts
- Maximize the perception of personal security
- Minimize impacts on adjacent roadways

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<sup>1</sup> *Transit Safety Management and Performance Management*. U.S. Department of Transportation. [https://transit-safety.fta.dot.gov/publications/safety/Transit\\_SMPM\\_Guidebook/PDF/Transit\\_SMPM\\_Guidebook.pdf](https://transit-safety.fta.dot.gov/publications/safety/Transit_SMPM_Guidebook/PDF/Transit_SMPM_Guidebook.pdf)

### Convenience

Convenience relates to the patrons' ease of use of the transit system. Because many patrons have a choice in selecting a mode of travel, the convenience of a given mode can be a decisive factor in selecting that mode of travel. Furthermore, transit should be made especially convenient to those patrons who have no choice in travel mode due to lack of vehicle, disability, or age.

While reliability, frequency, and service span can improve convenience over a transit system, when constructing a new transfer facility, access distance is the true determinant of convenience. As a result, minimizing walking distance for patrons between routes and for patrons destined for or originating at major transit generator are two key factors in assessing convenience.

Transfer stations are ideally located within a short walk of a major destination where there is a high demand for transit, including civic centers, employment centers, airports, shopping malls, educational institutions, hospitals, and border crossings.

### Cost

Cost pertains to the amount of money required to build a transfer facility and operate the transit system through the location. A cost-effective transfer facility will minimize both the operating cost and the cost to build, while providing the maximum benefits to both the patron and the operator.

### Functionality

Operational functionality refers to elements necessary to effectively and efficiently support services and bus operations. A functional transfer facility:

- Maximizes efficient transit operations both on- and off-site
- Maximizes efficient automobile access to the site for parking and patron drop-off
- Minimizes interaction between automobiles and buses
- Maximizes efficient pedestrian flow to and within the site

**Figure 3: Passengers boarding the bus in Downtown Martinsburg**





### *Flexibility*

Flexibility refers to the ability of the transfer site to successfully serve the community and transit system at the present and in the future. A new transfer site should be designed to accommodate anticipated growth without significantly interfering with existing operations. The key to a flexibility and expandable transfer site is the size of the parcel.

## Study Process

Due to the inadequacy of EPTA's current transfer facility, the recent expansion of the EPTA system, and the increase in ridership, an EPTA bus transfer site study was identified as a need in the recent EPTA Transit Development Plan (TDP). This study was conducted in response to the TDP to determine an ideal location for a new transfer facility within the city limits of Martinsburg. To guide the project team and make decisions on selecting the most viable transfer site location, a Transfer Site Advisory Committee, consisting of EPTA, City of Martinsburg, and Berkeley County staff members, was formed. The EPTA Bus Transfer Point Study included the following steps:

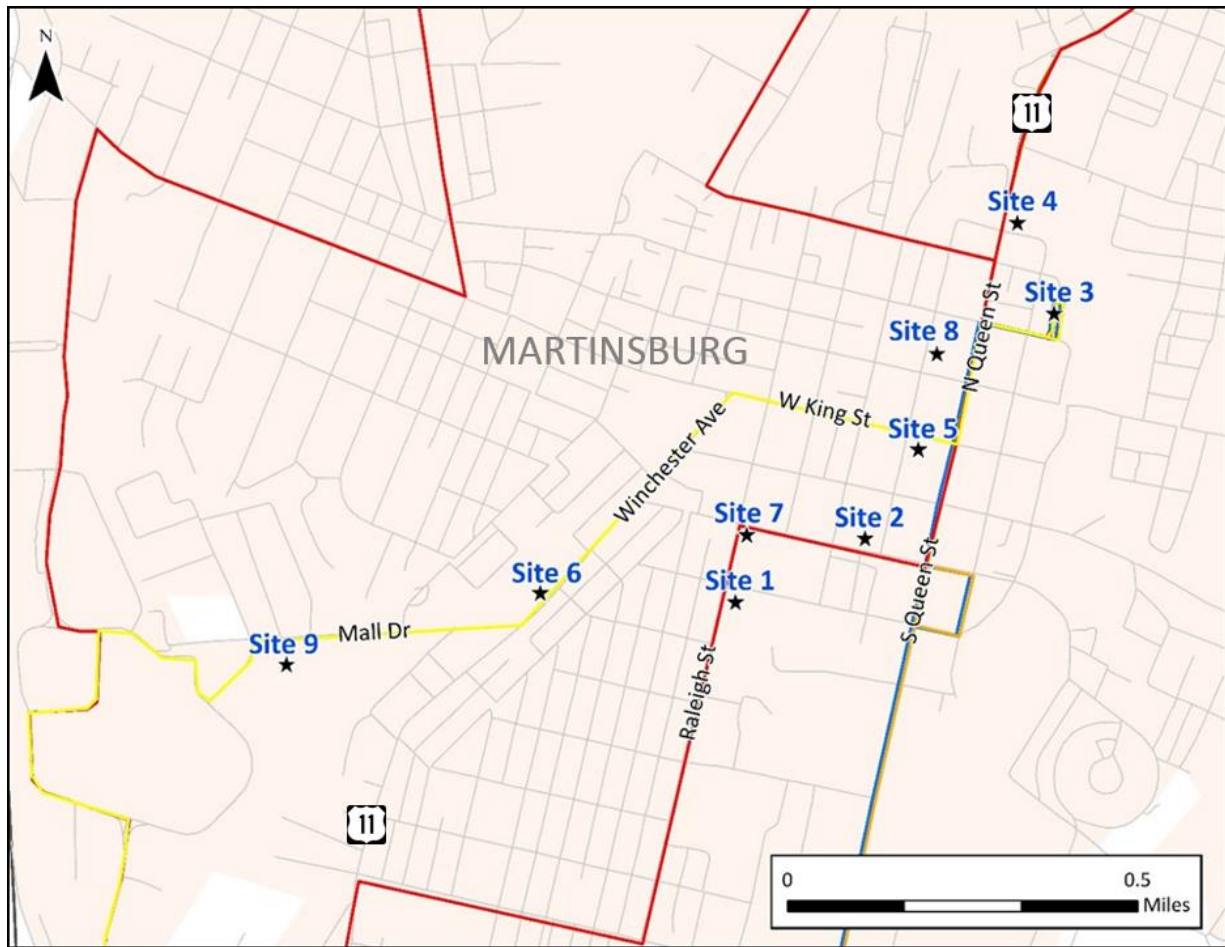
- Transfer Site Advisory Committee (TSAC) Meeting
  - Reviewed scope of work, developed goals, identified data needs
  - Identified the potential sites and developed site selection criteria
  - Site visits
- Potential Site Assessment
  - Developed preliminary site layout for the potential sites
  - Evaluated the potential sites according to the site selection criteria
- Public Involvement
  - Displayed preliminary site layouts at public meeting to gather public input
  - 30-day Comment Period
- TSAC Meeting
  - Presented results of the site assessment
  - Determined the preferred location
- Councils and Board Presentations
  - Presented preferred site to Martinsburg City Council, Berkeley County Council, and EPTA Board of Directors
- Detailed Transfer Point Site Analysis
  - EPTA bus route adjustments and Traffic Analysis
  - Conceptual Design and Cost Estimate
  - Implementation Strategy

## Site Selection Analysis

In October of 2015, a meeting was held with the Transfer Site Advisory Committee to determine six potential sites, including the current transfer site, as well as requirements for the site. In early 2016, three additional sites were added following discussion with county and city officials. The following is the list of nine sites that were evaluated:

- |                                                          |                                    |
|----------------------------------------------------------|------------------------------------|
| 1. Raleigh Street (Sheriff's Parking Lot)                | 5. King Street Vacant Lot          |
| 2. West Stephen Street                                   | 6. Winchester Avenue Parking Lot   |
| 3. Caperton Transportation Center<br>(Existing Location) | 7. South Raleigh Street Vacant Lot |
| 4. Commerce Street Parking Lot                           | 8. West Burke Street Parking Lot   |
|                                                          | 9. Foxcroft Towne Center           |

**Figure 4: Map of site locations with current routes**



## Design Requirements

In addition to being safe, convenient, cost-effective, functional, and flexible, this section outlines the specific site and building requirements unique to this bus transfer facility and were formulated in conjunction with the TSAC.

### *Number of Bus Bays*

The existing facility does not provide dedicated bus bays and only has enough space for two buses to load/unload passengers concurrently. EPTA expressed desire to incorporate dedicated bus bays into the new bus transfer facility. Currently, seven of EPTA's nine routes operate through the Caperton Transportation Center. Not every route needs a set bay since the routes do not all arrive at the same time. With current route schedules, along with two future lines recommended in the TDP, five bus bays are needed presently. However, anticipating additional future growth, it is estimated that the new bus transfer facility would need at least six bus bays.

### *Design Vehicle*

The existing EPTA fleet is comprised primarily of 22-foot and 30-foot buses. Recently, EPTA has acquired one 40-foot bus, thus plans for a new bus transfer facility must be able to accommodate at least one 40-foot bus.

### *Building and Amenities*

The following amenities were requested by the TSAC for the new bus transfer facility:

- **Driver Center:** With the success of the Washington County Transit drivers' lounge at the transfer facility in Hagerstown, Maryland, EPTA has requested a driver center which would include an employee lounge and restroom. At the current transfer site, there is no dedicated drivers' lounge so drivers have to wait on their buses during a long layover.
- **Employee Parking:** Having dedicated employee parking decreases deadhead and increases convenience for drivers and other employees of EPTA. With the current site, drivers must first go to the bus depot or get dropped off at the station.
- **Public Parking:** Parking is at a premium in Downtown Martinsburg. Including public parking on site enables patrons to park and ride without having to worry about where to park. While the current site is in a parking lot, those monthly permits are typically bought out by MARC train passengers.
- **Kiss and Ride:** A "Kiss and Ride" facility enables passengers to get dropped off or picked up at a station, without having to utilize a parking space. It should be designed to maximize vehicle turnover, facilitate traffic flow, and avoid traffic conflicts.
- **Covered Waiting Area:** A covered waiting area with benches should be provided for patrons. A covered waiting area increases passenger safety and security and improves the passenger experience.
- **Bicycle Racks:** A Regional Bicycle Plan has been completed for the HEPMPO planning region, which includes Martinsburg. Integrating bicycle racks into the design of the station would enable patrons to cycle to the station, safely secure bikes to the bicycle rack, and then ride the bus.

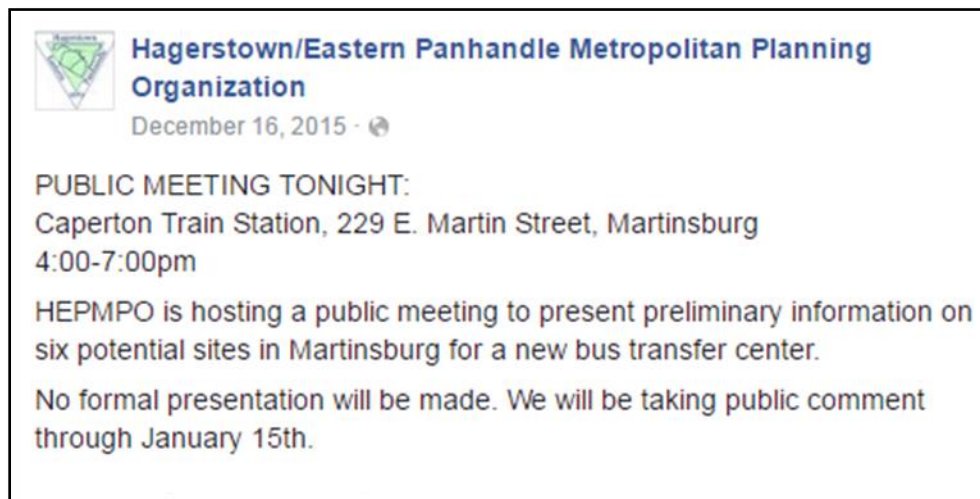


### Transfer Facility Site Evaluation Criteria

The following evaluation criteria were developed using the design requirements in the previous section and through a review of previous studies, and were used to preliminarily evaluate these site location options for the transfer point facility:

1. **Property Ownership:** Minimize purchase price and avoid potential conflicts with current owners.
  - Publicly or privately owned
  - Ease of acquisition
2. **Land Use Connectivity:** Minimize walking distance for transit users by maximizing transit generators, households and places of work within ½ mile of site.
  - Households and jobs within ½ mile
  - Major generators within ½ mile
3. **Site Layout:** Maximize number of bus bays to allow for future growth.
  - Number of bus bays based on preliminary design of the site
4. **Operations:** Minimize conflicts to current traffic while allowing for site accessibility, and maximize sense of personal safety and security.
  - Travel Time Ratio
  - Qualitative evaluation of personal security
5. **Transit System Compatibility:** Minimize changes to current bus routes.
  - Length of bus routes that would be using the transfer site
6. **Environmental, Historical, and Cultural Resources:** Minimize impacts to sensitive resources.
  - Environmental Assessment (Appendix A)
7. **Economic Development:** Act as a potential attraction to future development.
  - Qualitative evaluation of potential for economic development
8. **Public Support:** Input from the public, and appointed and elected officials.
  - Input from the public based on the public meeting and city and county staff

*Figure 5: Facebook posting from HEPMPO regarding the public meeting*



## Public Meeting

On December 16, 2015, an informational meeting was hosted by HEPMPO at the Caperton Train Station, the site of the current transfer station. The goal of the public meeting was to gather public input on the initial six sites and draft transfer facility layouts for each site were displayed on posters. In addition, a 30-day public comment period was opened for any comments on the study. Overall, comments were mixed for the original six sites (Appendix B) and no additional site locations were recommended by the public.

**Figure 7: Notice for the public meeting**

# EPTA Bus Transfer Point Study

## Need for Transfer Study

In June 2015, EPTA completed a Transit Development Plan (TDP), which evaluated the existing transit operations, projected future service needs and evaluated how to improve services. The existing transfer center at Caperton Train Station was identified as problematic due to there only being space for two buses to load/unload at once, a lack of layover area, and difficult turning space for the buses in the parking lot. In response, the Hagerstown/Eastern Panhandle Metropolitan Planning Organization (HEPMPO) has commissioned this study.

## Purpose of Transfer Study

The purpose of this study is to evaluate several potential locations to identify an ideal location for a new transfer center. The ideal location would be easily accessible, centrally located and serve municipal, transit provider and rider needs.

## Proposed Study Schedule

Fall 2015: Potential Site Assessments

**December 16, 2015 thru January 15, 2016:**  
Public Comment Period

Spring 2016: Draft Report and Public Meeting presentations to Martinsburg City Council and EPTA Board

May 2016: Final Report and Recommendation

## Potential Bus Transfer Point Sites

1. Raleigh Street—Sheriff's Office Parking Lot
2. W Stephen Street—County Parking Lot
3. Caperton Train Station (existing location)
4. Commerce Street Parking Lot
5. King Street Vacant Lot
6. Winchester Avenue Parking Lot

## Give Us Your Feedback!

**Public Meeting**

December 16, 2015, 4:00-7:00 pm

No formal presentation to be given; come anytime

Caperton Train Station, 229 E. Martin Street, Martinsburg

**Contact Information**

Hagerstown/Eastern Panhandle MPO

400 W. Stephen St., Martinsburg, WV 25401

(304) 263-1743, info@hepmo.net

### Assessment Summary

Three additional sites were added after the public comment period following discussions with city and county officials. Each of the sites was scored according to the site selection criteria, on a scale of one to three with three meaning best fulfillment of the criteria. In addition, the criteria were weighted based on input received from the TSAC. The results of the assessment are shown in the table below.

**Table 1: Evaluation assessment scoring**

Evaluation Criteria	Weight	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9
<b>Property Ownership</b>	2	3	3	3	2	1	1	3	3	3
<b>Land Use Connectivity</b>	2	3	3	1	1	2	1	3	3	2
<b>Site Layout</b>	2	3	3	2	2	2	3	1	1	3
<b>Operations</b>	2	2	2	3	2	3	2	1	2	2
<b>Transit System Compatibility</b>	1	2	2	3	1	3	1	2	3	1
<b>Environmental, Historical and Cultural Resources</b>	1	2	2	2	1	1	2	2	2	2
<b>Economic Development</b>	1	1	1	3	3	3	3	1	3	3
<b>Public Input</b>	2	1	2	1	2	2	2	1	1	3
<b>TOTALS</b>		29	31	28	23	27	24	23	28	32

Site 9, the site at Foxcroft Towne Center on Mall Drive, was determined to be the best option according to the scoring table. EPTA, the City of Martinsburg, Berkeley County, and HEPMPO were all in agreement with Site 9 as the preferred site.



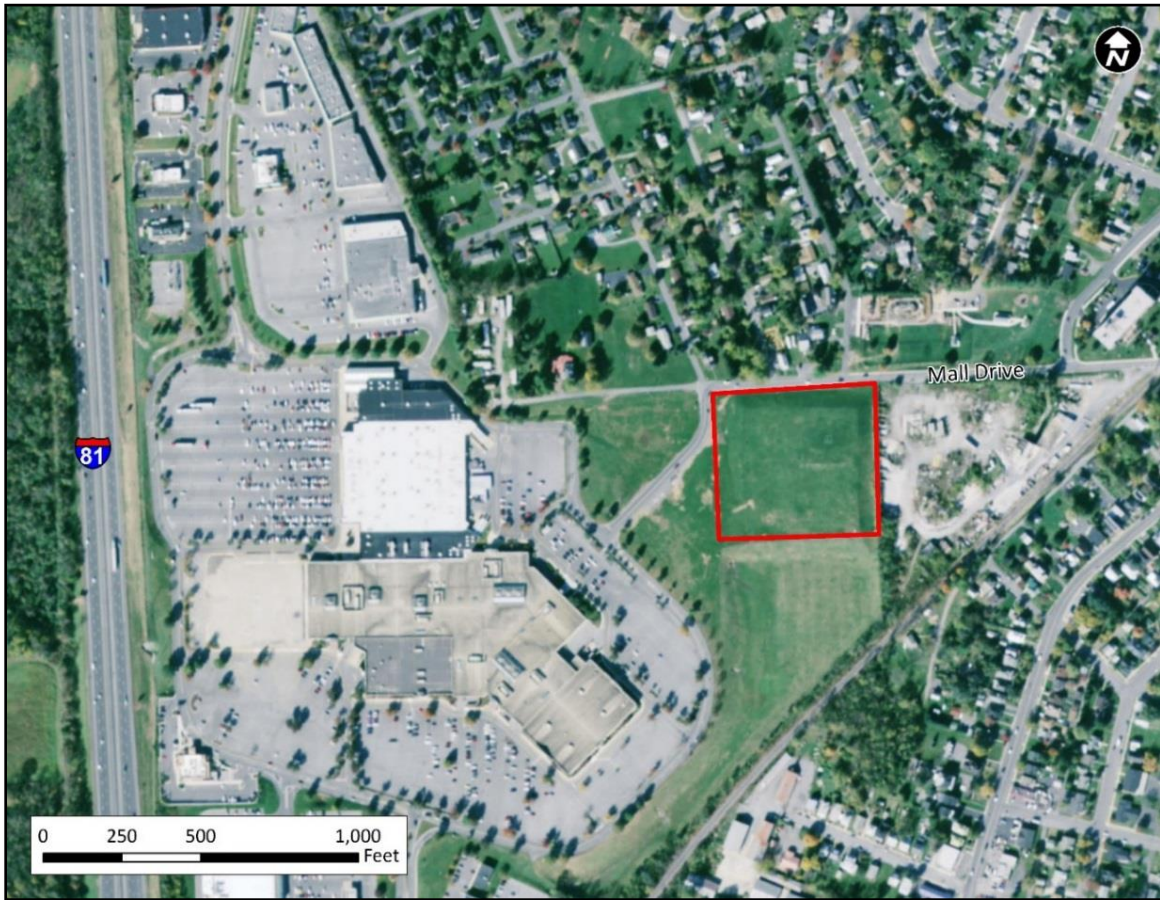
## Detailed Transfer Facility Site Analysis

### Existing Site Conditions

The preferred location for the EPTA Transfer Facility is located at the southeast corner of Mall Drive and the mall access road. The site is currently vacant and is owned by Paramount Development Corporation. Adjacent land uses to the site are primarily residential to the north, commercial to the west, industrial to the east, and a stormwater management area to the south.

The site has a significant grade change which plateaus into a level section in the middle of the site. While little site prep is needed to ensure ADA-compliant passenger loading areas, some leveling will be needed to construct a suitable driveway to the transfer facility. In addition, a cemetery with a single headstone inside a 150' by 150' exception is located in the northeast corner of the site.

**Figure 8: Location of site in reference to Foxcroft Towne Center**

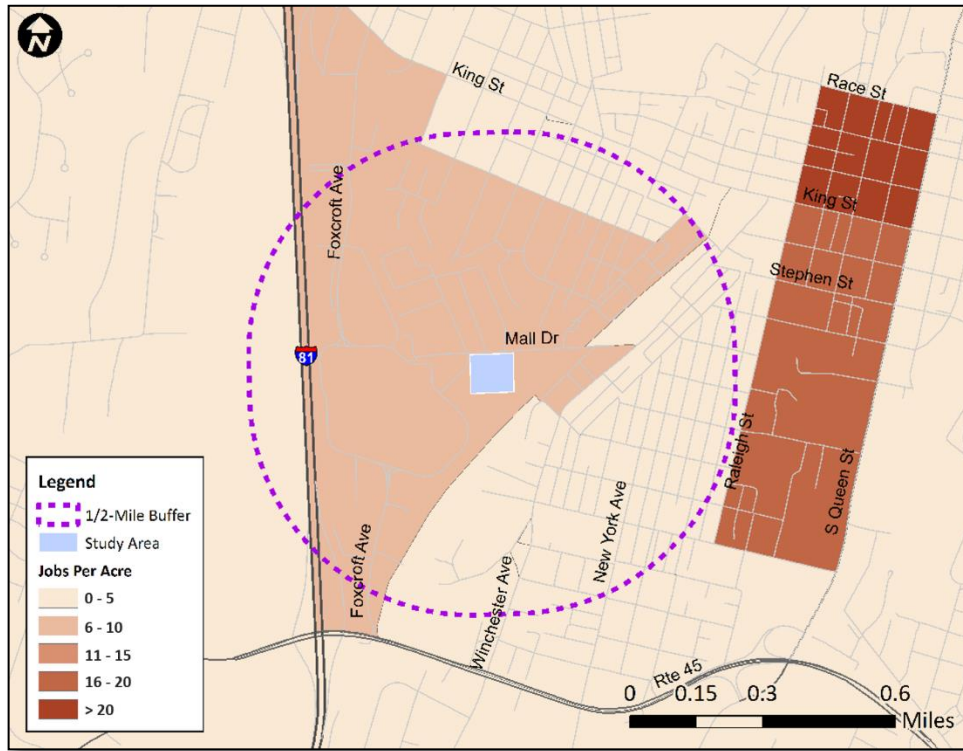


### Demographic Analysis

Overall, approximately 2,521 jobs and 1,507 households are located within a half-mile of the site. Of the more than 1,500 households, 25 percent are zero-vehicle households and about 30 percent have incomes below the poverty line, based on the estimates from the U.S. Census Bureau’s 2010-2014 ACS and 2014 LEHD index. These demographic factors have been identified as indicators of transit use based on previous studies and correlate to a high transit propensity in the surrounding areas.

Household, zero-vehicle household, and household below the poverty line densities adjacent to the proposed site are relatively high, while job densities are relatively low, as shown in Figures 9-12. Directly adjacent to the site, household densities are one to two households per acre. Between Raleigh Street and Winchester Avenue, however, household densities reach more than five households per acre. Zero-vehicle households and households below the poverty line account for a high percentage of housing units within a half-mile radius. Directly adjacent, over one-quarter of households are zero-vehicle, and 15 to 20 percent are below the poverty line. Households below the poverty line make up over half of all households between Raleigh Street and Winchester Avenue. While job densities are relatively low directly adjacent to the site due to proximity of residential areas, the commercial areas to the east and west do have significant employment, with the highest concentration of jobs outside of downtown. Demographic maps are shown in the figures below:

**Figure 9: Jobs per Acre by Census Block Group**



**Figure 10: Households per Acre by Block Group**

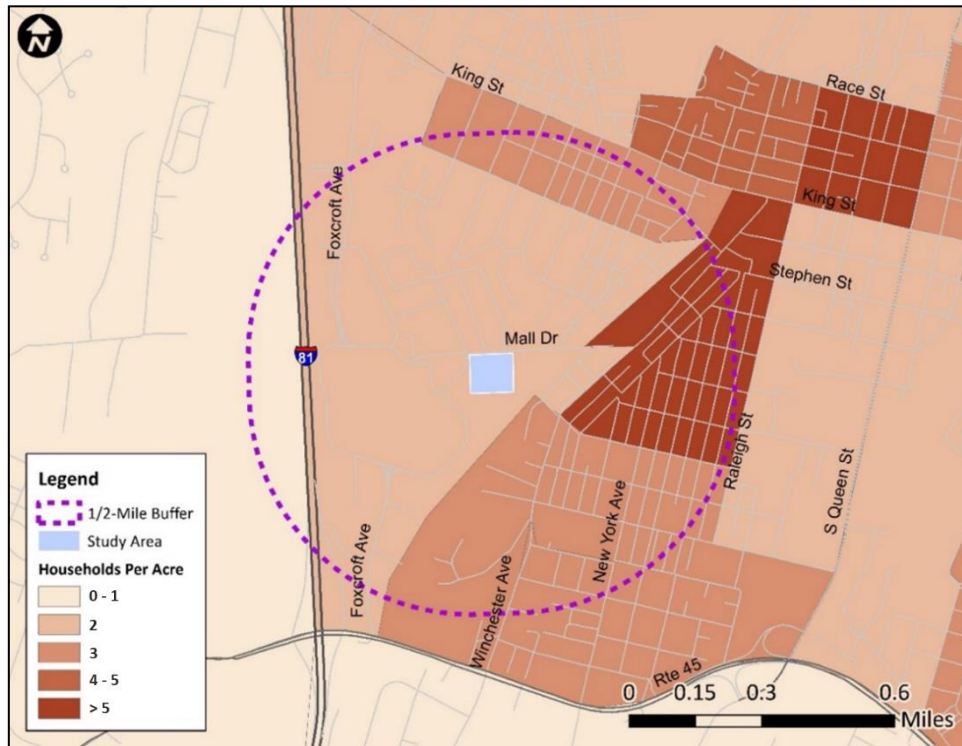




Figure 11: Percent Zero-Vehicle Households by Block Group

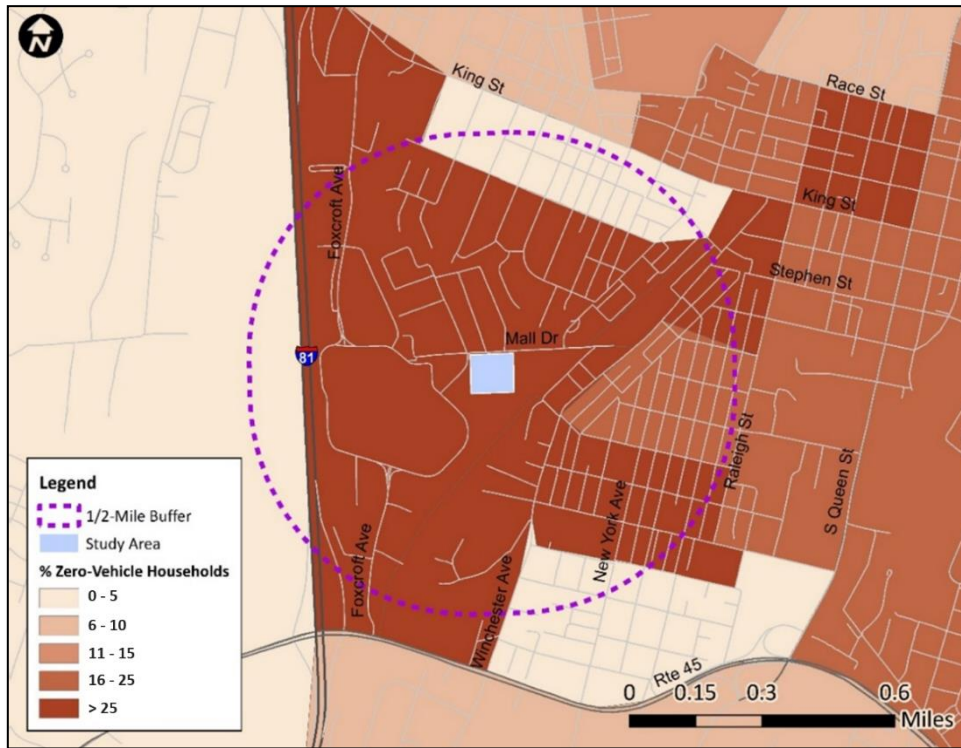
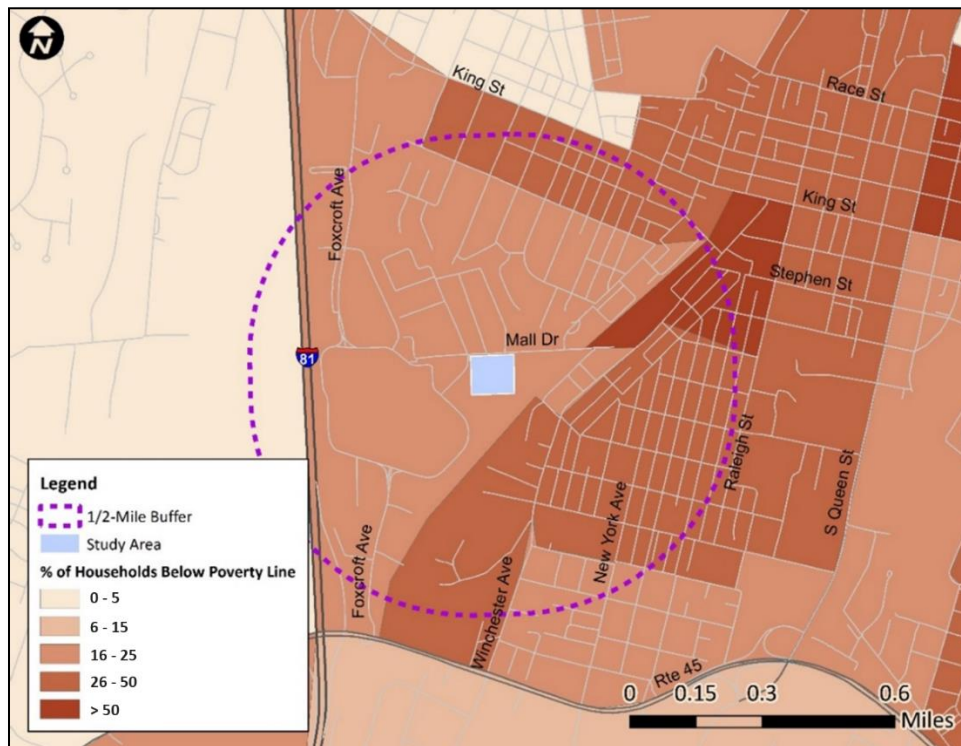


Figure 12: Percent of Households Below Poverty Line by Block Group



## Operational Impacts

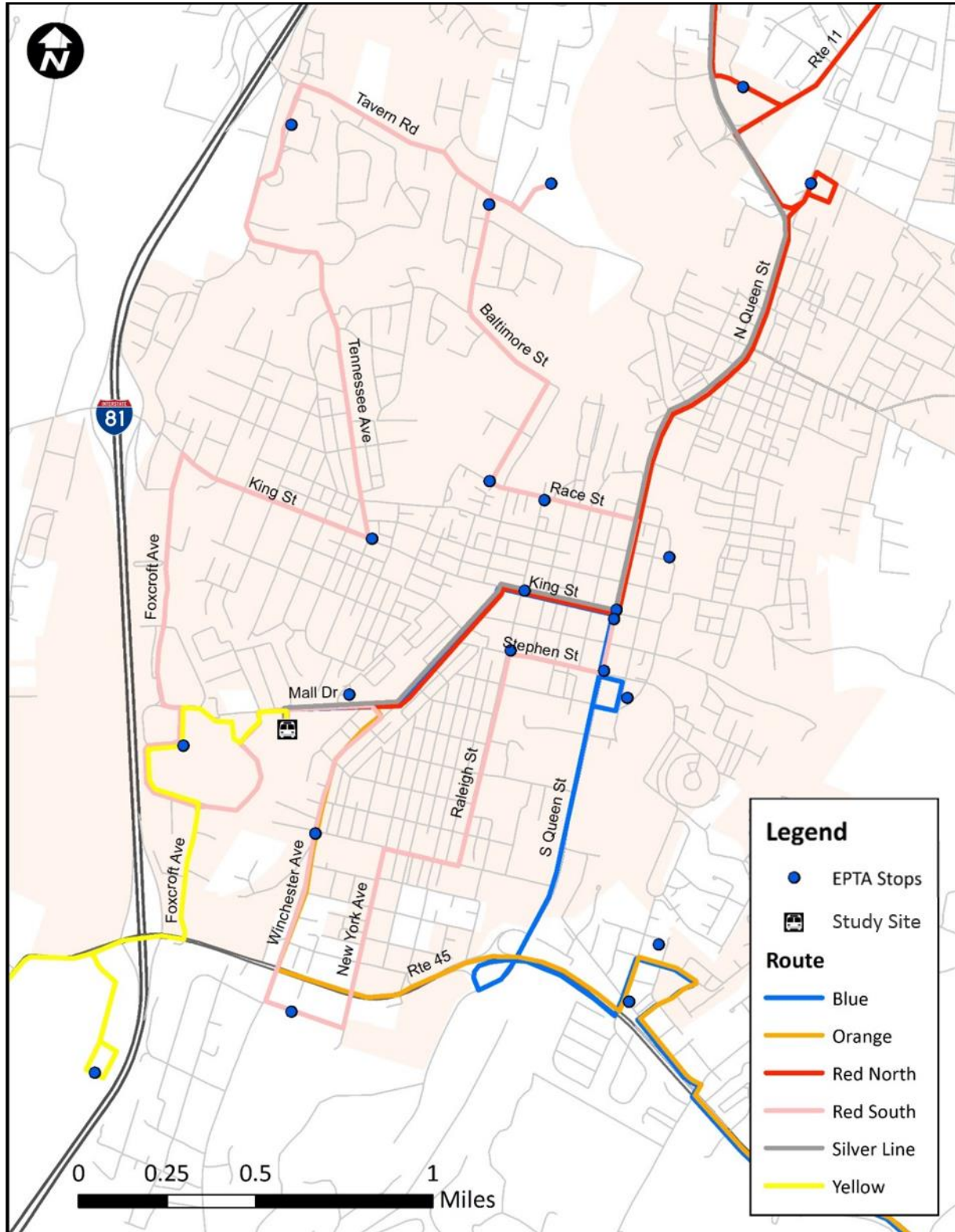
The relocation of the EPTA transfer site from the Caperton Transportation Center to the Mall Drive site would have operational implications for each EPTA route and would increase annual revenue miles, hours, and operating costs, while saving annual deadhead miles and hours. Deadhead is when a bus is operating without accepting any passengers, such as when coming from the depot before the first trip of the day or going to the depot after the last trip of the day.

## Realignments

The alignments of EPTA's existing lines would be altered to serve the proposed transfer site. The proposed realignments are shown in Figure 13 and include the following:

- **Red North:** Leaving the site, the line would turn right on Mall Drive, then left on Winchester Avenue, right on King Street, and left on Queen Street to return to its current alignment.
- **Red South:** The line would follow its current alignment, turning left into the proposed transfer site and left out of the site.
- **Blue:** Leaving the site, the line would turn right on Mall Drive, then left on Winchester Avenue, right on King Street, and right on Queen Street to return to its current alignment.
- **Orange (Martinsburg Trips):** Leaving the site, the line would turn right on Mall Drive, then right on Winchester Avenue, and left on to return to its current alignment.
- **Yellow:** The line would follow its current alignment, turning left out of the proposed transfer site.
- **Shepherd:** Leaving the site, the line would turn right on Mall Drive, then left on Winchester Avenue, right on King Street, and left on Queen Street to return to its current alignment.
- **Martinsburg MARC Connector:** Leaving the site, the line would turn right on Mall Drive, then left on Winchester Avenue, right on King Street, left on Queen Street, right on Martin Street to enter the Caperton Transportation Center.

Figure 13: Proposed EPTA route realignments





### Annual Revenue Miles, Revenue Hours, and Operating Costs

The proposed transfer site is approximately 1.4 miles from the current EPTA transfer center located at the Caperton Transportation Center. Realigning the current EPTA routes to the proposed site would result in increased daily miles on the Red North, Red South, Blue, Silver, Shepherd-Caperton, and Martinsburg-MARC Connector, and would decrease daily miles on the Yellow, and Orange (Martinsburg trips). There would be no change in daily miles on the Purple Lines, which operate along Mall Drive. On the Martinsburg MARC Connector line, only the 5:00pm trip would deviate from its current alignment to serve the proposed transfer site, as the site would be closed for the evening by the time the 9:00pm trip arrived in Martinsburg.

Table 2 summarizes the operational impacts of relocating all of the EPTA routes to serve the proposed transfer site. Annual net miles is the daily net miles multiplied by the number of operational days, and the annual net hours is the annual net miles divided by the average speed, which is dependent upon the route. Overall, this relocation would add 7,464 revenue miles to the system annually, and approximately 165 revenue hours annually. This translates to an increase in annual operating costs for the agency of approximately \$19,000, according to the cost model<sup>2</sup> calculated in the EPTA Transit Development Plan using FY2014 EPTA system data (see Table 3).

**Table 2: Operational impacts of realignment**

Line	Daily Roundtrips	Net Miles Per Trip	Daily Net Miles	Annual Net Miles	Avg. Speed MPH	Annual Net Hours
Red North	12	2.2	26.4	6,679	20	334.0
Red South	13	0.7	9.1	2,302	13	177.1
Blue	14	1.6	22.4	5,667	15	377.8
Yellow	17	-2.8	-47.6	-12,043	12.5	-963.4
Silver	7	2.2	15.4	3,896	20	194.8
Orange-Caperton	2	-0.4	-0.8	-202	28	-7.2
Shepherd-Caperton	2	1.6	3.2	810	20	40.5
MARC Martinsburg	1	1.4	1.4	354	30	11.8
Purple VA	4	0	0	0	15	0.0
Purple North	3	0	0	0	20	0.0
Purple South	3	0	0	0	13	0
<b>NET</b>				<b>7,464</b>	<b>-</b>	<b>165.3</b>

<sup>2</sup> The cost model works by associating all of the agency's costs to three variables, revenue miles, revenue hours and peak vehicle days, respectively. Costs such as driver's wages are related to the revenue hours that the system operates. Costs related to the purchasing of tires and lubricants, and the costs to maintain and fix vehicles are directly correlated to the revenue miles that a vehicle operates. Finally, costs such as the administrative wages are directly related to the number of peak vehicle days that a system operates, with the thinking being that larger systems with more peak vehicles require larger administrative staff to maintain the daily operations of a system. Once the totals for each variable are summed, they are divided by the actual revenue miles and revenue hours in order to calculate the variable unit cost of each. These unit costs can then be used to predict the cost of a new service or system based on the new revenue miles, revenue hours and peak vehicle days.



**Table 3: Operational cost changes**

	Net	Cost Model	Annual Net Cost
Annual Hours	165.3	51.15	\$8,455
Annual Miles	7,464	1.37	\$10,226
<b>Total</b>			<b>\$18,681</b>

### Annual Deadhead Mileage and Hours

The proposed site would significantly save EPTA in deadhead miles and deadhead hours, due to its location approximately 0.9 miles closer to the EPTA garage. The closer location would save approximately 6,019 annual deadhead miles and 513.9 annual deadhead hours, which translates to a savings of over \$34,000 per year according the cost model (See Tables 4 and 5). Overall, after accounting for increased operating costs and a decrease in deadhead, the new location would save EPTA about \$15,850 per year.

**Table 4: Deadhead impacts of realignment**

Line	Daily Pull Outs	Daily Pull Ins	Net Miles	Daily Net Deadhead Miles	Annual Net Deadhead Miles	Daily Deadhead Hours	Annual Net Deadhead Hours
Red North	3	3	-0.9	-5.4	-1366	-0.402	-101.304
Red South	2	2	-0.9	-3.6	-911	-0.268	-67.536
Blue	2	2	-0.9	-3.6	-911	-0.268	-67.536
Yellow	2	2	-0.9	-3.6	-911	-0.268	-67.536
Silver	-	-	-	-	-	-	-
Orange-Caperton	2	2	-0.9	-3.6	-911	-0.268	-67.536
Shepherd-Caperton	2	2	-0.9	-3.6	-911	-0.268	-67.536
MARC Martinsburg	2	2	-0.9	-3.6	-911	-0.268	-67.536
Purple VA	1	1	-0.9	-1.8	-99	-0.134	-7.37
Purple North	-	-	-	-	-	-	-
Purple South	-	-	-	-	-	-	-
<b>NET</b>					<b>-6019</b>		<b>-513.89</b>

**Table 5: Deadhead cost changes**

	Net	Cost Model	Annual Net Deadhead Cost
Annual Deadhead Hours	-513.89	51.15	(\$26,285)
Annual Deadhead Miles	-6,019	1.37	(\$8,246)
<b>Total</b>			<b>(\$34,531)</b>

### Future Considerations

The 2015 EPTA Transit Development Plan recommended two future lines to operate in the Martinsburg area, including the Green Line to South Martinsburg and the proposed Proctor & Gamble site, and the Brown Line to connect Martinsburg and Spring Mills. The Green Line was recommended in the TDP to begin service within five years, and the Brown Line was identified in the TDP as a long-term recommendation (beyond five years). Each of these routes were proposed to operate on an hourly basis on weekdays, and would require one vehicle each (see Table 6).

**Table 6: Future route details**

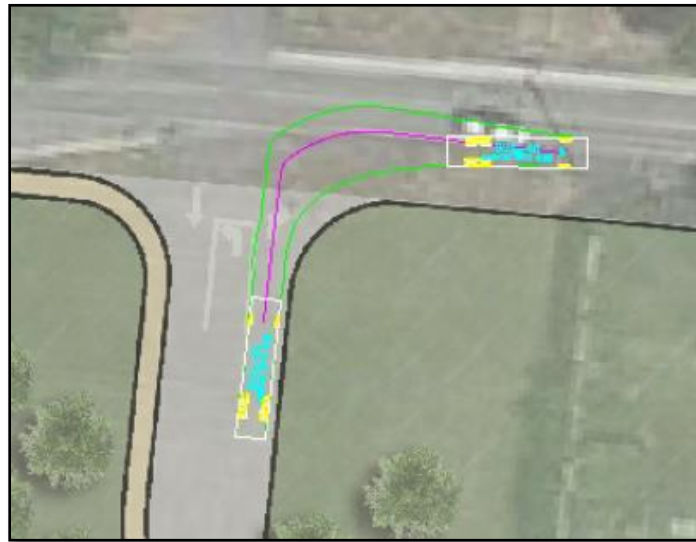
		Green	Brown
<b>From - To</b>		Transfer Center– Tabler Station/ Exit 8 Park & Ride	Transfer Center– Spring Mills Walmart
<b>Span</b>		6:30am – 7:20pm	8:00am – 6:00pm
<b>Headway (in minutes)</b>	<b>Peak</b>	60	60
	<b>Off-Peak</b>	60	60
<b>Peak Vehicles</b>		1	1

### Traffic Analysis and Recommendations

Travel time index is the ratio of the travel time during the peak period to the time required to make the same trip at free-flow speeds and is used as a measure of traffic congestion. A travel time index of 1.2 or less indicates a road segment is not congested. All road segments within 1,000 feet on Mall Drive and Ring Road, the two roads which would carry all bus traffic, have a travel time index of less than 1.2 according to TomTom 2010-2012 data used for the most recent Long Range Transportation Plan (LRTP). Because of the lack of congestion and projected site traffic, this intersection should only need to be a “minor-road-only stop controlled” intersection, with stop signs on Wall Street and coming out of the site.

Mall Drive towards the east of the site entrance is a two-lane road with lane widths of less than 10 feet. The AutoTurn (Transoft Solutions Inc.) software was used for the sweeping path analysis to evaluate the geometric constraints, specifically whether the right turn radius is enough exiting the site on Mall Drive. As shown in Figure 14, although current space is limited, a 40 feet bus is able to complete the right-turn before crossing the property line on Mall Drive.

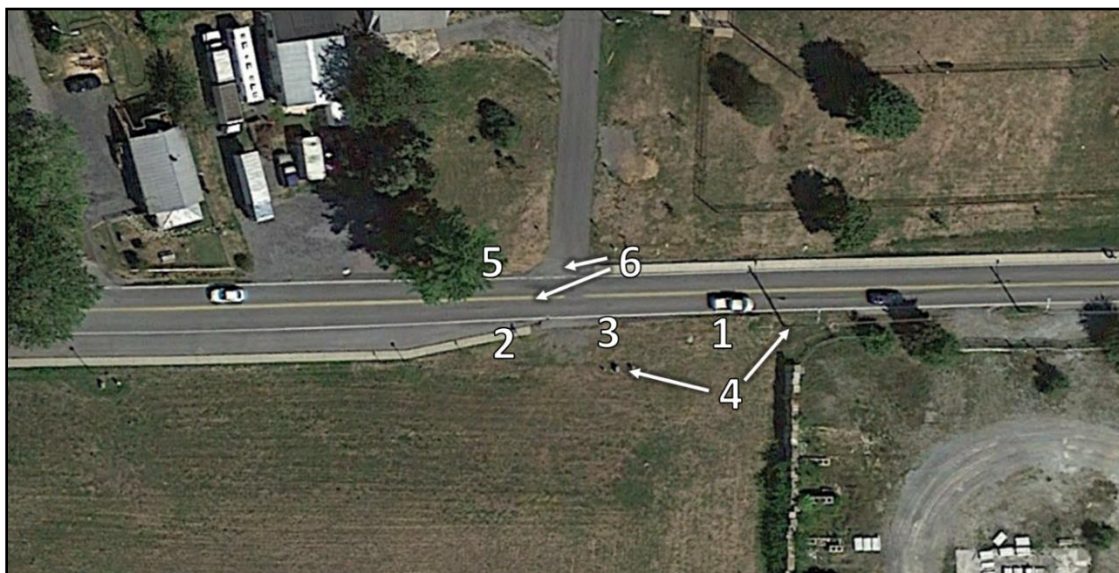
**Figure 14: Right-turn Sweeping Path for Intercity Bus (BUS-40) exiting site on Mall Drive**



While traffic impacts are minimal and 40 foot buses are capable of making a right turn onto Mall Drive, some improvements are recommended for the site and intersection to allow for better pedestrian and bus access, pending West Virginia Division of Highways (WVDOH) approval. These improvements are numbered below and correspond to the numbers shown on the map in Figure 15.

1. Widen road from future intersection to eastern property line
2. Widen road to the west of the site
3. Install a channelized right turn lane
4. Remove utility boxes and pole from location on site
5. Install sidewalk along Mall Drive
6. Install crosswalks across Mall Drive and Wall Street

**Figure 15: Recommended intersection improvements**



## Conceptual Design

As part of the planning process, conceptual designs were developed for the future transfer facility. A visualization of the site and an aerial view of the layout are shown in Figures 16 and 17. Details regarding specific site design elements were identified below:

### Platform and Canopy

To meet the needs of current and future EPTA service, one island platform will be constructed around which buses will circulate. The platform will be about 155 feet long, 25 feet wide, fully ADA-compliant, with planters on each end. Furthermore, the platform will enable eight buses to load/unload simultaneously, providing EPTA with adequate space for current and future needs.

A 130 feet long platform canopy is proposed to reduce maintenance costs and provide shelter from the elements for bus passengers. Under the canopy will be benches for waiting passengers, bike racks, and an electronic ticket kiosk.

### Drivers' Lounge

The proposed concept for the transfer site includes a driver's lounge, which will be built attached to the canopy on the western edge of the platform. This 550 square feet building will be access controlled and include a small seating area and restrooms for EPTA employees.

### Vehicular and Pedestrian Access

Access is essential to the functioning of a transfer facility. For passengers arriving by car, there is a 38-space parking lot on site with room to expand. A portion of this parking lot will be reserved for EPTA employees which eliminates the need for drivers to be dropped off at the facility. Also, a "Kiss and Ride" facility, enabling passengers getting dropped off or picked up at a station to not park in a parking space, is provided to ensure traffic flow. For pedestrians, an ADA-compliant sidewalk connecting the transfer facility with Mall Drive was included in the proposed concept. While pedestrian access heading west towards Foxcroft Towne Center was not included in the rendering, an ADA-compliant sidewalk connecting the Towne Center area with the transfer facility can be constructed once development plans are finalized.



Figure 16: Transfer facility conceptual site layout

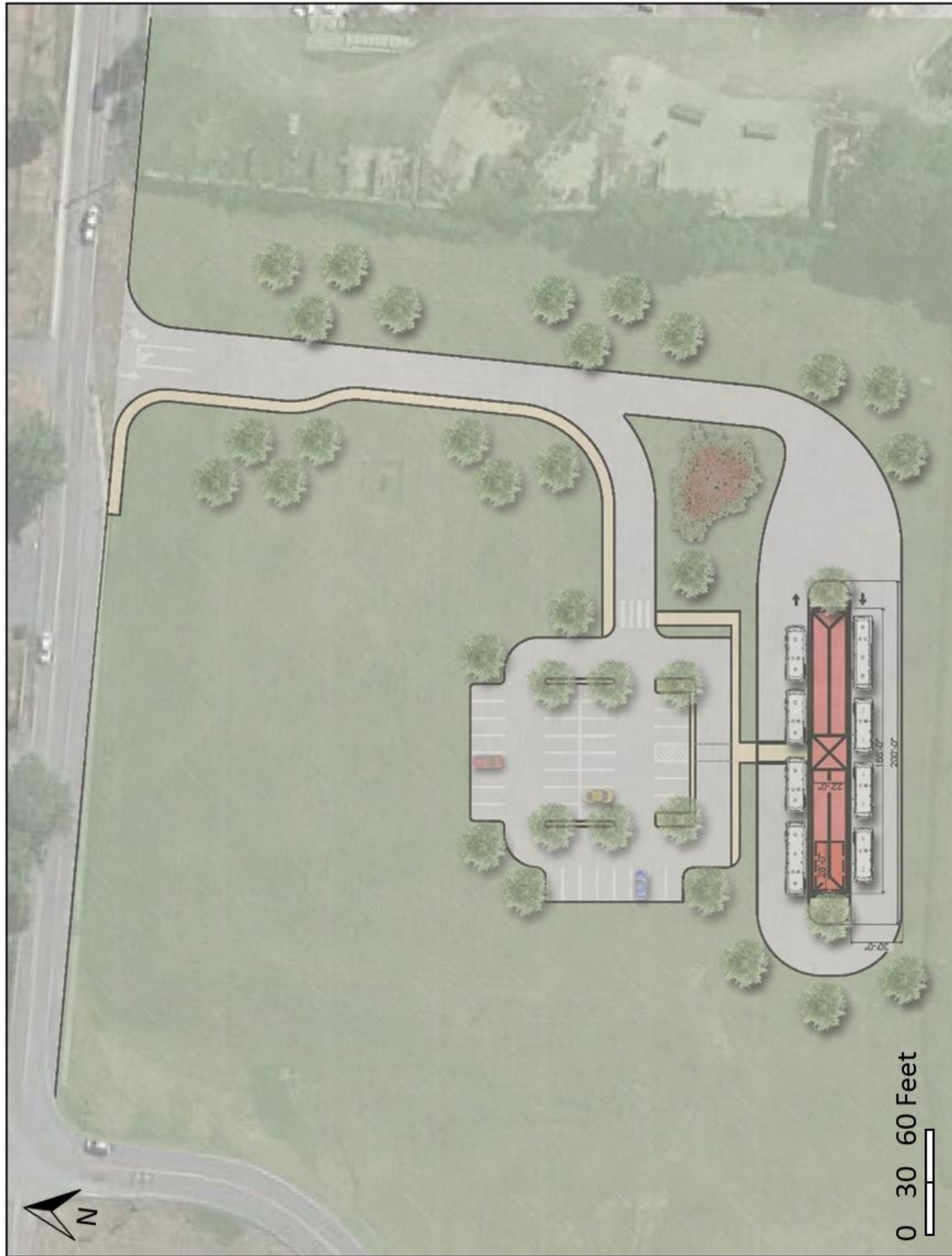




Figure 17: Site rendering



## Construction Cost Estimate

Using the conceptual design developed for the EPTA Transfer Site, as shown in Figure 16, the planning team identified planning-level construction cost estimates of broad program elements to assist in the development of a funding strategy and implementation plan. The estimates were derived from historical constructions costs for similar stations, as well as an assumed price escalation factor to current day dollars. A cost range (low, high) is provided to account for the variability in constructions costs between market areas. In addition, a project contingency fund is included to account for uncertainties in the actual design and construction phase of the project. Overall, the construction cost of the new EPTA Transfer Site is between approximately **\$2.5 and \$3.5 million**, as shown in Table 7.

*Table 7: Cost range of transfer facility construction*

Element	Low Estimate	High Estimate
Canopy and Driver's Lounge	\$ 750,000	\$ 925,000
Platform and Slab	\$ 70,000	\$ 90,000
Access Road and Bus	\$ 175,000	\$ 210,000
Parking Lot	\$ 130,000	\$ 160,000
Excavation	\$ 200,000	\$ 500,000
Miscellaneous	\$ 250,000	\$ 300,000
Utilities (10%)	\$ 160,000	\$ 200,000
<b>Subtotal</b>	<b>\$ 1,735,000</b>	<b>\$ 2,385,000</b>
Mobilization and Staking (12.5%)	\$ 215,000	\$ 300,000
Overhead and Profit (15%)	\$ 260,000	\$ 350,000
Estimating Contingency (20%)	\$ 345,000	\$ 475,000
<b>TOTAL</b>	<b>\$ 2,555,000</b>	<b>\$ 3,510,000</b>

Not included in this estimate are:

1. Engineering and Design
2. Environmental
3. Property Acquisition
4. Intersection Improvements

For the purpose of this project, it can be assumed that the total cost for engineering, design, and environmental, which should be between 10% and 20% of the total project cost, will be **approximately \$250,000 to \$700,000**. Potential property acquisition costs will vary depending on the arrangement with

property owner and can cost as much as the appraised value of the property, which will be determined prior to construction. However, acquisition costs can be applied to state and local match requirements.

## Implementation Strategy

The following implementation strategy was developed to move the project toward completion based on the current project status. The implementation strategy identifies objectives and concrete action strategies that should be undertaken. The implementation strategy is focused on two steps: (1) Securing funding for design, engineering, acquisition and other pre-construction activities, and conducting those activities; and (2) Securing funding for construction, and conducting those activities.

### Pre-Construction Activities

#### *Determine Project Costs and Schedule*

- Finalize the estimate of probable costs and complete the technical and cost proposal for preliminary engineering, permitting, and final design for development of the Transfer Facility
- Prepare a detailed project schedule that includes each component of the project. A realistic project schedule is a key element in identifying viable sources of funding and building and implementing a funding strategy.

#### *Secure Pre-Construction Funding*

- Seek State funding in pre-construction design, engineering, permitting, construction bid documentation, and other activities to get the Transfer Facility project “shovel-ready”

#### *Conduct Design, Engineering (D&E) and Permitting Activities*

- Determine the party that will administer and manage the design, engineering and other pre-construction activities.
- Procure contractors for D&E, permitting and other pre-construction activities.

#### *Acquire Property*

- To ensure eligibility for Federal funding, the grantee should follow the typical process sequence when acquiring real property for a project: National Environmental Policy Act (NEPA) Approval → Title Search → Appraisal → Appraisal Review → Just Compensation Determination → FTA Concurrence (if required) → Offer to Owner → Settlement.
- While there is no statutory or regulatory requirement that real estate acquisition be completed prior to contracting for the construction, it is prudent to minimize compensable delays to the construction contractor.

### Construction Activities

#### *Identify and Pursue Funding Opportunities*

- Identify and evaluate the viability of potential state and federal source of funding for project components. Sources could potentially include:
  - Congestion Mitigation and Air Quality Improvement (CMAQ)
  - Surface Transportation Block Grant (STBG)
  - Section 5339 – Bus and Bus Facilities



- Section 5307 – Assistance to Urban Areas
- Appalachian Regional Commission (ARC) Grants
- To determine the viability of each funding source for the project, the project team should identify the following information for each potential funding source: type of assistance (i.e., loan, grant, etc.), goals and priorities of the funding agency/program, eligible uses of funding (i.e., design, construction, remediation etc.), window of opportunity for application submission, minimum and maximum funding request amounts, percent and type of matching funds required, availability of funding, and size of potential award. Information about each funding source should then be compared to the Transfer Station project components and timeline to identify and prioritize the funding sources with the greatest potential for an award.

*Identify and Confirm Matching Funds*

- There must be a 20-50% match on construction to be competitive for grant funding, which could include local sources, developer contributions, and/or proceeds from borrowings (debt that will of course need to be serviced over time). Potential sources could include:
  - Acquisition Cost of Property
  - EPTA Contributions
  - State of WV resources

*Seek inclusion of project in HEPMPO’s and State’s Transportation Improvement Plans*

- To secure and use funding, the project sponsors and supporters should seek to have HEPMPO and the West Virginia Department of Transportation (WVDOT) include the project as a priority in their Transportation Improvement Programs (TIP). In order to receive federal funding, a project must be included in the State Transportation Improvement Program (STIP) and MPO TIP.

*Conduct Construction and Administer Funding*

- This is a major set of tasks, requiring a separate analysis beyond the scope of this implementation plan.

**Figure 18: EPTA bus leaving the Foxcroft Towne Center**



## Funding Sources

There are a number of funding programs and grants available through the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA), and the Appalachian Regional Commission (ARC) that can be used for capital costs of transit projects. For all of the following grant programs, the federal share of eligible capital costs is 80 percent of the net capital project cost, unless the grant recipient requests a lower percentage.

### Section 5339 - Bus and Bus Facilities

The Grants for Buses and Bus Facilities program (49 U.S.C. 5339) makes federal resources available to states and direct recipients to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities.

There are three components to this program. The first is a continuation of the formula bus program established under MAP-21. Under this formula, each state receives \$1.75 million per year, and then of the remaining funds, 86.65 percent is allocated to urbanized areas (UZAs) with a population of at least 200,000 and 13.35 percent is allocated to states for UZAs with a population of less than 200,000 (which includes HEPMPO). The other two components include the bus and bus facilities competitive program based on asset age and condition, and a low or no emissions bus deployment program.

### Section 5307 - Assistance to Urban Areas

The Urbanized Area Formula Funding program (49 U.S.C. 5307) makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.

Funding is apportioned on the basis of legislative formulas. For areas of 50,000 to 199,999 in population, the formula is based on population and population density.

### Surface Transportation Block Grant (STBG)

The Surface Transportation Block Grant program (STBG) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.

### Transportation Alternatives Set-Aside (TA Set-Aside)

The Fixing America's Surface Transportation (FAST) Act replaced the former Transportation Alternatives Program (TAP) with a set-aside of funds under the Surface Transportation Block Grant Program (STBG). The TA Set-Aside authorizes funding for programs and projects defined as transportation alternatives, which includes construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.

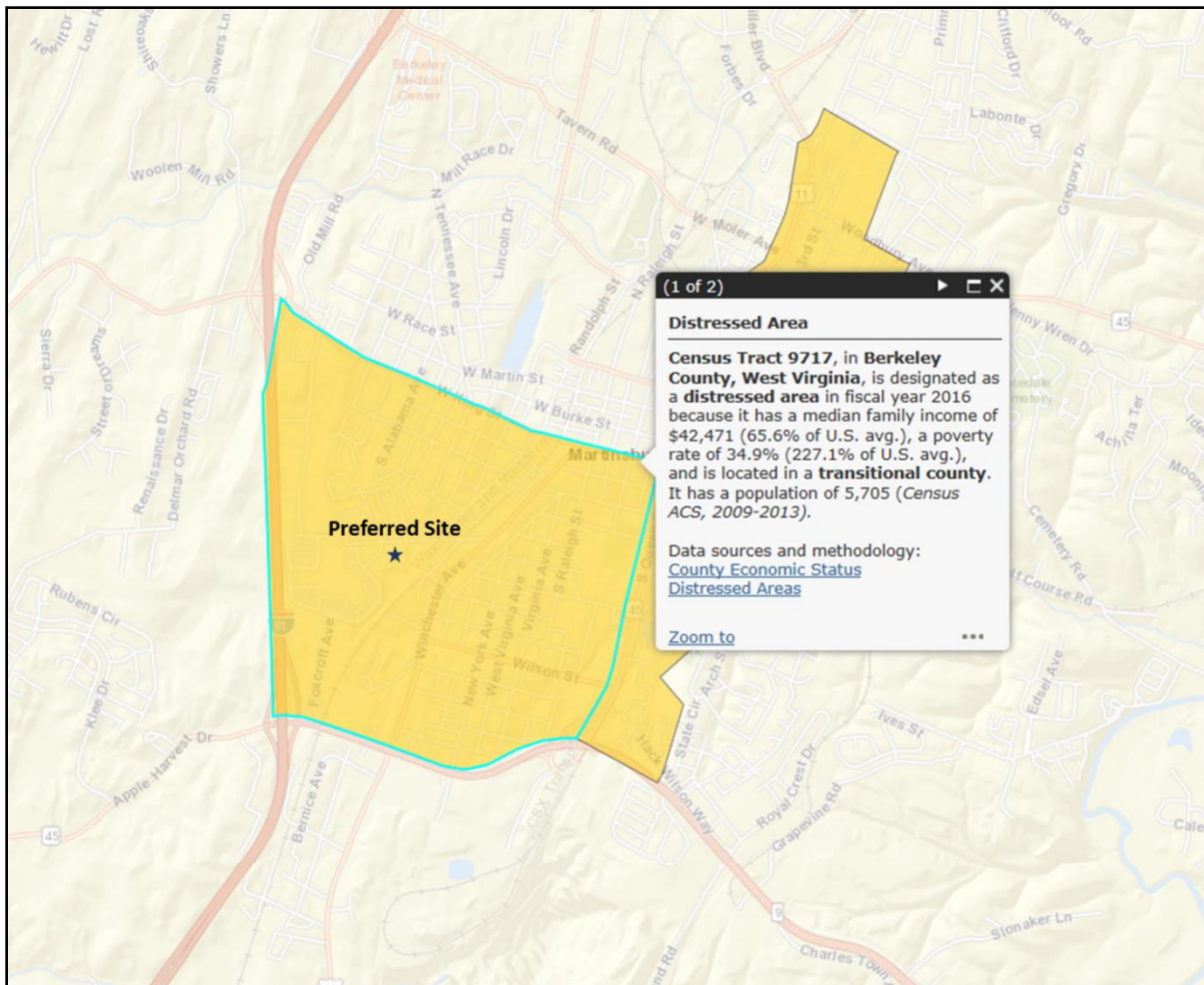
### Congestion Mitigation and Air Quality Improvement (CMAQ)

The CMAQ program provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act for transportation projects or programs that are likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution.

### Appalachian Regional Commission (ARC) Grants

ARC awards grants to projects that address one or more of the five goals identified by ARC in its 2016–2020 strategic plan: (1) Economic Opportunities, (2) Ready Workforce, (3) Critical Infrastructure, (4) Natural and Cultural Assets, and (5) Leadership and Community Capacity. ARC targets special assistance to economically distressed areas in the Appalachian Region, allowing up to 80 percent of the total cost of a project in grants in distressed areas, which includes the location of the preferred site as shown in Figure 19.

**Figure 19: Location of preferred site within a distressed area**



Source: <http://arcgov.maps.arcgis.com/apps/webappviewer/index.html?id=c2f1b23bdd8943c4988b313e2fdb3aa4>



## Conclusion

While the current transfer location at the Caperton Transportation Center is ideal due to its situation in downtown Martinsburg, the current deficiencies and lack of expansion opportunities is a fatal flaw to continuing operation at the current site.

The site at Foxcroft Towne Center on Mall Drive has the support of community leaders from Berkeley County, the City of Martinsburg, and the EPTA Board of Directors, as well as the owners of Foxcroft Towne Center. The site would be a safe, convenient, cost-effective, and functional location for a transfer facility and would provide many benefits to the public, the City of Martinsburg, and Berkeley County, including:

- The site is able to accommodate the currently required amount of bus bays plus those anticipated with future growth
- The location is near the Foxcroft Towne Center, a major ridership generator, and provides an economic development opportunity
- An integrated and well-designed transfer facility will improve the public’s perception and increase awareness of EPTA
- The transfer facility will decrease the need for parking in downtown Martinsburg by increasing transit ridership, as well as act as a shuttle location for downtown events

**Figure 20: Facebook post from HEPMPO regarding endorsement of the transfer point study**





## Appendix A: Environmental Assessment

Environmental Screening Summary									
	Site 1: Raleigh Street (Sheriff's Office Parking Lot)	Site 2: West Stephen Street (County Parking Lot)	Site 3: Caperton Train Station (Existing Location)	Site 4: Commerce Street Parking Lot	Site 5: King Street Vacant Lot	Site 6: Winchester Avenue Parking Lot	Site 7: South Raleigh Street Vacant Lot	Site 8: West Burke Street Parking Lot	Site 9: Foxcroft Towne Center
<b>Acquisitions &amp; Relocations</b>	County-owned. Part of excess parking lot.	County-owned. Part of overflow parking lot.	County-owned. Part of necessary parking lot so would need to construct replacement parking area further from train station.	Privately-owned. Consists of landscaped grass area and stream.	Privately-owned. Gravel lot between historic buildings, and one of the buildings may need to be demolished.	Privately-owned. Part of strip mall parking, which appears to be excess.	County owned. Currently vacant.	County-owned. Part of necessary parking lot so would need to construct replacement parking area further from train station.	Privately owned, but owners are supportive of project.
<b>Zoning (re: parking only)</b>	Would need to check if this would violate Zoning Code (Section 430.4) based on minimum number of spaces.	Would need to check if this would violate Zoning Code (Section 430.4) based on minimum number of spaces.	Replacement parking area would seem to violate Zoning Code (Section 430.37) due to distance from facility (more than 300').	N/A, not currently parking.	N/A, not currently parking.	Would need to check if this would violate Zoning Code (Section 430.4) based on minimum number of spaces.	N/A, not currently parking.	Would need to check if this would violate Zoning Code (Section 430.4) based on minimum number of spaces.	N/A, not currently parking.
<b>Noise/Sensitive Receptors</b>	Numerous residences adjacent to the south and west.	Numerous residences adjacent to the north and west.	Bell Boyd House and Civil War Museum to the northwest, several potential residences in the vicinity.	Few residences in the vicinity.	Few potential residences in the vicinity, but there is a church.	Numerous residences to the east.	Numerous residences to the west.	Few residences in the vicinity.	Numerous residences in vicinity, but site is set back.
<b>Cultural Resources</b>	Parcel appears to be at the nexus of four historic districts, with some Contributing resources in the vicinity.	Parcel appears to be at the nexus of three historic districts. Also, there are several National Register-Listed resources in the vicinity.	Site crosses two historic districts and is within the viewshed of the National Historic Landmark B&O Railroad Martinsburg Shops (but outside of its borders).	Parcel crosses two historic districts and may be in viewshed of National Register-Listed Fitz Water Wheel Co. to the northwest.	Site is in a historic district and has National Register-Listed resources immediately adjacent.	Parcel is in a historic district but may not be in the viewshed of surrounding resources. Existing strip mall onsite has already introduced modern elements to this setting.	Site is in a historic district and has National Register-Listed resources in vicinity	Site is in a historic district and has National Register-Listed resources in vicinity	Site is not in a historic district, but does have a single marked grave on site.
<b>Hazardous Materials</b>	No hazardous waste sites in the vicinity.	Multiple potential hazardous waste sites in the vicinity. No toxic releases according to TRI.	One potential hazardous waste site in the vicinity. No toxic releases according to TRI.	Multiple potential hazardous waste sites in the vicinity. No toxic releases according to TRI.	Multiple potential hazardous waste sites in the vicinity. No toxic releases according to TRI.	Multiple potential hazardous waste sites in the vicinity. No toxic releases according to TRI.	No hazardous waste sites in the vicinity.	No hazardous waste sites in the vicinity.	One potential hazardous waste site in the vicinity. No toxic releases according to TRI.
<b>Safety &amp; Security</b>	Vicinity of Probation Office to the north may raise security concerns, but these would be countered with the added security of having the sheriff's office located on the subject parcel. Passive surveillance from sheriff's office and residences.	Vicinity of Probation Office to the southwest may raise security concerns. Passive surveillance mainly from residences.	Passive surveillance from train station and residences.	Passive surveillance from surrounding land uses is limited.	Numerous surrounding businesses and organizations to provide passive surveillance.	Presence of Legal Aid of WV office at this site may raise security concerns, but passive surveillance would be provided by strip mall. Concern with vehicle-pedestrian conflicts from elementary school to the southeast.	Vicinity of Probation Office to the southwest may raise security concerns. Passive surveillance mainly from residences.	Numerous surrounding businesses and organizations to provide passive surveillance.	Passive surveillance from surrounding land uses is limited.
<b>Park &amp; Rec Areas</b>	No parks or rec areas.	No parks or rec areas.	No parks or rec areas.	No parks or rec areas.	No parks or rec areas.	No parks or rec areas.	No parks or rec areas.	No parks or rec areas.	No parks or rec areas.
<b>Soils (re: Farmland)</b>	Urban soils (No importance).	Urban soils (No importance).	Urban soils (No importance).	Urban soils (No importance).	Urban soils (No importance).	Urban soils (No importance).	Urban soils (No importance).	Urban soils (No importance).	Urban soils (No importance).
<b>Waterways</b>	No waterways nearby. No sole source aquifers.	No waterways nearby. No sole source aquifers.	Tuscarora Creek 500 ft. to the east. No sole source aquifers.	Tuscarora Creek (Tributary to Opequon Creek, then Potomac River). No sole source aquifers.	No waterways nearby. No sole source aquifers.	No waterways nearby. No sole source aquifers.	No waterways nearby. No sole source aquifers.	No waterways nearby. No sole source aquifers.	No waterways nearby. No sole source aquifers.
<b>Floodplains</b>	Not within 1- or 0.2-percent-annual-chance floodplain.	Not within 1- or 0.2-percent-annual-chance floodplain.	Not within 1- or 0.2-percent-annual-chance floodplain.	Portions of property within Zone A (no Base Flood Elevations determined).	Not within 1- or 0.2-percent-annual-chance floodplain.	Not within 1- or 0.2-percent-annual-chance floodplain.	Not within 1- or 0.2-percent-annual-chance floodplain.	Not within 1- or 0.2-percent-annual-chance floodplain.	Not within 1- or 0.2-percent-annual-chance floodplain.
<b>National Wetland Inventory</b>	No wetlands in NWI.	No wetlands in NWI.	No wetlands in NWI.	No wetlands in NWI.	No wetlands in NWI.	No wetlands in NWI.	No wetlands in NWI.	No wetlands in NWI.	No wetlands in NWI.
<b>Threatened &amp; Endangered</b>	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.	Indiana Bat, Northern Long-eared Bat, & 17 Migratory Bird species.

Note: Although one known sinkhole was repaired in the northwest corner of Site 1, the *Multi-Jurisdictional Hazard Mitigation Plan for Berkeley and Morgan Counties* (2012) indicates that Sites 1-9 are all located in a "low hazard" area for sinkholes (Section 2.2.9).

## Appendix B: Public Input

### EPTA Transfer Center Study Public Comments Summary

*Updated January 27, 2016*

The following comments have been received by HEPMPO at the Public Meeting held at Caperton Train Station on December 16, 2015 and through the 30-day public comment period

#### Site 1: Raleigh Street (Sheriff's Office Parking Lot)

- “terrible for traffic with schools & sheriff office”
- Public Meeting attendee expressed concern regarding amount of traffic on Raleigh Street and South Street and adding higher volume of large vehicles could be problematic
- Public Meeting attendee stated this would be a good site because it’s already on publicly owned property and allows for lots of expansion and parking
- Public Meeting attendee stated the site may be an issue because Berkeley County owns it and may not want to block new Sheriff’s office from view or may have plans for the site
- “I like this location; Good Location – enter & exit OK – close to many routes”
- “Berkeley Cty Sheriff’s site may not be suitable due to the road training that frequently goes on”
- “Best choice; good access for all vehicles plus plenty of parking”
- “Location is OK, more accessible by population on that side of town – no room for growth”
- “Good access for buses, limits Sheriff’s Office parking and drill area – not my first choice”
- “Plenty of room to maneuver buses, but problem could arise if old CVS pharmacy is taken over by another company. They will want their car parking spaces back. Also Sheriff’s Department might not want too many people loitering in front of their building for security reasons.”

#### Site 2: West Stephen Street (County Parking Lot)

- Public Meeting attendee stated this site would also work because it is owned by Berkeley County
- Public Meeting attendee stated this sit would be good because there is low traffic and can hold the most buses
- “Seems congested”
- “Too small and congested; but all route buses could get there without going too far off route”
- “Looks convenient for all routes”
- “Not accessible directly from Raleigh Street except by taking South to Maple and then west to Parking Lot”
- “This space seems to look like there is a little more to offer”
- “Adequate bus access – central location – Good walking access; limited growth potential – none-the-less could be a good choice”
- “If this car-park was given over to EPTA for bus use only – no other vehicles allowed entry – it could work. Exit onto S College Street not advisable given narrowness of that street and tightness of right turn out (pole). Cars dropping off passengers won’t need to enter bus park as

there are two lanes west-bound here, so they can stop on street without obstructing. Closest feasible option to Queen Street business area.”

Site 3: Caperton Train Station (Existing Location)

- MARC rider expressed concerns about reducing parking; stated he has limited physical mobility and relies on close parking
- “Not enough space for all buses getting in and out – especially big buses”
- “415/515 bigger buses have difficulty making turns to get out”
- “Too small for # of buses traversing the area & no parking available”
- “Makes the most sense to leave it where it is and build a parking garage for commuters and downtown parking”
- “As the designs stands – limited access/growth potential; bad turn off Martin to access bus lane – No Go”
- “Without major redevelopment of station frontage to allow more buses to employ lift drops simultaneously, this is not a good option. To drop as now would require removal of metered spaces at track-side and extension of footpath to top of hill with opposite meters also removed to allow buses to pass. To redevelop upper car park as suggested would inhibit disabled passengers from accessing new sidewalk from station-front drop off. Again, a loss of revenue to City by removing car park spaces.”

Site 4: Commerce Street Parking Lot

- “May have to use race st light to enter Queen st”
- “ok”
- “4 way stop & railroad tracks – not suitable for buses”
- “Not suitable due to railroad track crossing rail activity”
- “Accessibility from Queen Street is hampered by size of streets loading into it”
- “Close to current stops – would work well”
- “Good access – limited growth potential – Top Choice”
- “Redevelopment of this site would require major in-fill of land as it currently slopes away from street. Entry to and exit from site as proposed would also present issue for buses turning from Northside (left) and turning out to go south (left) in having to potentially wait for oncoming traffic to clear before turning. Probably impractical to install traffic lights here given proximity to those at Race Street junction and even this would not necessarily assist ease of flow for southbound buses if traffic is tailed back beyond site.”

Site 5: King Street Vacant Lot

- “Only concern is tightness of college st”
- “2<sup>nd</sup> best accessibility & access to downtown area”
- “I like this location, close to all routes for transfer”
- “King St might be a secondary suitable site”
- “Way too small; loss of parking spaces used by City/County offices”
- “No”



- “No go”
- “This site is too small in my view and volume of traffic flow in King St would present an issue for vehicles going in and out. In addition, buildings on either side have emergency exit ladders which would present safety issues for occupants descending into bus park. Also presents difficult if emergency vehicles had to enter site to deal with building fires and being blocked by buses.”

Site 6: Winchester Avenue Parking Lot

- “Traffic backup nightmare, getting onto Winchester Ave”
- “best accessibility for low income housing & senior towers; problem with traffic congestion on Winchester Ave”
- “Nice location – plenty room for buses coming in & out. Good for all connecting routes except Blue Line is VA to Queen & back”
- “I like Winchester Ave (Rite Aid/Family Dollar) due to the fact its big enough to get in/out with multiple exits and close to Ambrose and the Mall”
- “2<sup>nd</sup> best choice; good for access for all vehicles/plenty of parking; little distant from center of town”
- “No”
- “No go”
- “Plenty of room to redevelop site as proposed but could potentially be competing with shopping center traffic queuing up to get in or out and impact on ability to keep to schedule. Also too far away from main business center (Queen St) to be an attractive option for people there to walk to transfer center or from there into town.”

General EPTA Comments:

- “As many stops in Residential Areas as possible needed would increase riders”
- “We need bus shelters & stop signs with schedules posted throughout routes!”
- “We can’t ride if we don’t know where or how”
- EPTA needs to lower costs of rides from \$2.50 down to \$1.00
- EPTA fares need to be based on how far you are going, not just a flat fee
- Bus service needs to be offered 24/7
- “Parking garage (2 level) near Round House/Access off Burke would solve parking issues”
- “Opening up the train station parking lot for public transit options”

From: David Haarberg  
Sent: Sunday, September 11, 2016 3:27 PM  
To: Mullenax, Matt;  
Subject: EPTA Bus Transfer Point Study Comments

I support the Mall Drive location, and think it is well-researched and supported. I have the following comments/recommendations:

(1) Secure an easement for pedestrians and bicycles from the drop-off/embarkation area at the southwest corner of the parcel directly to the area of the mall with safe crosswalk to the mall area, so pedestrians and bicyclists going to and from the mall (or the south end of Foxcroft) do not have to go the long way via Mall Drive. Such a path will probably be worn there anyway if you don't have it in the plan, and putting up a fence to discourage it would be costly, ugly and unfriendly to your customers. I realize that the plans for the mall are in flux, but the mall owners should see the advantage to their own operations to make it easier for customers and employees to travel on foot and by bicycle to and from the bus station. Making it part of the plan will help ensure customers cross that parcel where you and the mall owners want them to, although there will always be some who want to go different directions. It would be best to secure such an easement before the triangular parcel between the station and the mall is developed. The easement would have to take into consideration the slope at that edge of the parcel.

(2) Make sure that the crossing and sidewalks on Mall Drive are improved and better marked. The state has allowed the crosswalk markings on the pavement at the southwest corner of Ambrose Park to be completely obliterated for several years. (The city told me it's not their job, and the state told me they were aware of it.) A local citizen recently complained of the narrow sidewalks and steep edges along Mall Drive next to Ambrose Park to the city council, and the city council promised to do something about it. There's a fair amount of baby carriage traffic on the sidewalk along Mall Drive.

(3) Related to number 2 above, traffic on Mall Drive often moves well above speed limit, and better enforcement and/or 4-way stop or traffic light at the entrance to the site may prove necessary to allow for smooth operation of the buses and safe access for pedestrians and bicycles.

David R. Haarberg

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**From:** Vic Maslanka  
**Sent:** Monday, August 15, 2016 9:45 AM  
**To:** Mullenax, Matt  
**Subject:** Bus Transfer Station Comments

This comment is based upon the attached image. Needs direct pedestrian connection to the mall (Towne Center). Otherwise, everyone will just be walking across the empty grass lot and crossing the mall ring road at random locations.



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-----Original Message-----

From: Gloria Carter

Sent: Thursday, August 11, 2016 6:37 PM

To: Mullenax, Matt

Subject: Transfer station

In favor of keeping both transfer stations. Both are needed.

Sent from my iPad

## Appendix C: Newspaper Articles

# Berkeley County Council endorses EPTA transfer station plan

June 10, 2016

By Emily Daniels ([edaniels@journal-news.net](mailto:edaniels@journal-news.net)), Journal News

MARTINSBURG - Berkeley County Council members unanimously approved a plan Thursday morning for a new bus transfer station site.

The preferred transfer site location is the rear of the Foxcroft Towne Center on Foxcroft Avenue in Martinsburg. The transfer station is expected to ultimately be comprised of a lounge for bus drivers, bike racks so individuals can ride bikes to and from the stop, a canopy for cases of inclement weather, a kiosk and benches for waiting riders.

The plan was presented to council members by the Eastern Panhandle Transit Authority and Hagerstown/Eastern Panhandle Metropolitan Planning Organization.

Currently, the existing transfer center is located at the Caperton Train Station on East Martin Street. The current location poses a number of problems for buses including narrow turning radius, as well as added wear on buses because of the cobblestone portions of the street.

Alan Davis, Berkeley County administrator, said the plan will greatly benefit the area.

"I want to commend Michael Baker and HEPMO for coming up with this plan. I think this is an absolutely exceptional location," Davis said. "I just think this is an outstanding proposal, and we're moving in the right direction."

Michael Baker International is the engineering company, which is headquartered in Pittsburgh, Pennsylvania, working in conjunction with EPTA and HEPMO on the transfer site project.

Jim Frazier, project manager at Michael Baker, told council members Thursday that the next step after finalizing the site plan is to secure funding for the development.

Frazier cited four potential state and federal funding sources including Congestion Mitigation and Air Quality Improvement funds through the West Virginia Department of Transportation, Surface Transportation Block Grant through WVDOT, Section 5339 Bus and Bus Facilities grant through EPTA and Section 5307 Assistance to Urban Areas grant through EPTA.

Frazier added that the most expensive components of the project would be the canopy and drivers' lounge.

Council member Dan Dulyea said it would have been nice for the site to be closer to downtown, but the location is still a good option.

"The area that you chose, I think, is the best site for what you're doing with the lay of the land, absolutely. All of the other sites you looked at posed some type of issues getting in and out of the buses and other types of things," Dulyea said. "It would have been nice to be downtown, but this is a really, really good piece of ground to do what you're talking about. The lay of the land is nice and flat."

Once the final draft of the train station layout has been approved, the draft would be available for a 30-day review and public comment



# New location identified for possible bus transfer station

June 9, 2016

BY KATIANN MARSHALL ([kmarshall@journal-news.net](mailto:kmarshall@journal-news.net)), Journal News

MARTINSBURG - The search to find a suitable bus transfer station within Martinsburg as a replacement to the existing Caperton Transportation Center remains ongoing.

The joint effort lead by the Hagerstown Eastern Panhandle Metropolitan Planning Organization, the Eastern Panhandle Transit Authority and the City of Martinsburg is to analyze and recommend a feasible location for a new EPTA Bus Transfer Site that will be suitable for future growth of the agency, said Matt Mullenax, the executive director of the Hagerstown Eastern Panhandle Metropolitan Planning Organization.

The Hagerstown Eastern Panhandle Metropolitan Planning Organization is the federal- and state-designated transportation planning organization for Berkeley and Jefferson counties, Washington County, Maryland, and the municipalities in those counties.

Mullenax said a new location for the EPTA bus transfer site was identified as a need in EPTA's Transit Development Plan and by the City of Martinsburg, as there were several operational issues associated with Caperton Transportation Center; excess wear and tear on the buses from the cobblestone on Martin Street, inadequate space for multiple buses to load/unload passengers, no layover space for the drivers and inadequate turning radius for buses in the parking lot, are among those issues identified.

This past winter, Mullenax said six locations were chosen as possible new locations for the bus transfer center, but after review the county has some concerns.

After conducting another study of the transportation needs and geography of the region, Mullenax said there were three additional sites identified, but one was chosen as a top choice.

Mullenax, who will be speaking at the Berkeley County Council meeting today, is proposing the new bus transfer station be located at the rear of the Foxcroft Towne Center.

"There is about two acres of property there and the demographic in and around that area makes it a good location," Mullenax said.

Mullenax also said there is high vehicular, pedestrian and bicycle traffic.

The property, owned by Paramount Development Corporation, is a 2.73-acre parcel of land. According to Mullenax, approximately one-third of the city lives within a half mile of its location. That is 2,594 jobs, 3,160 people and 1,232 households, Mullenax said.

"Fifteen percent of those individuals are on disability and the poverty level is 34 percent, about one in three people near the location, and these are the folks that tend to use public transit more," Mullenax said.

Mullenax also added that because of the development of the mall there would be minimal preparation that would be needed to construct the bus transfer center, and no historical or cultural impact from construction.

Mullenax said he hopes to have a final draft layout approved by the end of June. It would then go out for a 30-day review and public comment.

# County parking lot looks best for new bus transfer station

January 20, 2016

By John McVey ([jmcvey@journal-news.net](mailto:jmcvey@journal-news.net)) , Journal News

MARTINSBURG - A parking lot in the 200 block of West Stephen Street that is owned by Berkeley County appears to be the best site for a new Eastern Panhandle Transit System bus transfer station in Martinsburg.

"It is the best selection based on the point system evaluation," Doug Pixler, director of operations, said Tuesday during the EPTA's monthly board meeting. "Berkeley County is enthused about using the site for the transfer station. It is one of the largest parcels in the city, so there's room for expansion."

Pixler added that Martinsburg officials are supportive of the site, also.

He is a member of the the EPTA Bus Transfer Point Study Transfer Site Advisory Committee, which met Tuesday morning. The committee includes representatives from EPTA, the City of Martinsburg and the Hagerstown Eastern Panhandle Metropolitan Planning Organization.

The HEPMPO is funding the \$70,000 study to find a new bus transfer station in Martinsburg. The Michael Baker International consulting firm is doing the study.

A transfer center is where several bus routes converge, allowing riders to make connections.

Currently, the transfer station is in the lower parking lot of the Caperton Train Station on East Martin Street in Martinsburg.

Now, only two buses can use the train station parking lot at one time. With new bus routes, bus traffic is expected to double at the station. Thirty-eight buses use the station now.

Also, there is no layover space available, turning space for buses is limited and the brick pavers on East Martin Street cause maintenance problems for buses.

Six possible sites for a new transfer station were identified. In addition to the county's parking lot on West Stephen, the sites included the Berkeley County sheriff's department parking lot on South Raleigh Street, the upper parking lot of the Caperton Train Station, a parking lot on Commerce Street, a vacant lot in the 100 block of West King Street and a shopping center parking lot on Winchester Avenue.

The locations were judged on eight criteria. The West Stephen Street location scored 30 on the site evaluation, the highest of the six possible locations.

The L-shaped parking lot is between South College Street and South Maple Avenue. It possibly could accommodate seven buses at a time. It is close to existing EPTA bus routes, downtown Martinsburg, more than 1,300 households and nearly 4,500 jobs.

The sheriff's department parking lot scored 28 and the Caperton Train Station upper parking lot scored 27.

A draft report of the study is expected in April or May. The draft will be presented to the Martinsburg City Council and the EPTA board of directors.

The HEPMPO is designated by the West Virginia, Maryland and U.S. departments of transportation as the regional transportation and transit planning organization for Berkeley and Jefferson counties, Washington County, Maryland, and all the municipalities in those counties. It is financed with local, state and federal funds.

# Couple would use buses if they were convenient

December 17, 2015

By John McVey ([jmcvey@journal-news.net](mailto:jmcvey@journal-news.net)), Journal News

MARTINSBURG - Traci Hylton and Justin Hancock do not use Eastern Panhandle Transit Authority buses now.

"But we want to," Hylton said.

"We want to use it because of the cost - we could eliminate a car," Hancock said.

"We would use it for work, school, shopping, everything, if it were more convenient," Hylton said.

They attended an informational presentation Wednesday on possible sites for a new EPTA bus transfer station in Martinsburg. The presentation was hosted by the Hagerstown Eastern Panhandle Metropolitan Planning Organization at the Caperton Train Station, the site of the current transfer station.

The transfer point study has been commissioned by the HEPMPO. Michael Baker International consulting firm is performing the \$70,000 study.

Located at 229 E. Martin St. in Martinsburg, the current transfer station is in the train station parking lot. A transfer station is where several bus routes converge, allowing riders to make connections. About 76 buses use the transfer station daily.

The existing location presents problems because there is space for only two buses to load and unload passengers at a time. Wednesday evening, four buses were transferring passengers. One of the buses had to double park.

Also, there is no area for buses to layover; buses' have difficulty turning in the lot; the brick pavers on East Martin are hard on the buses shock absorbers, causing additional maintenance; there is no room for future expansion; and there is some conflict with tenants of the train station.

The study has picked six possible sites for a new transfer station, including the Berkeley County sheriff's office parking lot on South Raleigh Street; a county-owned parking lot on West Stephen Street; the upper parking lot at the Caperton Train Station; a parking lot on Commerce Street; a vacant lot in the 100 block of West King Street; and the parking lot of a shopping center on Winchester Avenue.

"The Winchester Avenue location is a winner," Hylton said. "It's close for the old folks."

She was referring to Ambrose Towers, which is behind the shopping center.

"The Winchester Avenue location is centrally located to residential areas," Hancock said. "The train station is one of the least populated areas in the city. It's our favorite, but it has traffic issues. It's difficult to get out of that parking lot onto Winchester Avenue. The traffic backs up there."

Most of the people who attended the presentation did not have a favorite location, Steve Thomas, the HEPMPO's transportation planner, said Wednesday.

The six sites have been evaluated for seven criteria: property ownership; land-use connectivity; site layout; operations; transit system compatibility; environmental, historical and cultural resources; and economic development.

The parking lot at the sheriff's office and the Caperton Train Station rank the highest based on these criteria. The Commerce Street parking lot and the Winchester Avenue shopping center parking lot rank the lowest.

"Once a preferred site is determined, the property owner would have to be approached about the proposed project," Matthew Mullenax, the HEPMPO executive director, said Wednesday. "We might have to go to the next preferred site."

Constructing a new transfer station probably would have to be funded at least in part through federal grants, he said. Either the City of Martinsburg or EPTA would have to apply for the grants to build the new station, he said.

The study should be finished by the end of June, Mullenax said.

A public comment period is open now through Jan. 15. Comments should be directed to the HEPMPO at 400 W. Stephen St., Martinsburg, WV 25401; [info@hepmo.net](mailto:info@hepmo.net); or 304-263-1743.

More information about the study can be found at the HEPMPO's website at [www.hepmo.net](http://www.hepmo.net).



## Two parking areas targeted for W.Va. bus-transfer center

MARTINSBURG, W.Va. — Two Berkeley County-owned parking areas in Martinsburg were rated the highest among criteria used by a consultant to evaluate possible sites for the Eastern Panhandle Transit Authority's bus-transfer center.

The parking lot in front of the Berkeley County Sheriff's Department at 410 S. Raleigh St. and the county's West Stephen Street parking lot were rated "somewhat," if not, "best" in seven of the eight screening criteria used to compare six sites, according to an evaluation by Michael Baker International.

Unlike the other four sites, including the center's existing location at the Caperton Train Station in Martinsburg, both of the county-owned parking areas "least" fulfilled the economic-development criteria in assessing whether the transfer center would act as a potential attraction for future economic growth.

The consultant's findings, along with public comments being gathered through Jan. 15 at noon, will be used to identify a preferred site by early next year, said Matthew Mullenax, executive director of the Hagerstown/Eastern Panhandle Metropolitan Planning Organization.

At a sparsely attended public meeting at the train station on Wednesday, Martinsburg resident Traci Hylton said she liked the potential locations identified in the 100 block of West King Street and the Winchester Avenue shopping center parking lot.

Both sites, along with a third location on East Commerce Street, are privately owned properties.

"I've been trying to go car-free for a couple years now," Hylton said.

The current transfer center in front of the train station at 229 E. Martin St. has been deemed problematic for buses due to limited space for them to load and unload, a lack of layover area and difficult turning spaces.

Mullenax said the organization is looking for a location that would provide for future growth, in addition to a site that is easily accessible and centrally located in Martinsburg.

A final report and recommendation is due by May, following a draft report and public presentations to the Martinsburg City Council and the board of the transit authority.

The results of the evaluation can be found at [www.hepmpo.net/pdf/eptatransferpoint\\_publicsurvey.pdf](http://www.hepmpo.net/pdf/eptatransferpoint_publicsurvey.pdf).

Residents interested in commenting on the proposal may call 304-263-1743, send an email to [info@hepmpo.net](mailto:info@hepmpo.net) or a letter to Hagerstown/Eastern Panhandle MPO, 400 W. Stephen St., Suite 301, Martinsburg WV 25401.

# Bus transfer station meeting scheduled

December 3, 2015

By John McVey ([jmcvey@journal-news.net](mailto:jmcvey@journal-news.net)) , Journal News

MARTINSBURG - The Hagerstown Eastern Panhandle Metropolitan Planning Organization will hold a public information meeting from 4-7 p.m. Dec. 16 at the Caperton Train Station at 229 E. Martin St. in Martinsburg to present information about a study that is underway to find a bus transfer point in Martinsburg for the Eastern Panhandle Transit Authority.

The current transfer center is located in the parking lot of the Caperton Train Station. A Transit Development Plan compiled earlier this year for EPTA found problems with the current location because there only is space for two buses to load and unload passengers at one time; there is a lack of a layover area; and it is difficult for buses to turn in the parking lot.

A transfer center is where several bus routes converge, allowing riders to make connections.

The transfer point study has been commissioned by the HEPMPO. Michael Baker International consulting firm is performing the \$70,000 study.

"The purpose of this study is to evaluate several potential locations to identify an ideal location for a new transfer station," according to a news release announcing the public meeting. "The ideal location would be easily accessible, centrally located and serve municipal, transit provider and rider needs."

An advisory committee made up of City of Martinsburg, EPTA, HEPMPO and Michael Baker staff have narrowed the possible sites in Martinsburg to six, including the Berkeley County sheriff's office parking lot on Raleigh Street; a Berkeley County parking lot on West Stephen Street; a parking lot on Commerce Street; a vacant lot on West King Street; a parking lot on Winchester Avenue; and the current location at the Caperton Train Station.

The public informational meeting was not part of the original work plan for the study.

"Because of comments we received at one of our MPO policy meetings, we thought that perhaps more public outreach was needed, so we added the public meeting," Matthew Mullenax, executive director of the HEPMPO, said in a recent telephone interview.

A draft of the study will be presented to the Martinsburg City Council and EPTA board of directors in the spring.

Also beginning Dec. 16, a 30-day public comment period will be open. Comments should be directed the HEPMPO at 400 W. Stephen St., Martinsburg, WV 25401; [info@hepmo.net](mailto:info@hepmo.net); or 304-263-1743.

The HEPMPO is designated by the West Virginia, Maryland and U.S. departments of transportation as the regional transportation planning organization for Berkeley and Jefferson counties, Washington County, Maryland, and all the municipalities in those counties.

It is financed with local, state and federal funds.

The Interstate Council is the governing body of the HEPMPO. It includes elected and appointed officials, representatives of the local public transit operations and representatives of the West Virginia and Maryland departments of transportation.

# Study underway to find new transfer point

October 27, 2015

By John McVey ([jmcvey@journal-news.net](mailto:jmcvey@journal-news.net)) , Journal News

[Save](#) |

MARTINSBURG - A study to possibly find a new Eastern Panhandle Transit Authority passenger transfer point in Martinsburg has identified several sites for consideration.

"We've identified six sites, including the existing site, for preliminary research," Matthew Mullenax, executive director of the Hagerstown Eastern Panhandle Metropolitan Planning Organization, said in a recent telephone interview. "We'll consider the sites' viability as transfer points. I hope we'll have several viable options. I hope we'll have a couple different options and one preferred site."

The HEPMPO is funding the \$70,000 study. It is designated by the federal and state departments of transportation as the regional transportation planning agency for Berkeley and Jefferson counties, Washington County, Maryland, and all the municipalities within those counties.

The consulting firm of Michael Baker International, which is on retainer with the HEPMPO, is doing the study with the assistance of the EPTA, City of Martinsburg and the HEPMPO staffs.

Other than the current transfer point, Mullenax preferred not to say which sites in Martinsburg will be considered because the owners of those properties have not been approached yet. All the sites are in the city and close to the EPTA's new routes that were instituted recently, he said.

"A lot of factors must be considered, such as is it close to population centers, employment centers, walkability, the design configuration, does it meet the current and predicted needs," Mullenax said.

Because of the new routes, bus traffic at the current site is expected to double. Now, only two buses at a time can use the Caperton Train Station parking lot on East Martin Street. Under the old routes, 38 buses used the transfer point daily. With the new routes, 76 buses are expected to use the transfer point daily.

There also is a lack of layover space and turning space for buses in the parking lot.

A draft report should be ready in March or April, Mullenax said. The draft report will be presented to the Martinsburg City Council and EPTA board of directors. Hearings will be held to receive public comments on the results of the study.