82 Hart Field Road Suite 105
Morgantown, WV 26508
(304) 291-9571
www.plantogether.org

Agenda

MPO Transportation Technical Advisory Committee Meeting
MPO Conference Room
Morgantown Airport Terminal
June 10, 2014
1:30 PM

1. Call To Order
2. Approval of Minutes
3. Transportation Improvement Program Amendments
4. Adoption of TIP Administrative Adjustment Policy For Transit
5. Draft Outline of Greenbag Road Corridor Study Scope of Work
6. Traffic Count Report
7. Bicycle Facility Cost Estimation work sheet
8. Other Business
9. Meeting Adjournment

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Memorandum

Date: June 4, 2014

To: Transportation Technical Advisory Committee Members

From: Bill Austin, AICP

Subject: June 10, 2014 TTAC Agenda

Please find below a short description of the action items to be considered at the June 10, TTAC Meeting to be held at the MPO Office in the Conference Room at 1:30 PM.

-**Transportation Improvement Program Amendments**-Please note that at the March Meeting the Policy Board held off on approving the construction phase of the Brookhaven/WV 7 TIP amendment. The Policy Board requested that the Division of Highways provide more information on the proposed project prior to their consideration for approval. Please find attached information from the Division of Highways on the warrants met to justify the project as well as a diagram of the proposed modification prepared by MPO Staff from information provided by the DOH.

WVU has requested that the MPO amend the TIP to reflect the following changes:

FY 2014-2015 ADD

Personal Rapid Transit-Upgrade Power System Infrastructure- Section 5337 Federal Funds $1,480,000 Local funds (WVU)-$370,000 Total Funding $1,850,000

FY 2015-2016 Remove

Personal Rapid Transit-Upgrade Power System Infrastructure-$1,850,000 Funding from WVU

The TIP Amendments requested by WVU reflect the receipt of a grant from the Federal Transit Administration to perform the work noted.

It is respectfully requested that the TTAC review the data provided and review the proposed amendments with the Division of Highways and WVU in order to make a recommendation to the MPO's Policy Board on these amendments.

Draft TIP Administrative Adjustment Policy-In light of the number of recent TIP Amendments that have been forwarded to the MPO Mountain Line Transit has been working with the Federal Transit Administration to determine an appropriate policy to allow for the Executive Director to make an Administrative Adjustment of the TIP when there is little to no practical impact to the project of the change being made. To this purpose Mountain Line has developed the following guidelines:

Administrative Adjustments are appropriate when one of the following criteria are met:

1) Are less than 5% of the total project cost or $50,000 dollars, which ever amount might be less;
2) Shorten the implementation and project completion timeframe of the originally approved project resulting in project delivery more quickly;
3) Lengthen the implementation time if such time extension does not result in a project extension of more than an additional 60 days;
4) Make any changes, including categorizing or reclassifying any project, timeline or funding classification or funding program source where such changes do not result in changes to the scope, expenditure or final project delivery of the originally proposed project, except as provided for in items 1), 2) and 3) above.

It should also be noted that the Executive Director of the MPO would be required to publicly announce and Administrative Adjustment of the TIP at next Policy Board meeting as well as posting a notice on the MPO's website. It is anticipated that WVU projects that fit this criteria would also be eligible for Administrative Adjustment.

Please note that the MPO Public Involvement Policy requires a 45 day public review period before any changes may be made to the Policy. It should also be noted that MPO Staff anticipates that the Public Involvement Policy will probably need to be completely revised in the next calendar year but it is not anticipated to be done this calendar year. It is respectfully requested that the TTAC recommend that the Policy Board approve the advertisement of this proposed change so that it may be adopted at the August meeting.

Outline for Green Bag Road Corridor Study-Please find enclosed with your agenda packet an outline of the work to be performed for the Green Bag Road Corridor Study identified for completion during the upcoming Fiscal Year. The implementation of this project is the MPO's third priority in the LRTP Priority List. It is anticipated that the Greenbag Road/Kingwood Pike Intersection Study reviewed at

the last meeting will be incorporated in this Corridor Study. We would appreciate the TTAC's review of this scope of work and any comments you may have to improve it.

Draft Traffic Count Report-Please find attached to the agenda email a copy of the draft 2014 Traffic Count Report. Please note that the attached report is not as detailed as last year's report. Due to the production expenses we anticipate producing a report with that level of detail every three years. We do have the same data, including peak period and directional data available for each location for which we have valid counts upon request. Also, please note that four count locations were not adequately counted during the Spring count we anticipate that those locations will be recounted in the fall.

We would appreciate any suggestions you may have for improving this report.

Preliminary Cost Estimates Worksheet for Bicycle Facilities-Please find attached a worksheet for estimating the cost for Bicycle improvements. The purpose of this worksheet is to allow MPO Staff to develop planning level cost estimates for improvements associated with the implementation of the area's Bicycle Plan. We would appreciate any suggestions for improving this worksheet you may have.

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MINUTES

MPO Transportation Technical Advisory Committee Meeting
Morgantown Airport Terminal Building 1st Floor
Morgantown Monongalia MPO Conference Room
May 6, 2014
1:30 PM

Members Present

Terry Hough-City of Morgantown, Richard Wood- Monongalia County, Bill Austin-MMMPO, Clement Solomon-WVU, Brian Carr-WVDOH, Chris Fletcher-City of Morgantown

Others Present

Jing Zhang-MMMPO

Call to Order

Bill Austin called the meeting to order at 1:43 PM.

Approval of the Minutes

After the introductions Mr. Austin noted that the Minutes of the March meeting had been included in the agenda packet. Mr. Austin then called for a motion to approve the Minutes. Mr. Wood moved to approve the minutes; seconded by Mr. Penn. The motion was unanimously approved.

Transportation Improvement Program Amendments

Mr. Austin introduced the proposed amendments to the TIP. Mr. Austin noted that he had been working with WVHU and Mr. Carr to try and revive the Monongahela Boulevard TWTL project and that he could report that the project may be revivable. He thanked Mr. Carr for his assistance. Mr. Austin then introduced two highway projects for consideration by the TTAC. Mr. Austin noted that the first project was the WV 7/Brookhaven Road Project the TTAC had seen at the previous meeting. He noted that the location noted at the last meeting and that the correct location is in the vicinity of the I-68 interchange. Mr. Carr, noted that the project design

consisted of two through lanes with a left turn bay into Brookhaven Road. He did not anticipate that there would be a protected phase for the left turn movement into Brookhaven.

Mr. Austin then noted that the second highway TIP Project was the removal of the right of way and design phases for the Mon-Fayette Expressway Park and Ride Project. Mr. Carr explained that the reason this project is being removed from the TIP is that it had been determined that there is no need to purchase right of way and that the design work had been performed under a different project number. He also noted that the construction of the Park and Ride would be put out to bid shortly.

Mr. Austin then noted that Mountain Line had requested that the TIP be amended to reflect a request by the Federal Transit Administration that the funding be shown as being spread over a slightly different time frame. He noted that this is the third time the funds have been shifted but that there was no great change in the funds allocated to Mountain Line.

After a short discussion Mr. Fletcher moved to recommend approval of the proposed TIP amendments to the MPO Policy Board. The motion was seconded by Mr. Wood. The motion was unanimously approved.

Draft RFQ for I-79 Access Study

Mr. Austin then introduced the Draft RFQ for the I-79 Access Study. Mr. Austin noted that the Long Range Transportation Plan originally called for the development of a study to determine the proper location of a new bridge across the Monongahela River. Mr. Austin stated that in discussions with WVDOH it had been determined that the study should look at the purpose and need for any project to cross the Monongahela. This determination was made because the three locations identified in the LRTP as potential sites for a river crossing served very different purpose. The Eight Street location would address congestion of Monongahela Boulevard. The Patteson Drive location would address access to the institutions along WV 705 such as the hospitals and the football stadium while the West Run extension alternative would serve as an outlet valve for traffic which wishes to access I-79 but not needing to go through the congested WV 705 corridor.

Mr. Austin explained that the Draft RFQ reflected the need for an updated origin and destination information for the MPO's model to help determine the proper purpose and need statement for the project. The project would also determine if there are other courses of action that can be taken to address the purpose of the project with requiring the construction of an additional rier crossing. Once the proper purpose and need statement for the project is developed the second stage of the project will be an examination of potential corridors to address the project need.

Mr. Austin asked for the TTAC to recommend a Steering committee for the consultant selection process as required by the MPO process. Mr. Fletcher stated that either he or Mr. Davis would be

willing to serve on the Committee. Mr. Austin noted that Mr. Penn had agreed to represent the Division of Highways. Mr. Wood agreed to serve representing Monongalia County.

After further discussion Ms. Hough moved to recommend approval of the Draft RFQ to the Policy Board. The motion was seconded by Mr. Carr. The motion was unanimously approved.

Presentation on Draft Green Bag Road-Kingwood Pike Intersection Study

Mr. Austin then asked Mr. Zhang to make a presentation on the Green Bag Road-Kingwood Pike Intersection Study. Mr. Austin noted that this Study was the first study using the MPO's recently purchased Syncro software. He noted that this intersection was selected for analysis because ti is a relatively straight forward intersection and because it is part of the larger Green Bag Road corridor which the MPO will be studying in the upcoming Fiscal year.

After Mr. Zhang's presentation Mr. Fletcher noted that he was concerned how the Study would be received by WVDOH since Mr. Zhang is not a PE. Mr. Carr said that he believed WVDOH would review the results of the Mr. Zhang's work and would verify his analysis. He stated that he thought this would be useful information. Mr. Austin noted that he had discussed the work with Mr. Shoukry and that Mr. Shoukry felt the Study was useful. After this discussion it was the consensus of the TTAC that the Study should include a statement to the affect that the purpose of the Study is to determine to be a decision making document not a final design document.

At the conclusion of the discussion the entire group thanked Mr. Zhang for his hard work.

Other Business

There was no other business.

Adjournment

There being no further business the meeting adjourned at 2:43 PM.

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Memorandum

Date: June 4, 2014

To: TTAC and CAC Members

From: Bill Austin, AICP

Subject: WV 7/Brookhaven Road Intersection TIP Amendment

This memorandum is to provide more information on the WV 7/ Brookhaven Road TIP Amendment. At their last meeting the Citizens Advisory Committee recommended against approving the subject TIP amendment due to a lack of information justifying the changes to the intersection. The MPO's Policy Board approved the Engineering and Right of Way phases for this project but not the construction phase. The Division of Highways provided the table on the following page showing that the intersection meets one of eight possible warrants from the Manual on Uniform Traffic Control Devices established by the Federal Highway Administration justifying the installation of a signal. The DOH provided the data for this analysis for our information, it is available upon request. The data was collected in February of 2013. Also, please find following a diagram of the current conditions and the proposed condition of the intersection prepared by MPO Staff from information provided by WVDOH.

The Division of Highways also documented that they investigated the warrant for crashes in the subject intersection (Warrant 7) and this warrant was not met. The Warrant that was met was Warrant 1, which looks at the amount of delay for either street in the intersection during an eight hour period. Condition A of the Warrant 1 examines the impact on the major (highest volume) arterial in the intersection, in this case WV 7. WVDOH's analysis shows that the volume of traffic on WV 7 does not meet the criteria established for the installation of a signal at the intersection. Condition B of the eight hour warrant looks at the delay on the side street of the intersection, in this instance Brookhaven Road. As shown on the table on the following page, the amount of delay for vehicles attempting to access/egress Brookhaven Road meets the criteria for the installation of a signal at the intersection with WV 7 according to this warrant.

WARRANT 1 -- EIGHT-HOUR VEHICULAR VOLUME
CONDITION 'B' -- INTERRUPTION OF CONTINUOUS TRAFFIC

Major Street	**WV 7**
Minor Street	**CR 7/22**
Jurisdiction	**Morgantown, Monongalia**
85% Speed > 40 mph	**NO**
Population < 10K	**NO**
# of Lanes on Major Street	**2**
# of Lanes on Minor Street	**1**
Minor St. Right Turns Discounted	**YES**
Major St. Warranting Volume	**900**
Minor St. Warranting Volume	**75**
30% Warrant Volume Reduction	**NO**

HOUR	MAJOR STREET VOLUME	MINOR STREET VOLUME	MAJOR ST WARRANT VOLUME	MINOR ST WARRANT VOLUME	HOUR MET
6-7 AM	**0**	**0**	**900**	**75**	**NO**
7-8 AM	**1036**	**135**	**900**	**75**	**YES**
8-9 AM	**1134**	**150**	**900**	**75**	**YES**
9-10 AM	**900**	**88**	**900**	**75**	**YES**
10-11 AM	**0**	**0**	**900**	**75**	**NO**
11-12 PM	**1010**	**61**	**900**	**75**	**NO**
12-1 PM	**1085**	**85**	**900**	**75**	**YES**
1-2 PM	**0**	**0**	**900**	**75**	**NO**
2-3 PM	**1196**	**176**	**900**	**75**	**YES**
3-4 PM	**1399**	**203**	**900**	**75**	**YES**
4-5 PM	**1507**	**176**	**900**	**75**	**YES**
5-6 PM	**1660**	**179**	**900**	**75**	**YES**
6-7 PM	**0**	**0**	**900**	**75**	**NO**

FINDINGS:

Number of Hours Condition 'B' Met	**8**
Condition 'B' Satisfied?	**YES**

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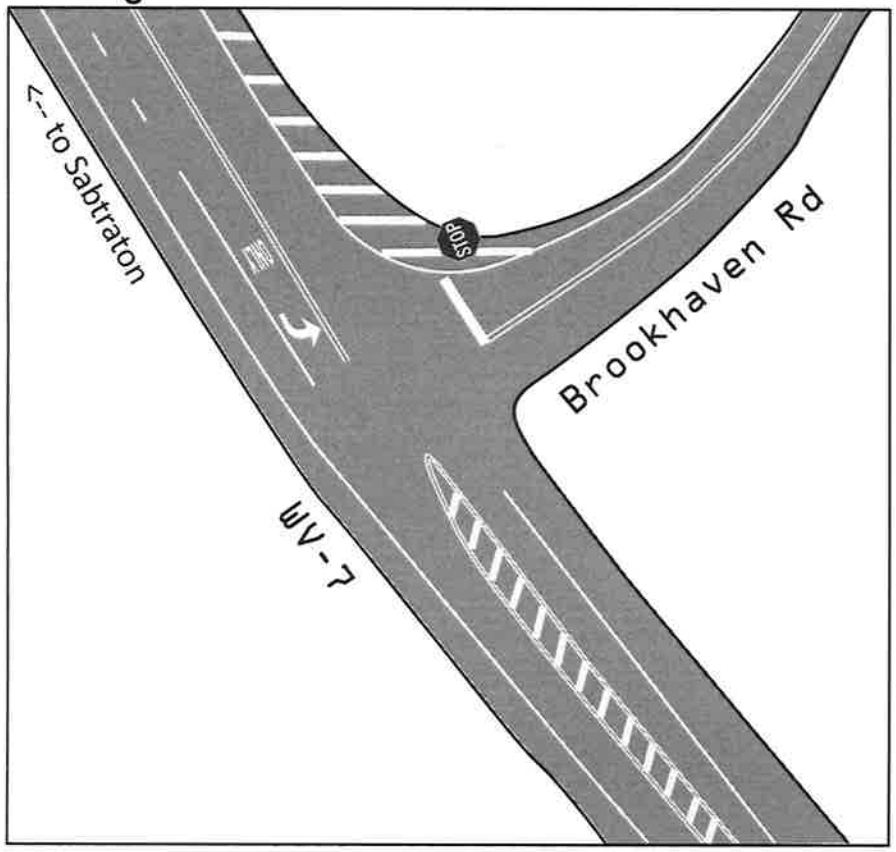
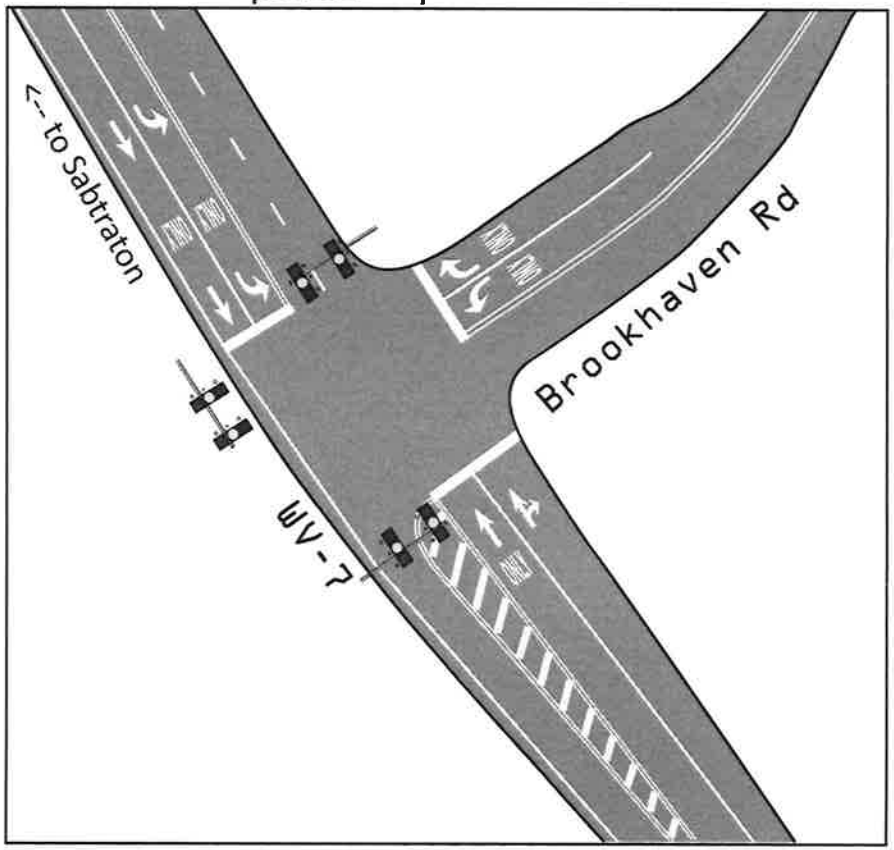
TIP Amendments:Brookhaven Road Improvements
Existing Condition & Proposed Condition

Existing Condition



WV DOH Proposed Improvement



May 20, 2014

Diagrams are for illustration purpose only

GREENBAG RD CORRIDOR IMPROVEMENT STUDY

METHODS AND ASSUMPTIONS DOCUMENT

This document is to be presented to the MPO's Transportation Technical Advisory Committee and Citizen Advisory Committee as a guide and reference for MPO staff as the Greenbag Rd Corridor Improvement Study progresses through the various stages of development.

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3. Need for Study....2
4. Study Schedule....2
5. Study Advisory Team Members....2
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5. Previous Studies....4
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8. Traffic Operation Analysis....4
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10. Safety Measures....5
11. Crash Data....5
12. Transit Analysis....5
13. Design Reference....5
14. Cost Estimation....6
15. Improvement Criteria....6
16. Content Outline....6

1. Project Background

The Greenbag Road Improvements were recommended as a tier 1 project in the 2040 MMMPO Long Range Transportation Plan (LRTP). The purpose of the improvements, as stated in the LRTP, is to enhance the route as an attractive alternative for automobiles, especially for trucks, and to increase travel by pedestrians and bicyclists.

2. Purpose

This study is a planning level analysis. Its purposes is to

- Identify the existing and future travel characteristics of the corridor, and those impacts on the community.
- Improve safety and mobility for pedestrians, cyclists, transit users, and motorists.
- Ensure that the corridor is serving the larger goals of mobility, economic development, quality of life, and environmental sustainability.

3. Need for Study

This study, as recommended the LRTP, fulfills the first implementation action requested for the Greenbag Road Improvements. According to the LRTP, following needs have been identified for the study on the Greenbag Corridor:

- Inefficient intersection operations.
- Unattractive alternative route for automobiles and trucks.
- Unfavorable traveling environment for non-motorized users.
- Lack of shelters at key locations for transit users.
- Inadequate pavement at certain locations.

4. Study Schedule

This study is performed under FY2014-2015 MMMPO Unified Planning Work Program.

Time	Task/Event
August	Methods & Assumptions Documentation / Existing Condition Analysis / Data Collection / Public Open House
September	Develop, analyze, and refine recommendations
October	Public Open House / Present recommendations to MPO Policy Board
November	Revise recommendations. Final Report.

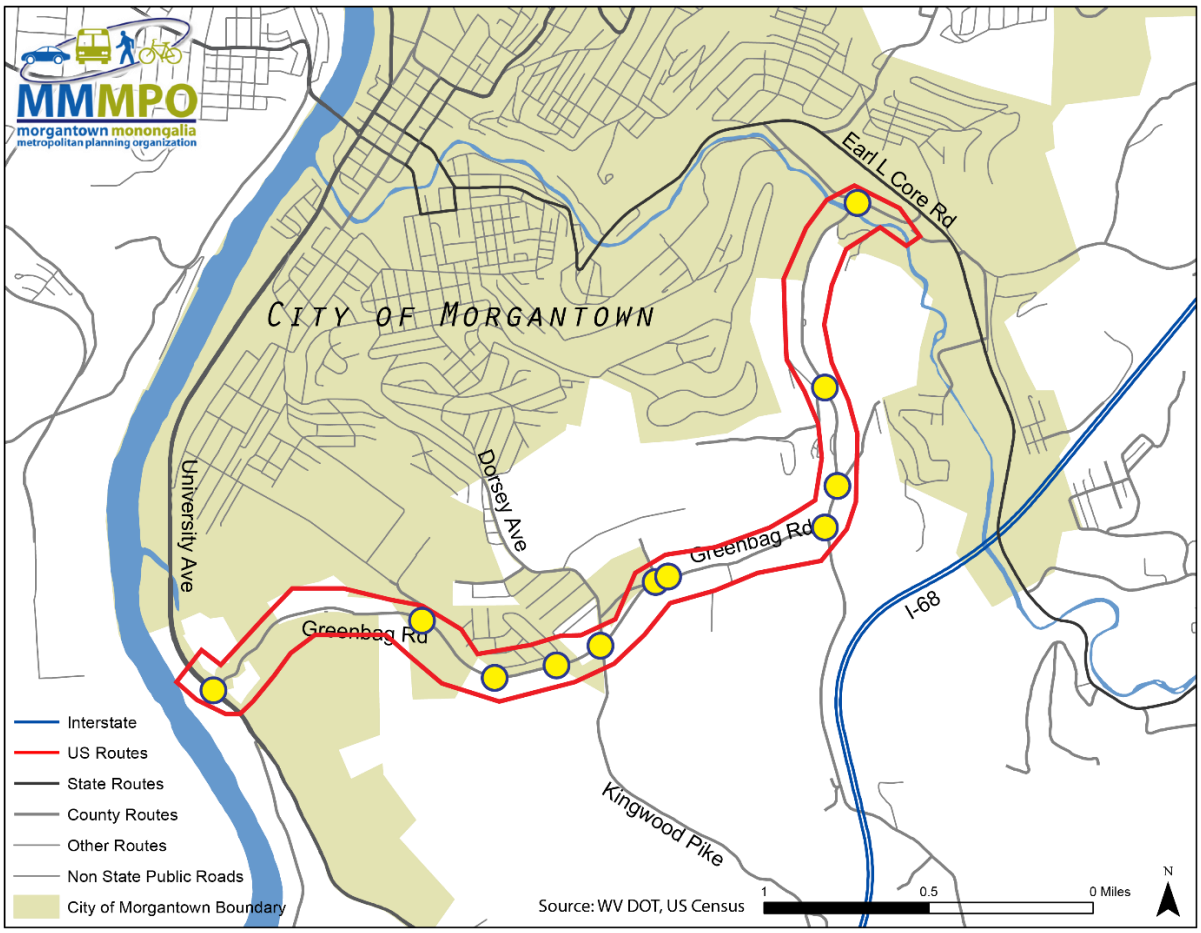
5. Study Advisory Team Members

A Study Advisory Team is formed to guide the study through completion. The team is comprised of representative parties of the WVDOH, Mountain Line Transit Authority, City of Morgantown, and Monongalia County.

Name	Affiliation	Name	Affiliation

4. Study Area

The study area contains Greenbag Rd and adjacent street segments which have immediate impact on the intersections on Greenbag Rd. The study area is bounded by a red box on the graphic. A list of study intersections are provided.



Study Area Intersection List:

Intersection	Configuration	Control Type
Greenbag Rd and US 19	3-way	Signalized
Greenbag Rd and M-Tec Dr	3-way	Stop controlled
Greenbag Rd and Colburn Valley Ln	3-way	Stop controlled
Greenbag Rd and Virginia Cir	3-way	Stop controlled
Greenbag Rd and Dorsey Ave/Kingwood Pike	4-way	Signalized
Greenbag Rd and Luckey Ln	3-way	Stop controlled
Greenbag Rd and Richard Dr	3-way	Stop controlled
Greenbag Rd and Lower Aarons Creek Rd	3-way	Stop controlled
Greenbag Rd and Diamond Ave	3-way	Stop controlled
Greenbag Rd and Deckers Creek Blvd	3-way	Stop controlled

5. Previous Studies

The following previous studies will be reviewed during the course of this study.

- 2040 MMMPO Long Range Transportation Plan (including Regional Bicycle Plan)
- City of Morgantown Comprehensive Plan, 2013
- Greater Morgantown Bicycle Plan, 2012
- Morgantown Pedestrian Safety Plan, 2010

6. Public Outreach

Two public open house meetings will be hosted.

- The first public open house meeting: develop visions and identify opportunities
- The second public open house meeting: presenting recommendations for public review.

7. Data Collection

Traffic volume

- AADT volume: MPO 2014 traffic counts and most recent WVDOH counts along the corridor. Data will be obtained from the Traffic Server 6 platform provided by the WV DOH.
- Intersection turning movement: turning movement counts will be collected by MPO staff at key locations along the corridor during the fall of 2014 on Tuesday, Wednesday or Thursday to capture peak season traffic volumes on a typical weekday. These turning movement counts will be collected during the AM and PM peak periods in 15-minute intervals.
- Peak periods will be decided by 2014 traffic count on Greenbag Rd.

Demography

- US Census Bureau (2010-2012 American Community Survey)
- If needed, community survey will be conducted to understand community's desires.

Geometry

- Geometry data, such as lane width, curve, and slope, will be obtained by using Shapefiles and Pictometry data from the Monongalia County.
- If needed, field measurement will be conducted to determine key geometrical features at some locations.

8. Traffic Operation Analysis

Software

- Synchro 8 by Traffic ware (2010 Highway Capacity Manual Methodology)

Level of Service (LOS)

- Minimum allowable LOS D for intersection where geometry is modified because of project improvements (individual movements will be allowed to operate at LOS E).
- Minimum allowable LOS D for highway segments on Greenbag Rd from US 19 to Dorsey Ave.
- Minimum allowable LOS C for highway segments on Greenbag Rd from Dorsey Ave to WV 7.

Variables

- Peak Hour Factor (PHF): existing conditions will be used to calculate current PHF. The obtained value will be applied to the 2040 design condition.
- Saturate Flow Rate: the value of 1800 vhp will be used.
- "K" and "D" factors: existing conditions will be used to calculate the two factors, which will be applied to the 2040 design condition.
- Heavy Vehicle Percentage: data obtained from the Traffic Server will be used.
- Speed: 5 mph less than the posted speed will be used, considering curves and slopes in the corridor.
- Signal Timing: field measurements will be conducted to determine the timing at signalized intersections.

9. Travel Forecasting

The MPO Travel Demand Model developed for the 2040 LRTP will be utilized.

- The Model was created 2008 and updated using TransCAD in year 2012, forecasting 2040 scenario. It include constrained projects in the LRTP and post-processed ADT volumes.
- For the purposes of this study, the Model may be calibrated through a joint effort by MPO staff, WV DOH, and local planning agencies.

Intersection Turning Movements

Average Annual Growth Rate of 1.03% will be used to as a straight-line growth rate between base year 2014 and design year 2040 and applied to the existing intersection conditions to generate the 2040 scenario for ley intersections. The projected volume will be used in combination with the travel demand model to determine turning movement volumes at key intersections in 2040.

10. Safety Measures

Motor Vehicle Safety

- Interactive Highway Safety Design Model, Federal Highway Administration
- Crash Modification Factors, Highway Safety Research Center

Pedestrian and Bicycle Safety

- Pedestrian and Bicyclist Intersection Safety Indices, Federal Highway Administration

11. Crash Data

The crash data system hosted by WV DOT will be used to access crash data for this study.

12. Transit Analysis

The Frequency Level of Service for bus stops within the corridor will be assessed by using methods provided by TRB Transit Capacity and Quality of Service Manual.

13. Design Reference

- Manual on Uniform Traffic Control Devices (2009 Edition, updated 2012)
- PEDSAFE-Pedestrian Safety Guide and Countermeasure Selection System, Federal Highway Administration
- BIKESAFE- Bicycle Countermeasure Selection System, Federal Highway Administration

14. COST ESTIMATION

Primary resources to be used by MPO staff for a initial cost estimation of potential improvements are:

- Guidance for Cost Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction, NCHRP Report 574, Transportation Research Board, 2007.
- Costs for Pedestrian and Bicyclist Infrastructure Improvements-a resource for researchers, engineers, planners, and the general public, Highway Safety Research Center (prepared for the FHWA), 2013.

The initial cost estimation will be reviewed and adjusted by study advisory team members to make a planning level cost estimation for improvements recommended in this study. The overall improvement cost should be within in the budget range outlined in the LRTP.

15. IMPROVEMENT CRITERIA

Following factors should be considered during the development of recommendations for improvements and be used as criteria for evaluating those recommendations.

- Safety for pedestrians, bicyclists, transit users, and motorist under design conditions.
- Efficiency for all modes of traffic traveling through and within the corridor.
- Economic impacts, including land values, development values, income, and employment.
- Effects on the health and livability for communities along the corridor.
- Impact on urban form characteristics, such as density, land use patterns, and demographic conditions.
- Impact on the environment, such as storm runoff, noise and vibration, preservation, and habitat.
- Feasibility in which recommended improvements can be accomplished in a cost-effective manner.

16. CONTENT OUTLINE

The study will be conducted under the framework as shown in the table below.

Section	Description
Introduction	Purpose and Scope. Overview of Study Area.
What We Found	Issues, Opportunities, and Constraints.
The Vision for the Greenbag Corridor	Themes and preference.
Recommendations	Recommendation of specific projects.
Capital Cost Estimation	Cost estimation for recommended projects.
Appendix A: Public Outreach	Summary on public involvement. Public meeting documentation.
Appendix B: Field Trip Report	Intersection turning movement count.
Appendix C: Traffic Analysis	Synchro report for existing and design conditions
Appendix D: Safety Analysis	Ped/Bike ISI Calculation. FHWA IHSDM Report.
Appendix E: Cost Estimation Details	The cost calculation process for recommended improvements.

2014 Traffic Count Report

May 2014 *(Draft)*

Introduction

This document was prepared by the Staff of the Morgantown Monongalia MPO (MMMPO) utilizing data collected for the MMMPO by the Traffic Group under contract to the West Virginia Department of Transportation. The data utilized in this report is housed on the West Virginia Department of Transportation's Traffic Server operated on behalf of the WVDOH by Transmetric. The funding for this report was provided by the Federal Highway Administration, the West Virginia Department of Transportation, Monongalia County, and the City of Morgantown as provided for in the MMMPO's Unified Planning Work Program.

These counts are collected annually for use by the MMMPO for use in travel demand and operational modeling. The MMMPO makes no representation as to the accuracy of the data.

This report is available at the MMMPO website, www.plantogether.org. Directional and 15-minute interval volumes are also available upon request.

Key Findings

Top 5 Station with Highest AADT Volume

Station #	Location	2011	2012	2013	2014
3114006	Van Voorhis Rd / Northeast of University Ave	43,715	41,328	39,067	41,105
3114011	Chestnut Ridge Rd / East of Van Voorhis Rd	36,728	32,854	33,865	38,705
3114070	Chaplin Hill Rd / South of Monongahela Blvd	--N/A--	--N/A--	--N/A--	36,465
3114005	Patterson Dr / East of Monongahela Blvd	32,873	31,121	33,336	34,340
3114004	Monongahela Blvd / Northwest of Patterson Dr	27,439	29,216	32,509	32,997

Key Corridors in the Morgantown Area

Corridor	Description	2011-2013 Average	2014	Change
Mon Blvd-Beechurst Ave	From Boyers Ave to Fayette St	24,401	27,664	+13%
WV 705	From Mon Blvd to Mileground Rd	33,205	35,169	+6%
WV 7	From Downtown to I-68	13,703	14,439	+5%
Holland Ave-Fairmont Rd	From (including) Westover Bridge to I-79	16,074	16,370	+2%
University Ave	From Boyers Ave to Willey St	13,406	13,576	+1%
Willey-Mileground-Cheat Rd	From Downtown to I-68	19,062	19,789	+4%
Greenbag Rd	From Don Knotts Blvd to WV 7	10,555	10,991	+4%

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2014 Morgantown Monongalia MPO
Annual Traffic Count Report
Traffic Count Station Map

May 2014

3114063 West Run Rd
3114012 West Run Rd
3114064 Point Marion Rd
3114024
3114025
3114065
3114010
3114009
3114011 WV 705
3114071 Burroughs St
3114013
3114008
3114007
3114006
3114004
3114005
3114015 Univ Ave
3114059
3114014
3114023
3114066 Stewartstown Rd
3114046
3114026 Old Cheat Rd
Cheat Rd
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3114060
3114016 Beechurst Ave
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3114056
3114057 Holland Ave
3114045
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3114069 Dupont Rd
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3114003
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3114001
3114002
3114068
Chaplin Hill Rd
Mountaineer Dr
Univ Towncenter Dr
Boyers Ave
University Ave
Mon Blvd
Jr Ave
Aspen St
Van Voorhis Rd
Riddle Ave
Willowdale Rd
Patteson Dr
Main St
Dunkard Ave
Fairmount Rd
Pleasant St
Univ Ave
High St
N Willey St
Stewart Rd
Mileground Rd
Hartman Run Rd
Greenbag Rd
Dorsey Ave
Don Knotts Blvd
WV 7
WV 705
I-79
I-68
0.5 0.25 0 0.5 Miles
N

Cheat Lake Area

3114027 Cheat Rd
3114028 Fairchance Rd
Mon-Sayette Expressway
I-68

ANNUAL AVERAGE DAILY TRAFFIC VOLUME*

Station	Location	2011	2012	2013	2014	2013-2014 Change
3114001	University Town Center Dr / South of Chaplin Hill Rd	22,287	22,666	16,606	20,735	25%
3114002[E]	University Town Center Dr / South of Mountaineer Dr	13,783	16,209	15,916	23,071	45%
3114003	Boyers Ave / Btw Leeway St and University Ave	13,188	12,273	13,727	13,105	-5%
3114004	Monongahela Blvd / Northwest of Patterson Dr	27,439	29,216	32,509	32,997	2%
3114005	Patterson Dr / East of Monongahela Blvd	32,873	31,121	33,336	34,340	3%
3114006[M]	Van Voorhis Rd / Northeast of University Ave	43,715	41,328	39,067	41,105	5%
3114007	University Ave / Northwest of Patterson Dr	12,206	9,893	10,252	9,733	-5%
3114008[M]	University Ave / West of Collins Ferry Rd	11,817	9,780	8,572	8,976	5%
3114009[M]	Burroughs St / West of Van Voorhis Rd	9,702	10,369	10,588	10,814	2%
3114010	Van Voorhis Rd / North of Burroughs St	14,535	15,510	14,683	15,548	6%
3114011	Chestnut Ridge Rd / East of Van Voorhis Rd	36,728	32,854	33,865	38,705	14%
3114012[C]	West Run Rd / West of Riddle Ave	5,830	6,459	6,837	6,086	-11%
3114013	Willowdale Rd / South of Chestnut Ridge Rd	8,757	16,310	15,026	16,575	10%
3114014	University Ave / Southeast of 8th St	15,432	15,977	16,373	17,064	4%
3114015[R]	University Ave / Southeast of Evansdale Dr	17,283	18,184	21,322	-recount-	-41%
3114016	Beechurst Ave / North of 8th St	17,728	21,422	22,285	24,428	10%
3114017	Campus Dr / Northeast of US 19	6,806	7,036	8,359	7,893	-6%
3114018	Beechurst Ave / North of Fayette St	21,731	23,194	24,091	25,567	6%
3114019[M]	Willey St / Northwest of Chestnut St	14,305	11,914	13,213	12,604	-5%
3114020	University Ave / South of College Ave	20,653	13,367	18,500	18,164	-2%
3114021	Stewart St / East of University Ave	10,278	8,566	8,911	8,287	-7%
3114022[A]	University Ave / South of 2nd St	12,560	13,105	13,184	--	--
3114023	Stewartstown Rd / Northeast of School St	9,931	10,024	11,237	11,254	0%
3114024[C]	Stewartstown Rd / Northeast of West Run Rd	9,278	9,887	12,401	10,366	-16%
3114025[M, C]	West Run Rd / Southeast of Stewartstown Rd	7,691	8,367	10,107	7,374	-27%
3114026	Cheat Rd / South of Old Cheat Rd	23,665	25,562	25,988	25,562	-2%
3114027	Cheat Rd / North of County Route 88	14,871	3,160	4,424	4,364	-1%
3114028	Fairchance Rd / North of County Route 69	11,791	4,970	5,388	5,515	2%
3114029[M]	Hartman Run Rd / Southeast of Mileground Rd	8,576	8,737	--	9,715	--
3114030[M]	Mileground Rd / East of WV 705	20,819	21,153	23,859	24,239	2%
3114031[M]	WV 705 / North of Mileground	22,591	25,737	25,245	26,528	5%

* Data were collected by the Trafficgroup Inc. and processed and generated by Transmetric America Inc. unless otherwise indicated.

Station	Location	2011	2012	2013	2014	2013-2014 Change
3114032	Mileground Rd / South of WV 705	15,677	16,535	12,452	16,774	35%
3114033 [E]	Charles Ave / Southeast of US 119	1,573	1,443	1,019	2,162	112%
3114034	Willey St / Northeast of Spruce St	12,585	15,400	11,404	12,582	10%
3114035	Walnut St / North of Brockway Ave	11,431	10,527	13,234	11,963	-9%
3114036	Pleasant St / Pleasant Street Bridge	7,865	4,468	10,195	9,063	-11%
3114037 [E]	University Ave / Northeast of Pleasant St	22,775	23,315	26,135	20,116	-23%
3114038 [C]	Pleasant St / Westover Bridge	19,679	20,034	23,041	20,060	-13%
3114039	University Ave / South of Westover Bridge	23,817	21,639	23,494	25,193	7%
3114040 [C]	Hartman Run Rd / North of Richwood Ave	9,917	9,349	15,679	8,620	-45%
3114041 [M]	Earl Core Rd / Btw EB & WB Ramps of I-68	20,525	21,087	22,225	23,127	4%
3114042	Greenbag Rd / West of Lower Aarons Creek	11,248	11,092	10,512	11,818	12%
3114043	Greenbag Rd / North of US 119	12,789	14,719	14,119	13,347	-5%
3114044 [M]	University Ave / North of Greenbag Rd	18,359	17,983	19,924	19,840	0%
3114045	Holland Ave / South of W Park Ave	14,497	14,359	15,000	16,097	7%
3114046 [C]	Point Marion Rd / North of Mileground Rd	12,966	13,900	19,069	11,521	-40%
3114047 [R]	Earl L Core Rd / Btw Eljadid St & Sturgiss Ave	--N/A--	22,381	23,334	-recount-	--
3114048 [M]	Earl L Core Rd / North of Brookhaven Rd	--N/A--	18,998	20,921	18,884	-9%
3114049	Brockway Ave / East of Pennsylvania Ave	--N/A--	9,030	10,074	8,770	-14%
3114050 [M]	Earl Core Rd / North of Greenbag Rd	--N/A--	15,034	14,646	16,914	15%
3114051 [R]	Sabraton Ave / Northeast of Earl Core Rd	--N/A--	2,900	2,864	-recount-	--
3114052	Greenbag Rd / Southwest of Earl Core Rd	--N/A--	8,149	5,534	7,809	41%
3114053	Deckers Creek Rd / Southeast of Powell Ave	--N/A--	5,477	5,293	5,506	4%
3114054 [M]	Aspen Rd / Btw Collins Ferry & Western	--N/A--	3,326	3,879	3,570	-8%
3114055 [M]	University Ave / Btw Boyers & Pleasant	--N/A--	12,337	13,180	13,946	7%
3114056	Holland Ave / Northwest of Fairmont Rd	--N/A--	5,500	5,660	6,261	11%
3114057	Fairmont Rd / Southwest of Fairmont Rd	--N/A--	12,150	13,099	12,954	-1%
3114058 [M]	Earl L Core Rd / Northeast of Hartman Run Rd	--N/A--	10,578	11,652	11,421	-2%
3114059 [M]	University Ave / East of 8th St	--N/A--	16,804	17,557	15,700	-10%
3114060	Stewart St / South of Stewart Ln	--N/A--	8,092	8,783	9,609	9%
3114061 [M]	Stewart St / Btw Hoffman Ave and Protzman St	--N/A--	12,506	--	12,504	--
3114062 [R]	University Ave / Southeast of Stewart St	--N/A--	15,245	12,313	-recount-	50%
3114063	Van Voorhis Rd / North of West Run Rd	--N/A--	--N/A--	9,266	9,103	-2%
3114064	Canyon Rd / Northeast of Point Marion Rd	--N/A--	--N/A--	3,424	3,268	-5%
3114065	Pineview Dr / North of WV 705	--N/A--	--N/A--	18,411	16,048	-13%
3114066 [C]	Stewartstown Rd / Northeast of WV 705	--N/A--	--N/A--	21,936	17,659	-19%
3114067	Cheat Rd / Southwest of S Pierpont Rd	--N/A--	--N/A--	17,814	18,041	1%

Station	Location	2011	2012	2013	2014	2013-2014 Change
3114068	Dunkard Ave / North of Dents Run Blvd	--N/A--	--N/A--	5,228	4,265	-18%
3114069	DuPont Rd / South of Fairmont Rd	--N/A--	--N/A--	4,783	5,045	5%
3114070	Chaplin Hill Rd / South of Monongahela Blvd	--N/A--	--N/A--	--N/A--	36,465	--
3114071	Collins Ferry Rd / North of Burroughs St	--N/A--	--N/A--	--N/A--	7,640	--
TBD[A]	Richwood Ave / North of N. Willey St	--N/A--	--N/A--	--N/A--	--	--
3114073	Kingwood Pike / South of Greenbag Rd	--N/A--	--N/A--	--N/A--	4,238	--
TBD[A]	Fairmont Ave / Northeast of Mall Rd	--N/A--	--N/A--	--N/A--	--	--

Note:

A = Data was absent at this Station in 2014 Spring Counts.

E = More detailed information is presented and potential causes explaining the deviation of its AADT volume are discussed in this report.

M = AADT volume are manually calculated by MPO Staff by the same method used by Transmetric.

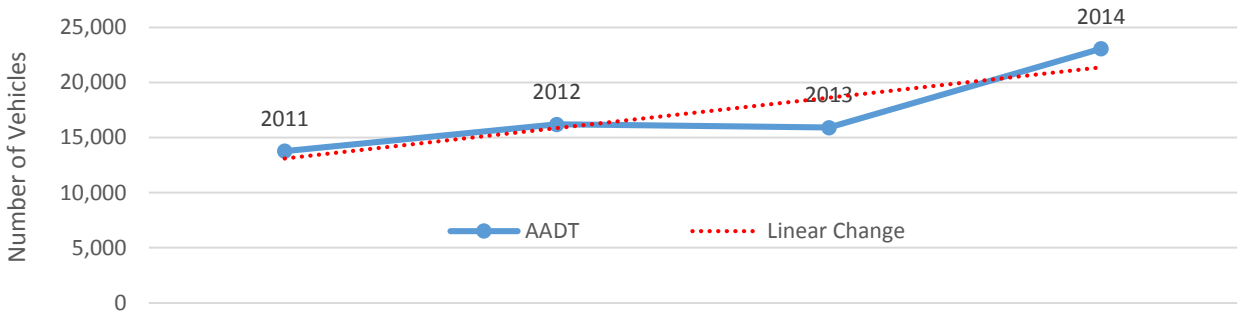
C = The deviation of AADT volume between 2013-2014 presumably resulted from the construction on WV-705 from Stewartstown Rd to Mileground Rd and the construction of the WV-705/Mileground roundabout in 2013.

R = A recount at this station will be conducted in the Fall 2014.

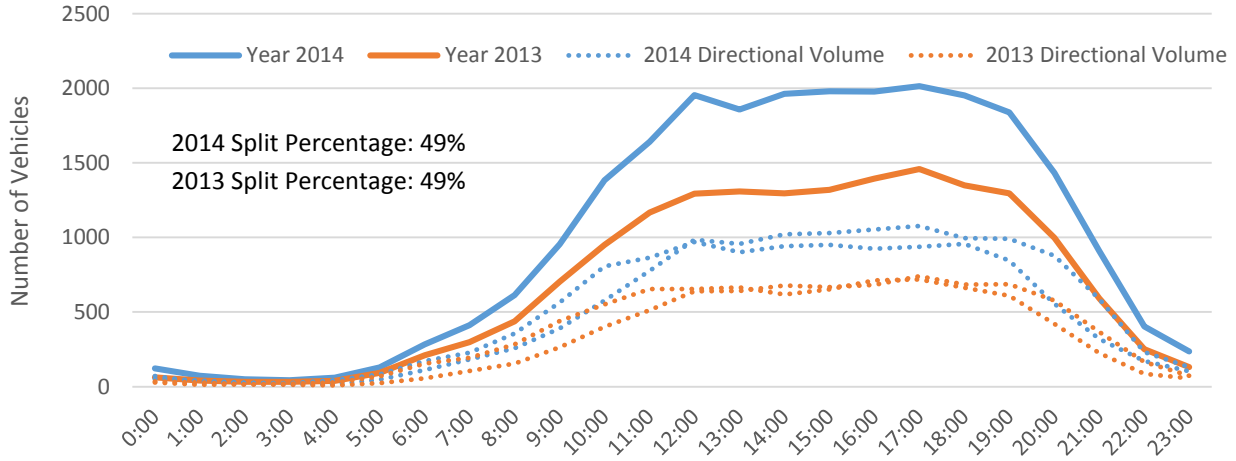
Station 3114002

Location	University Town Center Dr / South of Mountaineer Dr

Annual AADT Change



Raw Daily Volume Comparison (Average volume of April 10-11, 2013 VS. Average volume of April 16-17, 2014)



Deviation	AADT increase from 15,916 to 23,071 (+45%) from the previous year.

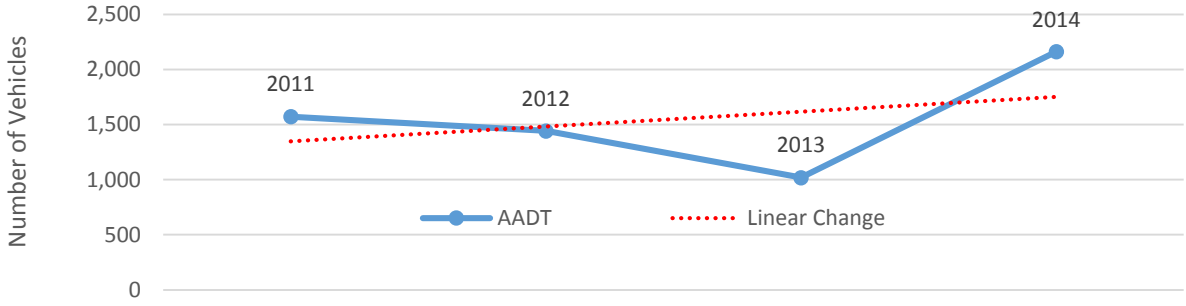
Potential Explanation

- Extended winter weather on March and early April of 2014.
- Growth of the businesses at the University Town Center.
- Easter Shopping (the 2014 Easter was on Sunday, 20 April).

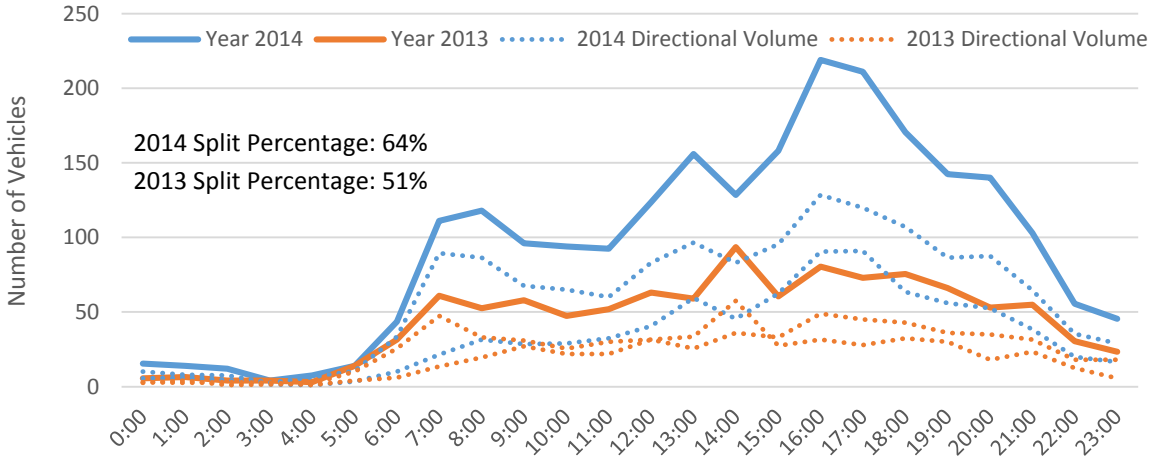
Station 3114033

Location	Charles Ave / Southeast of US 119

Annual AADT Change



Raw Daily Volume Comparison (Average volume of April 10-11, 2013 VS. Average volume of April 16-17, 2014)



Deviation	AADT increase from 1,019 to 2,162 (+112%) from the previous year.

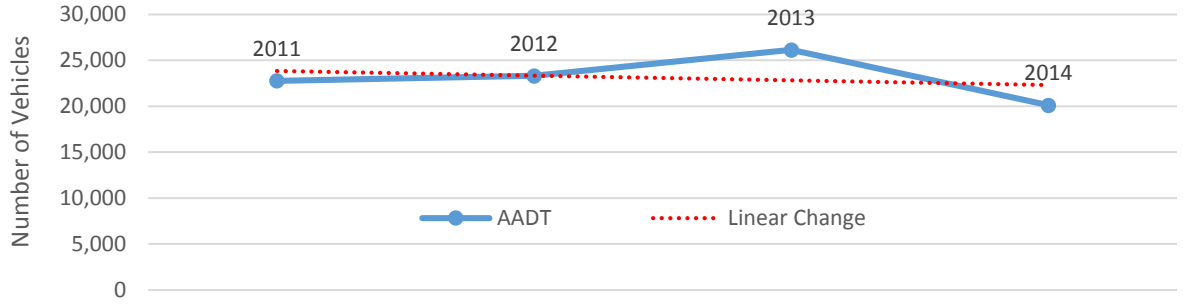
Potential Explanation

- Construction of the Mileground/WV705 roundabout.
- Growth the traffic in this area, as evidenced by Station 3114032, which has 35% AADT increase from 12,452 to 16,774 since last year.

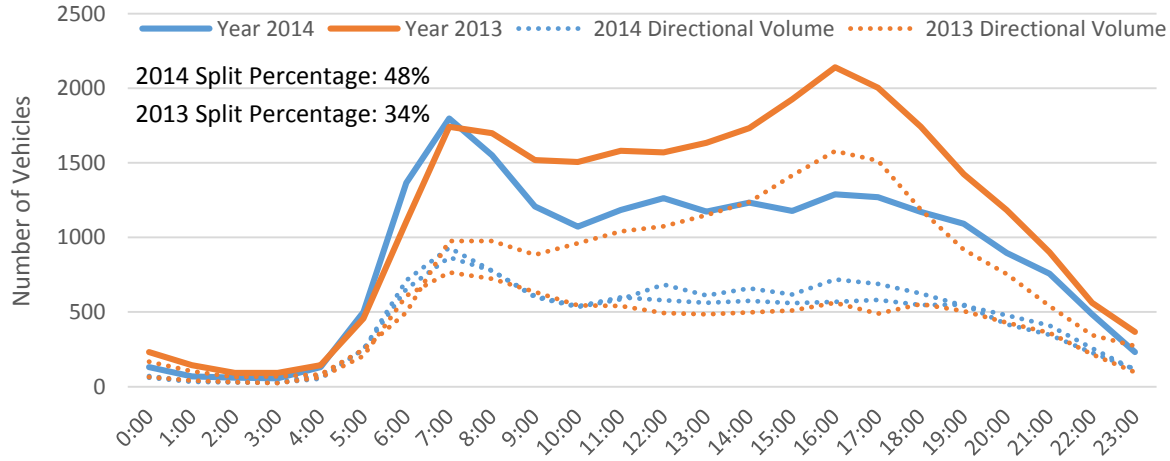
Station 3114037

Location	University Ave / Northeast of Pleasant St

Annual AADT Change



Raw Daily Volume Comparison (Average volume of April 10-11, 2013 VS. Average volume of April 16-17, 2014)



Deviation	AADT increase from 26,135 to 20,116 (-23%) from the previous year, especially for the southbound traffic.

Potential Explanation

- Reroute resulting from the construction of the Mileground/WV705 roundabout in 2013.
- Decrease is consistent with Station 3114038, a nearby station on the Westover Bridge.

Preliminary Bicycle Facility Costs Estimation (Draft)

	Item	Description	Input		Unites		Itemized Costs*
			Units	Length (Feet)	Base YR (2014)	Unit	
Roadway Construction	**1.10**	**Earthwork**					
	1.11	Clearing and Grubbing			$2,280	acre	
	1.20	**Pavement**					
	1.21	Bituminous Concrete Pavement			$178	cu yd	
	1.22	Aggregate Base			$37	cu yd	
	1.23	Curbing			$29	linear ft	
	1.24	Curb Ramps			$1,407	each	
	1.30	**Pavement Markings**					
	1.31	Bicycle Arrow			$70	each	
	1.32	Bicycle Symbol			$94	each	
	1.33	Bicycle Box			$12	sqft	
	1.34	Lane Striping (4 inches)			$4,304	mile	
	1.35	Shared Lane Marking (sharrow)			$94	each	
	Total Construction Cost						
Equipment	**2.10**	**Signs**					
	2.11	Sign with Post			$264	each	
	2.20	**Traffic Signals**					
	2.21	Bicycle Signal			$13,178	each	
	2.22	Ped Signal Activation 4 Way			$5,139	each	
	2.23	Ped Signal Activation 2 Way			$2,504	each	
	2.24	Loop Detector			$1,977	each	
	2.30	**Barriers**					
	2.31	Trail Bollards			$171	each	
	2.32	Fencing			$17	linear ft	
	2.40	**Parking**					
	2.41	Rack (inverted U, 2 bicycles)			$250	each	
	2.42	Rack (Coat hanger or similar)			$86	per bike	
	Total Equipment Cost						

Source: Guideline for Analysis of Investments in Bicycle Facilities, NCHRP Report 522, Transportation Research Board.
Bureau of Labor Statistics (inflation rate).
*Real estate cost, project cost, operations and maintenance cost are not included.