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Agenda

I-79 Access Study
Airport Terminal Conference Room
Morgantown Municipal Airport Terminal
October 28, 2015
4 PM

1. Introductions
2. Overview of Study Process
3. Overview of Work Performed to Date
4. Identification and discussion of transportation issues Study is to address
5. Next Steps in Study Process
6. Schedule Next Meeting
7. Meeting Adjournment



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Memorandum

Date: October 8, 2015
To: Citizens Advisory Committee Members
From: Bill Austin, AICP
Subject: October 15, 2015 CAC Agenda

Please find below a short description of the items to be considered at the October 15, 2015 CAC Meeting to be held at the MPO Office in the Conference Room at 6 PM.

-Transportation Improvement Program Amendment-The Division of Highways has requested the following TIP Amendment:

FY 2015-2016 Add

-Klondike Hill Road (CO 15)-Resurface for a distance of 2.4 miles beginning at milepost 0-Project Number ACST0015103D Total Cost \$196,500 Federal Funding \$0

It is respectfully requested that the CAC recommend approval of the requested TIP amendment to the MPO Policy Board.

In addition to the TIP Amendment WVDOH has requested the following **Administrative Adjustments** (Please note only the proposed changes are shown all other details of the projects remain the same as shown in the previous TIP):

-Smithtown Road Resurfacing construction phase Project ACST0073083D increase cost to \$369,000 from \$152,300

-Beechurst Avenue/Campus Drive Intersection Improvement Projects
CMAQ0019408D, CMAQ0019409D, CMAQ00194010D, all phases move to Federal
Fiscal Year (FFY) 2016

-Brookhaven Road Improvement Project project CMAQ007263D,
CMAQ007264D all phases move to FFY 2016

-I-68 Sabraton-project NHPP0068165D, Thin overlay-move to FFY 2016

-Dents Run/WV100 Intersection Improvement-project HSIP0671006D-move to
FFY 2016

-Patteson Drive +1 Add Turn Lanes-project STP0705008D-move to FFY 2016

-US19/WV 7 Design Report-project CMAQ0019407D-move to FFY 2016

-West Run Road Widening-project HSIP671006D-move to FFY 2016

-Mileground+1 Easton Hill segment-construction projects STCM011973D, STCM-
move to FFY 2016

-Patteson Drive Lighting-projects HSIP0705016D,HSIP070517D-move to FFY2016

-Walnut Street Streetscape-project TEA2012638D-move to FFY2016

-Westover Dunkard Avenue Sidewalk-project TEA2012637D-move to FFY2016

-WV7/CR857 Intersection Improvement-projects CMAQ0007249D,
CMAQ0007248D-move to FFY2016

-Deckers Creek Trail Resurfacing-project NRT201693D-move to FFY2016

-Arnettville Arch Bridge-project NRT2012686D-Cost increase total project cost
\$1,867,000, previous cost estimate-\$1,200,000

-Deckers Creek Trail Undercut Repair-project NRT2012686D-move to FFY 2017

-Star City Trail Connector-project NRT2015040DTC engineering move to FFY
2017-18; project NRT2015041D construction move to FFY 2018

-Westover Park Loop-project NRT20122012681D engineering move to FFY
2017;project NRT2012702D construction move to FFY 2018

-White Day Creek Bridge Replacement-Project NHPP0793247D move to FFY
2016

Please note that unless otherwise specified if a project is moved to a new Federal Fiscal Year it was previously programmed in the preceding Federal Fiscal Year. Also, TIP Adjustments do not require approval by the MPO Policy Board.

-Update on MPO Projects in the draft State Transportation Improvement Program-The West Virginia Department of Transportation has released the draft 2015-2021 State Transportation Improvement Program (STIP). The draft STIP includes four new projects that are included in the MPO's Priority List. The projects listed in the STIP are:

-Beechurst Avenue Spot Improvements in the vicinity of 6th Street to Prospect St. Engineering (ENG.) \$500,000, Right of Way (ROW) \$3,000,000 Construction (in FFY 2021) \$3,500,000 Project Total \$7,000,000

-West Run Widening (Western Leg) Eng. \$750,000, ROW \$4,000,000 Construction (in FFY 2021) \$11,000,000 Project Total \$15,750,000

-Greenbag Road Priority Segment 1 (Kingwood Pike to Don Knotts) Eng. \$1,000,000 ROW \$3,000,000, Construction (in FFY 2020) \$11,000,000 Project Total \$15,000,000

-Van Voorhis Road Widening-West Run to Burroughs Street, Eng. \$600,000,000 ROW \$5,000,000 Construction (in FFY 2020) \$4,400,000 Project Total \$10,000,000

This item is not a request for a TIP Amendment. The Department of Transportation is seeking public comment on the inclusion of these projects and other projects in the STIP. There will be an opportunity for public comment on November 2, at the Offices of Mountain Line Transit from 4 pm until 7 pm.

-Draft Public Involvement Policy-Please find enclosed with your agenda a proposed revision of the MPO's Public Involvement Policy. This draft policy has been reviewed by the ad-hoc committee that agreed to work on the Policy and advertised for adoption by the MPO Policy Board at the November meeting. We would appreciate any comments you may have on the proposed Policy. The draft Policy will be revised per any comments received from the MPO's Committee's and the Public and, unless there are substantive changes that require a rewrite of the Policy, submitted to the MPO's Committee process for final recommendation to the Policy Board in November.



Section 1 - Study Purpose

Background

The I-79 Access Study is an initiative of the Morgantown Monongalia Metropolitan Planning Organization (MMMPO) in response to recommendations set forth by the *2040 Long Range Transportation Plan* (LRTP). Those recommendations are listed as “Priority Strategy 1 – Number 8: Monongahela River Crossing Study”. As a first step, the purpose of the Access Study is to comprehensively evaluate how the current transportation network in the MMMPO area is meeting the existing and forecasted future connectivity needs between the urban core and West Virginia University (WVU) campuses to Interstate 79 (I-79) across the Monongahela River. The Access Study will evaluate the operational and safety performance of the current system to identify if there is a purpose and need for improved connections. If the study demonstrates a purpose and need for improved connections, the next steps will identify opportunities for improvements along existing corridors, and evaluate new corridors which may involve a new river crossing in Morgantown connecting the urban core and WVU campuses to I-79. A new connection might be considered if it is demonstrated to provide a more reliable system-linkage than the current system, thereby increasing capacity of the existing network to meet current and future transportation demand.

As a principal component of the I-79 Access Study, the Existing and Future Conditions (E&FC) Report details the current and projected conditions of the Morgantown area’s multi-modal transportation network connecting the city’s urban core and I-79 (more broadly the area west of the Monongahela River). In future steps, the I-79 Access Study further includes:

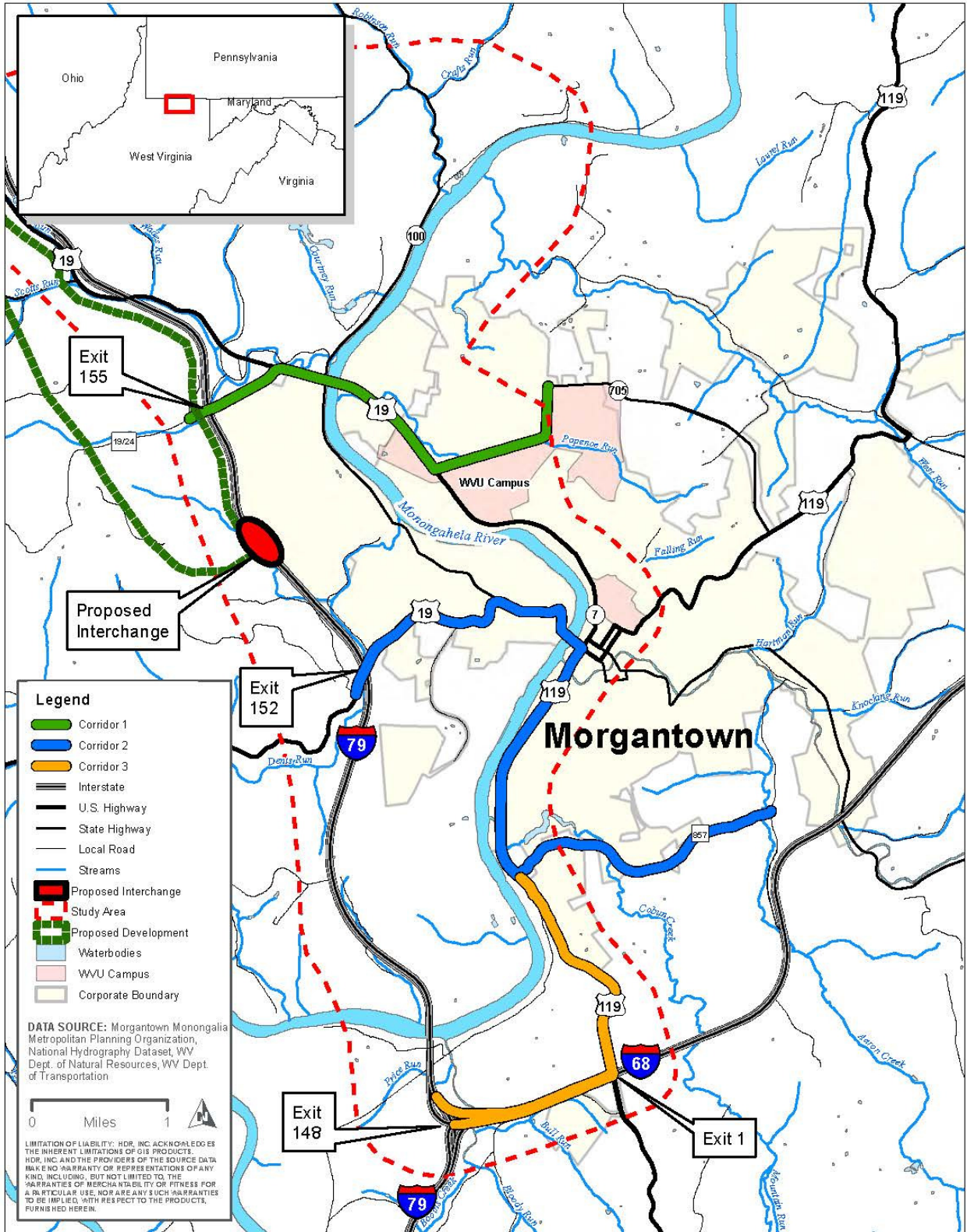
- Defining a purpose and need.
- Identifying and evaluating up to six alternatives, including four (4) potential “build” alternatives, plus a transportation system management (TSM) strategy and no-build alternative.
- Updating the MMMPO’s Travel Demand Model (TDM) to support the evaluation of potential alternatives.
- Facilitating a strong public engagement program.



Study Area

As shown in **Figure 1-1**, the study area is defined as Monongalia County from the West Virginia/Pennsylvania State Line in the north to I-68 in the south. To the west, the study area is bounded by I-79 and the on-going development in the western portion of Monongalia County. The eastern boundary is the urban core of Morgantown. For the E&FC Report, the study area focuses on the existing connections to I-79 from Morgantown:

- **Corridor 1** (Evansdale area): Carries traffic from the intersection of Chestnut Ridge Road/Burroughs Street and WV 705, along WV 705 (Patteson Drive), to the intersection of I-79 and CR 19/24.
- **Corridor 2** (Urban core and Westover): Carries traffic from the intersection of CR 81 (Dorsey Avenue) and CR 857 (Green Bag Road) along US 119 and across the Monongahela River into Westover. Traffic can then access I-79 via US 19 (Fairmont Road).
- **Corridor 3** (southern Morgantown): Carries traffic from the intersection of CR 857 (Green Bag Road) and US 119 (Don Knotts Boulevard) along US 119 to the I-68 interchange. Traffic then follows I-68 WB to Exit 148 to access I-79.



STUDY AREA
 I-79 ACCESS STUDY

FIGURE 1-1



Section 2 - Future Growth

The E&FC Report included a thorough review of existing and projected population, employment, and development growth for the MMMPO area. The presence of WVU, the healthcare industry, public sector entities (NIOSH and DOE National Technology Laboratory), and private development has driven regional employment growth in recent years and will continue to do so in the foreseeable future. The majority of private development growth, both current and future, is occurring along the I-79 corridor between Exit 152 (US 19/Westover/Morgantown) and Exit 155 (WV 7/West Virginia University). Driving this growth is the continued expansion of the University Town Centre on the east side and adjacent development to the west. Several key statistics and proposed developments that contribute to the anticipated growth include:

Population

- Morgantown population - 30,666 (2013 Census estimate).
- Monongalia County population – 103,463 (2014 Census estimate).
- Monongalia County expected to grow 1.4% per year = addition of 10,000 people by 2030.
- West Virginia as a whole is expected to lose 19,500 people in the same timeframe.
- West Virginia University – student population 29,500 / 6,700 faculty and staff.

Employment

- Healthcare sector (Ruby Memorial and Mon General Health System) employs more than 8,000 people regionally.
- Healthcare services and education sectors expected to grow at an annual rate of 2.8%.
- Morgantown Metropolitan Statistical Area (MSA) employs over 62,000 people (as of 2014) and is expected to grow 1.4% per year over the next five years.
- West Virginia Statewide Average employment growth rate is 0.9%.
- National average employment growth rate is 1.5%.



West Virginia University

- WVU 10-year campus master plan (approved December 2012) allocates more than \$320 million in new facilities, infrastructure, and renovations.
- WVU Hospitals (WVUH) expanding with construction of 114-bed tower at Ruby Memorial and new outpatient care facility (constructed at University Town Centre).

I-79 Corridor and New I-79 Interchange

- University Town Centre (UTC) continuing to develop 100 plus acres of commercial real estate:
 - \$21 million Monongalia County Ballpark (completed).
 - 110,000 square feet (sf), \$52 million WVUH Outpatient Center (completed).
 - Tentative site planning:
 - 339,000 sf office space.
 - 200,000 sf retail space.
 - 25,000 sf fast food and retail dining.
 - 100,000 sf hotel space.
- New business park development to the west:
 - MMMPO estimates 40% of all growth is to occur in this area.
 - 332 raw acres to be developed.
 - Tentative site planning:
 - 890,000 sf office space.
 - 230,000 sf big box retail.
 - 75,000 sf medium size and strip retail.
 - 20,000 sf hotel space.
 - 150,000 sf WVU space.
 - Various restaurant and commercial space.
- Chaplin Hill Business Park (between CR 46/3 and CR 46):
 - Triad Engineering – 15,000 sf.
 - CTL Engineering – 15,000 sf.
 - Tiefenbach North America, LLC – 20,000 sf.



- Gateway development (northwest of Exit 155):
 - 57 acres currently under development.
 - Mix of commercial, dining, and hotel accommodations.

Additional Morgantown Development

- 5,000 additional beds on campus which are currently under construction.
- American Campus Communities –134 units (536 beds) located in the Sunnyside area along University Avenue in the vicinity of 3rd Street and North Street.
- Glenn Ridge Apartments – 149 units (157 beds) located along Willowdale Road.
- The Standard – 11 stories, 802 units (239 beds), 23,474 square feet of non-residential space located along the Monongahela River on University Avenue between Walnut Street and Fayette Street.
- Various WVU Academic Buildings, including three new facilities at the intersection of Falling Run Road and University Avenue adjacent to the Life Sciences Building and College of Business and Economics.
- 12-story student housing complex at Willey and Spruce Streets.



Section 3 - Existing and Future Conditions

The E&FC Report documents the current and projected constraints, conditions, and deficiencies within the study area. The report is focused on several areas including population growth, traffic volume changes, traffic operations along the key corridors to I-79, and crashes. Each corridor was divided into segments for traffic analysis. In total, there were twenty-two roadway segments analyzed. The key findings of the E&FC report are listed below:

Existing Traffic Patterns

Existing conditions were analyzed using MMMPO 2015 ADT data supplemented with the WVDOT 2014 Average Daily Traffic Map for Monongalia County. The following summarizes the existing traffic volumes along the main corridors within the study area:

- WV 705 from Chestnut Ridge Road/Burroughs Street to WV 7/US 19 (Monongahela Boulevard) - 36,100 vehicles per day (vpd)
- WV 7/US19 from Patteson Drive to the I-79 interchange – 32,000 vpd.
- CR 857 from Dorsey Avenue to US 119 – 11,600 vpd.
- US 119 from CR 857 to Westover Bridge – 21,700 vpd.
- US 19 from Westover Bridge to I-79 interchange – 14,800 vpd.
- US 119 from CR 857 to I-68 interchange – 18,500 vpd.
- I-79 from I-68 (Exit 148) to Exit 155 (Chaplin Hill Road) – 57,700 vpd.

Existing Origin and Destination Flows

To capture origin-destination (O-D) data, AirSage data were applied to supplement the analysis capabilities of MMMPO's regional travel demand model. AirSage provides origin-destination data based on an anonymous aggregation and tracking of wireless signals from a sample of mobile phone carriers in the region. The AirSage product was statistically adjusted and expanded to estimate the travel (between origins and destinations) of all regional residents. The data were used to refine and enhance the MMMPO travel demand model. **Figure 3-1** illustrates the AirSage data and the main “desire lines” within the study area.

Crash Analysis

The West Virginia Department of Transportation (WVDOT) provided crash data for the three corridors providing access to I-79. The data for the period between January 1, 2012 and December 31, 2014, was reviewed and analyzed to identify high-crash areas along these critical routes. One of the most significant findings:

- The WV 705 corridor experienced 340 crashes between 2012 and 2014, yielding a crash rate of 670 crashes per HMVM. This is nearly twice the statewide average. In addition, half of the roadway segments exceeded the statewide crash rate.

Existing Corridor Travel Times

To supplement the AirSage data, the Mountain Line Transit Authority's Shadow Tracker technology was utilized to review live-tracking and historical data to understand a typical day of corridor travel time conditions. Shadow Tracker data was reviewed for a Wednesday in October, 2014, to determine travel time data during AM peak hours (7:00-9:00 am), Mid-day peak hours (11:00 am–1:00 pm), PM peak hours (3:00-6:00 pm), and Off-Peak peak hours (7:00-9:00 pm). Excluding travel on I-79, the average travel speeds along the major corridors ranged from 16-21 mph in the AM peak hour, 15-26 mph in the Mid-Day peak hour, 16-24 mph in the PM peak hour, and 17-23 mph in the Off-Peak peak hour. All of these travel speeds fall below the posted corridor speed limits.

Existing Corridor Traffic Operations (Figure 3-2)

Using existing traffic data, corridor-level operations analyses were performed to determine the capacity and operations of the existing roadway network. Of the twenty-two roadway segments analyzed, more than one-third of the roadway segments operate at a failing level of service in 2015. This amounts to over 3 miles of failing roadway segments.



Future Traffic Conditions

Future conditions were analyzed from a traffic operations perspective by taking Existing 2015 ADTs (provided by the MMMPO) and growing them to the Design Year 2040. Compounded growth rates were determined using the 2010 input and 2040 output values generated by the transportation demand model. Forecasted traffic volumes for the major corridors within the study area include:

- WV 705 from Chestnut Ridge Road/Burroughs Street to WV 7/US 19 (Monongahela Boulevard) – 42,500 vpd.
- WV 7/US19 from Patteson Drive to the I-79 interchange – 40,900 vpd.
- CR 857 from Dorsey Avenue to US 119 – 18,300 vpd.
- US 119 from CR 857 to Westover Bridge – 29,200 vpd.
- US 19 from Westover Bridge to I-79 interchange – 20,400 vpd.
- US 119 from CR 857 to I-68 interchange – 24,900 vpd.
- I-79 from I-68 (Exit 148) to Exit 155 (Chaplin Hill Road) – 81,200 vpd.

Future Corridor Traffic Operations (Figure 3-3)

With the projected growth and forecasted development in the study area, traffic operations along the major corridors are expected to decline. By Year 2040, almost two-thirds of the roadway segments will operate at a failing level of service. This amounts to 13 miles of failing roadway segments.

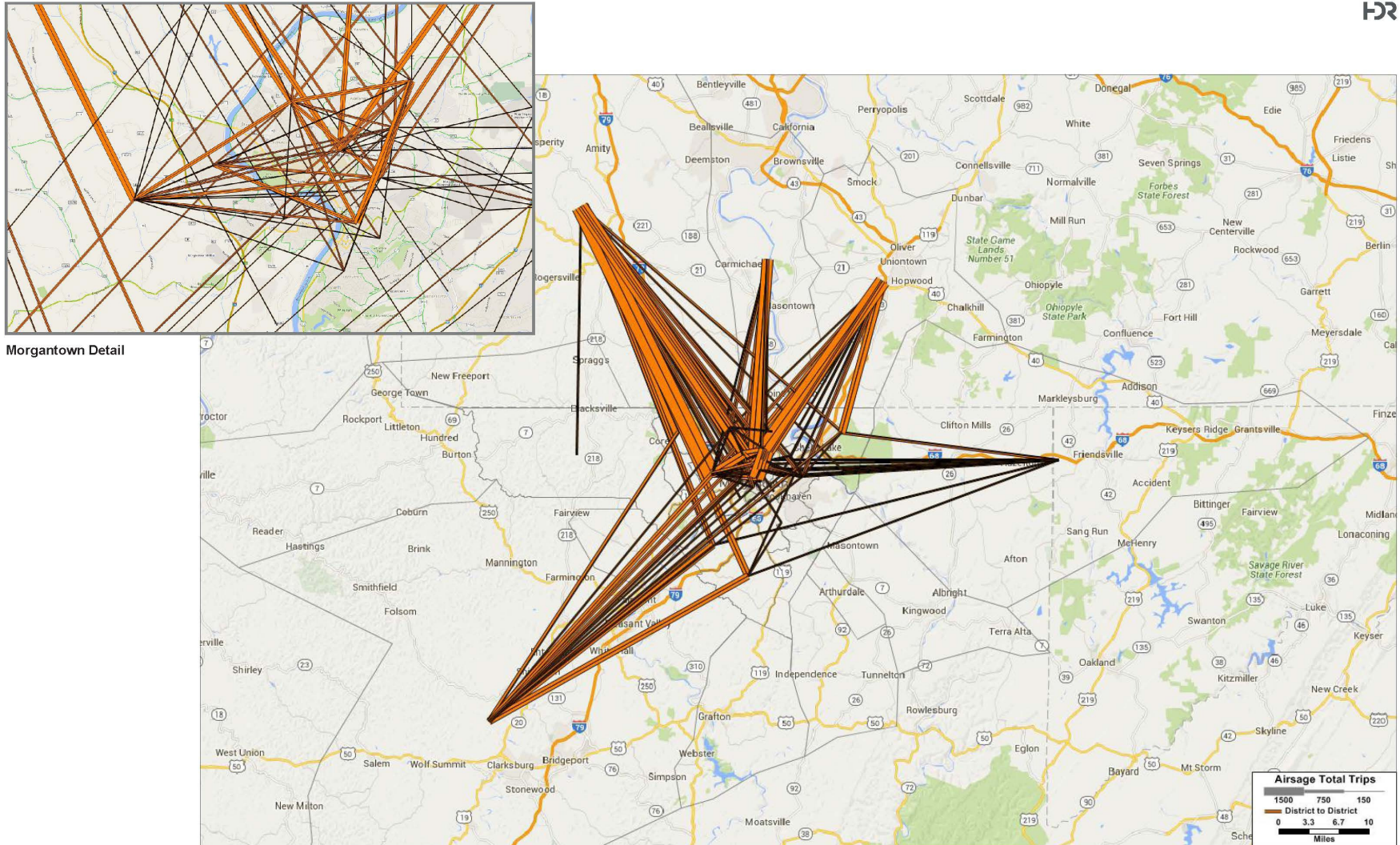
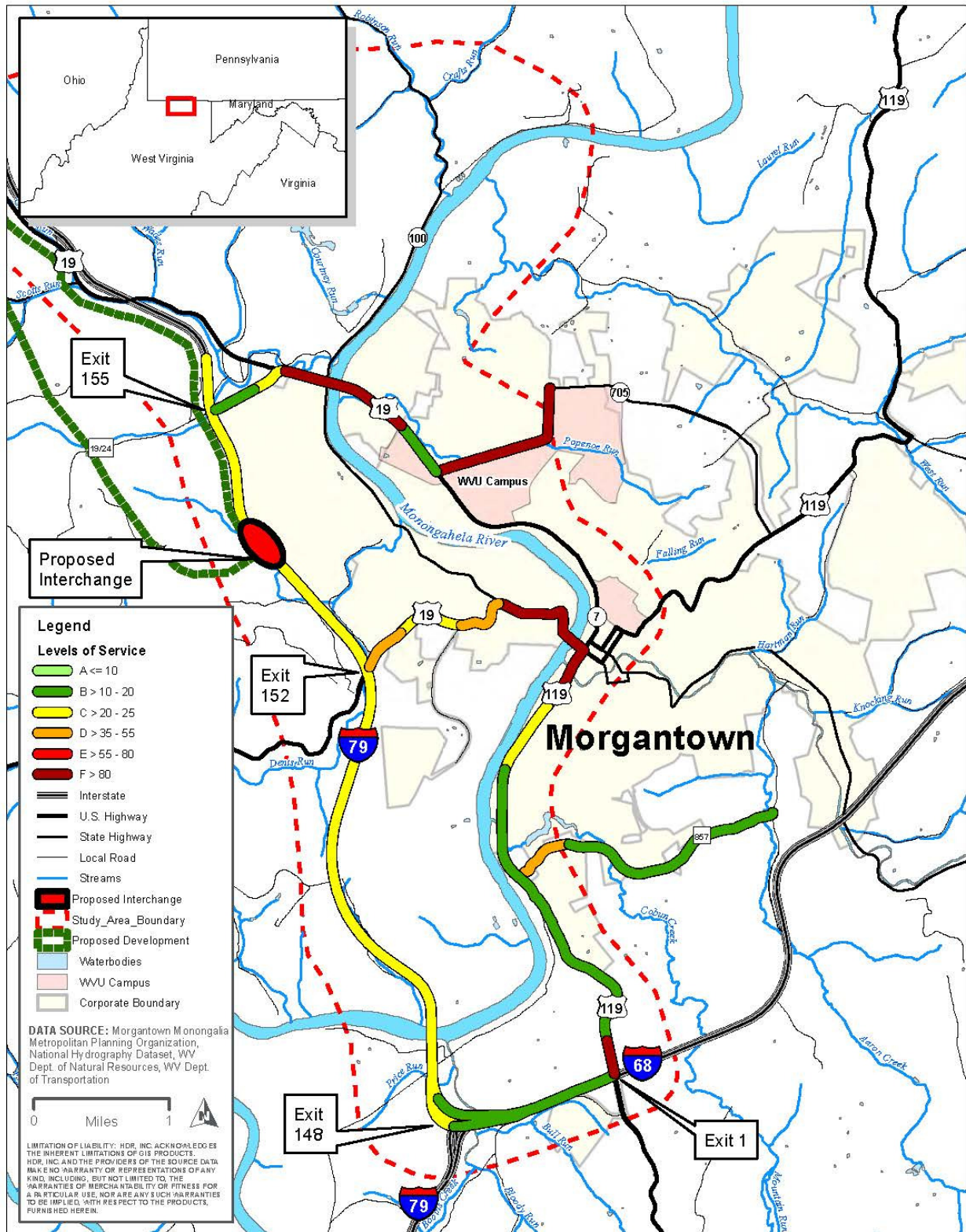


Figure 3-1: Origin-Destination Overview

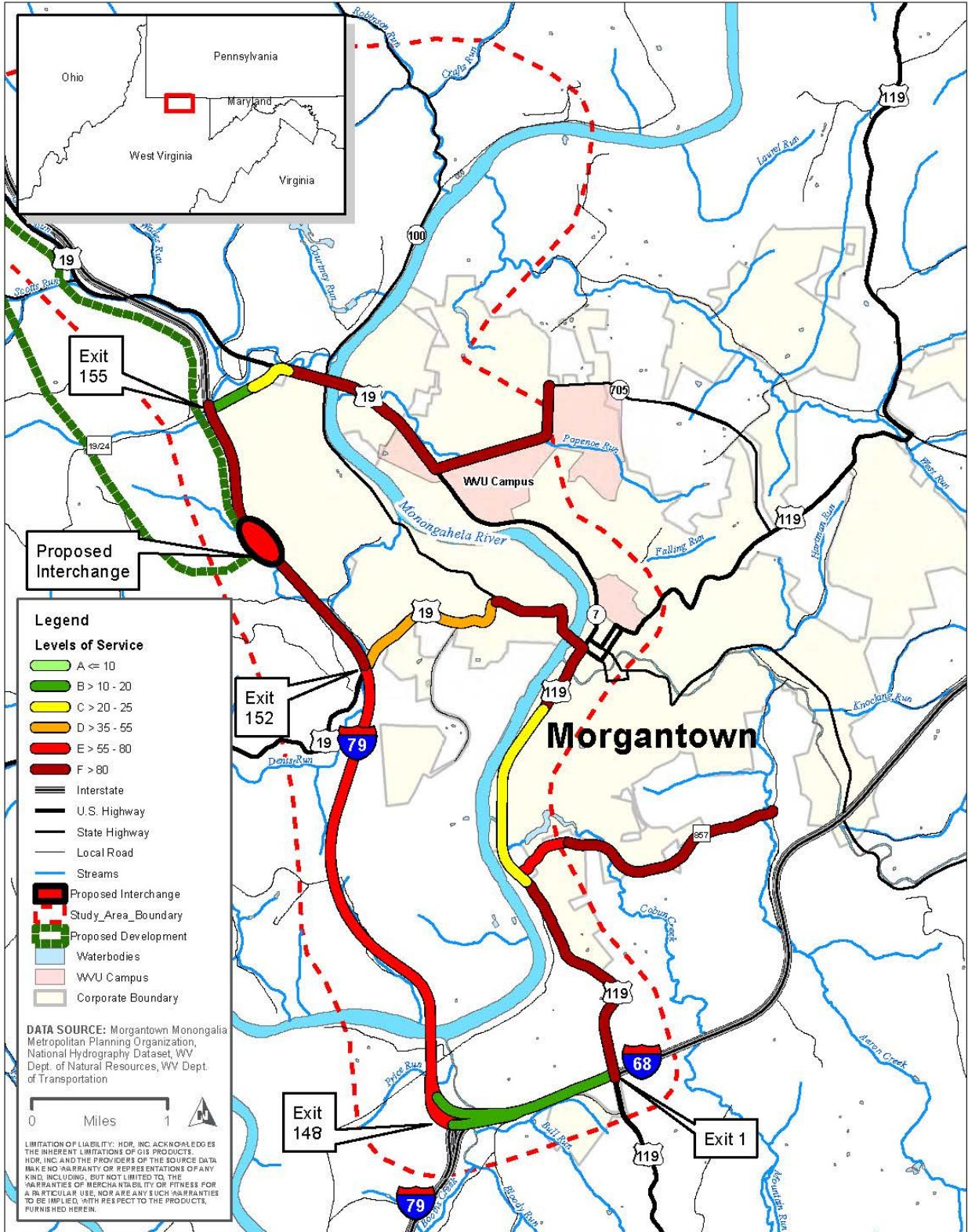


2015 LEVELS OF SERVICE

I-79 ACCESS STUDY

FIGURE 3-2

EXISTING AND FUTURE CONDITIONS REPORT



2040 LEVELS OF SERVICE

I-79 ACCESS STUDY

FIGURE 3-3

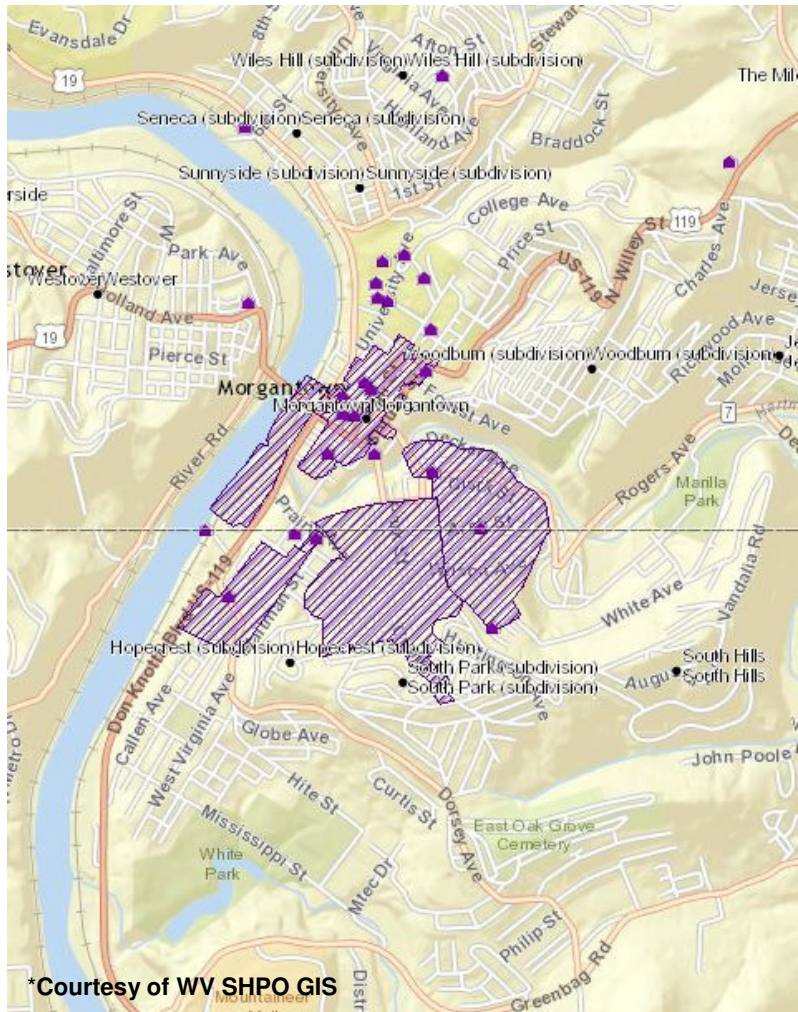
EXISTING AND FUTURE CONDITIONS REPORT

Section 4 - Identified Constraints

A cursory review of potential environmental “red flags” was prepared using GIS data.

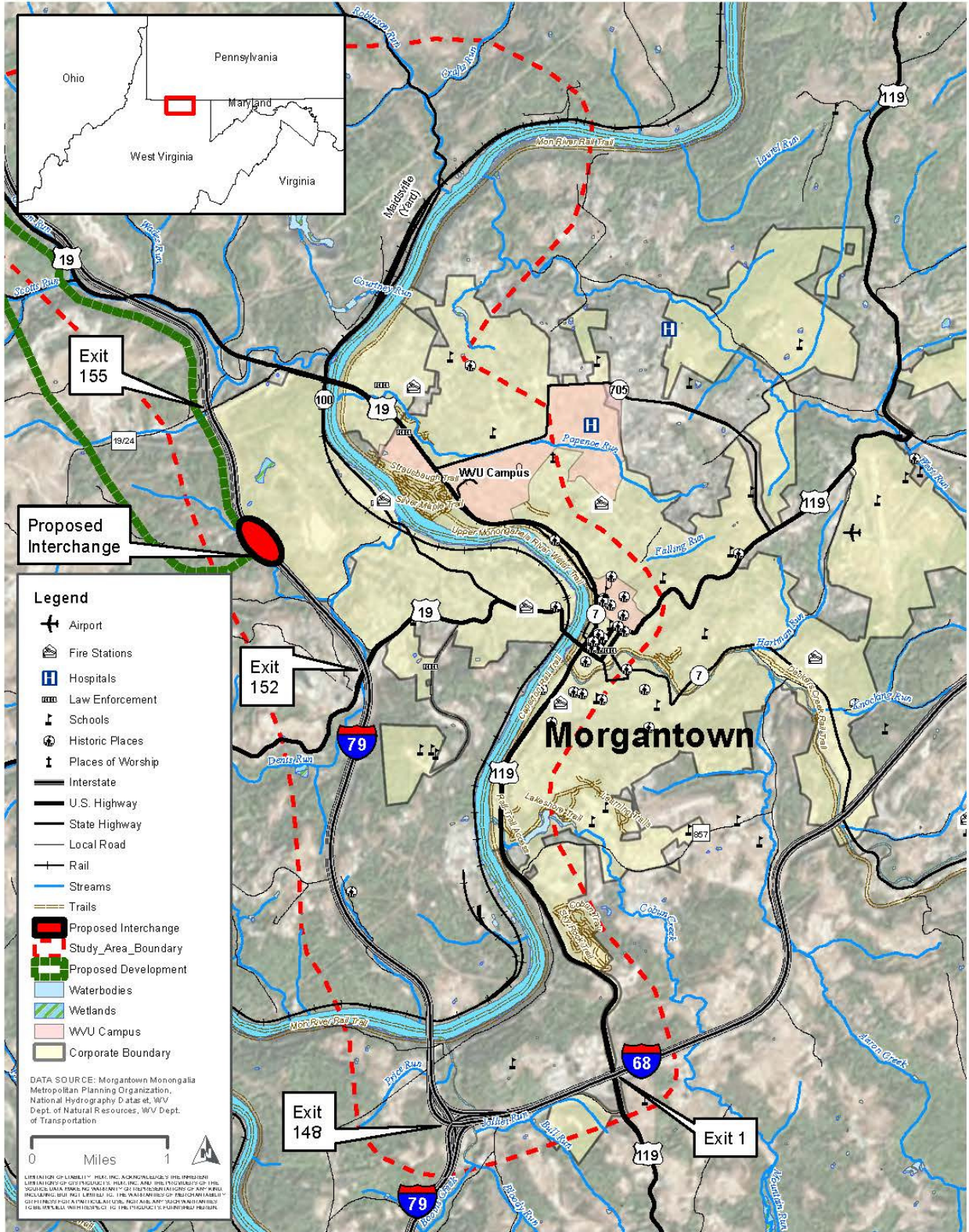
Figure 4-1 displays the locations of existing waterbodies, streams, and wetlands. The Monongahela River is the primary waterbody within the study area, dividing the I-79 corridor and new development from the urban core and northern extent of Morgantown. Wetlands are limited; however, locations near Dents Run and the Monongahela River may require further evaluation. Several streams meander throughout the study area including: Dents Run (near I-79); Deckers Creek and Cobun Creek (southern Morgantown); Hartman Run (Sabraton); Falling Run and Penelope Run (Evansdale). The I-79 Access Study will include a thorough Environmental Red Flag Analysis for all alternatives.

In addition to environmental red flags, historic elements within the study area, especially the urban core, are potential constraints to addressing safety and operations concerns. Morgantown is home to a variety of historic sights and registered places. The urban core includes five nationally registered historic districts: Downtown Morgantown Historic District; Morgantown Wharf and Warehouse Historic District; Chancery Hill Historic District; South Park Historic District; and Greenmont Historic District. Displayed in **Exhibit 4-1**, all five Districts are located east of the Monongahela River and are contained between Dorsey Avenue (to the south) and Willey Street (to the north).



*Courtesy of WV SHPO GIS

Exhibit 4-1: Historic Locations in Urban Core



PRELIMINARY ENVIRONMENTAL CONSTRAINTS

I-79 ACCESS STUDY

FIGURE 4-1





Section 5 - Conclusion and Next Steps

In summary, the E&FC report has demonstrated that without some type of improved connection, the current corridors to I-79 are expected to fail from a traffic operations perspective. An improved connection could be a series of improvements to an existing corridor, such as a transportation system management project, or a new connection to I-79. If determined to be technically feasible, a new bridge over the Monongahela River and a roadway connection to I-79 in Morgantown would serve multiple purposes, but would most significantly provide the following:

- Provide a sustainable and resilient transportation system that will support continued growth in the Morgantown area spurred by WVU and commercial development,
- Increase capacity of the existing roadway network and reduce congestion along the existing connections to I-79, and
- Enhance overall safety and mobility for the travelling public by providing additional access routes to I-79 within the existing transportation network.

The Purpose and Need for this project is to improve access and flexibility of the area's transportation system, enhance area safety and operations, and foster economic growth and development. As a result of recent WVU and economic growth with new and expanded development, this project may grow the WVU population and overall employment base of the Morgantown-Monongalia region. By facilitating traffic movements and improving accessibility throughout the study area and the region, this project purpose and need can be accomplished.

With the existing and future conditions detailed, and purpose and need defined, the next step of this study is to identify and evaluate alternatives for improving connectivity between the urban core and WVU campuses to I-79. The next step will be to develop and evaluate preliminary alternatives to address the purpose and need. Alternatives to be considered include the following:

- The "no-build" scenario where no improvements are proposed to address I-79 access.
- The transportation system management (TSM) strategy, that focuses on improvements along existing corridors.



- Four different potential “build” corridor connections:
 - West Run Extension and Lazelle Union Road (WV-100) Connection to US 19.
 - Direct Roadway Connection from New I-79 Interchange to Monongahela Boulevard.
 - 8th Street Bridge over Monongahela River and Roadway Connection to TIF Development Area Interchange to I-79.
 - US 119 from I-68 to downtown alternative.