243 High Street Room 026
Morgantown, WV 26505
(304) 291-9571
www.plantogether.org

Agenda

Citizens Advisory Committee
243 High Street Room 026 and by GOOGLE MEET
Morgantown WV
August 13th, 2026
6:00 PM

1. Call to Order
2. Approval of Minutes
3. 2026 August - TIP Amendments and Administrative Adjustments
4. Complete Streets Greenbelt Final Study
5. Other Business
6. Meeting Adjournment

CITIZENS ADVISORY COMMITTEE MEETING

May 14th, 2026

This meeting was held virtually at https://morgantownmonongaliampo.my.webex.com/meet/baustin and in person at 243 High St (Court House), Room 026 in downtown Morgantown.

Members Present: Christiaan Abildso, Wallace Venable, Heather Morgan, Tom Zeni, Kelli LaNeve, Chip Wamsley

Others Present: Bill Austin, Jacqueline Peate, Jing Zhang

1. Call to Order

The CAC meeting was held virtually and in person. The phone number and web address to access the teleconference were publicized. With a quorum present, Mr. Abildso called the meeting of the CAC to order at approximately 6:03 PM.

2. Approval of Minutes

Mr. Abildso noted that the minutes of the last meeting were included in the agenda package. Mr. Venable moved to approve the minutes; seconded by Mr. Wamsley. The motion passed unanimously.

3. 2026 May – TIP Amendments

Mr. Austin stated that the West Virginia Department of Transportation, Division of Highways, has requested the following amendments and administrative adjustments to the MPO's TIP:

TIP Amendment:

I-79 CHAPLIN HILL GATEWAY (PHASE 2) (CONVERT AC). Federal ID: NHPP0079156D. FFY: 2027. Type of Work: RECONSTRUCT I/C. Phase: Construction. Funding Source: MEGA GRANT. Federal Funding: $31,000,000. Total Funding: $135,000,000. Location Description: I-79 Exist 155.

POINT MARION ROAD INTERSECTION. Federal ID: CARB0119605D. FFY: 2026. Type of Work: DESIGN STUDY. Phase: Engineering. Funding Source: CRP 50-200K POP. Federal Funding: $960,000. Total Funding: $1,200,000. Location Description: Intersection of Point Marion Rd and Stewartstown Rd/Canyon Rd.

Mr. Zeni moved to recommend approval for the 2026 May – TIP Amendments; seconded by Mr. Wamsley. The motion passed unanimously.

4. On Call Consultant RFQ

Mr. Austin stated that the purpose of this RFQ is to make qualified Consultant resources available to the MMMPO. The Selection Committee was made up of five members- Damien Davis, Michael Dougherty, Andrew Gast-Bray, Kimberly Fragola, and Bill Austin. Four firms applied- AECOM, Burgess and Niple, HDR and Kimley Horn. Each firm has a WVDOT approved overhead rate and their documentation shows that they are financially solvent. Applications from these four firms were uploaded to a secure Dropbox and sent to Selection Committee members on April 23, 2026. Staff requested completed score sheets by April 30, 2026. On May 1, 2026 the Committee met virtually to discuss scoring and finalized their decision.

Kimley Horn had 2 first place votes, AECOM had 2 first place votes, and HDR had 1 first place vote. Burgess and Niple was eliminated due to no first-place votes, and having scored 40-60 points below second place HDR and third place (AECOM). Burgess and Niple also exhibited less experience and fewer tools for regional travel demand modeling. The RFQ for our on-call consultants states that the MPO can accept up to three firms. The Consultant Selection Committee determined that selecting three firms will provide the MMMPO with flexibility in selecting a qualified firm for its work in specific projects. Also, if the three firms are contractually on the on-call contract, then the MMMPO can ask them to provide a scope of work including price for a project. The recommendation of the Consultant Selection Committee is that HDR, AECOM and Kimley Horn should all be offered the MPO on-call consulting contract.

Mr. Zeni asked if there is a 'rank' to the selected firms. Mr. Austin said no, the MMMPO will play to their strengths as project come in. There will also be an RFP process. Mr. Ausitn briefly went over previous projects the selected firms have completed.

Mr. Venable moved to recommend approval of the selected firms from the On Call Consultant RFQ; seconded by Mr. Wamsley. The motion passed unanimously.

5. Prioritization of Downtown Microsimulation Study Projects

Mr. Austin stated that this report, included in the agenda, was developed as a supplement to the Downtown Morgantown Microsimulation Study conducted for the Morgantown Monongalia Metropolitan Planning Organization (MMMPO) by Kimley Horn and Associates. This report was presented to the CAC in March and it has been cleaned up based on feedback. The Microsimulation Study evaluated various alternative configurations of the street network. The Study analysis used turning movement counts and real time traffic origin and destination data and a simulation of downtown Morgantown's signal system using signal timings provided by WVDOH. For the analysis of future year operations, the Study used traffic volumes from the MMMPO's regional travel demand model. Them MMMPO is asking the CAC to recommend that the Policy Board approve this report as this shows what needs to be done in order to close Grumbein's Island.

Mr. Zeni asked which entity would be responsible for recommending to close Grumbien's Island. Mr. Austin stated WVU would request this action. Mr. Zeni also asked what is requested from the CAC to move this forward, and how to encourage WVU to request the closure. Mr. Austin stated WVU has been presented with this information.

Mr. Abildso asked for some clarification on the Willey connector. Mr. Austin stated it is in Tier 3, and page 13 in the report shows the relationship of traffic if there is only the Willey connector. This action helps Grumbien's Island.

Mr. Venable clarified that accepting this report shows what projects/actions need to take place if Grumbien's Island is to be closed. Mr. Austin stated this is correct.

Mr. Venable moved to recommend approval for the Prioritization of Downtown Microsimulation Study Projects; seconded by Mr. Wamsley. The motion passed unanimously.

6. Other Business

Mr. Austin stated the WVAMPO Conference will be hosted in Morgantown in June. He will then be going to Tulsa to present at a conference on funding for organizations. He is set to retire June 30th. Mr. Austin also stated both interstate projects, Harmony Grove and Exit 155, are moving forward. The University and Collin's Ferry roundabout should be completed in the fall. He also stated there has been utility relocation on Greenbag Rd, utility issues with West Run (but it is still moving forward), and there is a Complete Street Study for the Greenbelt that is looking at West Run.

Mr. Wamsley asked about the 705 multiuse path and that area in general. Mr. Austin stated it had gone stale. Mr. Wamsley mentioned this area still need action as people are still walking across the traffic. There are weird jurisdiction boundaries in this area. Mr. Wamsley suggested a multiuse path on the other side of the guardrail on 705.

Mr. Venable mentioned that the area from Osage to Ft. Martin is a mess with trucks and that lots of traffic goes into the railroad yard. He stated there is room for development in this area and to keep an eye out for that as it would increase traffic.

7. Meeting Adjournment

The CAC called for a Vote of Appreciation for Bill Austin as he is retiring June 30th. They wanted to thank him for his service and dedication to the community. Mr. Venable moved to approve the Vote of Appreciation for Bill Austin; seconded by Mr. Wamsley. The motion passed unanimously.

The meeting adjourned at 6:44 pm.

Memorandum

Date: Jul 24, 2026

To: TTAC, CAC, and Policy Board

From: MMMPO Staff

Subject: TIP Amendment and Adjustments - August, 2026

This memorandum is to document the amendment and administrative adjustments requested to the MPO's Transportation Improvement Program (TIP) for August, 2026.

Amendment

Mountain Line Transit Authority requested the TIP Transit Project for the federal fiscal years from 2027 to 2032.

FYY 2027 -2028

		2027		**2028**	
	Source	**Federal**	**Local**	**Federal**	**Local**
Operating Assistance(1)	5307 -	$3,375,864	$3,375,864	$3,443,143	$3,443,143
Federal 5311(f) Intercity (2)	*5311*	$300,000	$300,000	$300,000	$300,000
Operating Assistance (3)	*5310*	$98,000	$24,500	$98,000	$24,500
Operating Assistance - Capital (4)	*5307*	$250,000	$62,500	$250,000	$62,500
Revenue Rolling Stock Replacement (5)	*5339*	$447,362	$111,841	$150,000	$37,500
Revenue Roof Replacement (6)	*5339*	$1,400,000	$350,000		

		2027		2028	
	Source	Federal	Local	Federal	Local
Bus Rolling Stock replacement (7)	*5339*	$943,296	$340,000		

FYY 2029 -2030

		2029		2030	
	Source	Federal	Local	Federal	Local
Operating Assistance(1)	5307 -	$3,443,143	$3,443,143	$3,443,143	$3,443,143
Federal 5311(f) Intercity (2)	*5311*	$300,000	$300,000	$300,000	$300,000
Operating Assistance (3)	*5310*	$98,000	$24,500	$98,000	$24,500
Operating Assistance - Capital (4)	*5307*	$250,000	$62,500	$250,000	$62,500
Revenue Rolling Stock Replacement (5)	*5339*	$150,000	$37,500	$150,000	$37,500
Revenue Roof Replacement (6)	*5339*				
Bus Rolling Stock replacement (7)	*5339*				

FYY 2031 -2032

		2029		2030	
	Source	Federal	Local	Federal	Local
Operating Assistance(1)	5307 -	$3,443,143	$3,443,143	$3,443,143	$3,443,143
Federal 5311(f) Intercity (2)	*5311*	$300,000	$300,000	$300,000	$300,000
Operating Assistance (3)	*5310*	$98,000	$24,500	$98,000	$24,500
Operating Assistance - Capital (4)	*5307*	$250,000	$62,500	$250,000	$62,500
Revenue Rolling Stock Replacement (5)	*5339*	$150,000	$37,500	$150,000	$37,500
Revenue Roof Replacement (6)	*5339*				
Bus Rolling Stock replacement (7)	*5339*				

(1) Costs necessary to operate, maintain, and manage a public transportation system. Operating expenses usually include such costs as driver salaries, fuel, and items having a useful life of less than one year.

(2) Regularly scheduled bus service for the general public that operates with
(3) Mobility management is a capital project activity that consists of short-range planning and management activities and projects for improving coordination among public
(4) 5307 Preventative Maintenance
(5) For purchase of revenue producing
(6) For Roof Replacement
(7) For purchase of revenue producing

Administrative Adjustments

CHESTNUT STREET STREETSCAPE IN MORGANTOWN. Federal ID: TAP2024099D, FFY 2026, ENG, Type of Work: Design Study, Funding Source: TAP. Change: increase federal funding from $115,200 to $324,000; increase total funding from $144,000 to $405,000.

Removing Obligated Projects

LOWER SCOTTS RUN BRIDGE. Federal ID: STBG0100160D (ROW); STBG0100159D (ENG), FFY 2026, ROW and ENG, Type of Work: BRIDGE REHABILITATION, Funding Source: HWI-BR. Federal Funding: $24,000 (ROW); $280,000 (ENG). Total Funding: $30,000 (ROW); $350,000 ((ENG).

HARMONY GROVE I/C. Federal ID: NHPP0079109D, FFY 2026, ENG, Type of Work: CONST NEW I/C, Funding Source: NHPP and EARMARK (WV 117). Federal Funding: $1,830,000 (NHPP); $1,500,000 (EARMARK). Total Funding: $2,033,333 (NHPP); $1,666,667 ((EARMARK).

POINT MARION ROAD INTERSECTION. Federal ID: CARB0119605D, FFY 2026, ENG, Type of Work: Design Study, Funding Source: CRP FLEX and CRP 50-200k POP. Federal Funding: $204,721 (FLEX); $755,279 (POP). Total Funding: $255,902 (FLEX); $944,098 (POP)

Adding New Projects

WEST RUN RD DESIGN STUDY. Federal ID: TBD, FFY 2026, ENG, Type of Work: Design Study, Funding Source: STBGFLEX. Federal Funding: $560,000; Total Funding: $700,000

June 2026

MORGANTOWN GREENBELT COMPLETE STREETS FEASIBILITY STUDY

West Run Road and
Van Voorhis Road Corridors

MMMPO
morgantown monongalia
metropolitan planning organization

EXECUTIVE SUMMARY

The Morgantown Monongalia Metropolitan Planning Organization completed the Greenbelt Complete Streets Feasibility Study to evaluate multimodal safety, access, and connectivity improvements along approximately two miles of West Run Road and Van Voorhis Road. The study corridor provides an important connection between residential communities, transit routes, school bus stops, existing and planned trail networks, and the future Morgantown Greenbelt. The Study establishes a practical complete streets vision that supports safer walking and biking, improves access to the planned Greenbelt, and addresses roadway safety and operational concerns at key locations.

The existing conditions analysis identified several needs along the corridor. The surrounding area is predominantly residential, with more than 7,500 residents within a quarter mile of the study corridor and multiple student-oriented apartment communities, transit stops, and school bus activity. Despite this demand, pedestrian and bicycle infrastructure is limited or missing in many locations. The safety analysis found 258 reported crashes from 2020 through 2024, including one fatal crash and five serious injury crashes, with crash frequency and severity concentrated near several key intersections. Speed data also showed that operating speeds commonly exceed posted speed limits, reinforcing the need for traffic calming and safer pedestrian crossings. The corridor is constrained by steep topography, narrow right-of-way, drainage considerations, and ongoing or planned development, all of which shaped the feasibility of potential improvements. Two of the key intersections along this corridor – West Run Road and Van Voorhis Road and West Run Road and Riddle Avenue – are anticipated to operate at least one approach at failing levels of service in the future.

The preferred concept responds to these needs with a balanced, implementable package of improvements that improves safety and connectivity for all road users. The concept includes 10-foot travel lanes, an 8-foot shared-use path with a grass buffer where feasible, supplemental sidewalks in targeted locations, and a proposed realignment of a portion of West Run Road to create space for these multimodal facilities while minimizing impacts to adjacent constraints. Pedestrian crossings are recommended at key intersections, residential access points, transit and school bus stops, and future Greenbelt connection points. Raised crosswalks with rectangular rapid flashing beacons, advance pedestrian warning signs, and other crossing treatments are recommended to increase driver awareness and improve pedestrian comfort and safety.

The concept also recommends corridor-wide safety and traffic calming improvements, including pole-mounted speed display signs, transverse pavement markings or rumble stripes, guardrail, warning signs, object markers, lighting, and a chicane in a residential segment of West Run Road. Mini roundabouts are recommended at the intersections of Van Voorhis Road and West Run Road and at West Run Road and Riddle Avenue to calm traffic, improve safety, and address future operational deficiencies. The operations analysis indicates that the proposed roundabouts would improve future build conditions compared to the future no-build condition, with acceptable levels of service anticipated at each approach.

A public meeting was held on June 2, 2026, and was attended by 44 community members. The MMMPO received 59 total survey responses, including an online version available following the meeting. Survey results showed that 90 percent of respondents supported the proposed concept plan, and 96 percent indicated that improved walking and biking facilities along the corridor are important. This feedback reinforced the need for safer pedestrian and bicycle accommodations and helped refine the preferred concept.

The opinion of probable cost estimates the preferred concept at approximately $18.34 million in 2026 dollars, or approximately $21.05 million when escalated to a projected 2030 construction year. The recommended implementation strategy is to coordinate with WVDOH to integrate the proposed improvements into planned design work for West Run Road, providing the most cost-effective and efficient path toward delivery. If full integration is not feasible, the Study identified a potential phased implementation strategy and near-term quick-build improvements, such as signage, speed display signs, lighting, guardrail, rumble stripes, and interim traffic calming treatments. Advancing these recommendations would help transform the corridor into a safer, more connected, and more accessible complete street that supports the future Greenbelt and improves daily mobility for nearby residents.

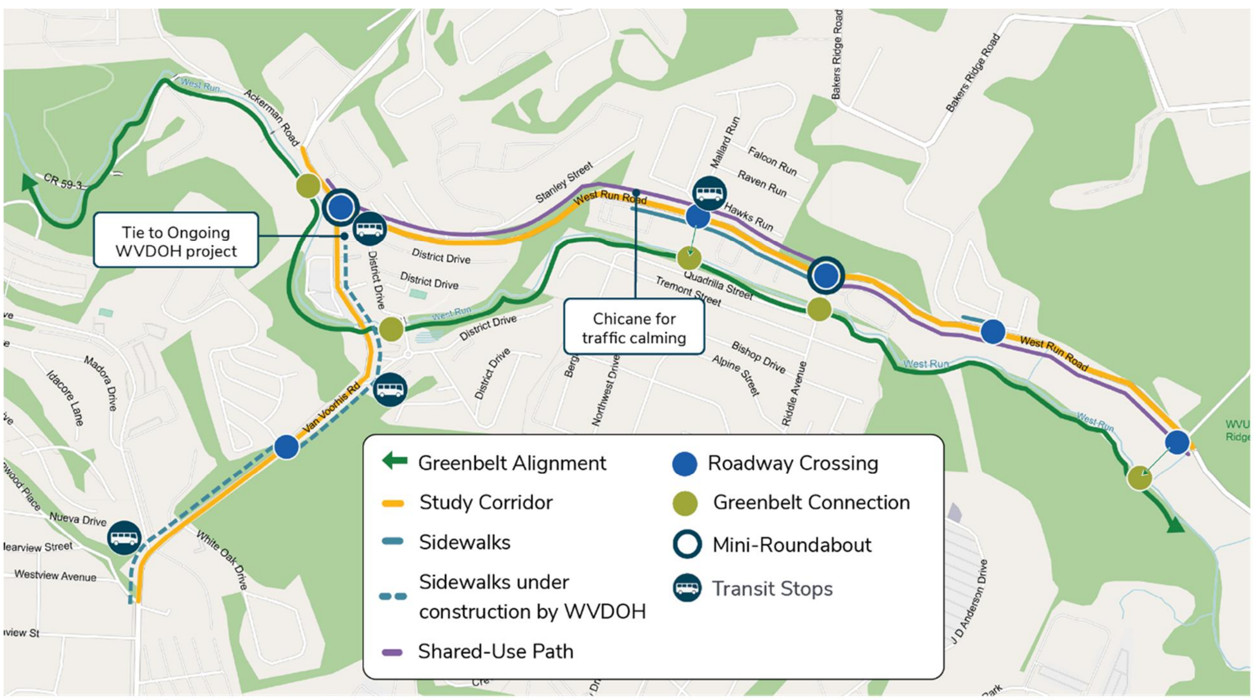


TABLE OF CONTENTS

INTRODUCTION AND PROJECT UNDERSTANDING

Study Intent and Goals

The Morgantown Monongalia Metropolitan Planning Organization (MMMPO) conducted the Greenbelt Complete Streets Feasibility Study (Study) to assess the feasibility of improvements for multimodal connections to the planned Morgantown Greenbelt (Greenbelt). The Study was conducted on a 2-mile corridor north of West Virginia University (WVU) and Downtown Morgantown along portions of West Run Road and Van Voorhis Road, shown in **Figure 1,** with an inset map of the entire Greenbelt plan for added spatial reference.

Goals of the Study included:

- Enhancing pedestrian safety along West Run Road and Van Voorhis Road
- Improving multimodal connectivity to the planned Greenbelt trail network
- Designing infrastructure that will resolve vehicular conflicts and safety issues at key intersections

Key components of the Study included:

Existing Conditions and Data Analysis
Collected relevant data to understand existing conditions within the study area and identified opportunities and constraints.

Concept Evaluation
Established logical corridor termini and tie-in points, identified typical section options, traffic calming, safety treatments, and crossing options of West Run Road and Van Voorhis Road for stakeholders to consider for inclusion in the multimodal vision for the corridor.

Preliminary Engineering
Prepared preliminary engineering plans of the concept carried forward from review and evaluated potential traffic impacts at each study intersection.

Cost Estimates and Implementation Plan
Prepared an opinion of probable construction cost (OPCC) and developed a prioritized implementation plan to guide short-term and long-term investment.

Figure 1: Study Area Map

Greenbelt Overview

The planned Greenbelt was developed by the Mon Valley Green Space Coalition in partnership with the West Virginia Land Trust, the Mon River Trails Conservancy, the City of Morgantown, and the MMMPO. The plan includes more than 20 miles of walkable trails around the immediate Morgantown area. It will utilize existing regional trails, including the Mon River Trail and Deckers Creek Trail, and provide connections between neighborhoods and key destinations such as parks, schools, downtown, WVU campuses, and other activity areas. **Figure 2** shows a conceptual map of the Greenbelt published by Mon Valley Green Space Coalition in November of 2025.

This Study marks the first assessment of potential connections to the future Greenbelt and presents a model of the potential multimodal expansion along the corridor once the Greenbelt is built. This Study supports the Greenbelt efforts by building public support and energy around the concept and giving residents a clearer vision of the network's potential.

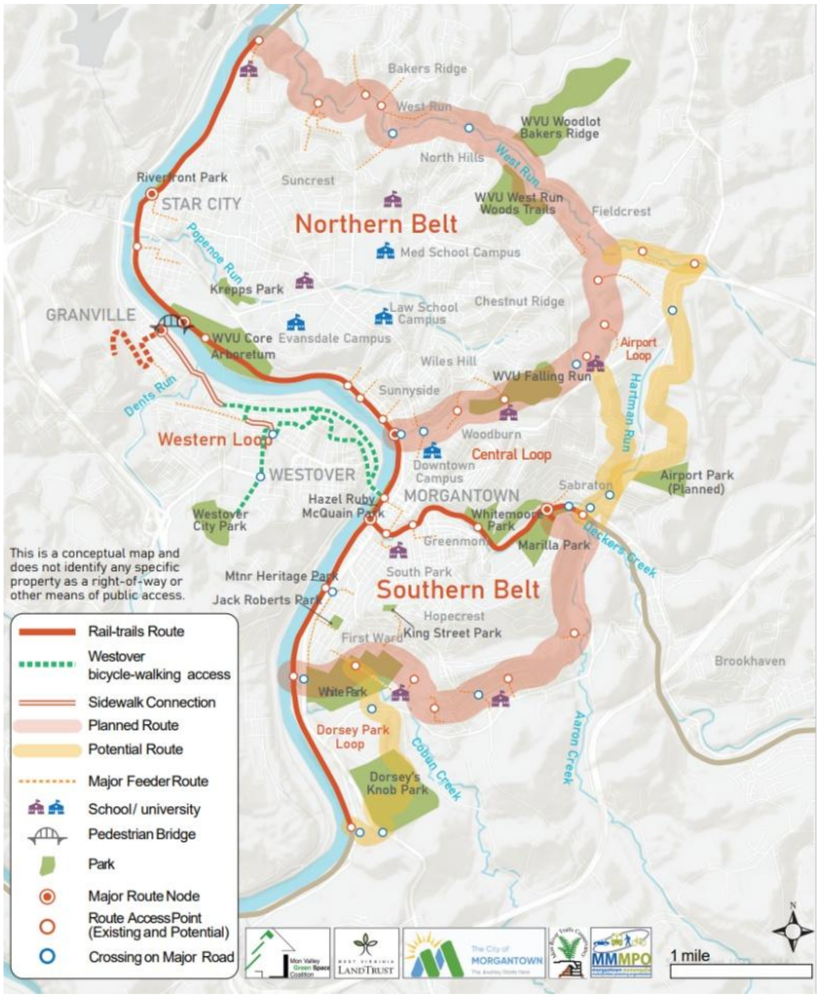


Figure 2: Greenbelt Concept

Additional Planning Context

The MMMPO recently updated its [2055 Metropolitan Transportation Plan](), which reflects multimodal goals and prioritizes recommended projects across the region that improve conditions for all modes. Recommended projects along the study corridor included:

- Future improvements to the geometry of the intersection of Van Voorhis Road and West Run Road
- Improvements to St. Clair Hill Road adjacent to the study corridor including widening and shoulder, and stormwater drainage improvements
- Multimodal connectivity improvements at the intersection of West Run Road and Riddle Avenue to support residential and mixed-use development and provide a potential connection between Bakers Ridge Road, Raven Run, and St. Clair Hill Road

- Van Voorhis roadway improvements, which are currently under construction and are detailed further in this Study

Additionally, the MMMPO published the Morgantown Regional Bike and Pedestrian Transportation Plan in 2020, which identified projects to improve pedestrian and bicycle safety, accessibility, and connectivity across the region. Specific to this study corridor, the plan recommended a sidewalk on a portion of Van Voorhis Road, along with a combination of a bike lane and sharrows. On West Run Road, the plan recommended a shared-use path within the right-of-way.

The City of Morgantown has also prioritized investment in pedestrian and bicycle improvements through efforts such as trail planning, coordinated safety projects across the city, and the implementation of new multimodal connections in the downtown area. The Morgantown Pedestrian Improvement Plan, an ongoing effort from the city, identifies pedestrian infrastructure needs across the city including maintenance and replacement needs, spot improvements, and new facilities. The plan also prioritizes recommended improvements based on existing conditions, land use, demographics, and roadway characteristics. However, the corridors included in this Study are outside of the city limits and were not included in the Pedestrian Improvement Plan. In addition to these efforts, the City of Morgantown has partnered with the MMMPO on this Complete Streets Feasibility Study and the Greenbelt project.

EXISTING CONDITIONS

A key first step in the feasibility study process was to collect and assess relevant data to establish existing conditions along the corridor and in the surrounding area. This analysis allowed the project team to identify opportunities for complete streets improvements and constraints that could affect the feasibility of corridor improvements. The existing conditions analysis ultimately informed the potential improvements proposed during the Concept Evaluation portion of the Study.

Transportation Connections

The study corridor is currently served by the Mountain Line Transit Northern Circulator Gold (Route 47), shown in **Figure 3**. While Mountain Line is a flag-down system, meaning riders can board or exit the bus at any safe location along designated routes, Mountain Line has identified four recommended stops in the study corridor. The route runs hourly from 6:20 AM to 6:29 PM on weekdays, and from 7:29 AM to 6:29 PM on Saturdays. According to reports from Mountain Line, the Northern Circulator Gold had an average of 1,400 riders per month between September 2025 and February 2026.

There are also three student-centered apartment complexes along the corridor that offer shuttles to each of WVU's three campuses:

- **Northside Hills**
  - Shuttles run every 40 minutes Monday through Friday from 7:00 AM to 3:40 PM.
- **The Lofts**
  - Shuttles run every 45 minutes Monday through Friday from 7:00 AM to 7:45 PM.
- **The Ridge**
  - Shuttles run every hour from 9:00 AM to 9:30 PM on Monday through Friday, and from 10:00 AM to 4:00 PM on Saturday

In the context of the surrounding residential area, these available transit connections represent a need for improved pedestrian infrastructure along the corridor to create a safer, more accessible environment for first- and last-mile trips.

There is an extensive network of existing unpaved trails adjacent to the eastern portion of the study corridor within West Run Woods, south of the corridor, and Bakers Ridge, north of the corridor. Additionally, there are multiple future planned unpaved trails in this area, as well as in Van Voorhis Woods along the western part of the corridor. When completed, these networks will provide connections and recreational opportunities between the study corridor, the future Greenbelt, and surrounding neighborhoods.

The study corridor also serves key bus routes for Monongalia County Schools. During every school day, 29 buses travel Van Voorhis Road and 16 travel West Run Road. Observations during field reconnaissance revealed several buses stopping along the corridor for students to deboard in the afternoon. The current traffic conditions and lack of pedestrian infrastructure present safety concerns for these children.

Figure 3: Existing Transportation Context

The existing transportation conditions in the study corridor indicate clear opportunities for improvements that would leverage existing and planned infrastructure. The addition of pedestrian and bicycle infrastructure along the corridor would provide residents with safe access to existing transit service and improve the safety of school bus pick-up and drop-off. Additionally, developing trail networks in the study area presents a need for infrastructure and safe crossings that provide access for residents.

Surrounding Land Use Context

The study corridor sits within Monongalia County's West Run Planning District, noted as the most urbanized of the four County planning districts. The zoning surrounding the study corridor is dominated by residential, as seen in **Figure 4**, with many apartment complexes directly adjacent to the corridor. This includes two student-centered apartment complexes at Northside Hills and The Lofts, which offer housing for WVU students. Additionally, many of the residential complexes along the study corridor are certified as equal opportunity housing providers under the Fair Housing Act. According to 2020 Census block data, the population within a quarter-mile buffer of the study corridor exceeds 7,500. Additionally, three of the four census tracts that border the study corridor have poverty rates above 20 percent. This context creates a propensity for the future use of pedestrian facilities along the corridor, both for transportation and recreational purposes.

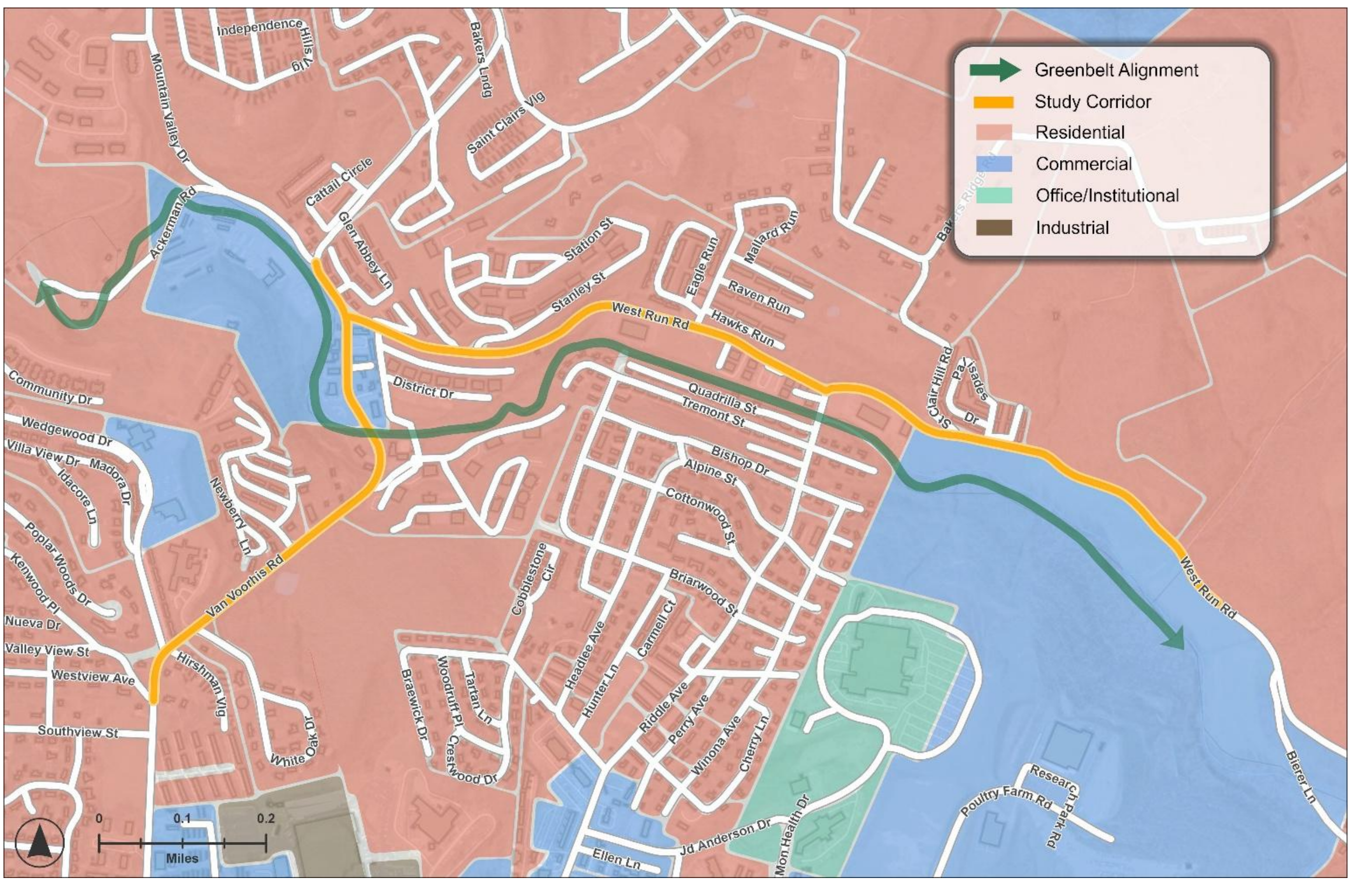


Figure 4: Surrounding Zoning

While mostly residential, the area around the study corridor also includes some commercial and office/institutional zoning. Given this context, multimodal improvements along the corridor would also improve connections to existing and future development to provide nearby residents with greater accessibility to jobs and commercial destinations.

Figure 5 shows potential destinations and points of interest in the area surrounding the study corridor. There are two schools in the area, North Elementary School and Laurel College of Technology, and one hospital, Mon Health Medical Center. Additionally, the networks of existing and planned unpaved trails on the east and west portions of the corridor will provide not only transportation connections but also serve as key recreational destinations for residents in the area, generating pedestrian activity along Van Voorhis Road and West Run Road.

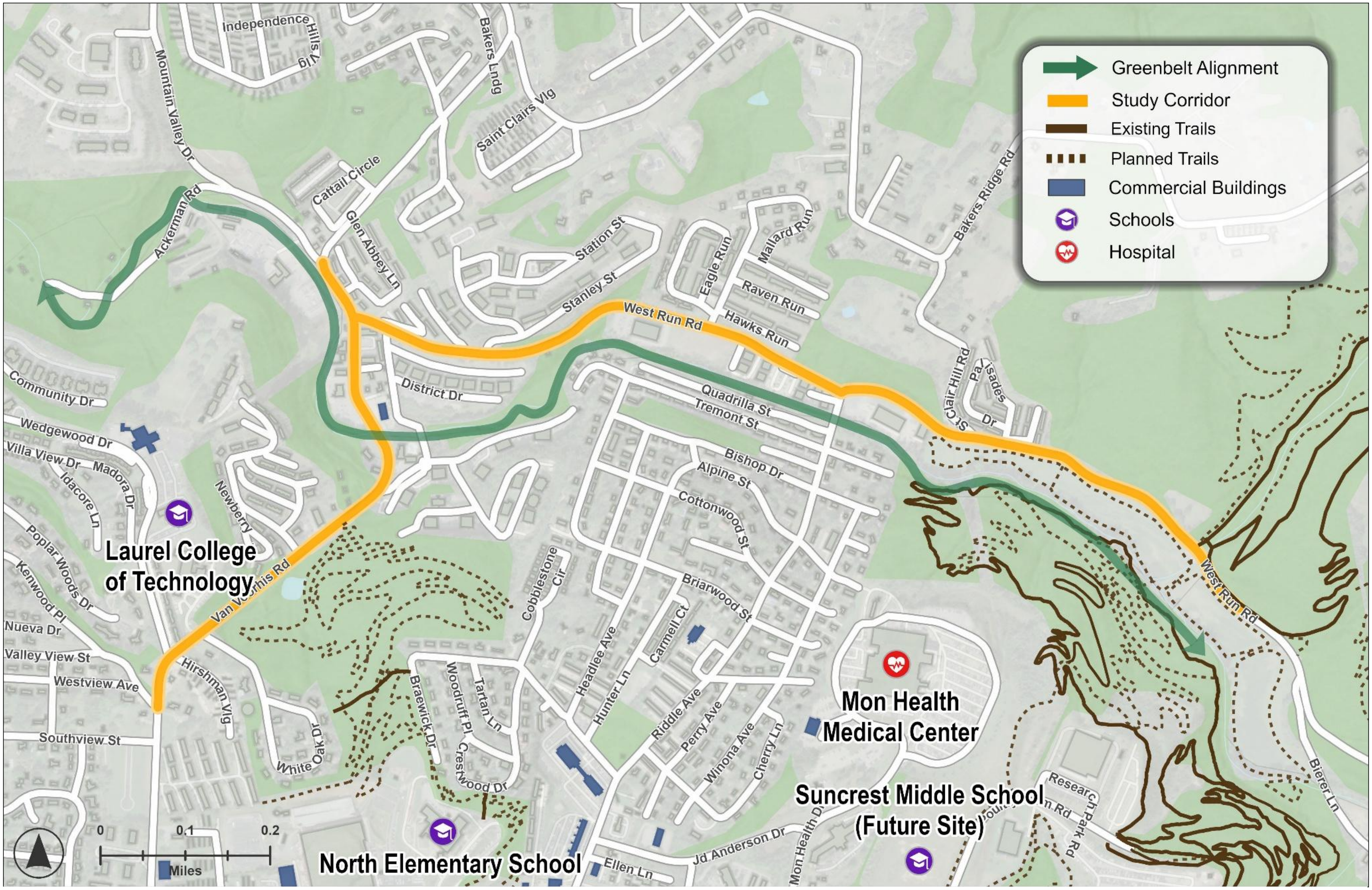


Figure 5: Surrounding Points of Interest

Once completed, the Greenbelt would provide residents in the study area with connections to other regional destinations, including WVU campuses, Downtown Morgantown, Star City, and existing regional trails such as the Mon River Rail-Trail/Caperton Trail and Deckers Creek Trail (shown in **Figure 6**).

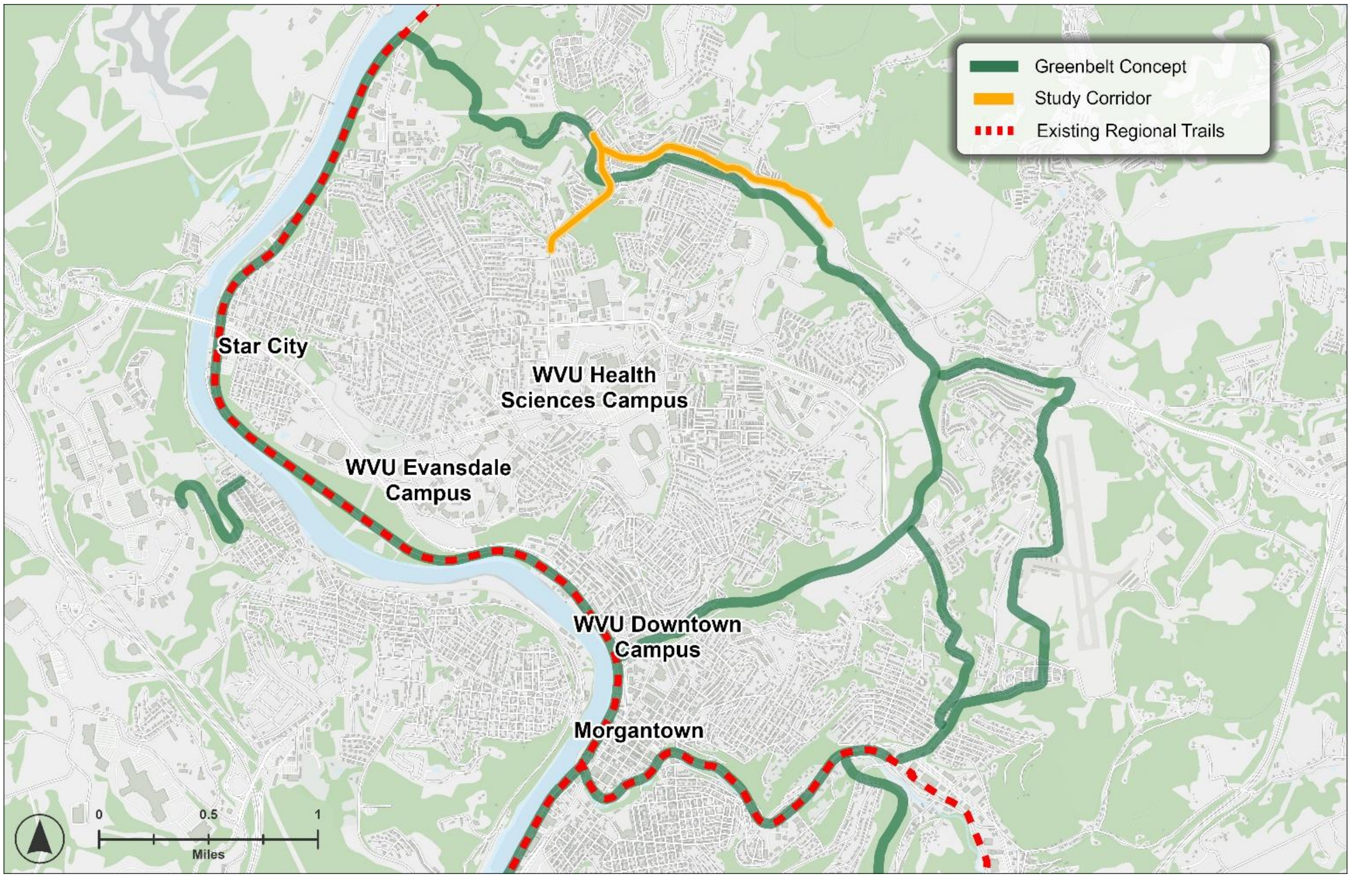


Figure 6: Regional Points of Interest

With a highly residential context combined with key local and regional destinations, the study corridor shows a demand for pedestrian and bicycle infrastructure for both recreational and destination-oriented trips. There is a need for improved infrastructure that will allow residents to walk and bike along the corridor and connect to public transit or other facilities to access retail, employment, and recreational opportunities.

Safety Context

A review of historical crash data was conducted to identify potential trends and inform safety needs along the corridor.

HISTORIC CRASH ANALYSIS

The crash analysis was conducted using the most recent five years of crash data, from January 2020 to December 2024. Crash data was obtained from the West Virginia Division of Highways (WVDOH).

Across the study corridor, the crash analysis reviewed the following crash characteristics:

- Crash year
- Crash severity
- Crash type
- Crash location

Figure 7 summarizes reported crashes along the study area by year (2020–2024). Total crashes peaked in 2021 (79) and declined in subsequent years, with the lowest total observed in 2024 (25).

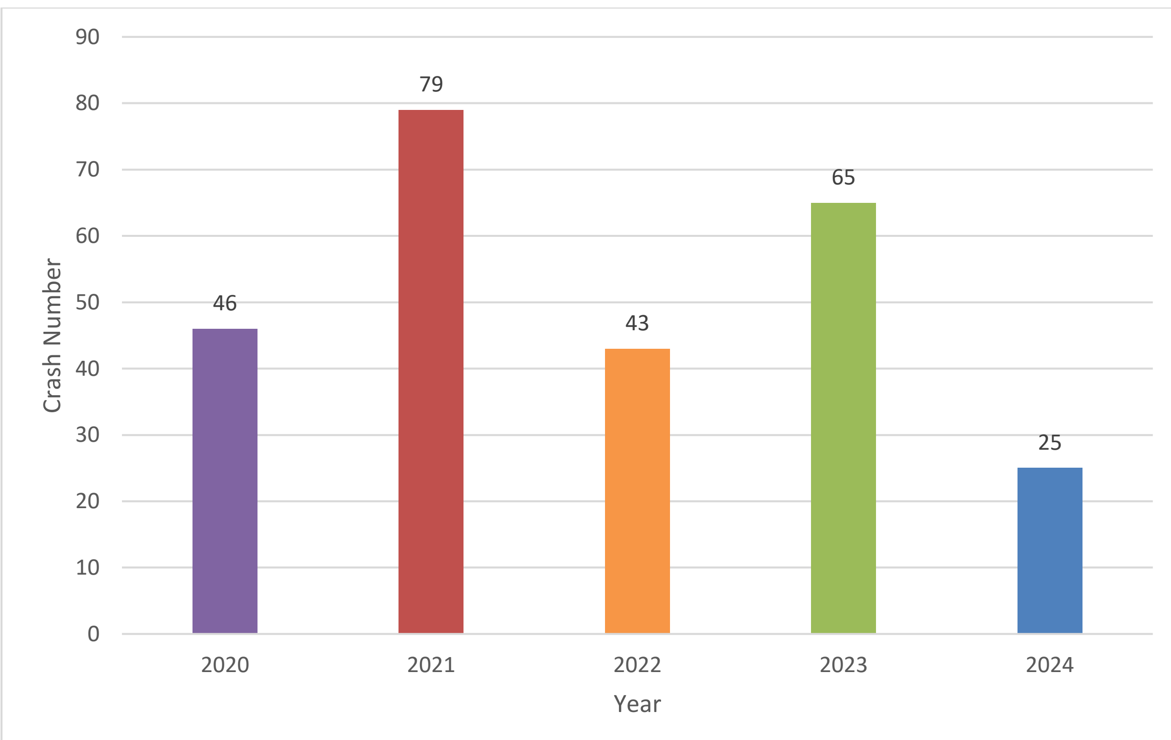


Figure 7: Crashes by Year

Crash severity is coded using the KABCO scale, which is defined using the following classifications:

- K: Fatal Injury
- A: Severe Injury
- B: Minor Injury
- C: Possible Injury
- PDO: Property Damage Only

To prioritize locations for safety improvements, a standardized metric is needed that accounts for the varying severity of crashes. The Equivalent Property Damage Only (EPDO) score provides this by converting all crash types into a single weighted index, allowing direct comparison across locations and years. Locations with higher EPDO scores indicate greater concentration of crash severity and are therefore prioritized for further analysis. The EPDO score was calculated for each year by applying severity-based weights to individual crash records. Each crash was assigned a weight according to its KABCO severity classification, as shown in **Table 1**:

Table 1: WV KABCO Crash Severity Scale, Color Codes, and EPDO Weights

WV Crash Severity	KABCO	Color Code	EPDO Weight
Fatal Crash	K	Red	957
Serious Injury Crash	A	Orange	54
Minor Injury Crash	B	Yellow	17
Possible Injury Crash	C	Light Yellow	10
Property Damage Only Crash	O	(none)	1

Note: EPDO weights were derived from the crash severity classifications pre-assigned in the project crash GIS data attributes provided by WVDOH. The weighting factors are consistent with commonly applied WV safety analysis practices based on FHWA guidelines for establishing the societal cost per crash severity.

The annual number of EPDO crashes was then computed by multiplying the number of crashes in each severity category by its corresponding weight and summing across all categories:

$$EPDO = (K \times 957) + (A \times 54) + (B \times 17) + (C \times 10) + (O \times 1)$$

Table 2 presents a five-year summary of crash data collected along the study routes. In terms of crash severity, most crashes were Property Damage Only (PDO), accounting for 204 crashes (79% of total). The remaining crashes included 39 possible injury crashes, nine minor injuries, five serious injuries, and one fatal crash (recorded in 2023). The equivalent property damage only (EPDO) metric, which weights injury crashes more heavily to reflect their societal cost, totaled 1,974 over the five-year period, with 2023 contributing the highest EPDO value of 1,194, largely driven by the single fatal crash recorded that year. Of the 258 crashes recorded across the study period, crashes involving vulnerable road users (bicyclists and pedestrians) and school buses accounted for a small but safety-significant share of the total crashes. Pedestrians were involved in three crashes, one of which was a serious injury crash on West Run Road in 2020, indicating a high-severity event, while the remaining two resulted in property damage only. No bicycle-involved crashes were recorded in the dataset, either reflecting low cycling activity on these routes or potential underreporting. School bus involvement appeared in six crashes (three direct, three indirect), with most occurring in 2021 and 2023 and resulting in possible injury or property damage outcomes. These findings suggest that while non-motorized and transit-related crashes are not dominant in frequency, the pedestrian serious injury event warrants targeted countermeasure attention at that specific location. Roadway surface conditions at the time of the crash indicate that the majority of crashes (175) occurred on dry surfaces, while 83 crashes occurred under adverse surface conditions such as wet, icy, or snowy pavement, suggesting that inclement weather remains a contributing factor along these routes. Regarding lighting, 66 crashes occurred under dark lighting conditions, highlighting a potential nighttime safety concern. **Figure 8** summarizes the frequency distribution of crash severity within the study area.

Table 2: Five-Year Annual Trend Summary

Year	Total Crashes	Fatal	Serious Injury	Minor Injury	Possible Injury	Property Damage Only
2020	46	0	1	1	10	34
2021	79	0	1	3	12	63
2022	43	0	0	2	5	36
2023	65	1	1	3	8	52
2024	25	0	2	0	4	19
TOTAL	**258**	**1**	**5**	**9**	**39**	**204**

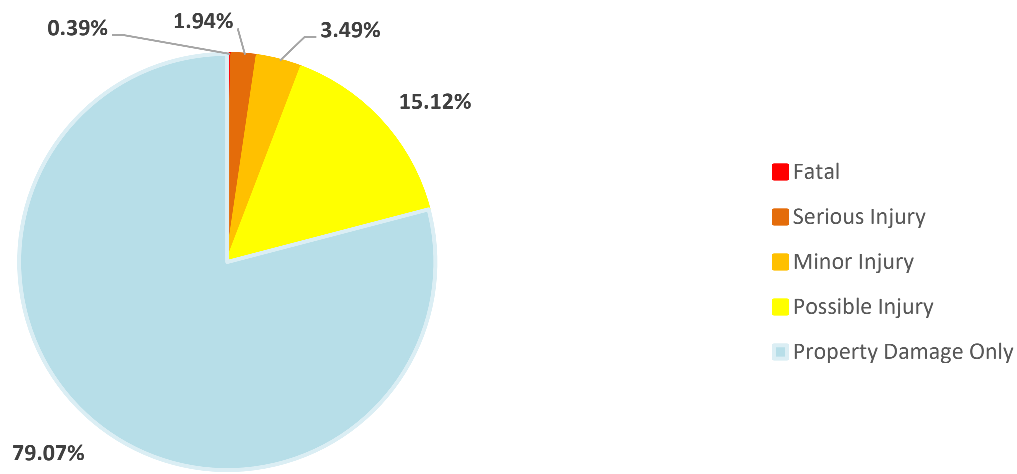


Figure 8: Crashes by Severity

Table 3 summarizes the 258 recorded crashes within the study area by collision type, along with their respective severity distributions and EPDO weightings. Single-vehicle crashes were the most prevalent collision type, representing 38.4% of all crashes (99 total) and contributing the highest EPDO value of 1,450, nearly 75% of the total weighted severity across all collision types. This elevated EPDO is largely attributable to the one fatal and four serious injury crashes, which were all single-vehicle crashes. Rear-end crashes were the second most frequent type at 25.2%, followed by right-angle crashes at 12.8%. Head-on crashes, while representing only 5.0% of total crashes, produced a disproportionately high EPDO of 118 relative to their count, reflecting the serious injury potential of this collision type. Sideswipe and angle-type crashes collectively accounted for the remaining 18.6% of crashes and were predominantly PDO in nature, contributing minimally to the overall severity index. **Figure 9** summarizes the frequency distribution of crash type within the study area.

Table 3: Crash Frequency and Severity by Collision Type

Collision Type	Total Crashes	% of Total	Fatal	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	EPDO	% of Total
Single Vehicle Crash	**99**	**38.4%**	**1**	**4**	**3**	**15**	**76**	**1,450**	**73.45%**
Rear End	**65**	**25.2%**	**0**	**0**	**2**	**10**	**53**	**187**	**9.47%**
Right Angle	**33**	**12.8%**	**0**	**0**	**2**	**5**	**26**	**110**	**5.57%**
Sideswipe, Opposite Direction	25	9.7%	0	0	0	2	23	43	2.18%
Head-On	13	5.0%	0	1	1	4	7	118	5.98%
Angle (Front to Side) Opp. Direction	10	3.9%	0	0	0	0	10	10	0.51%
Angle - Direction Not Specified	5	1.9%	0	0	0	3	2	32	1.62%
Angle (Front to Side) Same Direction	5	1.9%	0	0	0	0	5	5	0.25%
Sideswipe, Same Direction	3	1.2%	0	0	1	0	2	19	0.96%
TOTAL	**258**	**100.0%**	**1**	**5**	**9**	**39**	**204**	**1,974**	**100.0%**

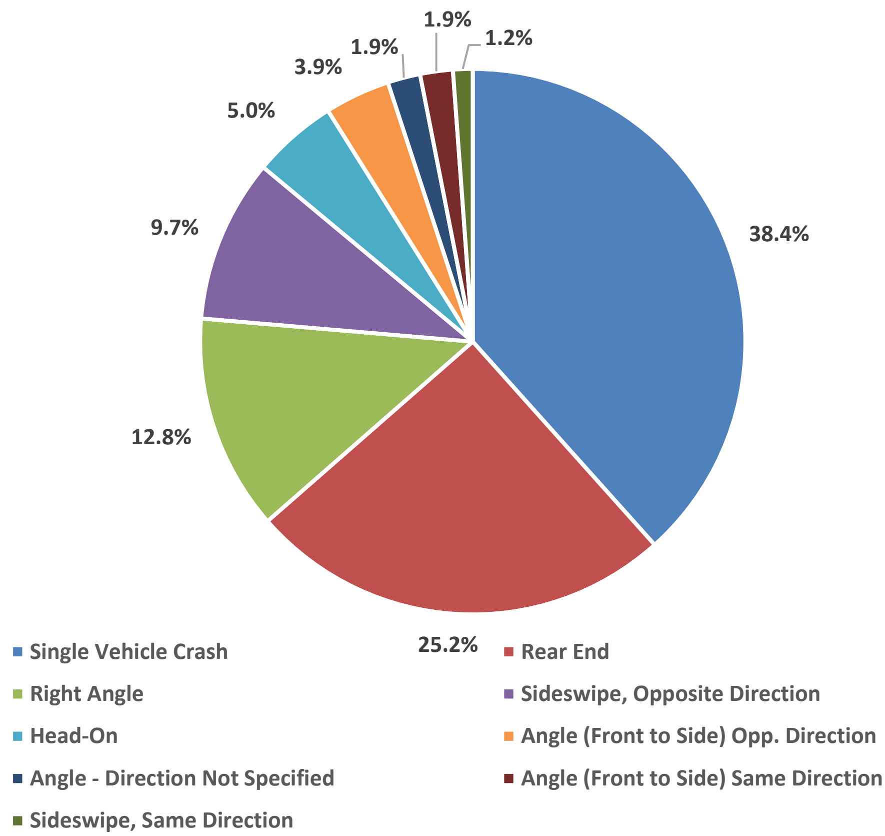


Figure 9: Crashes by Type

Figure 10 illustrates the spatial distribution of crashes along the study corridor, symbolized by severity level. The majority of crashes are classified as Property Damage Only (O) and Minor Injury (C), represented by brown triangles and yellow circles respectively, and are distributed broadly along the orange study corridor. A concentration of higher-severity events — including at least one fatal (K) crash and several serious injury (A and B) crashes — is visible near the western segment of the corridor at the Van Voorhis Road and Ackerman Road intersection.

Figure 10: Crash Locations Based on Severity

Figure 11 displays the spatial distribution of crash frequency along the study corridor. The highest crash concentrations (shown in red/orange) are observed at several key locations:

- **Ackerman Road and Van Voorhis Road intersection –** the most intense hotspot in the western portion of the corridor
- **Van Voorhis Road corridor –** multiple overlapping hotspots along this arterial, particularly near Newberry Lane and Hershman Village
- **Bierer Lane and West Run Road intersection –** a prominent high-frequency cluster in the far eastern end of the study area
- **West Run Road area –** moderate frequency activity near the center of the corridor

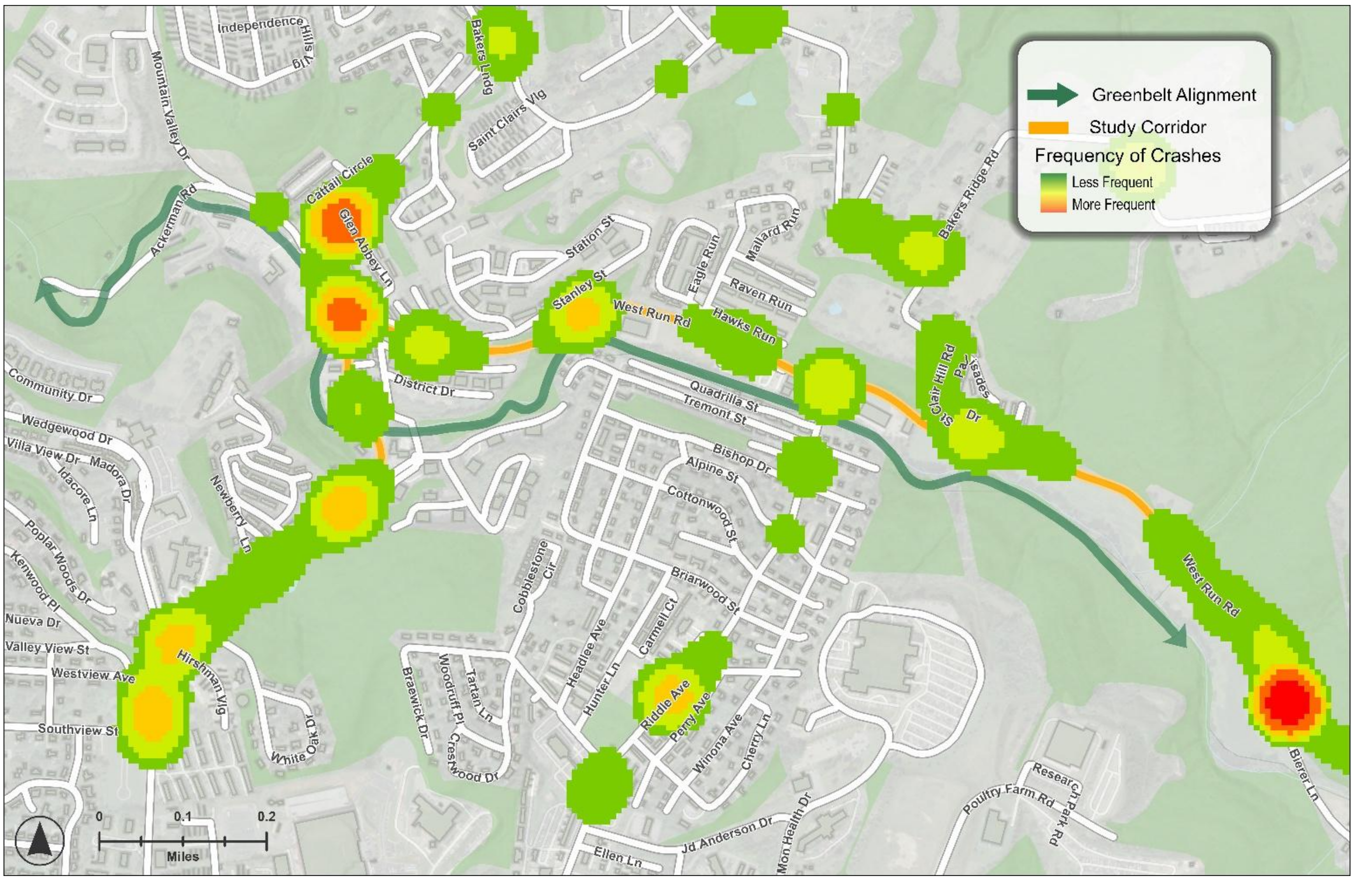


Figure 11: Crash Frequency Heat Map

Figure 12 illustrates the weighted severity of crashes across the same study area using the EPDO weighting described above. Compared to the frequency map, severity is more spatially concentrated at one location: **Ackerman Road and Van Voorhis Road intersection** – the dominant severity hotspot, showing the highest injury potential in the entire study area (deep red core), due to the occurrence of a fatal crash.

Figure 12: Crash Severity Heat Map

SPEED ANALYSIS

Speed is a critical factor in roadway safety, particularly for vulnerable road users such as pedestrians and cyclists. Research indicates that pedestrians have approximately a 90 percent chance of surviving a crash with a vehicle traveling at or below 20 mph, whereas that survival probability drops to less than 50 percent when impact speeds reach 30 mph or above (*Peden, 2004, as cited by FHWA*). This relationship underscores the importance of understanding operating speeds along corridors where pedestrians and vehicles share the roadway environment.

The speed analysis was conducted using speed data collected along the study corridor in March 2026. Speed data was collected along Van Voorhis Road and along West Run Road to determine the average, median, 85th percentile, and 15th percentile speeds, as shown in **Table 4**. The 85th percentile speed is defined as the speed at which 85 percent of drivers will travel at or below during free-flowing conditions and is usually a key factor referenced to determine a roadway's posted speed limit.

Table 4: Speed Percentile

Metric	West Run Road Eastbound	West Run Road Westbound	West Run Road Average	Van Voorhis Road Northbound	Van Voorhis Road Southbound	Van Voorhis Road Average
15th Percentile	27 mph	28 mph	—	26 mph	28 mph	—
50th (Median)	35 mph	33 mph	34 mph	32 mph	33 mph	33 mph
85th Percentile	40 mph	39 mph	40 mph	38 mph	39 mph	39 mph
95th Percentile	44 mph	43 mph	44 mph	41 mph	42 mph	42 mph
Mean Speed	35 mph	34 mph	35 mph	33 mph	34 mph	34 mph

Note: Miles per Hour (mph)

On West Run Road, which has a posted speed limit of 25 mph, the 85th percentile speed is 40 mph (eastbound) and 39 mph (westbound), with a mean speed of approximately 35 mph in both directions. On Van Voorhis Road, which has a posted speed limit of 30 mph, the 85th percentile speed is 38 mph (northbound) and 39 mph (southbound), with a mean speed of 33–34 mph. However, during the time of data collection a work zone was in place along this segment of Van Voorhis Road with a posted speed limit of 25 mph. Across all study locations, operating speeds are broadly consistent, falling in the upper 30 mph range.

The 15th percentile speed, indicating the lower boundary of the majority of operating speeds — ranges from 26 mph (Van Voorhis northbound) to 28 mph (West Run westbound and Van Voorhis southbound), confirming that the majority of vehicles on both roads are operating above the posted speed limit.

Table 5 summarizes the 10-mph pace speed statistics for each direction. The pace speed identifies the largest platoon of vehicles traveling in a 10-mph range and is useful for understanding where the bulk of the speed distribution is concentrated.

The 31–40 mph range is the dominant pace speed in both directions at both study locations, capturing 63–70 percent of all vehicles, depending on direction. Southbound Van Voorhis Road shows the highest pace concentration (69.8 percent), while eastbound West Run Road shows the lowest (63.0 percent). Of notable concern is that although both segments of roadway at the time of data collection had posted speed limits of 25 mph, in all cases, over 92 percent of vehicles exceed 25 mph, and over 63 percent travel within the 31–40 mph range.

Table 5: Pace Speed Statistics by Direction

Statistic	West Run Road EB	West Run Road WB	Van Voorhis Road NB	Van Voorhis Road SB
Pace Speed (10 mph window)	31–40 mph	31–40 mph	31–40 mph	31–40 mph
Number in Pace	4,936 EB	5,699 WB	8,286 NB	9,418 SB
Percent in Pace	63.0% EB	67.2% WB	64.6% NB	69.8% SB
Vehicles > 25 mph	7,232 EB	8,065 WB	12,023 NB	12,884 SB
Percent > 25 mph	92.3% EB	95.2% WB	93.7% NB	95.5% SB

Note: Miles per Hour (mph), northbound (NB), southbound (SB), eastbound (EB), and westbound (WB)

This data indicates a need for corridor-wide traffic calming measures to reduce speeds to be more consistent with the speed limit and improve safety for all users.

Environmental Context

Environmental factors along the corridor are shown in **Figure 13**, including contours and the 100-year flood zone area around West Run. The 10-foot contours show significant slope and grade change constraints along the corridor, particularly in the southwest portion of Van Voorhis Road, both sides of West Run Road near Stanley Street and District Drive, and on the north side of West Run Road extending to the east. The flood zone does not pose many constraints on the study corridor, as it only intersects the Van Voorhis Road where there is an existing bridge over West Run. It was noted in the field that the bridge recently constructed does not have sufficient elevation for future pedestrian accommodations below the bridge. The proposed Greenbelt alignment is within the flood zone, which could limit potential locations for future Greenbelt connections from the study corridor.

Among the environmental factors assessed, topography was identified as the largest constraint to the Study. The steep slopes throughout the corridor could pose challenges for implementing pedestrian infrastructure adjacent to the roadway and maintaining compliance with Public Right-of-Way Accessibility Guidelines (PROWAG) and other local and regional standards

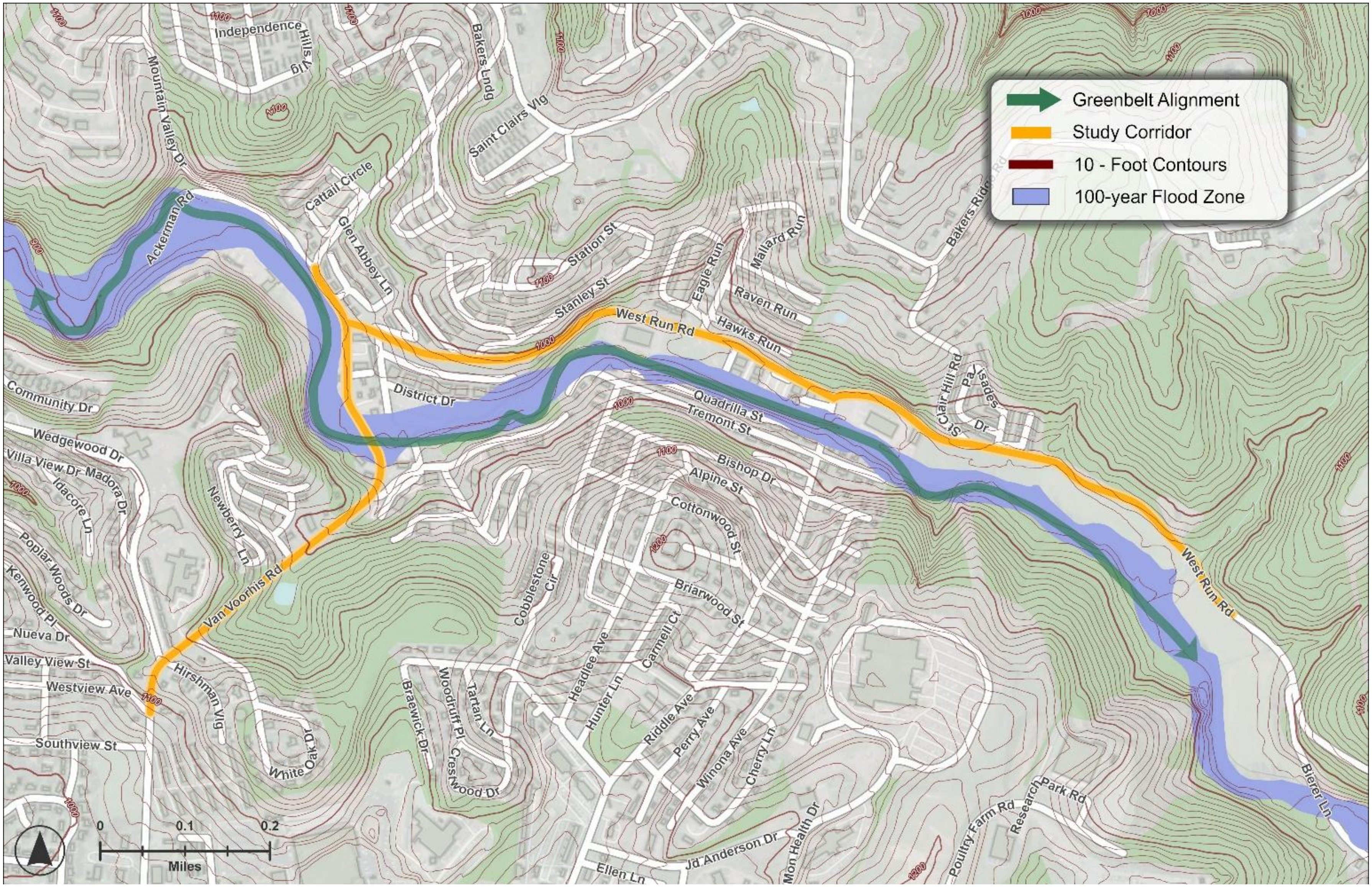


Figure 13: Surrounding Environmental Context

Right-of-Way Availability

Figure 14 identifies right-of-way availability and constraints, showing parcel lines adjacent to the corridor and a transmission line that crosses the corridor at the intersection of Van Voorhis Road and West Run Road. **Figure 14** also shows the widths of public right-of-way at various points along the corridor, which were determined using the parcel data. At some intersections, right-of-way width extends up to 60 – 90 feet. However, much of the corridor poses constraints with narrow rights-of-way as low as 30 – 40 feet in most areas and even 25 feet in some locations.

The constrained right-of-way presents challenges for implementing pedestrian facilities along the roadway without acquiring additional right-of-way or altering the roadway geometry, limiting the potential improvement options for infrastructure throughout much of the corridor.

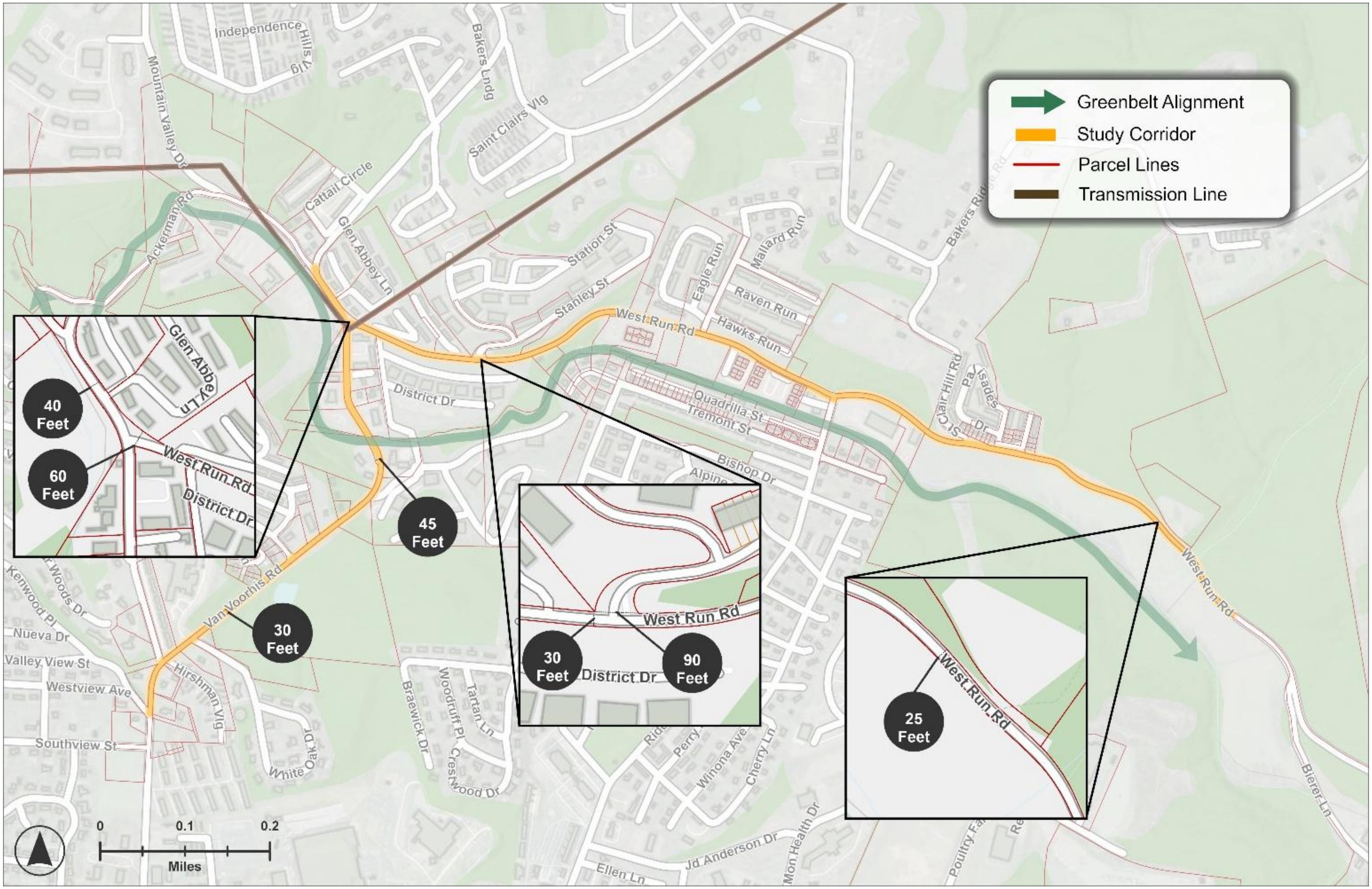


Figure 14: Right-of-Way Availability on the Corridor

Traffic Operations Analysis

A traffic operations analysis was conducted to better understand the characteristics of the vehicles currently using the study area and if there are capacity constraints at any of the five study intersections.

DATA COLLECTION

Turning movement counts (TMCs) were collected on Tuesday, February 24, 2026, under clear weather conditions with schools in session, representing a typical weekday without any major events or anomalies that would otherwise influence travel behavior along the corridor, at the following five study intersections:

- Van Voorhis Road and Wedgewood Drive/Hershman Village
- Van Voorhis Road and West Run Road
- Van Voorhis Road and Ackerman Road
- West Run Road and Riddle Avenue
- West Run Road and St. Clair Hill Road

The TMCs were collected from 7:00 AM to 8:00 PM. Based on the TMC data, the AM peak hour for the network is from 7:30 AM to 8:30 AM, and the PM peak hour is from 4:15 PM to 5:15 PM. In addition to TMC data, 72-hour classification counts were collected on West Run Road and Van Voorhis Road. Based on the 72-count data, the estimated weekday average daily traffic (ADT) on West Run Road is approximately 5,386 vehicles per day (vpd), compared to the WVDOH published annual average daily traffic (AADT) of 5,047 vpd(2024). On Van Voorhis Road, the field-collected ADT of 8,710 vehicles per day is within one percent of the WVDOH AADT of 8,823 (2024), indicating excellent agreement between the two sources. The AM and PM peak hour traffic volumes and ADT volumes are shown in **Figure 15**. Raw TMC data is provided in **Appendix A**.

TRAFFIC ANALYSIS

Existing Vehicular Volumes and Composition

An existing conditions analysis was conducted using the existing AM and PM peak hour turning movement counts, existing lane designations, and existing traffic control at each study intersection. **Figure 15** illustrates the AM and PM peak hour traffic volume and **Figure 16** shows heavy vehicle percentages observed within the study area.

WVDOH reports total truck volumes of 140 vehicles per day (2.8 percent) on West Run Road and 291 vehicles per day (3.3 percent) on Van Voorhis Road, both lower than the field-collected figures of 7.7 and 6.0 percent respectively. This difference may reflect growth in delivery and service vehicle activity associated with ongoing residential development since the WVDOH counts were conducted. Of the heavy vehicles on both roads, almost all are single-unit trucks (FHWA Classes 4–7), including buses, delivery, and utility vehicles, which account for approximately 7.5 percent of the ADT on West Run Road (406 vehicles per day) and 5.8 percent on Van Voorhis Road (508 vehicles per day), as summarized in

Table 6. Combination unit trucks (Classes 8–13) are extremely rare, averaging around ten vehicles per day on both corridors, representing around 0.1 percent of the total ADT.

Table 6: Heavy Vehicle Classification Summary — Field Counts vs. WVDOH Data

	West Run Road		Van Voorhis Road	
	Field Count (2026)	WVDOH (2024)	Field Count (2026)	WVDOH (2024)
Total ADT (two-way)	5,386	5,047	8,710	8,823
All Trucks (Classes 4-13)	414	140	519	291
All Trucks % of ADT	7.7%	2.8%	6.0%	3.3%
Single-Unit (SU) Trucks (Classes 4-7)	406	N/A*	508	N/A*
SU Trucks % of ADT	7.5%	—	5.8%	—
SU Trucks % of all truck traffic	98.1%	—	97.9%	—
Combination Unit Trucks (Classes 8-13)	8	N/A*	11	N/A*
Combination Trucks % of ADT	0.1%	—	0.1%	—
Combination Trucks % of all truck traffic	1.9%	—	2.1%	—

**WVDOH and GeoCounts reports a single combined truck percentage and does not provide a breakdown by FHWA vehicle classification (SU vs. combination). N/A indicates data not available at that level of detail from the published source*

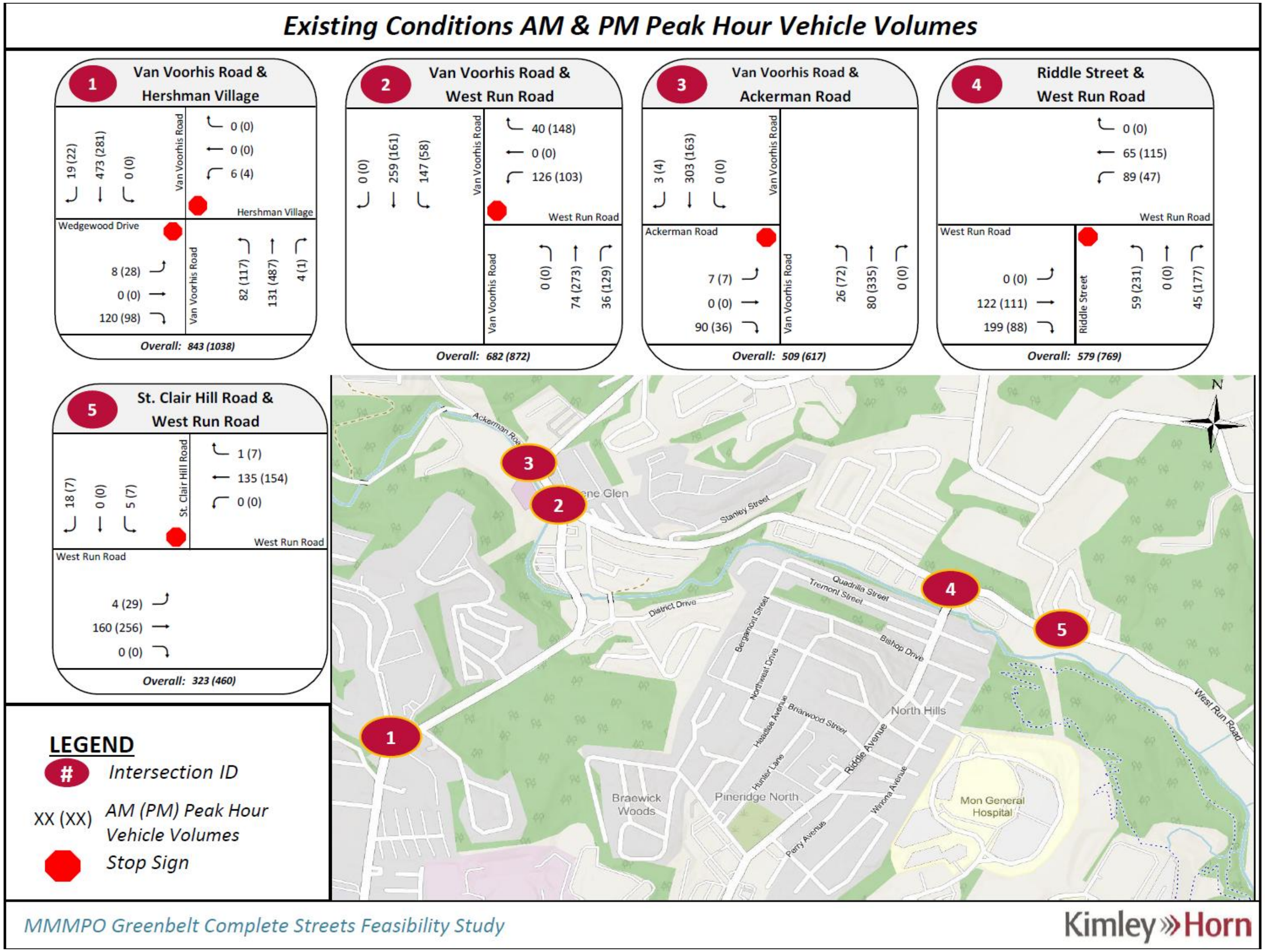


Figure 15: Existing Conditions Traffic Volumes

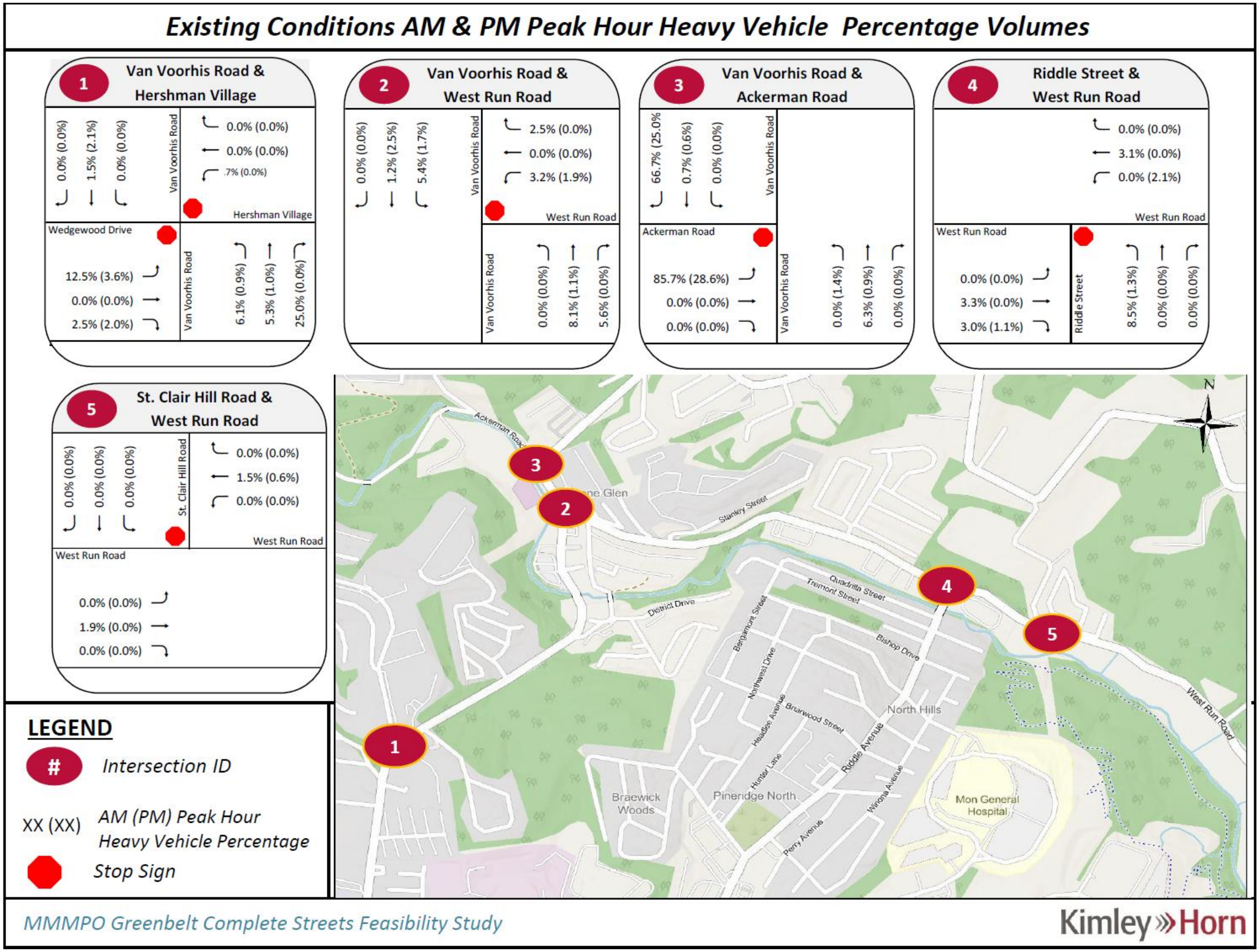


Figure 16: Existing Conditions Heavy Vehicle Percentage

Analysis Methodology

The traffic operational analysis was conducted to evaluate the overall performance of the study area under existing (2026) and future no-build (2050) AM and PM peak hour conditions using Synchro 12. Synchro 12 utilizes methodologies that are consistent with the Highway Capacity Manual (HCM).

The following measures of effectiveness were evaluated for the intersection capacity analyses:

- Level of service (LOS) and average vehicle delay
- 95th percentile queue length

The intersection LOS is a qualitative measure that describes a driver's perception of the operating conditions. LOS ratings range from A to F. LOS A indicates little or no congestion and LOS F indicates severe congestion, unstable traffic flow, and/or stop-and-go conditions. Ordinarily LOS E and F are considered unacceptable levels of delay.

Table 7 summarizes the LOS corresponding to the delay at unsignalized intersections as specified in the HCM. For unsignalized intersections, LOS is reported on an intersection approach basis, and the corresponding delay is calculated by determining the number of gaps available in the conflicting traffic stream, since the LOS analysis assumes that traffic on the mainline is not affected by traffic on the side street.

Table 7: Unsignalized Intersection Level of Service Criteria

LOS	Average Stopped Delay (seconds/vehicle)	Description of Traffic Conditions
A	≤10.0	Very low delay, progression is extremely favorable, most vehicles arrive during green phase
B	>10.0 to 15.0	Generally good progression, low delays, more vehicles must stop at intersection red phases
C	>15.0 to 25.0	Fair progression, increasing number of vehicles must stop, signal cycle fails to process all traffic
D	>25.0 to 35.0	Traffic congestion more noticeable, increasing cycle failures, unfavorable progression and longer delays
E	>35.0 to 50.0	Poor progression, generally high volume to capacity ratios, frequent cycle failures, intersection traffic approaching capacity
F	≥50.0 or v/c ≥ 1.0	Unacceptable conditions, arrival flow exceeds intersection capacity, many cycle failures, poor progression, and high delays

Future No-Build Conditions

The Future No-Build conditions analysis was conducted using 2050 traffic projections for the AM and PM peak hours, existing lane designations, and existing traffic controls. To account for future traffic growth along the study corridor, base year (2019) and future year (2050) model volumes were extracted from the MMMPO Travel Demand Model (TDM), developed in TransCAD. The percent growth between the base and future year volumes was calculated for each roadway segment within the study area, and a linear annual growth rate was derived for each location. These segment-level growth rates were then evaluated to determine a representative growth rate applicable to the study corridor as a whole, as summarized in **Table 8**. Based on this analysis, a linear annual growth rate of **1.5 percent** is recommended for application to existing traffic volumes when developing future year forecasts for the study area. The projected 2050 traffic volumes are shown in **Figure 17.**

Table 8: Projected Traffic Growth Rates

Segment	2019 Model Volume (V_{2019})	2050 Model Volume (V_{2050})	Linear % Rate/year	Weight (V_{2019} / ΣV_{2019})	Weighted Linear (Rate × Weight)
1	3,001	4,373	1.47%	3.08%	0.045%
2	4,588	7,100	1.77%	4.71%	0.083%
3	5,279	7,130	1.13%	5.42%	0.061%
4	5,588	7,946	1.36%	5.74%	0.078%
5	7,759	11,568	1.58%	7.97%	0.126%
6	8,173	11,651	1.37%	8.40%	0.115%
7	8,651	14,005	2.00%	8.89%	0.177%
8	8,721	14,184	2.02%	8.96%	0.181%
9	10,359	14,350	1.24%	10.64%	0.132%
10	10,830	15,844	1.49%	11.13%	0.166%
11	11,580	15,607	1.12%	11.90%	0.133%
12	12,799	18,398	1.41%	13.15%	0.186%
Total	97,328	142,156	—	100.00%	1.486%
Average	—	—	**1.50%**	—	1.49%

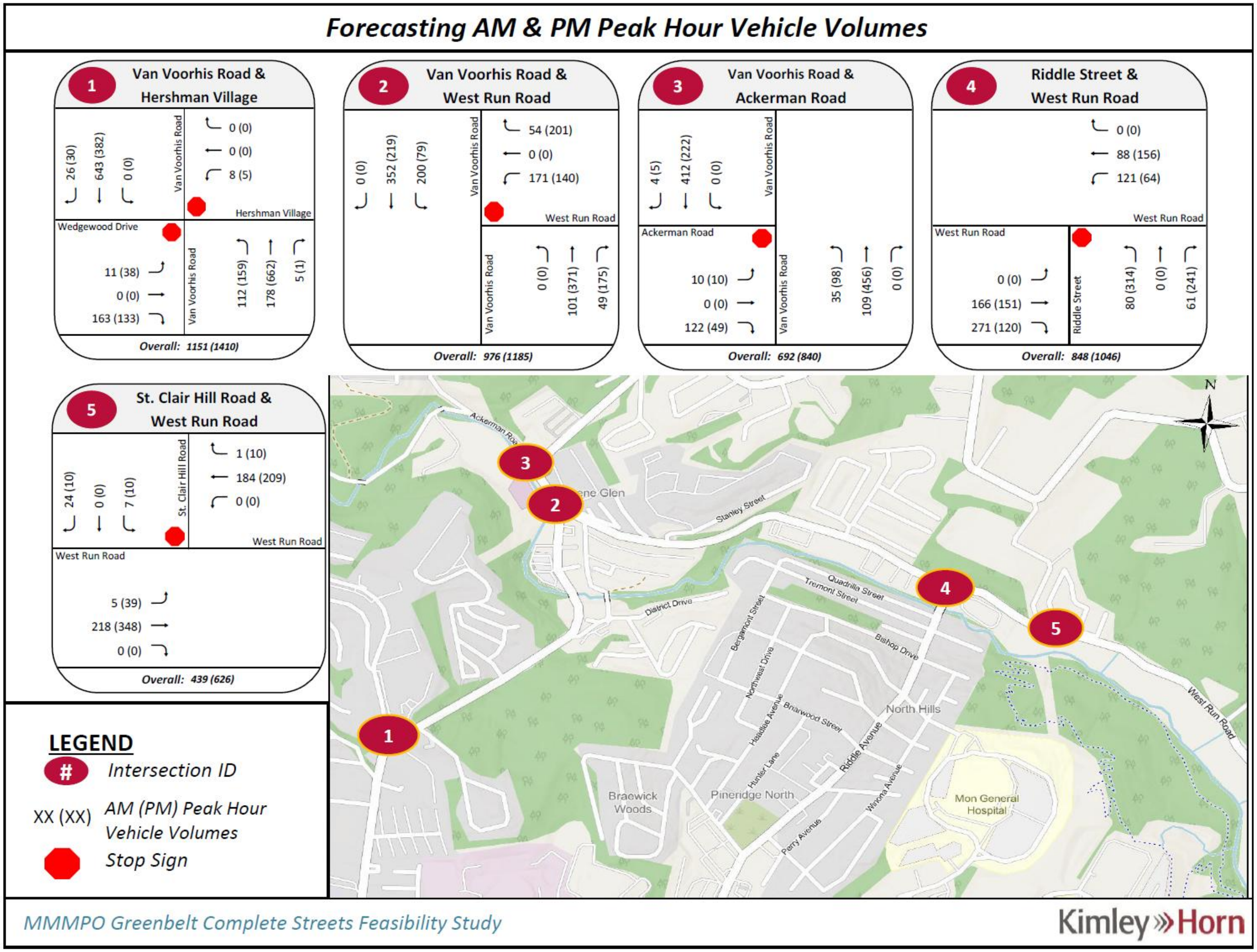


Figure 17: Future Peak Hour Traffic Volumes

Intersection Capacity and Queueing Analysis

The following section summarizes the results of the intersection capacity and queueing analysis results at each intersection. **Table 9** summarizes the Existing and No-Build AM and PM intersection capacity results and the full HCM Synchro reports can be found in **Appendix B**. In the existing conditions during the PM peak hour, the highest delay occurs at the intersection of Van Voorhis Road and Wedgewood Drive/Hershman Village for the westbound approach, which operates at an LOS D with an average of 27.58 seconds of delay per vehicle. The longest queue during the PM peak hour was observed to be 107.5 feet for the northbound left at the intersection of West Run Road and Riddle Avenue.

Under No-Build conditions, several movements experienced an increase in delay and queueing for the study intersections. At the intersection of Van Voorhis Road and Wedgewood Drive/Hershman Village, the eastbound and westbound approaches operate at LOS F in the AM and PM peak hour, except for the eastbound approach, which operates at LOS E in the AM peak hour. At the same intersection, the largest increase in delay occurs for the eastbound approach, which increases by approximately 219 seconds during the PM peak hour. The longest queue length of 332.5 feet occurs at the northbound approach at West Run Road and Riddle Avenue.

Table 9: Existing and Future No-Build AM and PM Intersection Capacity Analysis Results

Intersection Name	Approach	2026 Existing Conditions		2050 No-Build Conditions	
		AM	PM	AM	PM
Van Voorhis Road and Hershman Village	Eastbound	C (17.16)	D (26.15)	E (36.7)	F (245.56)
	Westbound	C (23.72)	D (27.58)	F (56.71)	F (62.92)
	Northbound	A (3.46)	A (1.62)	A (3.95)	A (1.76)
	Southbound	A (0.0)	A (0.0)	A (0.0)	A (0.0)
Van Voorhis Road and West Run Road	Westbound	C (18.72)	B (14.63)	F (57.08)	D (26.07)
	Northbound	A (0.0)	A (0.0)	A (0.0)	A (0.0)
	Southbound	A (2.86)	A (2.21)	A (2.98)	A (2.37)
Van Voorhis Road and Ackerman Road	Eastbound	B (11.73)	B (10.36)	B (14.42)	B (12.11)
	Northbound	A (1.98)	A (1.37)	A (2.06)	A (1.41)
	Southbound	A (0.0)	A (0.0)	A (0.0)	A (0.0)
Riddle Avenue and West Run Road	Eastbound	A (0.0)	A (0.0)	A (0.0)	A (0.0)
	Westbound	A (4.72)	A (2.26)	A (5.01)	A (2.35)
	Northbound	B (11.18)	C (16.88)	B (13.23)	E (47.3)
St. Clair Hill Road and West Run Road	Eastbound	A (0.18)	A (0.77)	A (0.17)	A (0.72)
	Westbound	A (0.0)	A (0.0)	A (0.0)	A (0.0)
	Southbound	A (9.08)	A (9.71)	A (9.4)	B (10.49)

Field Reconnaissance

On March 4th, 2026, the project team conducted a field visit to further assess existing conditions, visually verify collected data, and capture photos of conditions along the corridor. The project team walked the entire corridor and documented several findings, which are summarized below and visualized in **Figure 18**. Additionally, a photo log from the field visit is available in **Appendix C**.

During the field visit, the project team observed progress of the construction that was underway along Van Voorhis Road for improvements beginning at Chestnut Ridge Road and extending along the study corridor to the intersection with West Run Road. Ongoing construction included constructing portions of sidewalk, widening, shoulders, and a new bridge crossing over West Run. Full development plans were reviewed by the project team, and details are included in the **Ongoing and Future Development** section.

Several locations presenting potential operational or safety considerations were noted during the field visit, including limited sight distance at some intersections, including access points to apartment complexes along the corridor. Physical constraints were also observed along segments of West Run Road that limit opportunities for roadway expansion or multimodal improvements. Between Stanley Street and just west of Mallard Run, the existing 10-foot travel lanes and a rock wall along the north side of the roadway limit space for a shoulder. A second constrained segment was noted between District Drive and the parcel located at 1061 West Run Road, where the grass buffer widths vary before grades drop into adjacent developments. Approaching Van Voorhis Road, West Run Road transitions to existing 12-foot travel lanes. Towards the eastern end of the study corridor, a large open field owned by WVU was measured to be approximately 225 feet between the south side of West Run Road and the existing tree line.

The project team also observed several Monongalia County School buses traveling along the project corridor and stopping at residential access points to drop off students. This finding was significant and indicated a need for a design that accommodates school buses as well as safety improvements for children boarding and exiting buses. Following the field visit, the project team reached out to Monongalia County Schools to gather available data on school bus routes in the study area, described in the **Transportation Connections** section.

1. Under construction – sidewalk on west side of Van Voorhis Road
2. Under construction – sidewalk on east side of Van Voorhis Road
3. Pedestrian crossing of Van Voorhis Road
4. Under construction – replacing bridge crossing West Run. Proposed bridge deck will be 34 feet wide with additional 5-foot sidewalk on east side
5. Potential sight distance issue (3 total locations identified)
6. 4 feet from shoulder to existing wall or guardrail
7. Existing 12-foot travel lanes
8. 8-foot buffer before grade drop on south side
9. 12-foot buffer before grade drop on south side
10. Physical constraint – existing 10-foot lanes, no shoulder space on north side due to rock wall
11. 10-foot buffer from edge of travel lane to existing retaining wall on north side
12. 28-foot width total (Riddle Avenue)
13. Approximate distance from road edge to existing tree line along West Run – 225 feet

Figure 18: Field Visit Observations

Ongoing and Future Development

The project team collected and assessed several plans for future and ongoing development along the study corridor. These developments are summarized as follows and mapped in **Figure 19**.

VAN VOORHIS ROADWAY IMPROVEMENTS

Portions of Van Voorhis Road are currently undergoing roadway improvements as part of a state project. Based on a review of the final plans, the project limits extend from the southern terminus of Chestnut Ridge Road to the northern terminus just south of West Run Road. Planned pedestrian improvements include a 5-foot sidewalk that begins on the west/north side of the road at the project's southern terminus and switches to the east/south side of the road near Windwood Drive. This is also the location of the only pedestrian crossing included in the plans. The plans also include a new bridge crossing of West Run with a total deck width of approximately 39 feet, which includes a 5-foot sidewalk on the east side, as well as widening to two 10-foot lanes with paved shoulders of varying widths. New curb and gutter is proposed along the entire length of the project, as well as a realignment of the roadway along the curve at the intersection with Wedgewood Drive/Hershman Village to improve safety and sight-distance.

FUTURE PLANNED TRAILS

Beyond the planned Greenbelt regional trail described in the **Study Intent and Goals**

section of this report, there are two other networks of trails planned adjacent to the study corridor. The City of Morgantown, WVU, and the International Mountain Biking Association (IMBA) conducted a trail planning process between 2020 and 2023 that identified networks of planned trails within Van Voorhis Woods and West Run Woods, shown in **Figure 19**. The plans include shared-use trails and bike only trails intended for mountain biking.

RESIDENTIAL DEVELOPMENT PLANS

Sunflower Village is a large-scale townhome development proposed on approximately 12 acres at the intersection of West Run Road and St. Clair Hill Road. The project consists of 108 three-bedroom townhomes. Transportation impacts are a primary concern associated with the development, given the increase in traffic along West Run Road from Sunflower Village and other nearby developments. As a result, the applicant coordinated extensively with WVDOH, MMMPO, and nearby developers to address access and roadway capacity. Proposed improvements include widening and realignment of St. Clair Hill Road, upgrades at the intersection with West Run Road, and interim right-turn-only medians for vehicles accessing West Run Road until future roadway improvements are completed. Pedestrian and bicycle facilities are proposed to provide a connection from the development to West Run Road, with a crosswalk proposed on West Run Road east of Riddle Avenue.

Mallard Greene and Mallard Terrace is a 76-unit apartment development proposed on a 2.56-acre site along West Run Road, directly across from the Villages at West Run. The project consists of two four-story apartment buildings: one containing 36 two-bedroom units and the other containing 40 one-bedroom units. The development seeks to provide fewer parking spaces than typically required by utilizing a transit-based parking reduction strategy, which includes a bus stop pad along West Run Road. The development plans also include the reservation of right-of-way at the south end of the site for the planned Greenbelt.

Hershman Landing II is a smaller-scale multifamily apartment development proposed on a 1.36-acre site along Van Voorhis Road across from Clearview Avenue. The project includes 25 total dwelling units distributed among three apartment buildings. Access to the site is provided via an existing driveway, with modifications coordinated with WVDOH to address sight-distance requirements. A potential future connection to a four-way intersection with Clearview Drive was also identified in the plans. The developer proposed an off-street pedestrian pathway connecting to an adjacent development, as well as a new bus stop. The proposed development's traffic impacts were considered minor, and no formal traffic impact study was required.

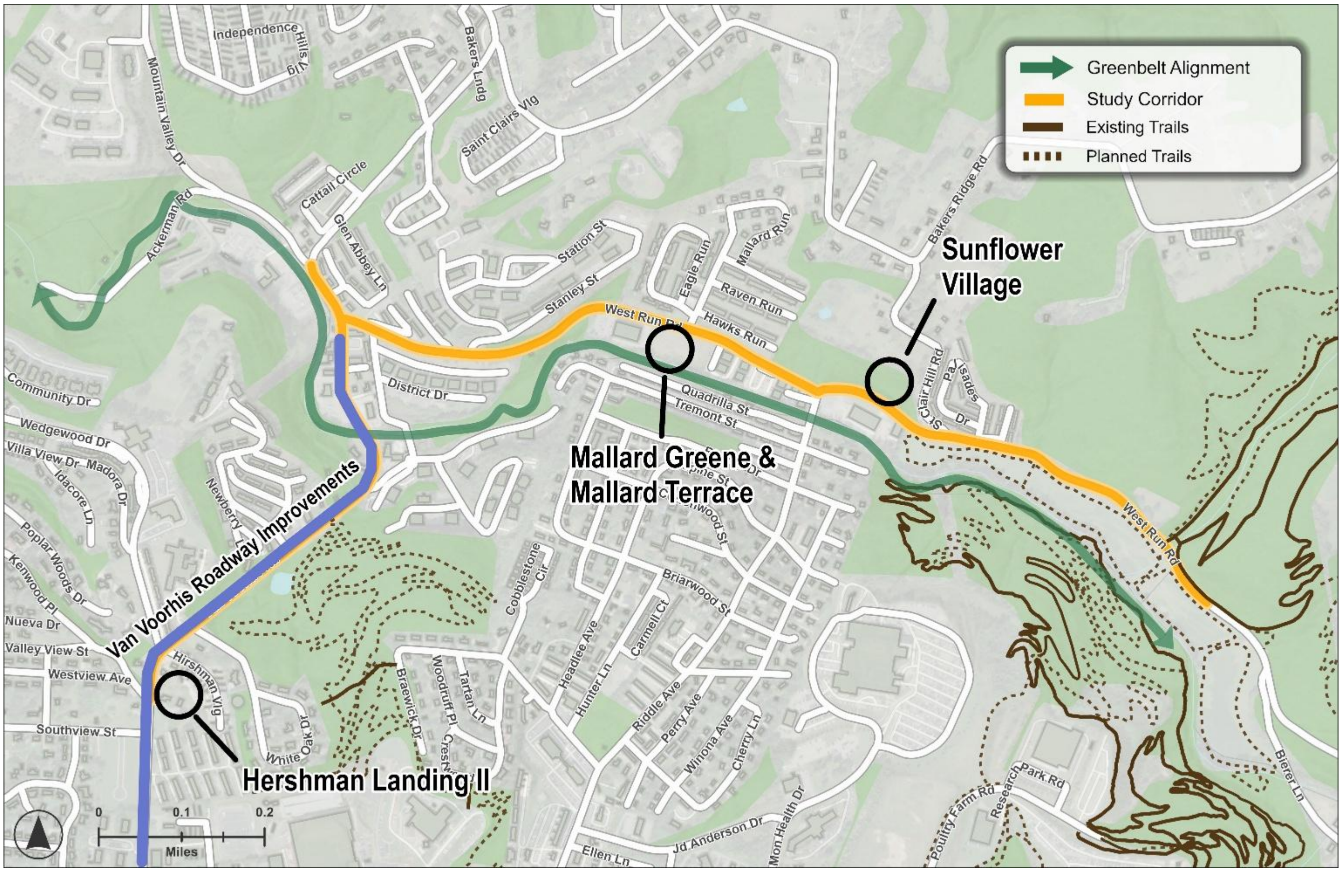


Figure 19: Future and Ongoing Developments

Summary of Needs

The analysis of existing conditions allowed the project team to identify potential opportunities and constraints along the study corridor. Based on these opportunities and constraints, the following needs were identified and were used to frame the potential improvements developed in the next phases of the Study:

- Pedestrian and bicycle infrastructure along the corridor that will allow residents to walk and bike connect to public transit, trails other facilities to access retail, employment, and recreational opportunities
- Safer pick-up and drop-off areas for residents and children to access public transit and school buses
- Safe crossings to allow connection across the corridor between developments, destinations, and other facilities such as the future Greenbelt
- Corridor-wide traffic calming and safety countermeasures to reduce speeds, protect travelers, and improve safety and comfort for pedestrians and bicyclists
- Improved lighting along the corridor to increase visibility, safety, and comfort for all users

CONCEPT EVALUATION

Visioning Process

Based on the goals of the Study as well as the opportunities, constraints, and needs along the corridor identified in the **Existing Conditions** analysis, the project team conducted a corridor visioning process to identify which potential improvements would best meet the project intent and serve the needs and future development around the study corridor. The improvements considered included:

- Typical section alternatives
- Pedestrian and bicycle facilities and crossings
- Connection points to the future Greenbelt
- Traffic calming measures
- Corridor-wide safety improvements
- Intersection improvements at targeted intersections

The core milestone in the corridor visioning process was the Concept Workshop that was held on March 31st, 2026. At this workshop, the project team and key stakeholders evaluated the proposed alternatives for each potential improvement and settled on a consolidated vision to carry forward as the preferred concept for the corridor. The following sections describe the alternatives that were presented and evaluated during the workshop. The detailed meeting summary from the workshop is available in **Appendix G**.

Typical Section Alternatives

During the concept evaluation workshop, the project team and stakeholders assessed three typical section alternatives to determine the most appropriate typical section given the right-of-way (ROW) and terrain constraints along the study corridor and the objectives of the proposed improvements. The three alternatives are shown in **Figure 20 -Figure** 22, and range in scale from a Minimal Approach to a Visionary Approach. The Visionary Approach, which assumes a 54-foot-wide right-of-way, includes a 10-foot-wide shared-use path on one side of the road (depicted as sidewalk in the visualization below) and a 5-foot-wide sidewalk on the other, in addition to 11-foot travel lanes, curb and gutter, and grass buffers on both sides of the road. In contrast, the Minimal Approach assumes a 39.5-foot-wide right-of-way and includes a 6-foot sidewalk on just one side of the road with no buffer from the roadway. The "Just Right" Approach strikes a balance between the Visionary and Minimal Approaches by assuming a 44.5-foot-wide right-of-way and including an 8-foot-wide shared-use path on one side of the road with a grass buffer from the roadway, and where needed to provide access to the nearest intersection, a 6-foot-wide sidewalk at the back of curb. On the side of the road without the shared-use path, the typical section would vary between curb and gutter and a ditch to minimize impacts on the surrounding topography and drainage patterns.

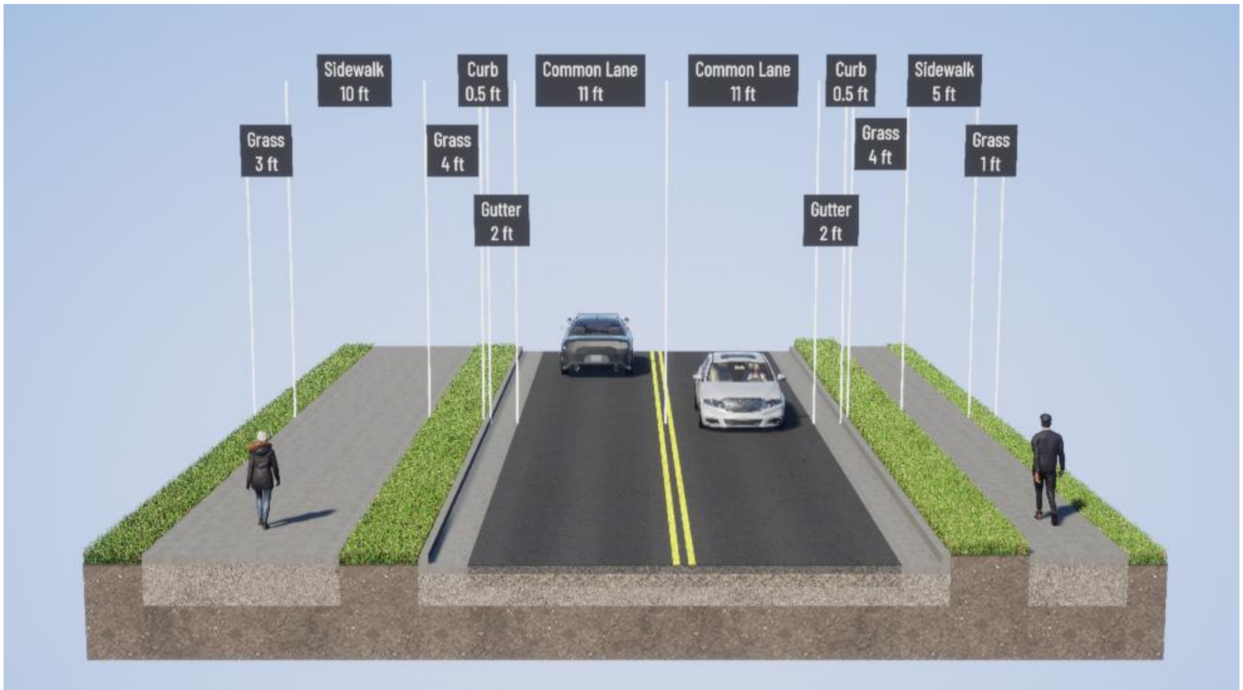


Figure 20: Visionary Approach Typical Section

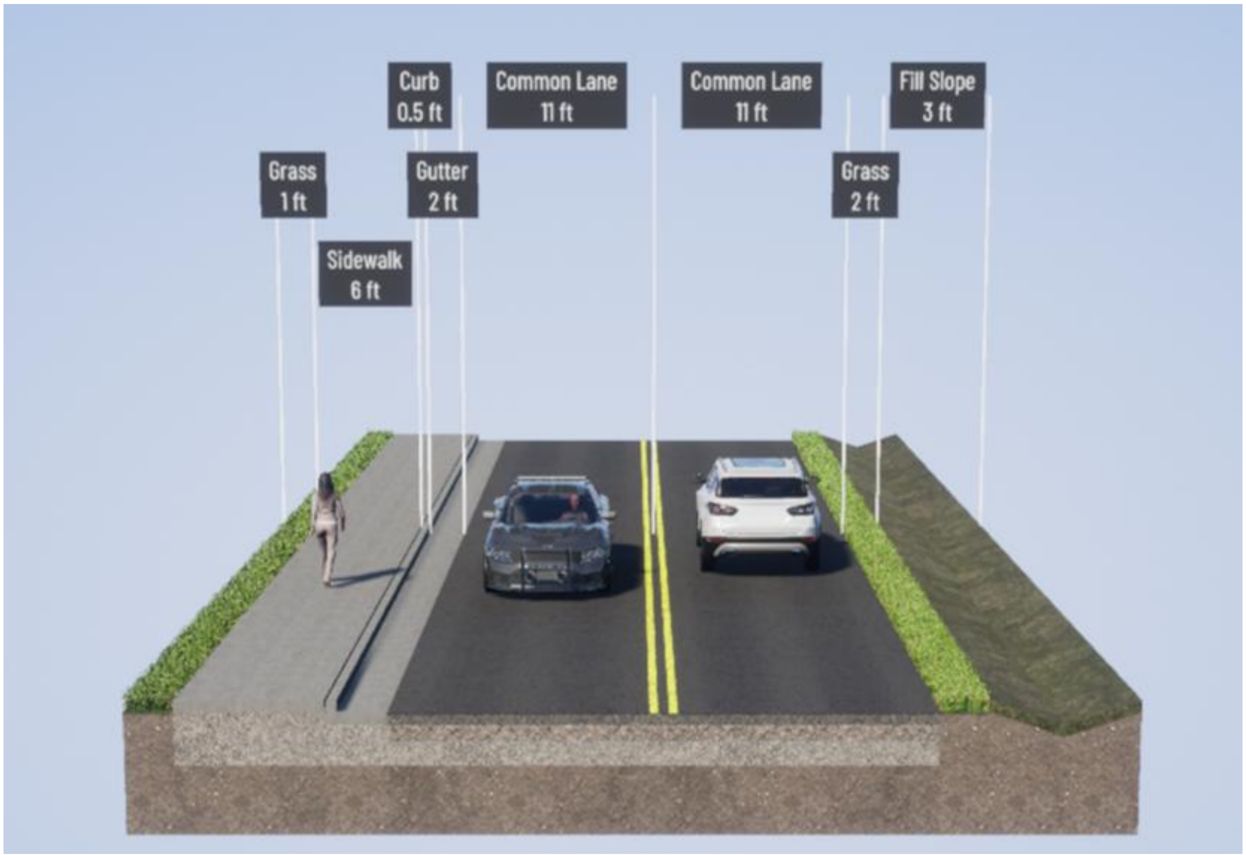


Figure 21: Minimal Approach Typical Section

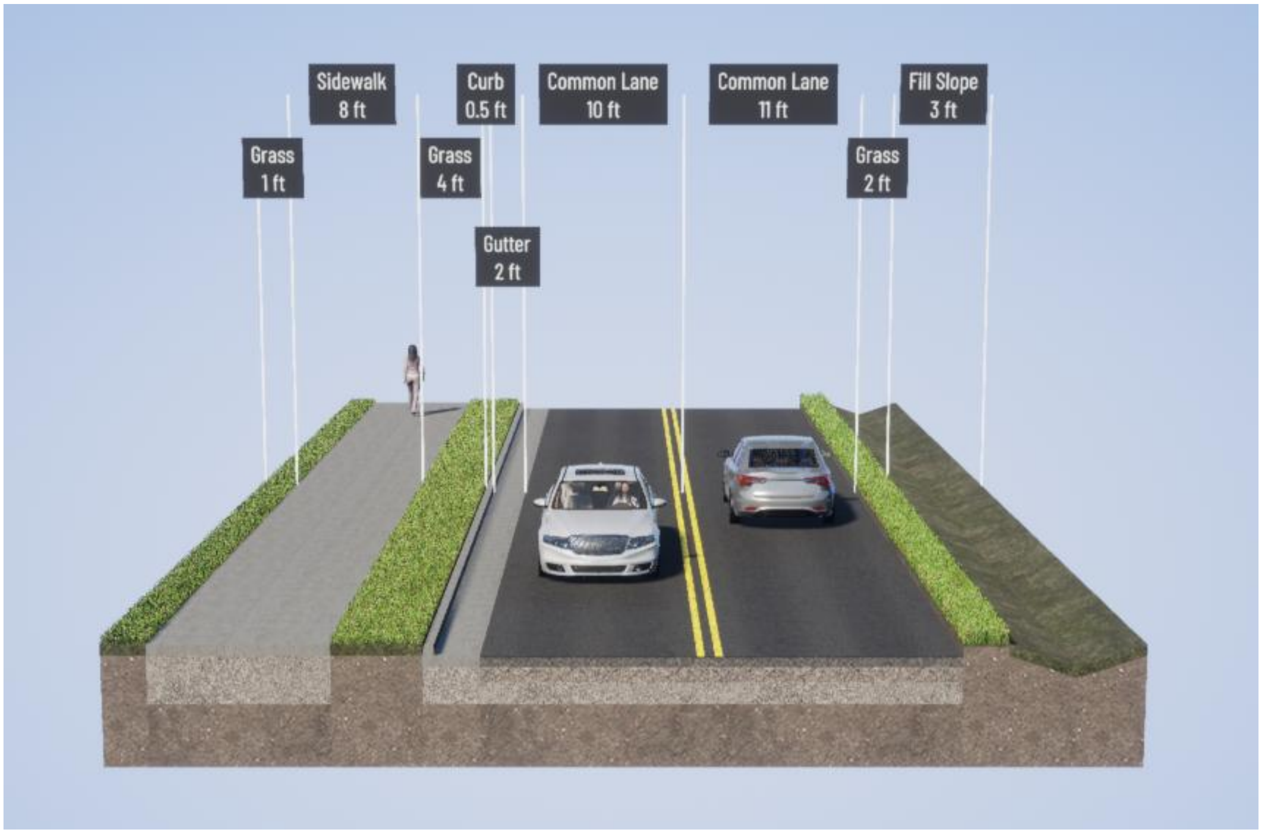


Figure 22: "Just Right" Approach Typical Section

TYPICAL SECTION ALTERNATIVES EFFECTS

The typical section alternatives would have varying impacts in aspects such as required right-of-way, grading, utilities, retaining walls, and other structures adjacent to the roadway. The Visionary Approach would have the greatest impact, requiring additional right-of-way on both sides of the roadway, major grading due to the steep slopes adjacent to the roadway, and heavy impacts on structures such as fencing and landscaping. The Visionary Approach would cause challenges to existing utility lines adjacent to the roadway and would require a full reconstruction of existing retaining walls north of West Run Road. The "Just Right" Approach would still include a shared use path for pedestrian access, but would have less impacts to utilities, grading, and structures as the right-of-way extension would be required in less locations, often limited to the side where the shared use path is located. The Minimal Approach would require minimal right-of-way expansion, which would limit subsequent impacts but would not provide ideal facilities for safe and comfortable pedestrian and bicyclist access along the corridor. An example of these varying impacts is shown in **Figure 23**.

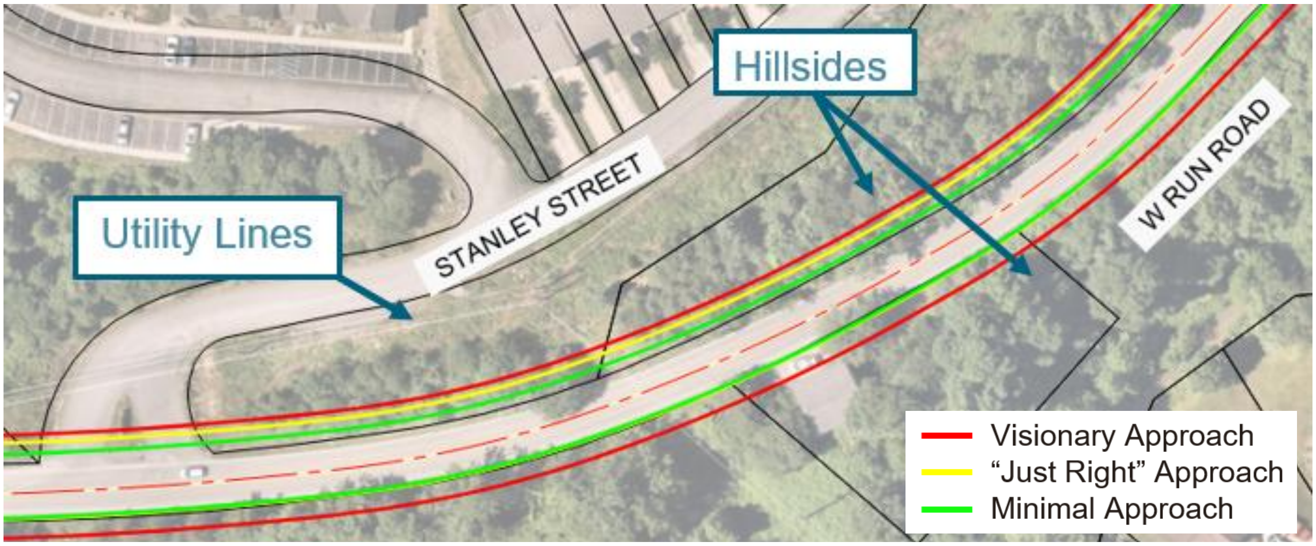


Figure 23: Typical Section Alternatives Impacts to Utilities and Slopes

ROADWAY REALIGNMENT

An additional roadway design component was also considered and discussed with stakeholders during the corridor visioning process: shifting the centerline of West Run Road slightly to the south and using the additional space created on the opposite side of the road to place the shared-use path. Placing the shared-use path along either the north or south side of West Run Road, depending on constraints and trip origins or destinations along the corridor, would allow for comfortably designed pedestrian facilities within existing constraints while limiting impacts on adjacent infrastructure and meeting users' needs. The roadway realignment would require notable investment and reconstruction of West Run Road, but is anticipated to cost less than a symmetrical widening alternative, which would likely entail notable right-of-way and retaining wall or earthwork costs due to the steep adjacent topography. The example in **Figure 24** shows the "Just Right" Approach without the realignment (red) and with the realignment (green). In this location with residential developments on both sides of the road, the realignment provides room for a shared-use path while avoiding impacts to an existing retaining wall north of the road. In some locations, this shift allows for a secondary sidewalk to provide access between developments.

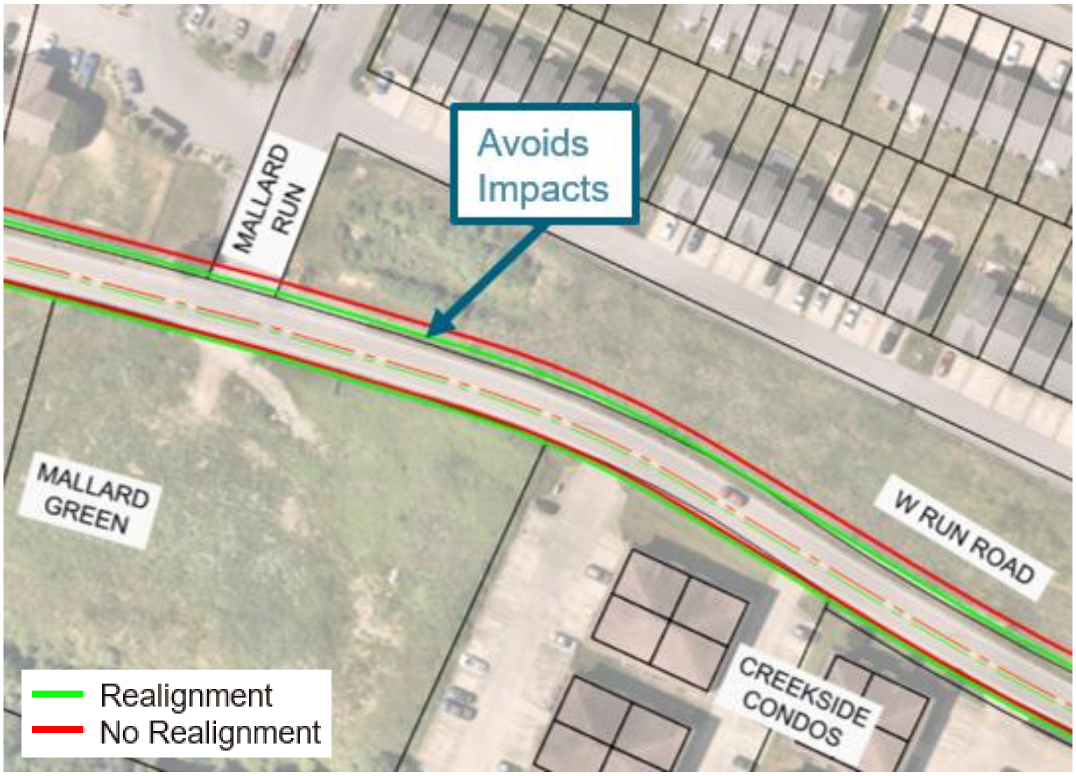


Figure 24: Impacts of "Just Right" Typical Section With and Without Roadway Realignment

Pedestrian Crossings and Connections to Future Greenbelt

Figure 25 shows the locations identified for potential pedestrian crossings along the corridor as part of the corridor vision, as well as locations for potential future connections to the proposed Greenbelt. The crossing locations were identified to improve pedestrian connectivity for residents along the corridor and provide access to the future Greenbelt. With these goals in mind, this corridor vision identifies potential crossings at key intersections, transit and school bus stops, and access points to residential developments and nearby existing and planned trails.

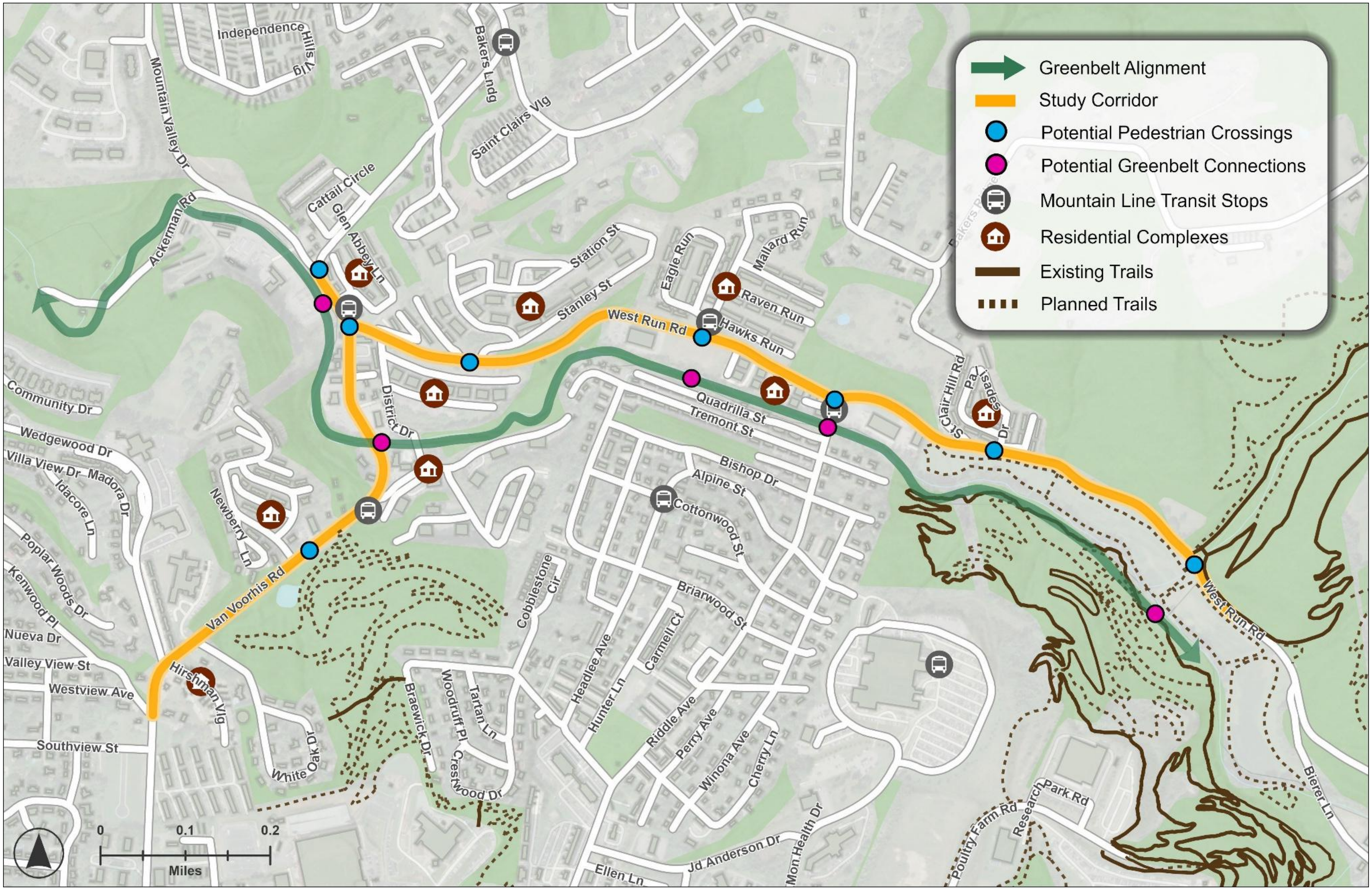


Figure 25: Potential Pedestrian Crossings and Connections to Greenbelt

Additionally, **Figure 26** shows examples of types of pedestrian crossings that were considered during the corridor visioning process. These crossing options provide various benefits to pedestrian safety and comfort by increasing visibility and slowing traffic in the area. During the workshop discussion, stakeholders agreed that standard marked crosswalks without additional components to increase the visibility of pedestrians and bicyclists and reduce vehicular speeds would not be appropriate for the corridor, given the existing volumes and speeds observed along the corridor.

Figure 26: Pedestrian Crossing Options

Traffic Calming

Figure 27 shows the locations along the corridor that were identified as candidates for traffic calming based on the results of the existing conditions analysis and findings during the field visit. These locations align with pedestrian crossing opportunities, corridor-wide populated areas, and roadway conditions that pose safety concerns.

Figure 27: Potential Traffic Calming Locations

Figure 28 shows examples of various traffic calming measures that were considered for these locations during the corridor visioning process.

Figure 28: Traffic Calming Options

Corridor-Wide Safety Improvements

In addition to pedestrian safety improvements and traffic calming measures, the project team also considered several corridor-wide safety improvements as part of the corridor vision. The options considered are shown in **Figure 29**. Elements such as guardrail, rumble stripes, lighting, flexible delineator posts, and object markers can help reduce roadway departure or fixed object crash types, which are some of the most frequently occurring crash types along the study corridor. Curve delineators can improve safety and driver awareness at roadway curves. Warning signs can also alert drivers to upcoming curves, intersections, pedestrian crossings, and bus stops. In addition to these elements, lighting along the corridor can improve visibility for all users, increasing both actual and perceived safety, particularly for pedestrians walking in dark conditions.

Figure 29: Safety Improvement Options

Intersection Improvements

The corridor vision also included an assessment of various improvement options for the five target intersections in the study area, shown in **Figure 30**.

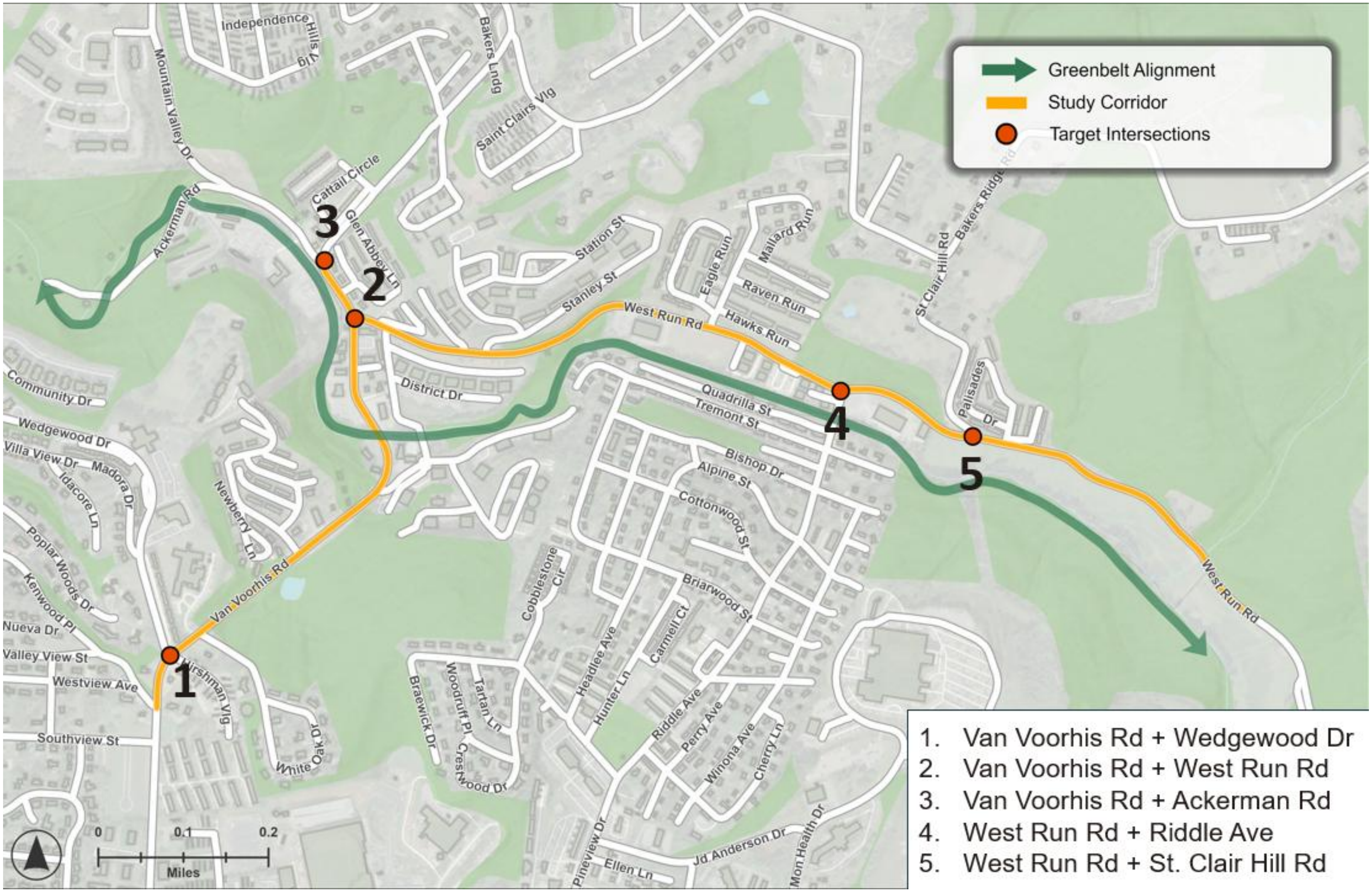


Figure 30: Target Intersections

In the respective sections below, the identified issues are described for each intersection, and potential improvements are assessed by comparing their anticipated benefits with potential disadvantages for operation or implementation. The primary goals of the assessment of intersection improvements were traffic calming, speed reduction, and pedestrian safety. The potential alternatives were evaluated based on several factors including observations of speed, operations, and sight distance during the field visit, **Historic Crash Analysis** from the **Existing Conditions** phase, and travel demand modeling of potential improvements.

All-way stop, roundabout, and mini-roundabout options were considered at the intersections of Van Voorhis Road and West Run Road, Van Voorhis Road and Ackerman Road, and West Run Road and Riddle Avenue, and compared to the existing one-way stop control for the minor street approach. Adjustments to the West Run and St. Clair Hill Road intersection to address sight distance concerns were considered in cooperation with ongoing planned developments off St. Clair Hill Road. Improvements to the fifth intersection of Van Voorhis Road and Wedgewood Drive/Hershman Village were not considered since the intersection is currently being realigned as part of the WVDOH Van Voorhis Road project.

As part of this preliminary concept screening, a high-level tool developed by the Virginia Department of Transportation (VDOT), called the VDOT Junction Screening Tool (VJuST), was used to obtain relative quantitative differences in operational (volume to capacity ratio) and safety metrics. This screening analysis found that while the alternatives had varying levels of operational performance, all were anticipated to perform acceptably (volume to capacity ratio less than 1) except at the West Run Road and Van Voorhis Road intersection during the AM peak hour. The relative differences in the operational, safety, feasibility, and cost components were discussed with the stakeholder group and are summarized in **Table 10 -Table *12***.

VAN VOORHIS ROAD AND WEST RUN ROAD

The existing condition at the Van Voorhis Road and West Run Road intersection is a one-way stop control at the West Run Road approach with a skewed angle, shown in **Figure 31**. Based on the future year no-build analysis, this stop-controlled approach is anticipated to have delays that cause failing levels of service with future projected traffic volumes. There is also a transit and school bus stop location at the entrance of the Greene Glen apartment complex along Van Voorhis Road north of the intersection. As described in the Existing Conditions section, a key observation from the field visit was that school buses stopping to pick up or drop off students at this location cause back-up at the West Run Road approach to the intersection. The existing conditions analysis also identified a high frequency of crashes at this intersection, raising safety concerns, especially given the higher pedestrian activity from the adjacent bus stop.

Figure 31: West Run Road and Van Voorhis Road Intersection

Table 10 shows the intersection design options considered for this intersection in the corridor visioning process, along with anticipated benefits and potential disadvantages of each design.

Table 10: Design Options Comparison - West Run Road and Van Voorhis Road

Design Options	Benefits	Disadvantages
All-way stop control	• Traffic calming • Low-cost implementation	• Compliance issues • Operational impacts and delay
Roundabout / Mini-roundabout	• Traffic calming • Safety improvement • Added capacity and reduced delay	• Large spatial footprint • Higher cost of implementation
One-way stop control with roadway realignment	• Low-cost implementation • Possibly paired with curb realignment	• No operational or safety improvements

Based on the discussion during the concept visioning work session, the stakeholders decided to move forward with the mini-roundabout concept for the preliminary engineering sketch to be presented to the public. While not preferred, due to the anticipated lower overall benefit, the one-way stop-controlled intersection with a realigned West Run Road approach was also selected to be carried forward for the preliminary engineering sketch to present to the public as an alternative in case a feasibility issue with the roundabout was identified.

VAN VOORHIS ROAD AND ACKERMAN ROAD

This intersection is just north of the Van Voorhis Road-West Run Road intersection. The existing conditions at the Van Voorhis Road and Ackerman Road intersection are shown in **Figure 32**, with a one-way stop control design at the Ackerman Road approach. The intersection is positioned on a curve in the roadway and has a steep downhill approach for southbound traffic on Van Voorhis Road. These conditions create sight-distance and speed concerns that have likely contributed to the high frequency and severity of crashes at this location, including the only fatal crash on the study corridor in the past five years. Additionally, the transit and school bus stop at Greene Glen apartment complex described above also poses concerns for this intersection. The bus stop is just south of the intersection and the associated curve, increasing the risk of conflict with southbound traffic due to higher speeds and limited sight distance of vehicles traveling downhill around the curve on Van Voorhis Road.

Figure 32: Van Voorhis Road and Ackerman Road Intersection

Table 11 shows the anticipated benefits and disadvantages of the assessed intersection design options for the Van Voorhis Road and Ackerman Road intersection.

Table 11: Design Options Comparison - Van Voorhis Road and Ackerman Road

Design Options	Benefits	Disadvantages
All-way stop control	• Traffic calming • Low-cost implementation	• Compliance issues • Operational impacts and delay
Roundabout / Mini-roundabout	• Traffic calming • Safety improvement	• Likely incompatible with topography of this intersection
One-way stop control with roadway realignment	• Low-cost implementation • Paired with signing and marking safety improvements	• No operational improvements

Based on the discussion during the concept visioning work session, the stakeholders decided to proceed with maintaining the existing one-way stop control, given the topographical constraints that would likely make a roundabout infeasible. Although the configuration would remain the same, traffic calming or other safety improvements could still be considered at the approaches to the intersection.

WEST RUN ROAD AND RIDDLE AVENUE

The third intersection for the Study is at West Run Road and Riddle Avenue, which is farther east along the study corridor. **Figure 33** shows the existing conditions at this intersection, which is a one-way stop control design at the Riddle Avenue approach. The future no-build analysis of this intersection showed that the stop-controlled Riddle Avenue northbound approach is anticipated to experience delays that constitute failing levels of service conditions in the PM peak hour.

Figure 33: West Run Road and Riddle Avenue Intersection

Another issue observed during the project team's field visit is that the traffic control for westbound traffic on West Run Road, shown in **Figure 34**, may cause confusion for travelers. The stop-control for left turns only is applied due to the curve and sight distance concerns along West Run Road at the intersection. However, this traffic control and the sight distance obstructions for turning vehicles may cause confusion and pose safety issues for westbound traffic on West Run Road and traffic at the Riddle Avenue approach, who may expect all traffic to stop at the approach. This confusing intersection design may contribute to the high frequency of crashes at this intersection compared to the rest of the study corridor.

Source: Google Streetview

Figure 34: West Run Road Westbound Signage at Riddle Avenue Intersection

Table 12 shows the improvement options considered for the intersection along with anticipated benefits and disadvantages of each design.

Table 12: Design Options Comparison - West Run Road and Riddle Avenue Intersection

Design Options	Benefits	Disadvantages
All-way stop control	• Traffic calming • Low-cost implementation	• Compliance issues
Roundabout / Mini-roundabout	• Traffic calming • Safety improvement • Added capacity and reduced delay	• Large spatial footprint • Higher cost of implementation
One-way stop control with curb realignment	• Low-cost implementation • Possibly paired with curb realignment	• No operational or safety improvements

Based on the discussion during the concept visioning work session, the stakeholders decided to move forward with the mini-roundabout concept for the preliminary engineering sketch to be presented to the public. While not preferred, due to the anticipated lower overall benefit, the one-way stop-controlled intersection with a realigned West Run Road was also selected to be carried forward for the preliminary engineering sketch to present to the public as an alternative in case a feasibility issue with the roundabout was identified.

WEST RUN ROAD AND ST. CLAIR HILL ROAD

Figure 35 shows the existing conditions of the West Run Road and St. Clair Hill Road intersection. A major concern with the current design of this intersection is the sharp angle at which the St. Clair Hill Road approach connects to West Run Road. This angle and the curve of West Run Road to the west result in sight distance and safety concerns for vehicles turning left onto West Run Road from St. Clair Hill Road. During the visioning process for this intersection, the project team and stakeholders considered the planned improvements to the intersection by a developer of an adjacent proposed residential development, which are described in detail in the **Ongoing and Future Development** section. These improvements include a slight realignment of the St. Clair Hill Road approach to lessen the angle of approach and improve sight distance by clearing trees, as well as a temporary restriction of left turns onto West Run Road from St. Clair Hill Road. The corridor vision for the Study included consideration of a permanent left-turn restriction from the St. Clair Hill Road approach rather than a temporary restriction, as well as a dedicated left-turn lane for eastbound traffic on West Run Road turning onto St. Clair Hill Road. However, physical constraints at this intersection limit possibilities for intersection reconfiguration without a significant change to vertical profiles of the approaching roads, and potentially the location of the intersection itself.

Figure 35: West Run Road and St. Clair Hill Road Intersection

VAN VOORHIS ROAD AND WEDGEWOOD DRIVE/HERSHMAN VILLAGE

The Van Voorhis Road and Wedgewood Drive/Hershman Village intersection, like West Run Road and St. Clair Hill Road, also has planned improvements as part of an ongoing development. **Figure 36** shows the existing conditions of the intersection, which has sight distance concerns from the Wedgewood Drive approach due to the intersection's placement at the top of a hill with a curve in the road. These sight distance concerns can be seen more clearly in **Figure 37**.

Figure 36: Van Voorhis Road and Wedgewood Drive/Hershman Village Intersection

Source: Google Streetview

Figure 37: Sight Distance Concerns from Wedgewood Drive Approach

The ongoing WVDOH project along Van Voorhis Road, which is described further in the **Ongoing and Future Development** section, includes a realignment of Van Voorhis Road at this intersection, which is currently under construction. The realignment is reducing the steep grade and curve, which should alleviate the sight distance concerns for the Wedgewood Drive approach. Since the intersection is currently being reconstructed to address its substandard conditions, it was omitted from further recommendations.

PREFERRED CONCEPT

Following the assessment and discussion of potential typical sections and pedestrian, traffic calming, safety, and intersection improvements during the Concept Workshop, the project team identified a preferred set of recommendations for the study corridor. The preferred concept includes the following elements:

- Typical section
- Roadway realignment
- Pedestrian facilities
- Pedestrian crossings and connections to future Greenbelt
- Traffic calming elements

- Intersection improvements

Design Criteria

The criteria used to inform and guide the preferred concept design include the goals of the feasibility study, existing and future corridor conditions, a recommended design vehicle, and national and regional design standards.

Given the predominantly residential surrounding land use context, transit and school bus activity, and low speed limits (25 MPH on West Run Road and 30 MPH on Van Voorhis Road), the study corridor is well suited to support and benefit from recommendations focused on improving pedestrian access and safety. Additionally, the proposed future Greenbelt trail presents an opportunity to incorporate pedestrian improvements along the study corridor, including potential connections to the Greenbelt and strategically placed pedestrian crossings, enabling residents to access the Greenbelt with expanded recreational and destination-based connections.

A design vehicle represents the largest, least maneuverable vehicle that routinely uses a corridor and guides the minimum design standards for elements such as curb radii, lane widths, and intersections. Based on the surrounding land uses, transit and school bus activity, emergency access needs, and observed vehicle operations within the study corridor, the project team determined that a typical school bus and fire truck used within the city would be suitable design vehicles for the study corridor. In addition to the design vehicle, larger vehicles including a 40-foot single-unit truck (SU-40) and a small tractor-trailer combination (WB-62) were evaluated as control vehicles to confirm that less frequently occurring vehicles can also navigate the corridor. At proposed roundabouts, the design vehicle is accommodated within the travelway, while larger controlled vehicles would traverse the intersection using the mountable central island. Other design standards used to inform the recommendations included the American Association of State Highway and Transportation Officials (AASHTO) Green Book, WVDOH design standards, and the United States Department of Transportation (USDOT) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).

Since the posted speed limits on the two roadways are less than 45 MPH, the design speed was set equal to the posted speed on each road.

Concept Design

Figure 38 shows the summarized proposed improvements included in the preferred concept for the study corridor. The recommendations include pedestrian facilities along the entire corridor, intersection improvements, and locations of pedestrian crossings, future connections to the Greenbelt, and traffic calming. Each element of the preferred concept is outlined in more detail in the sections below, and a full preliminary engineering design concept is available in **Appendix D**. The improvements included in the concept along Van Voorhis Road south of the intersection with West Run Road are aligned with the ongoing WVDOH project on Van Voorhis Road. This project is described in more detail in the **Ongoing and Future Development** section and includes a sidewalk and a pedestrian crossing along the study corridor.

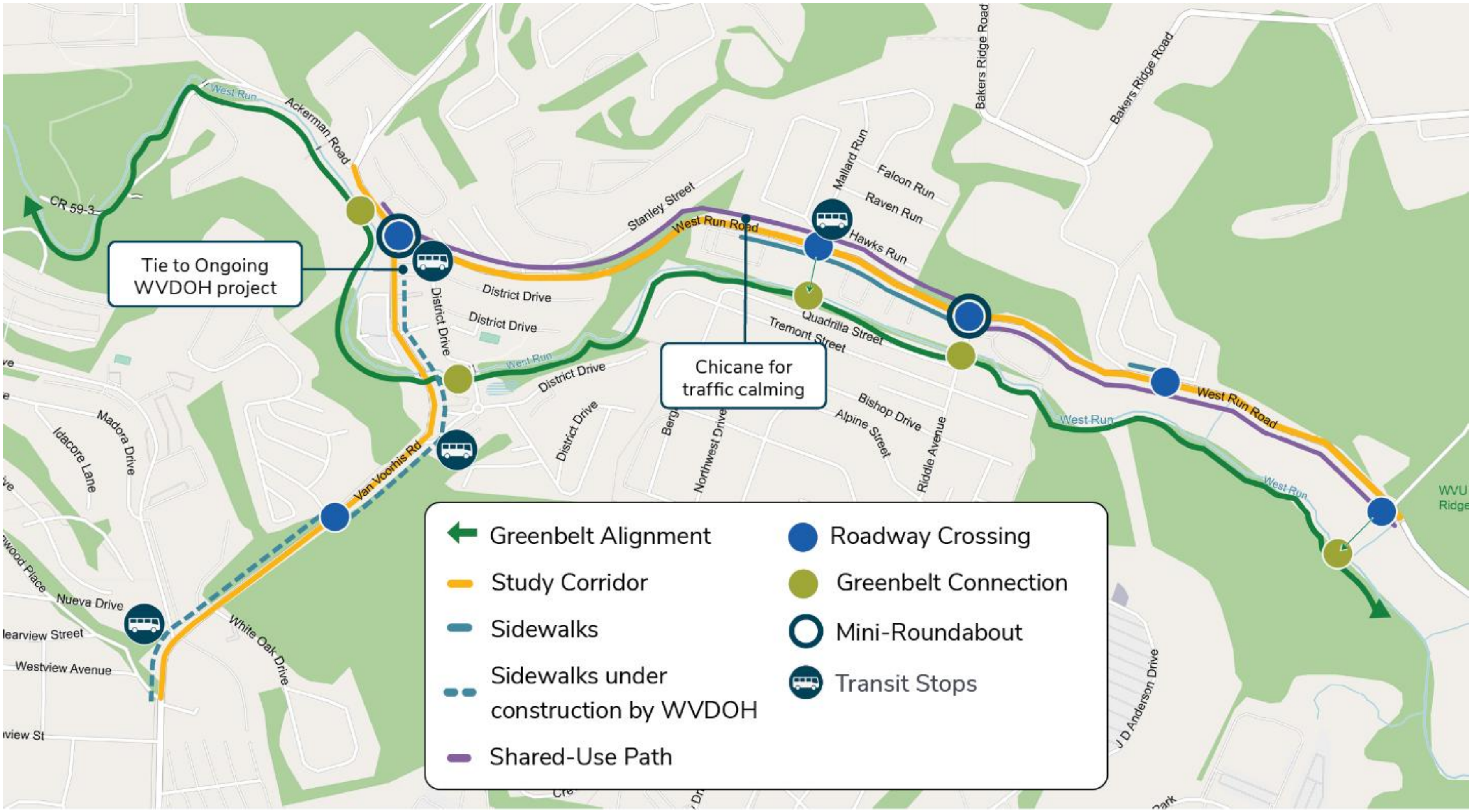


Figure 38: Preferred Concept

TYPICAL SECTION

Figure 39 shows the proposed typical section, which includes 10-foot-wide vehicle travel lanes with curb and gutter or a grass ditch, as well as an 8-foot-wide paved shared-use path on one side of the road with a 4-foot-wide grass buffer. As seen in **Figure 38**, the shared-use path (depicted as sidewalk in the visualization) runs along West Run Road, and switches sides of the road at Riddle Avenue. Additionally, the path would be narrowed to 6 feet wide along the Villages at West Run residential complex due to a retaining wall limiting space north of the roadway. To provide additional access for residential properties, a 6-foot-wide concrete sidewalk is included opposite the shared-use path on the south side of West Run Road between the Suites at West Park residential complex and Riddle Avenue, and on the north side of West Run Road between St. Clair Hill Road and Palisades Drive. The preferred concept also proposes realigning a section of West Run Road 6 feet to the south between Stanley Street and Riddle Avenue to provide space north of the roadway for the shared-use path. While this realignment would be a notable reconstruction of West Run Road, it would provide opportunities by creating space for comfortable and safe pedestrian and bicycle facilities along the corridor while minimizing the impacts to adjacent utilities, structures, and slopes.

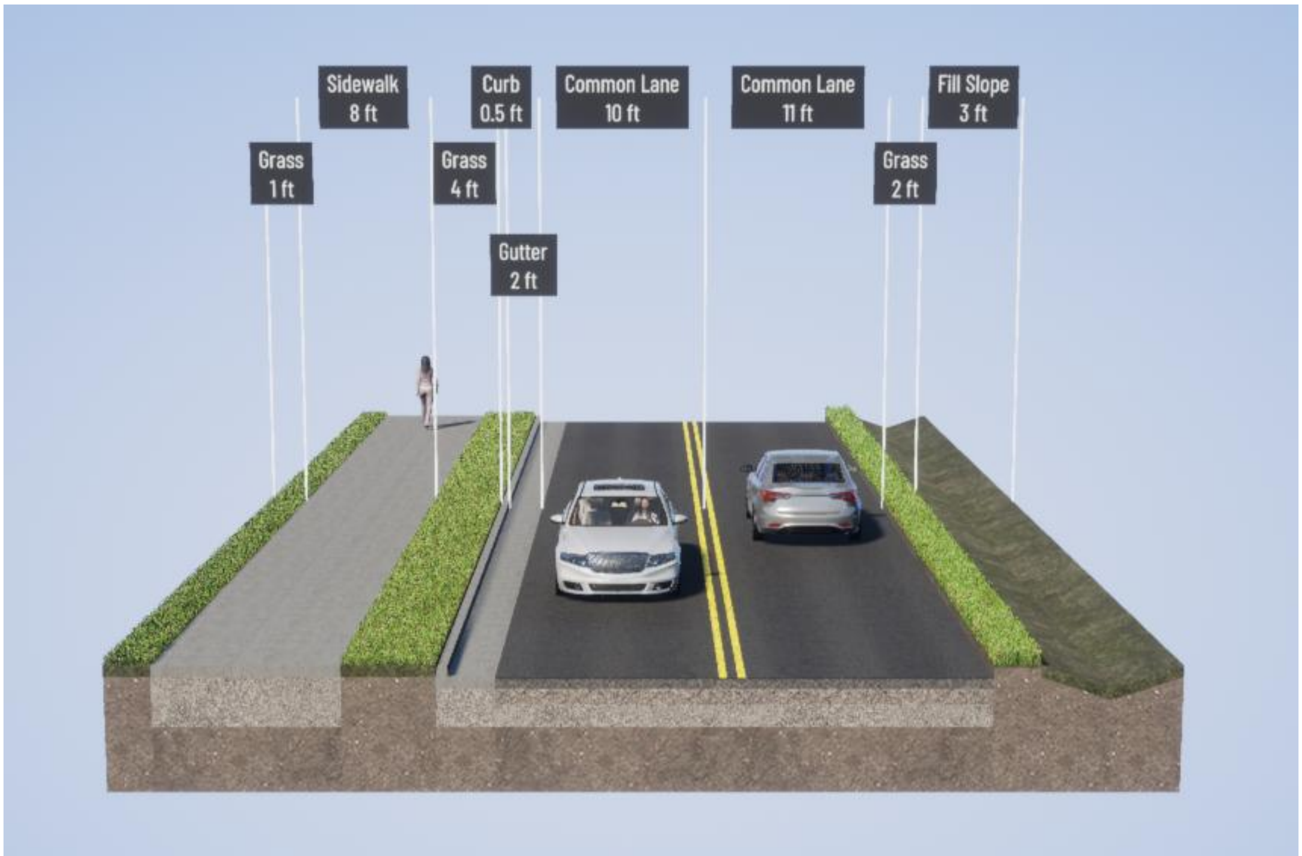


Figure 39: Preferred Typical Section

PEDESTRIAN IMPROVEMENTS

In alignment with the goals of the Study, the preferred concept proposes extensive pedestrian improvements along the study corridor in addition to the facilities discussed in the typical section description above. Along Van Voorhis Road south of West Run Road, an ongoing WVDOH project will add a sidewalk along the study corridor and a pedestrian crossing at Windwood Drive. Additional pedestrian crossings of the roadway are proposed at key intersections, residential access points, and transit or school bus stops throughout the study corridor, including the following locations:

- West Run Road and Van Voorhis Road intersection
- West Run Road and Mallard Run intersection (transit and school bus stop)
- West Run Road and Riddle Avenue intersection
- West Run Road and Palisades Drive intersection
- Bakers Ridge trailhead along West Run Road

Crosswalks at intersections would have pavement markings and advance-warning pedestrian crossing signs to alert drivers. There are three mid-block crossings proposed along West Run Road, which would be implemented as raised crosswalks with rectangular rapid flashing beacon (RRFB) signs to provide additional safety for pedestrians by alerting and forcing drivers to slow down in advance of the crosswalk. These pedestrian improvements would combine to enhance pedestrian access, comfort, and safety along the study corridor while allowing nearby residents to connect to the path and the proposed future Greenbelt, discussed further below.

CONNECTIONS TO THE FUTURE GREENBELT

While the complete street corridor improvements in the preferred concept provide benefits on their own, they also provide future opportunity for the corridor by not precluding additional benefits of potential connections to the planned Greenbelt. The preferred concept recommends potential future connections to the Greenbelt, seen in **Figure 38**. The connection points are prioritized near proposed pedestrian crossings, dense residential areas, existing trail connections, and places where the proposed Greenbelt alignment runs closely adjacent to the study corridor. At these locations, proposed facilities would be constructed to establish tie-in points for future infrastructure to connect to the Greenbelt. These recommendations are essential to this feasibility study to position the corridor for future success once the Greenbelt is constructed, which would allow residents to access key destinations in the surrounding area.

TRAFFIC CALMING

Various traffic calming measures are proposed at strategic locations along the corridor to provide additional safety benefits for all users, in conjunction with other infrastructure recommendations. The proposed traffic calming elements are shown in **Figure 40**. Pole mounted speed display (PMSD) signs are proposed at the following locations along the corridor for traffic calming:

- Southwest of the proposed pedestrian crossing as part of the WVDOH roadway improvements to calm northbound traffic on Van Voorhis Road

- South of the Van Voorhis Road and West Run Road intersection to calm northbound traffic approaching the proposed roundabout
- North of the Van Voorhis Road and Ackerman Road intersection to calm southbound traffic traveling downhill approaching the intersection
- Along West Run Road at the east end of the study corridor to calm westbound traffic approaching a proposed crosswalk at Bakers Ridge Trailhead

Additionally, transverse pavement markings, or rumble stripes, are proposed for westbound traffic on a downhill section of West Run Road approaching Van Voorhis Road, just before the entrance to the roundabout. A chicane is proposed in front of the Suites at West Park property to calm eastbound traffic exiting a curve on West Run Road in a heavily residential area, with proposed pedestrian facilities on both sides of the road and a nearby pedestrian crossing. These measures would slow traffic and improve safety at key intersections and pedestrian crossing locations throughout the corridor. Mini roundabouts proposed along the corridor would also contribute to speed management and traffic calming by requiring vehicles to reduce speeds while maintaining traffic flow. Additionally, narrowed lanes, adjacent pedestrian facilities, and other elements of the proposed typical section would encourage slower speeds by altering the visual context of the corridor.

Figure 40: Proposed Traffic Calming Locations

INTERSECTION IMPROVEMENTS

In the preferred concept, a mini roundabout is proposed at the intersections of Van Voorhis Road and West Run Road, and West Run Road and Riddle Avenue. The proposed mini roundabout at West Run Road and Riddle Avenue was designed to minimize impacts to future adjacent developments. The mini roundabouts would include pedestrian crossings tied to proposed facilities, with splitter islands incorporated at crossing locations to provide additional protection and comfort. An example of a mini roundabout is shown in **Figure 41**. These redesigns would provide benefits at two key intersections along the study corridor by calming traffic, improving safety for both drivers and pedestrians, and improving traffic operations while reducing delays. Additionally, a bus stop pad was proposed as an optional element at the West Run Road and Riddle Avenue intersection to support transit operations. The stakeholders and public provided positive feedback on the roundabouts as compared to the alternative one-way stop-controlled intersection option. Therefore, the roundabouts were included in the preferred preliminary design and estimate.

Source: Swiler, J. (2024, December 10). *Guidelines for implementing mini-roundabouts*. Crossroads. https://mntransportationresearch.org/2024/12/10/guidelines-for-implementing-mini-roundabouts/

Figure 41: Example of Mini Roundabout

Following further coordination with the Monongalia County Planning Department, the West Run Road and St. Clair Hill Road intersection turn restriction that was considered and presented to the public was discarded. Ongoing development plans have been approved to address the sight distance concern and construct more improvements along St. Clair Hill Road.

A detailed operations analysis, using SIDRA software, was conducted to confirm the anticipated operational improvements of the two proposed roundabouts. As can be seen in **Table 13**, the intersection operations in the future build condition are anticipated to improve over the no-build condition such that each approach to the intersection would have an acceptable level of service.

Table 13: Existing and Future AM and PM Intersection Capacity Analysis Results

Intersection Name	Approach	2026 Existing Conditions		2050 No-Build Conditions		2050 Build Conditions	
		AM	PM	AM	PM	AM	PM
Van Voorhis Road and West Run Road	Westbound	C (18.72)	B (14.63)	F (57.08)	D (26.07)	A (6.4)	B (12.8)
	Northbound	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (6.8)	A (9.7)
	Southbound	A (2.86)	A (2.21)	A (2.98)	A (2.37)	C (16.0)	A (8.1)
Riddle Avenue and West Run Road	Eastbound	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (9.3)	A (6.1)
	Westbound	A (4.72)	A (2.26)	A (5.01)	A (2.35)	A (5.4)	A (9.6)
	Northbound	B (11.18)	C (16.88)	B (13.23)	E (47.3)	A (5.8)	C (16.0)

SAFETY IMPROVEMENTS

In addition to those described above, other roadway safety improvements recommended along the corridor are shown in **Figure 42** and include guardrail, warning signs, and object marker signs. Guardrail is proposed along the south side of West Run Road beginning east of the intersection with Van Voorhis Road and ending at the Suites at West Park residential complex. This portion of West Run Road has a steep drop off south of the roadway, and the guardrail would provide key safety improvements by reducing the frequency and severity of roadway departure crashes. Crossing ahead warning signs are recommended to be placed for traffic traveling in both directions in advance of all proposed mid-block pedestrian crossings to alert drivers and improve pedestrian safety at crosswalks. At the eastern terminus of the study corridor on West Run Road, a “Road Narrows” warning sign is proposed for westbound traffic entering the study corridor in advance of the narrowing beginning at the Baker’s Ridge Trail entrance. In this same area, an object marker sign would be placed for westbound traffic to alert drivers of an object closely adjacent on the south side of the roadway. In addition to these safety improvements, the proposed concept recommends rumble strips and street lighting throughout the corridor (see **Figure 29** for examples). Rumble stripes would provide a visual and physical barrier for traffic to reduce roadway departure crashes, while street lighting would provide visibility in dark conditions to improve safety and comfort for all users.

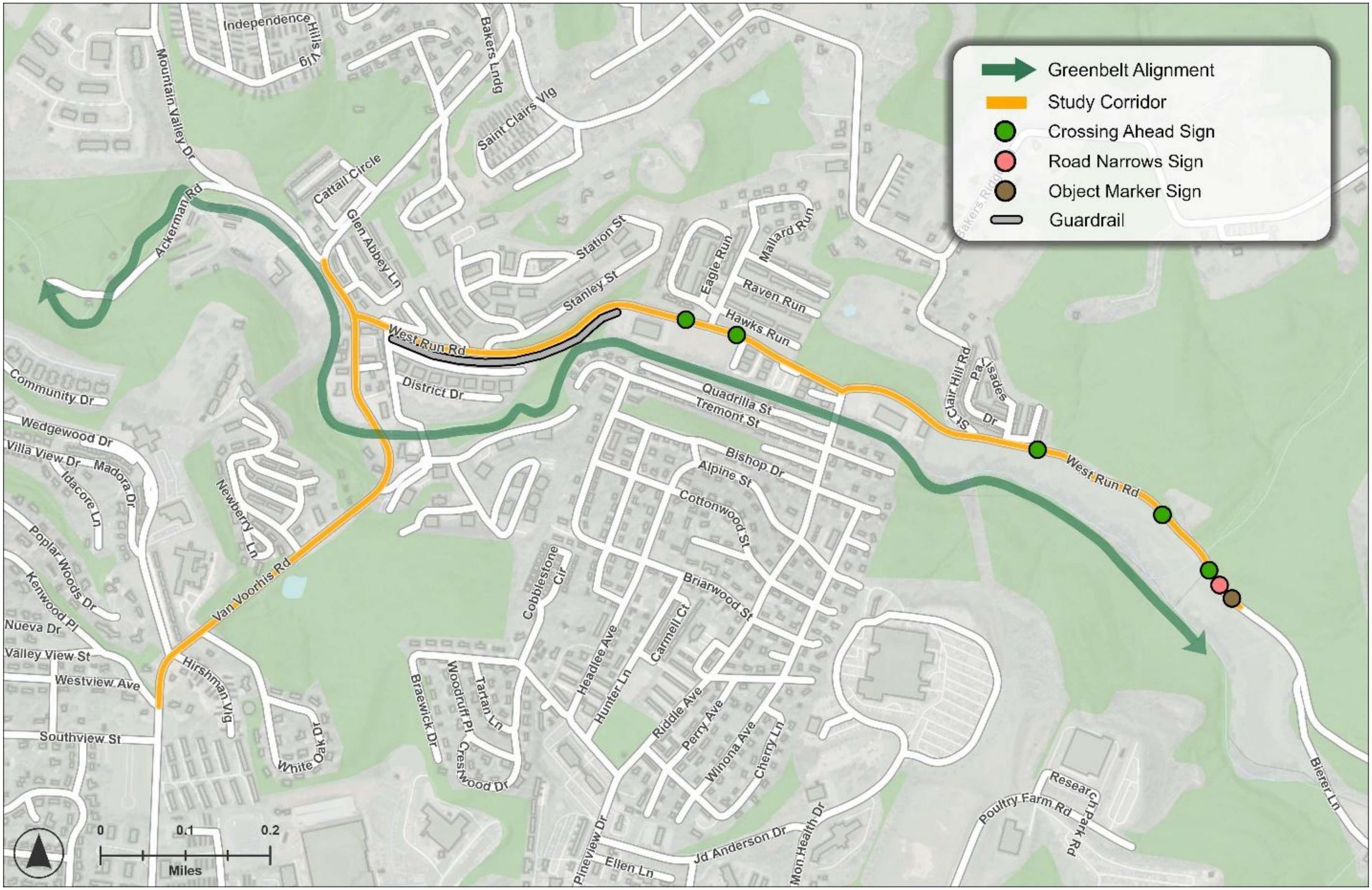


Figure 42: Proposed Safety Improvements

Anticipated Benefits

The recommendations from the preferred concept include substantial improvements to the study corridor that directly support the goals of the Greenbelt Complete Streets Feasibility Study. Once implemented, the proposed elements would enhance pedestrian and bicycle access and safety along the corridor while improving connections for residents to nearby destinations, multimodal facilities such as transit, and the planned Greenbelt. Additionally, redesigned intersections, traffic calming, and other safety elements would resolve points of conflict and areas of safety risk identified during the Existing Conditions phase for all users. Beyond the direct improvements to the corridor, these recommendations would create energy, excitement, and public support around the planned Greenbelt by demonstrating the benefits that well-designed pedestrian and bicycle access can provide to residents.

Public Engagement

The project team held a public meeting on June 2nd, 2026 to present and gather feedback on the preferred concept for improvements to the study corridor (seen in **Figure 43**). A set of graphics were produced for the meeting that illustrated the preferred concept along the entire corridor as well as typical sections, intersection alternatives, and sample renderings of what the improvements could look like at key locations on the study corridor. The sample renderings are shown below in **Figure 44**, and the full graphics set is available in **Appendix F**.

Source: Wilson, A. (2026, June 3). *Community gives input on upcoming road projects in Morgantown*. WBOY. https://www.wboy.com/news/monongalia/community-gives-input-on-upcoming-road-projects-in-morgantown/

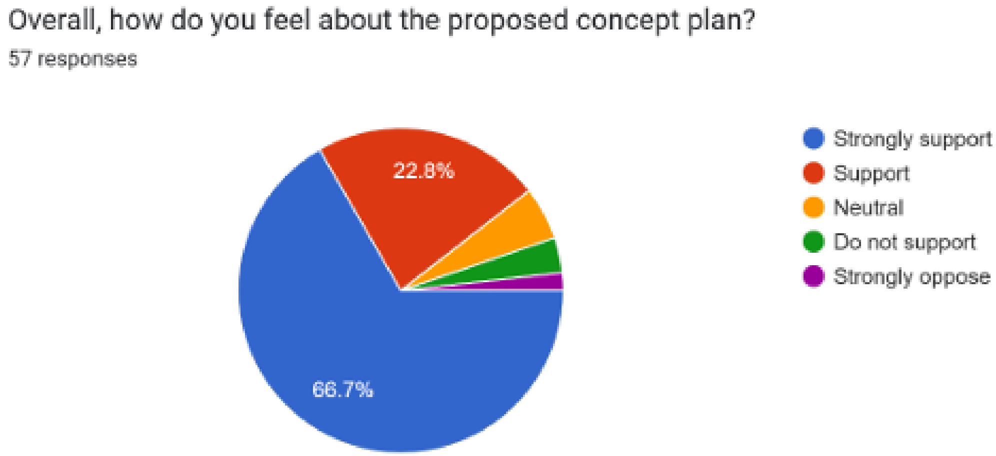
Figure 43: Discussion with Community Members at Public Meeting (WBOY, June 3, 2026)

Figure 44: Sample Renderings for Public Meeting

The public meeting was attended by 44 community members that engaged with the project materials and provided valuable feedback on the preferred concept. The attendees had the opportunity to complete a paper or online survey, which remained available on the MMMPO webpage for two weeks following the public meeting. The survey was intended to gather input from the public on the following topics:

- Current perception of safety on the study corridor
- Concerns with existing conditions of the corridor
- Support for the proposed improvements
- Importance and priorities of potential improvements

MMMPO collected 59 total responses to the survey, and the feedback was overwhelmingly positive. Charts of responses to two key survey questions are shown in **Figure 45**, with 90 percent of respondents expressing support for the proposed concept plan, and 96 percent of respondents expressing an importance of improved walking and biking facilities along the study corridor. The full results from the survey are available in **Appendix E**.



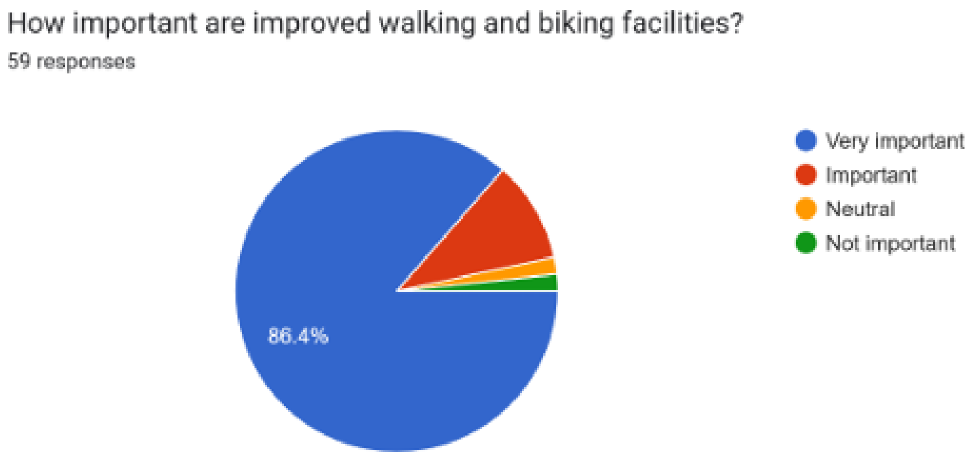


Figure 45: Public Survey Response Summaries

Input from community members was considered by the project team as the preferred concept was refined following the public meeting. As this Study and subsequent improvements progress, continued community and stakeholder engagement are essential to providing a corridor that serves the needs of the community.

Cost Estimates

An opinion of probable cost was prepared for the preferred concept, based on the proposed corridor improvements identified in the study. The estimate, summarized in **Table 14**, includes construction activities such as roadway reconstruction, shared-use paths and sidewalks, retaining walls, signing and pavement markings, maintenance of traffic, and erosion and sediment control measures. Costs associated with anticipated utility relocations and right-of-way acquisition, including temporary construction easements, were also included in the estimate. Quantities of major construction components were estimated and multiplied by estimated unit costs informed by recent WVDOH bid unit costs. For other items not itemized, approximate percentages of the total construction cost were used to estimate their cost. The estimated construction, utility, and right-of-way acquisition costs total approximately $10.15 million. To account for uncertainty associated with the conceptual level of design, a 50 percent contingency allowance was applied. To estimate future engineering costs, a 15 percent allowance for preliminary engineering and a 10 percent construction engineering and inspection (CEI) allowance were applied. Based on these estimates, the total project cost for planning purposes is estimated to be approximately $18.34 million in 2026 dollars. Increasing costs to a projected fiscal year 2030 construction year using an annual inflation rate of 3.5 percent results in a total estimated project cost of approximately $21.05 million. The detailed opinion of probable cost is available in **Appendix H**.

Table 14: Opinion of Probable Cost Summary

Opinion of Probable Cost Summary	
Category	**Cost**
Construction Activities and Items	$8,305,700
Utility Relocations	$329,500
Right-of-way Acquisition	$1,517,300
Construction, Utility, and ROW Subtotal	**$10,152,500**
Preliminary Engineering (15%)	$2,284,400
Contingency and Allowances (50%)	$5,076,300
Construction Engineering & Inspection (10%)	$830,600
Total Cost (2026 Dollars)	**$18,343,800**
Total Cost (2030 Dollars – 3.5% per year)	**$21,049,932**

Implementation

This feasibility study recommends several improvements to the study corridor along Van Voorhis Road and West Run Road that, if implemented, would achieve substantial progress in multimodal safety, operations, access, and connectivity. The analysis confirms that, while the corridor presents notable constraints related to right-of-way and terrain, the complete street vision for the corridor can still be achieved through strategic planning and design such as the proposed realignment of West Run Road. Collectively, the findings of this feasibility study and anticipated benefits support the advancement of the recommendations to the next phases of implementation.

As previously mentioned, improvements to Van Voorhis Road are currently under construction as part of the WVDOH project along the corridor. In addition, WVDOH is planning to conduct a design study for improvements to West Run Road between Stewartstown Road and Van Voorhis Road, which includes the section of West Run Road assessed during this study. With this design study already set in motion by WVDOH, the most ideal path to implementation for the improvements recommended in this feasibility study is to coordinate with WVDOH to integrate the recommended improvements into their plans for the greater West Run Road corridor. This integration would be the most cost-effective and efficient timeline for achieving the implementation of all recommended improvements from this study. This strategy would also be most effective in achieving the complete street vision for the corridor and providing comprehensive safety and access improvements for the community.

Given the lengthy design, engineering, and construction process for larger improvements such as roadway and intersection redesign and new facilities, there are several low-cost, quick-build improvements that could be implemented in the interim to provide near-term benefits to the corridor. This could include safety and traffic calming improvements such as the addition of warning signs, PMSD signs, lighting, guardrail, rumble stripes, or speed tables that could eventually be updated to raised crosswalks.

However, if this strategy is not feasible, a phased implementation of improvements could be pursued as an alternative strategy. One strategy could be to phase the implementation by type of improvement, such as prioritizing intersection upgrades and then implementing the roadway redesign and multimodal facilities in a subsequent phase. Another strategy could be to complete geographic sections of the corridor improvements across different phases. For example, the West Run Road portion between Van Voorhis Road and Riddle Avenue could be completed first, followed by the remaining eastern portion of the corridor in a later phase. While these phasing strategies could be feasible alternatives to implementing the improvements, they would incur additional costs while potentially requiring rework, and would be less efficient and effective in providing much needed benefits to the surrounding community.