HARMONY GROVE INTERCHANGE

PROJECT OVERVIEW

Enrout Properties Inc., owner of the Morgantown Industrial Park, in coordination with the West Virginia Department of Transportation (WVDOT) Division of Highways and the Federal Highway Administration (FHWA), is evaluating alternatives for a **new interchange on Interstate 79.**

The proposed interchange is **located at I-79 (Milepost 151) and River Road (County Route 45)**, approximately midway between Exit 152 (US 19 – Westover/Granville) and Exit 148 (I-79/I-68 – Morgantown/Cumberland, MD).

An Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) and FHWA regulations (23 CFR Part 771) to evaluate environmental impacts and **identify the most suitable and cost-effective alternative.**

PURPOSE AND NEED

The Purpose and need for the proposed action are as follows:

- Reduce traffic at the Westover interchange (I-79 Exit 152) and along Dupont Road (CR 19/19), which will improve traffic operations and safety in this vicinity.
- Provide a direct connection to I-79, which will better serve traffic to/from the north for the Harmony Grove area, thus reducing travel times to/from I-79.

HARMONY GROVE INTERCHANGE

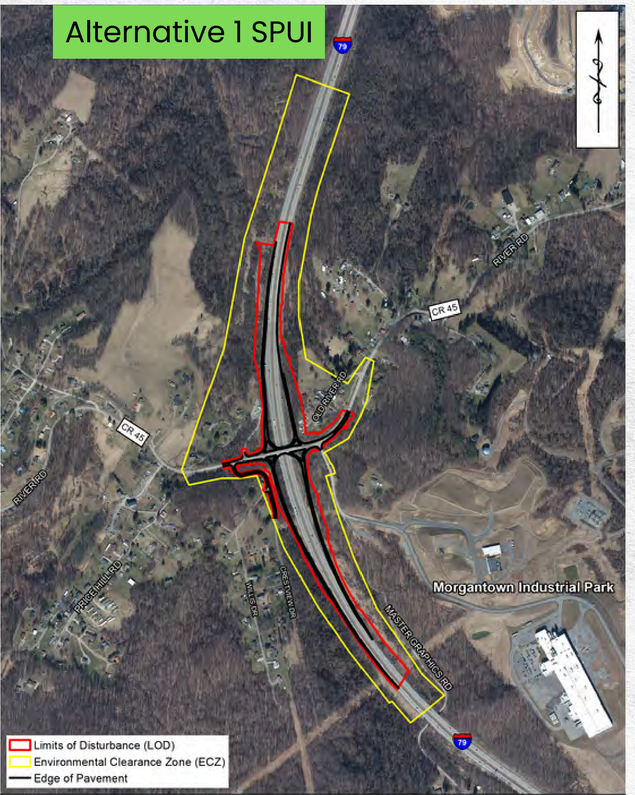
PRELIMINARY ALTERNATIVES CONSIDERED

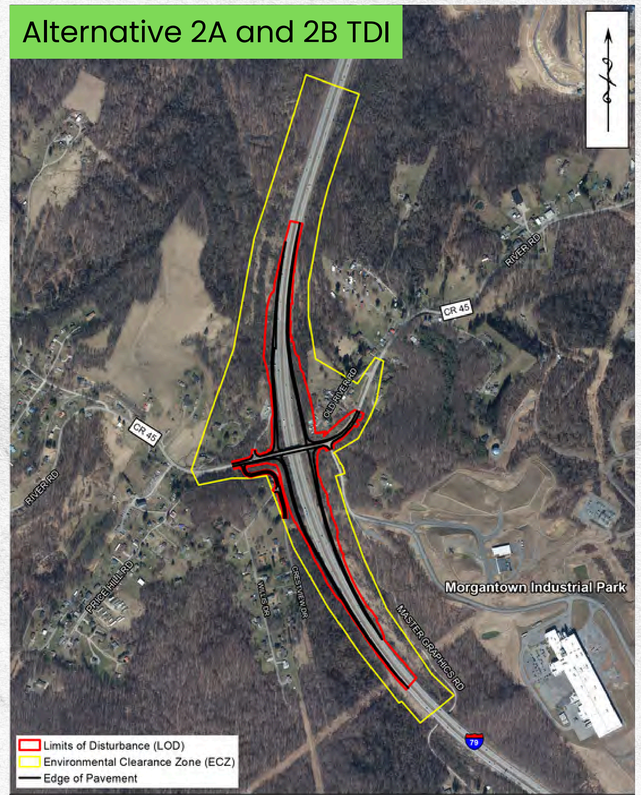
A No-Build Alternative was developed to represent the future condition without the proposed Project. In addition to the No-Build Alternative, three build alternatives were developed and evaluated to determine which alternative best meets the Project Purpose and Need. The No-Build Alternative and build alternatives included the US 119 Connection project, which is under construction, and will provide a connection between the Morgantown Industrial Park and US Route 119 with a new bridge over the Monongahela River. The No-Build Alternative served as the baseline for comparing the build alternatives in the Environmental Assessment. The build alternatives include a new I-79 interchange at MP 151 and three interchange types were evaluated:

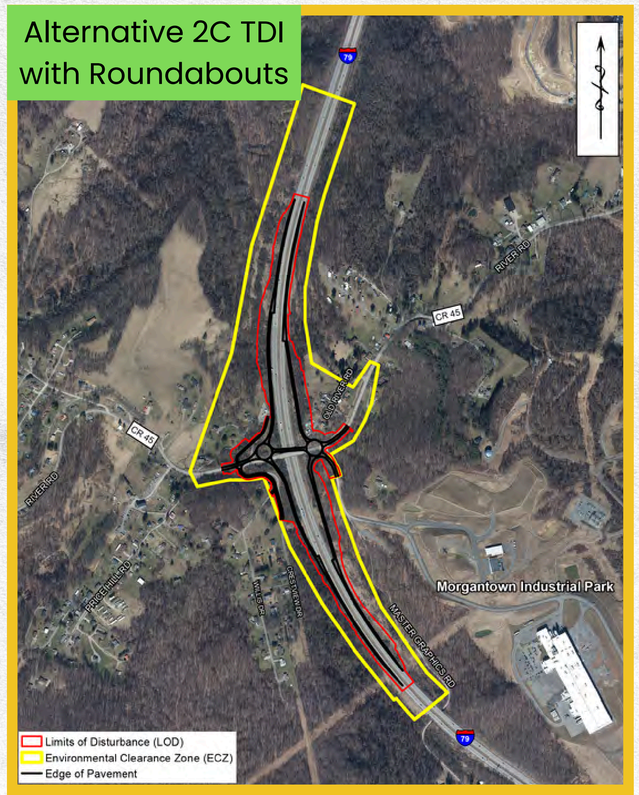
- **Alternate 1 – Single Point Urban Interchange (SPUI)**
- **Alternate 2 (2A, 2B, and 2C) – Tight Diamond Interchange (TDI)**
- **Alternate 3 – Modified Cloverleaf Interchange (MCI)**

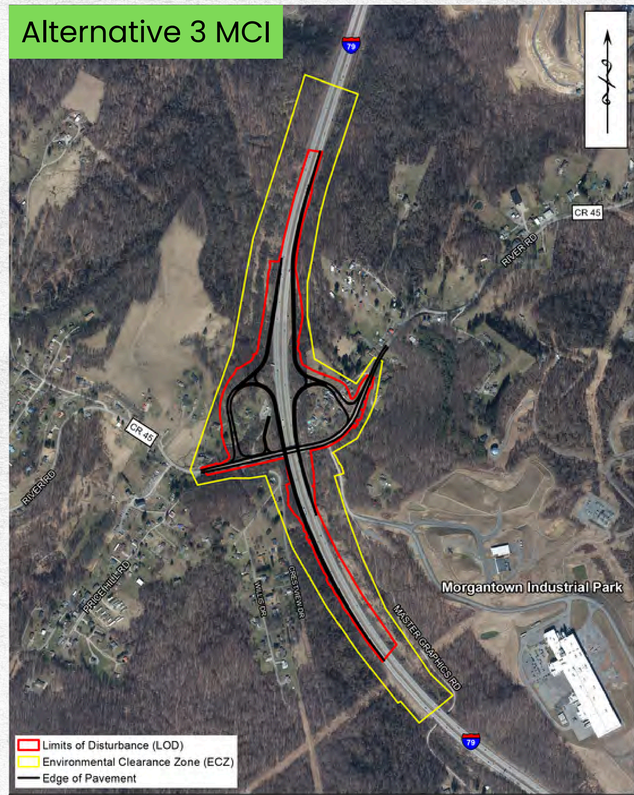
The new Interchange 151 build alternatives listed above would include the installation of lighting around the interchange and along the ramps to provide continuous lighting along I-79 from Exit 148 (I-79/I-68) to Exit 152 (Westover). The build alternatives also include the following safety countermeasures within the existing I-79 right of way:

- **Extension of the existing truck climbing lanes from their current termination through the proposed Interchange 151 for approximately 1,000 feet in each direction**
- **Extension of the concrete median barrier from the northern end of the bridge that carries I-79 over the Monongahela River through the proposed Interchange 151 and north to Exit 152 (Westover)**
- **Installation of high-friction pavement surface treatment would be added to the I-79 travel lanes in both directions from the northern end of the bridge that carries I-79 over the Monongahela River north to Exit 152 (Westover)**









HARMONY GROVE INTERCHANGE

PRELIMINARY ALTERNATIVES ANALYSIS

TRAFFIC VOLUMES AND OPERATIONS

Based on the traffic analysis for new Interchange 151, the three build alternatives meet the Project Purpose and Need because each alternative provides a direct connection to I-79 for the Harmony Grove area; therefore, the traffic analysis was incorporated into a preliminary alternatives analysis to identify which build alternative would provide better traffic operations and improve roadway safety within the Project Study Area. The preliminary alternatives analysis also included a comparison of safety benefits and the reasonably foreseeable impacts of the build alternatives. The preliminary alternatives analysis identified the Preferred Alternative that would be compared to the No-Build Alternative in the Environmental Assessment.

The traffic analysis compared the existing condition year of 2020 and the projected design year of 2050. The Travel Demand Model (TDM) developed by the Morgantown Monongalia Metropolitan Planning Organization (MMMPO) was used to generate the traffic volume projections for the 2050 design year. In addition, the 2050 design year traffic volume projections assume completion of the US 119 Connection project that is currently under construction.

The traffic analysis included a comparison of existing and future traffic volumes on I-79, US 19, Dupont Road (CR 19/19), and River Road (CR 45) and an evaluation of traffic operations. This display presents the results of this portion of the preliminary alternatives analysis.

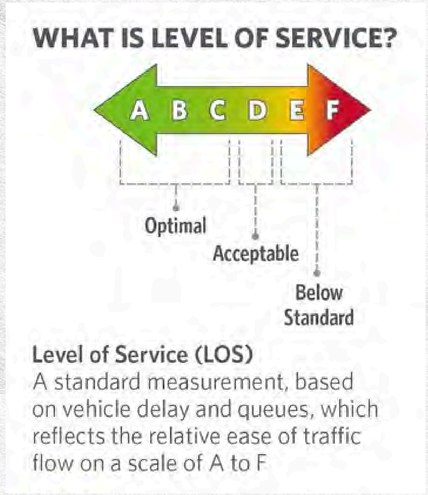
EXISTING AND PROJECTED TRAFFIC VOLUMES

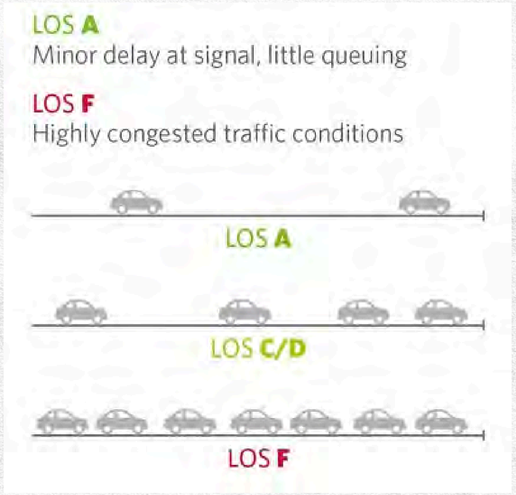
As shown in the table below, based on projected 2050 traffic volumes construction of the proposed Interchange 151 would reduce traffic volumes along US 19 around Exit 152 (Westover) and on Dupont Road (CR 19/19).

Roadway Segments/Location	2020 Existing	2050 No-Build (with US 119 Connection)	2050 Build (with US 119 Connection)
Dupont Road (CR 19/19)	7,500	9,800	6,700
US 19 (Dupont Road to N. Dents Run (CR 49))	16,200	19,800	16,700
US-19 (N. Dents Run to Interchange 152)	19,200	24,500	22,300
I-79 (Northbound to Interchange 152)	50,000	72,800	76,800
I-79 Interchange 152 Northbound Offramp to US 19	4,800	6,300	6,800
I-79 Interchange 152 Southbound Onramp from US 19	4,800	5,900	6,000
US 19 (Interchange 152 to Mall Road (CR 46))	13,500	15,300	15,200
Proposed River Road (CR 45) Interchange to Master Graphics Road	2,900	5,400	14,400
I-68 Northbound Merge from I-68 W	10,000	13,300	17,900
I-79 Southbound Merge to I-68 E	10,000	13,300	17,900

EXISTING AND PROJECTED TRAFFIC OPERATIONS ANALYSIS

The traffic operations and safety analyses were used to further evaluate the build alternatives. A Level of Service (LOS) analysis was used to evaluate traffic operations for two time periods (AM and PM peak). LOS is a standard measurement that reflects the relative ease of traffic flow on a scale of A to F. The optimal condition is LOS A, LOS D is acceptable, and LOS F is below the standard of service with highly congested traffic conditions. The safety analysis used existing WVDOH crash data collected within and adjacent to the Project Study Area.





For key intersections along US 19, including the Dupont Road intersection, all build alternatives resulted in LOS D or better, compared to the 2050 No-Build condition, except for the US 19/North Dents Road intersection located west of I-79. The operational differences among the build alternatives are most notable at the Interchange 151 ramp terminals with River Road (CR 45). For Alternatives 1, 2A, 2B, and 3, operations ranged from LOS A to E, but **Alternative 2C consistently operated at LOS A.**

Intersection	2020 Existing	2050 No-Build	Level of Service AM(PM) 2050 Build Alternatives (Existing I-79)			
			Alternative 1 (SPUI)	Alternatives 2A+2B (TDI)	Alternative 2C (TDI+Roundabouts)	Alternative 3 (MCI)
US 19						
US 19-Mall Rd	B(C)	B(C)	B(C)	B(C)	B(C)	B(C)
US 19 I-79 SB Ramp	B(B)	B(C)	B(C)	B(C)	B(C)	B(C)
US 19 I-79 NB Ramp	B(B)	B(D)	B(C)	B(C)	B(C)	B(C)
US 19 N Dents Rd	A(B)	C(F)	B(F)	B(F)	B(F)	B(F)
US 19 Commerce Dr	B(B)	B(D)	B(C)	B(C)	B(C)	B(D)
US 19 and Savannah St/Dupont Rd	B(C)	C(F)	B(D)	B(D)	B(D)	B(D)
CR 45						
CR 45 and Crestview Dr	A(A)	A(A)	A(A)	A(A)	A(A)	C(D)
CR 45 and Master Graphics Rd	A(A)	A(A)	B(C)	B(C)	B(C)	B(C)
CR 45 and Industrial Park Driveway	A(A)	A(A)	B(B)	A(B)	A(B)	A(B)
CR 45 and Dupont Rd/Industrial Park Dr	B(B)	B(C)	C(B)	B(B)	B(B)	B(B)
CR 45 and I-79 SPUI Ramp Terminal	N/A	N/A	C(C)	N/A	N/A	N/A
CR 45 and SB I-79 Terminal	N/A	N/A	N/A	C(D)	A(A)	A(A)
CR 45 and NB I-79 Terminal	N/A	N/A	N/A	A(B)	A(A)	E(E)

Controlling LOS	
A	
B	
C	
D	
E	
F	

HARMONY GROVE INTERCHANGE

SAFETY ANALYSIS

PRELIMINARY ALTERNATIVES ANALYSIS

Comparison of Safety Benefits

WVDOH crash data between I-79 Mileposts 146 to 153 for the three (3) year period from January 1, 2021 to December 31, 2023 were used to prepare crash rates for each River Road (CR 45) and US 19 intersection within the Project Study Area and for I-79. The evaluation of the existing crash rates was used to identify safety countermeasures that could be incorporated into the project and for the predictive safety analysis of the build alternatives.

EVALUATION OF RIVER ROAD & US 19 INTERSECTIONS

For the analysis of River Road (CR 45) and US 19 intersections, the crash rate was calculated based on Intersection Crash Rates per Million Entering Vehicles (MEV) and compared to the following categories:

- Average: ≤ 1.5 Crashes
- Above Average: > 1.5 Crashes ≤ 2.0 Crashes
- Significantly Above Average: > 2.0 Crashes

Crash rates for three intersections on River Road (CR 45) are below the "Average" category and acceptable. It is notable that the crash rate at the River Road and Master Graphics Road intersection is on the higher end of the range for this roadway and Master Graphics Road provides access to the Morgantown Industrial Park. On US 19, the crash rates are also below the "Average" category and acceptable, but the crash rates are generally higher than River Road because the traffic volumes are higher.

Intersection	Daily Entering Vehicles	Total Crashes	Crash Rate (MEV)
River Road (CR 45)			
River Road and Dupont Road (CR 19/19)	6,300	1	0.14
River Road and Master Graphics Road	3,000	1	0.30
River Road and Crestview Drive	3,000	1	0.30
US 19			
US 19 and Dupont Road	20,250	5	0.23
US 19 and Commerce Drive	18,800	18	0.87
US 19 and North Dents Road	19,200	12	0.57
US 19 and Ramps A and B	22,150	2	0.08
US 19 and Ramps C and D	18,900	3	0.14
US 19 and Mall Road	13,800	15	0.99

EVALUATION OF I-79

For the I-79 NB and SB travel lanes located within the Project Study Area, Crash Rates per 100 Million Vehicle Miles Traveled (VMT) were calculated and compared to the WVDOH's 2023 Statewide averages for Fatal, Injury, and Property Damage Only (PDO) crash types. The crash rates were below the statewide averages for Fatal and PDO crash types, but slightly higher than the statewide average for the Injury crash type.

Roadway Condition/Crash Scenario	Crash Type	No. of Crashes	Crash Rate (per 100 Million VMT)	Statewide Average
All Roadway Conditions (wet, nighttime, and roadway departure)	Fatal	1	0.26	0.29
	Injury	55	14.36	14.32
	PDO	173	45.17	47.38
	Total	**229**	**59.79**	**61.99**

SAFETY COUNTERMEASURES

and Predictive Safety Analysis

The safety analysis for the new Interchange 151 alternatives in the Harmony Grove area included the addition of four safety countermeasures to mitigate historic crash trends on I-79 and the anticipated increase in the number of crashes associated with "breaks" in the flow of traffic on the interstate system created by interchange access points. The safety countermeasures included the following:

1. ***Continuous Highway Lighting***
2. ***High-Friction Pavement Surface Treatment***
3. ***Concrete Median Barrier***
4. ***Roundabouts at the Proposed Ramp Terminals***

Safety countermeasures 1, 2, and 3 have been incorporated into all the build alternatives; however, **Alternative 2C is the only build alternative that includes all four safety countermeasures.** The table below provides the results of the predictive crash analysis that includes the safety countermeasures.

Crash Severity	No-Build Alternative	Alternative 1 (SPUI)	Alternatives 2A and 2B (TDI)	Alternative 2C (TDI with Roundabouts)	Alternative 3 (MCI)
Fatality + Injury	23.79	21.05	21.53	**20.52**	22.79
Property Damage Only	50.64	42.05	42.71	**43.04**	42.82
Total	74.43	63.10	64.24	**63.56**	65.61

All the build alternatives would reduce the total amount of crashes when compared to the No-Build Alternative; however, **Alternative 2C would reduce the amount of fatality and/or injury crashes more than Alternative 1, Alternatives 2A and 2B and Alternative 3.**

HARMONY GROVE INTERCHANGE

REASONABLY FORESEEABLE IMPACT ANALYSIS

PRELIMINARY ALTERNATIVES ANALYSIS – COMPARISON OF REASONABLY FORESEEABLE IMPACTS

The comparison of reasonably foreseeable impacts associated with the build alternatives focused on the number of residential and commercial displacements, amount of earthwork and land area within the limit of disturbance, streams and wetlands, architectural and archaeological resources, sensitive noise receptors (such as homes, apartment buildings, schools, churches, hospitals, hotels, and restaurants), terrestrial habitats, hazardous waste sites, and the total construction cost. As shown in the table below, none of the build alternatives would impact archaeological and architectural resources or hazardous waste sites. This display provides a summary of the impact evaluation for each build alternative.

EVALUATION OF ALTERNATIVE 3

Alternative 3 has the largest limit of disturbance (LOD) and the most earthwork of all the build alternatives. As a result, Alternative 3 had the greatest amount of reasonably foreseeable impacts on natural resources, including streams, wetlands, and terrestrial habitat, would result in nine residential displacements, and has the highest estimated construction cost. In addition, Alternative 3 would not operate as well at the River Road ramp terminals compared to the Alternative 2 options and would not reduce the number of crashes compared to the other build alternatives. **Therefore, Alternative 3 was eliminated from further consideration.**

EVALUATION OF ALTERNATIVE 1

Alternative 1 and the three options for Alternative 2 would require half the earthwork compared to Alternative 3. Compared to the three Alternative 2 options, Alternative 1 has the highest estimated construction cost with two residential displacements but would result in higher reasonably foreseeable impacts on natural resources, including streams and wetlands, than Alternatives 2A and 2B. However, Alternative 1 would not operate as well at the River Road (CR 45) ramp terminals and would not lower the number of fatality and/or injury crashes compared to Alternative 2C. **Alternative 1 was eliminated from consideration because it would not provide the operational and safety benefits associated with Alternative 2C.**

Resource/Element	Alternative 1	Alternative 2A	Alternative 2B	Alternative 2C	Alternative 3
Residential/ Commercial Displacements	2/0	3/0	3/0	**5/0**	9/0
Earthwork (cubic yards)	149,380	149,133	133,495	**160,719**	323,735
Land Area (acres)	34.1	32.5	31.6	**43.0**	48.1
Streams (linear feet)	344	342	342	**887**	1289
Wetlands (acres)	0.02	0.01	0.01	**0.02**	0.25
Architectural Resources	0	0	0	**0**	0
Archaeological Resources	0	0	0	**0**	0
Noise Receptors	4	4	4	**3**	18
Terrestrial Habitats (acres)	20.87	20.45	19.93	**29.58**	31.74
Hazardous Waste Sites	0	0	0	**0**	0
Total Construction Cost[1]	$48.7 million	$42.8 million	$42.9 million	**$40.5 million**	$50.3 million

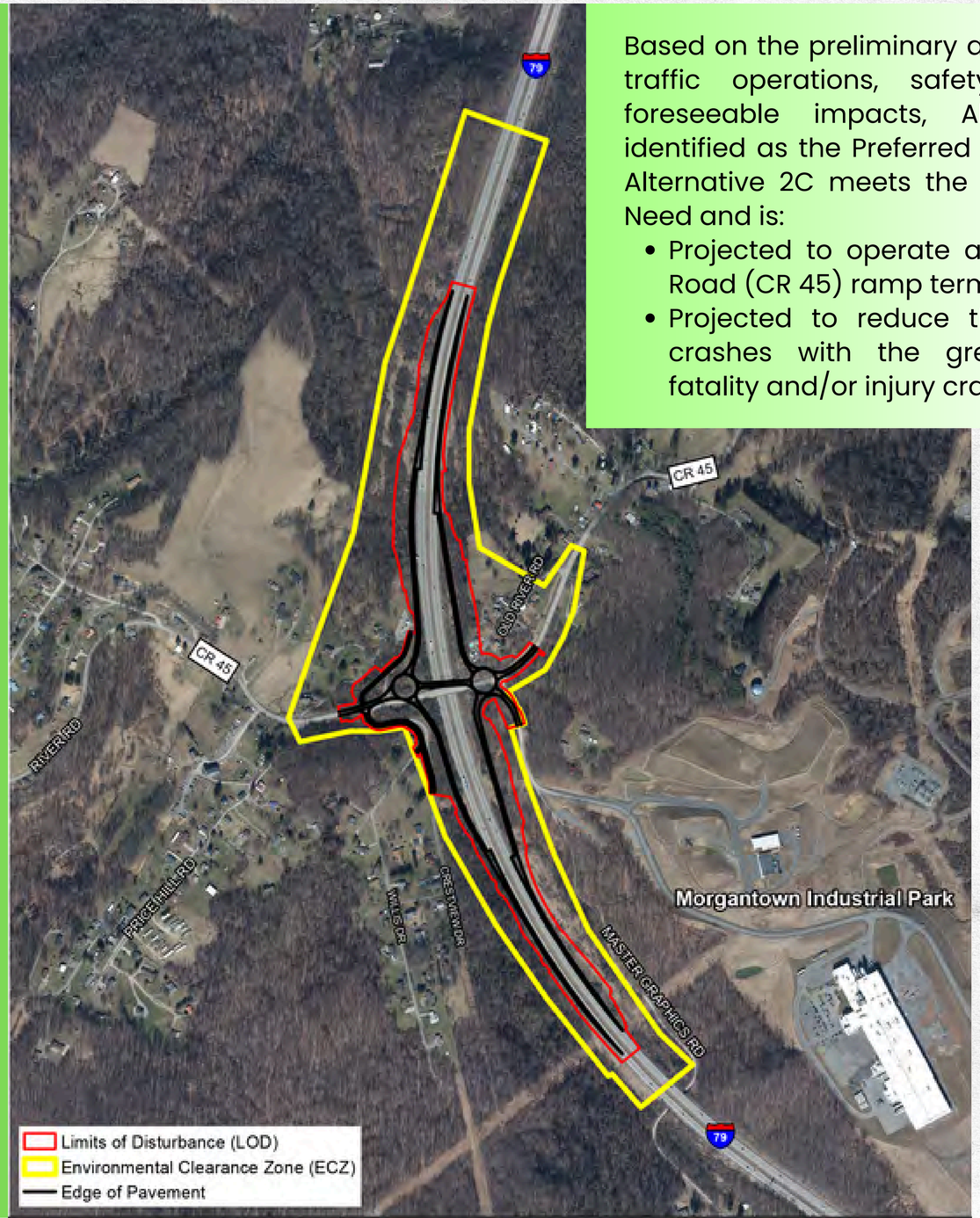
[1]Cost does not include Right-of-Way and Engineering/Geotech costs.

EVALUATION OF ALTERNATIVES 2A, 2B, AND 2C

Of the three Alternative 2 options, Alternatives 2A and 2B would require less earthwork than Alternative 2C; however, **Alternative 2C has the lowest estimated construction cost of the three Alternative 2 options.** Alternatives 2A and 2B would result in three residential displacements compared to five residential displacements that would occur with Alternative 2C. Alternative 2C would result in higher reasonably foreseeable impacts on natural resources, including streams and wetlands, compared to Alternatives 2A and 2B. However, Alternative 2C would operate better at the River Road (CR 45) ramp terminals and reduce the total number of crashes than Alternatives 2A or 2B. **Alternatives 2A and 2B were eliminated from further consideration because neither alternative would provide the operational and safety benefits associated with Alternative 2C.**

HARMONY GROVE INTERCHANGE

PREFERRED ALTERNATIVE 2C



Based on the preliminary alternative analysis of traffic operations, safety, and reasonably foreseeable impacts, Alternative 2C was identified as the Preferred Alternative. Preferred Alternative 2C meets the Project Purpose and Need and is:

- Projected to operate at LOS A at the River Road (CR 45) ramp terminals; and
- Projected to reduce the total number of crashes with the greatest reduction of fatality and/or injury crashes.

When compared to the No-Build Alternative in the Environmental Assessment, Preferred Alternative 2C with the proposed mitigation measures summarized below would not have a reasonably foreseeable significant effect on the quality of the human environment.

Resource/Element	No-Build Alternative	Preferred Alternative 2C	Proposed Mitigation Measure(s)
Socioeconomics	No	Yes	No mitigation proposed because reasonably foreseeable impacts are consistent with MMMPO local land use plans.
Community Facilities and Services	No	Yes	All access points to and from River Road (CR 45) will remain accessible, but River Road will be reduced to one-lane with signalized alternating traffic during construction of the interchange bridges over I-79.
Residential/Commercial Displacements	0	5/0	WVDOH ROW property acquisition and compensation procedures will be followed for all real property acquisitions and residential displacements.
Architectural Resources	No	No	No mitigation required.
Archaeological Resources	No	No	No mitigation required.
Air Quality	No	No	No mitigation required.
Noise Receptors	1	3	No mitigation proposed because noise barrier construction is not feasible and reasonable.
Streams (linear feet)	0	887	If permanent impacts are below mitigation thresholds, then erosion and sediment BMPs will be incorporated into the construction plans to minimize temporary impacts. Compensatory mitigation will be performed, if required by CWA permit requirements.
Wetlands (acres)	0	0.02	If permanent impacts are below mitigation thresholds, then erosion and sediment BMPs will be incorporated into the construction plans to minimize temporary impacts. Compensatory mitigation will be performed, if required by CWA permit requirements.
Terrestrial Habitats (acres)	0	29.58	LULC conversions consistent with MMMPO local land use plans and no mitigation is proposed.
Rare, Threatened, and Endangered Species	No	Yes	**Bald eagle** – A nest survey will be conducted between December 1 and March 15 before construction begins. **Northern long-eared bat (NLEB)** – Implementation of the following conservation measures: • Tree removal will only occur during winter when bats are not expected to be active on the landscape (November 15th – March 31st). • Blasting will not occur during the summer occupancy season (April 1 through September 30). • Erosion and sediment control best management practices will be used during earth disturbing activities.

HARMONY GROVE INTERCHANGE

PROPOSED PROJECT DEVELOPMENT SCHEDULE

December 15, 2025
Environmental Assessment (EA) approved

January 13, 2026
Informational Public Workshop Meeting

February 16, 2026
EA Review and Comment Period Ends

Spring 2026*
Completion of NEPA Process

Spring 2026*
Engineering Activities

Fall 2029*
Right-of-Way Activities

Fall 2030*
Construction Activities

**Schedule subject to change*