

# **Appendix I**

*Social and Economic Resources Report*

# IR-71/IR-271 PLANNING STUDY IN MEDINA COUNTY

Social & Economic Resources Report  
PID 117028



Submitted to *ODOT District 3*  
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Prepared by



Department of  
Transportation

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## Executive Summary

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This Social and Economic Resources Report, hereafter referred to as the report, has been developed to ensure the Ohio Department of Transportation (ODOT) engages in fair planning practices for all community populations while safety and traffic flow improvements are considered as part of the IR-71/IR-271 Planning Study. This report identifies potentially vulnerable population groups within the study area, analyzes the impacts of the identified Preferred Alternatives on these populations, and considers engagement concerns specific to the identified populations gathered throughout the project development process.

There are often vulnerable population groups within a community that face disproportionate impacts from transportation projects. Addressing the needs of these vulnerable groups and all community members is crucial for fair planning processes. This project aims to improve system linkage and safety and reduce congestion.

Using Census Block Group data and EPA tools, vulnerable populations were identified within the project area. Potential impacts to these populations are identified within this report, ensuring minimal adverse impacts and equal benefits for all. The analysis of the preferred alternatives indicates no anticipated impacts to vulnerable populations except at the intersections of SR-94 and Ledge Road (ID #10) where additional right-of-way would need to be acquired. Wherever feasible, efforts should be made to avoid impacts to vulnerable populations, and if avoidance is not feasible, minimization and/or mitigation measures should be implemented as necessary.

This analysis highlights ODOT's commitment to fair transportation planning, aiming to create a safer, more efficient system that benefits all users. Further information regarding the findings of this analysis can be found in the following sections of this report.

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## Introduction to Vulnerable Populations and Impact Assessment

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### Background and Historical Context

#### *Purpose of the Vulnerable Population Impact Assessment*

The primary purpose of this impact assessment is to ensure that the Ohio Department of Transportation (ODOT) is engaging in fair planning practices. This report provides essential information on identifying potentially vulnerable populations within the community and study area, analyzing the impacts of transportation projects on these populations, and engaging them effectively throughout the project development process.

#### *Definition of Vulnerable Populations*

Vulnerable populations are any groups who have difficulty representing themselves in situations that may impact them. These groups are often disproportionately affected by transportation projects, making it crucial to consider their unique needs and perspectives.

#### *Importance of Considering Vulnerable Populations*

Effective transportation decision-making involves understanding and properly addressing the unique needs of different socio-economic groups through a comprehensive and inclusive approach. By incorporating diverse segments of the population, including those traditionally left out of the planning process, into the project development process, fair and balanced outcomes can be achieved. This ensures that transportation benefits are more likely to be evenly distributed among all communities with appropriate consideration given to vulnerable populations.

### Project Overview

#### *Primary Needs*

The project aims to address two primary needs. First, improving system linkage by enhancing the connections between IR-271 southbound and IR-71 northbound. Second, addressing safety concerns in the study area, which has experienced 312 crashes over the last four years. These improvements are essential for reducing accident rates and ensuring safer travel for all road users.

#### *Secondary Needs*

In addition to the primary needs, the project also seeks to address congestion issues, particularly at intersections with unacceptable Levels of Service (LOS). By tackling these congestion problems, the project aims to improve traffic flow and reduce delays for commuters.

#### *Funding and Initiation*

The Ohio Department of Transportation (ODOT) secured funding for a feasibility study in response to public inquiries about the missing connecting ramps between IR-71 and IR-271. Additionally, ODOT obtained further funding to study congestion issues along SR-3 (Ledge Road) and SR-94 (Ridge Road) to address concerns from the community about traffic delays and inefficiencies.

### *Public Engagement*

Improvement alternatives have been considered at the IR-71/IR-271 interchange and the primary intersections along SR-94 and SR-3 between the SR-3/IR-71 interchange and the SR-94/IR-271 interchange. Opportunities for public input on the alternatives included four stakeholder meetings, two public meetings, and a public survey provided at the first public meeting. The project approach to considering potential impacts to vulnerable populations was discussed at each engagement event; however, no specific feedback was received from the public regarding impacts to vulnerable populations.

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## Identification of Vulnerable Populations

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### Population Identification Process

The population identification process for this vulnerable population review utilized Census Block Group data sourced from Environmental Protection Agency (EPA) screening and mapping tools. These tools provided all data necessary for identifying and analyzing the demographics of the area, specifically focusing on vulnerable populations within the study area.

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## Analysis of Vulnerable Populations in the Study Area

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### Description of Vulnerable Populations

The vulnerable populations identified as part of this review include low-income and minority populations living within Census Block Groups intersecting the study area. **Figure 1** shows the geographic distribution of vulnerable residents as a percentile of block groups in the state that have the same demographic index value or less. The study area intersects block groups falling within the 20<sup>th</sup>-30<sup>th</sup>, 30<sup>th</sup>-40<sup>th</sup>, and 40<sup>th</sup>-50<sup>th</sup> percentiles. The highest concentration of vulnerable residents fall within 40<sup>th</sup>-50<sup>th</sup> percentile in block group number 391034050002 which overlaps with the IR-71/IR-271 interchange and SR-94/SR-3 corridors.

### Determination of Breaking Point

The demographic index is the percentage of a population in a given area that is part of a vulnerable population as defined in this study. The breaking point was established at nine percent by taking the average of the demographic index percentages of all the block groups in the study area. A demographic index higher than the breaking point indicates that a given block group has a larger percentage of people who are part of a vulnerable population. These results are shown in **Figure 2**. This approach ensures that the analysis addresses the unique needs and potential impacts on different segments of the population within the study area. Two of the five block groups intersecting the study area have demographic indices which fall above the nine percent breaking point. These block groups overlap with the IR-71/IR-271 interchange and SR-94/SR-3 corridors.

Figure 1 Demographic Index State Percentile

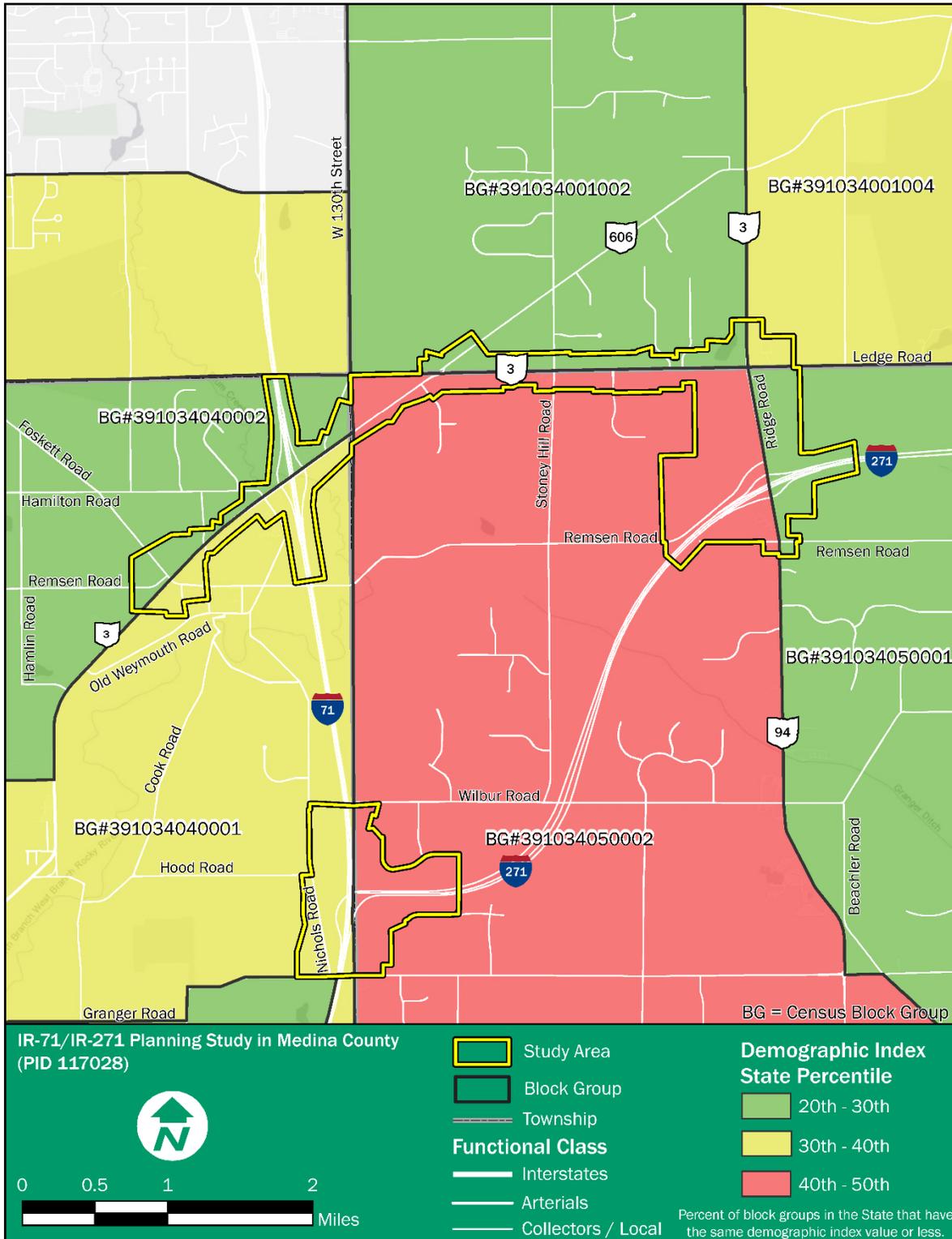
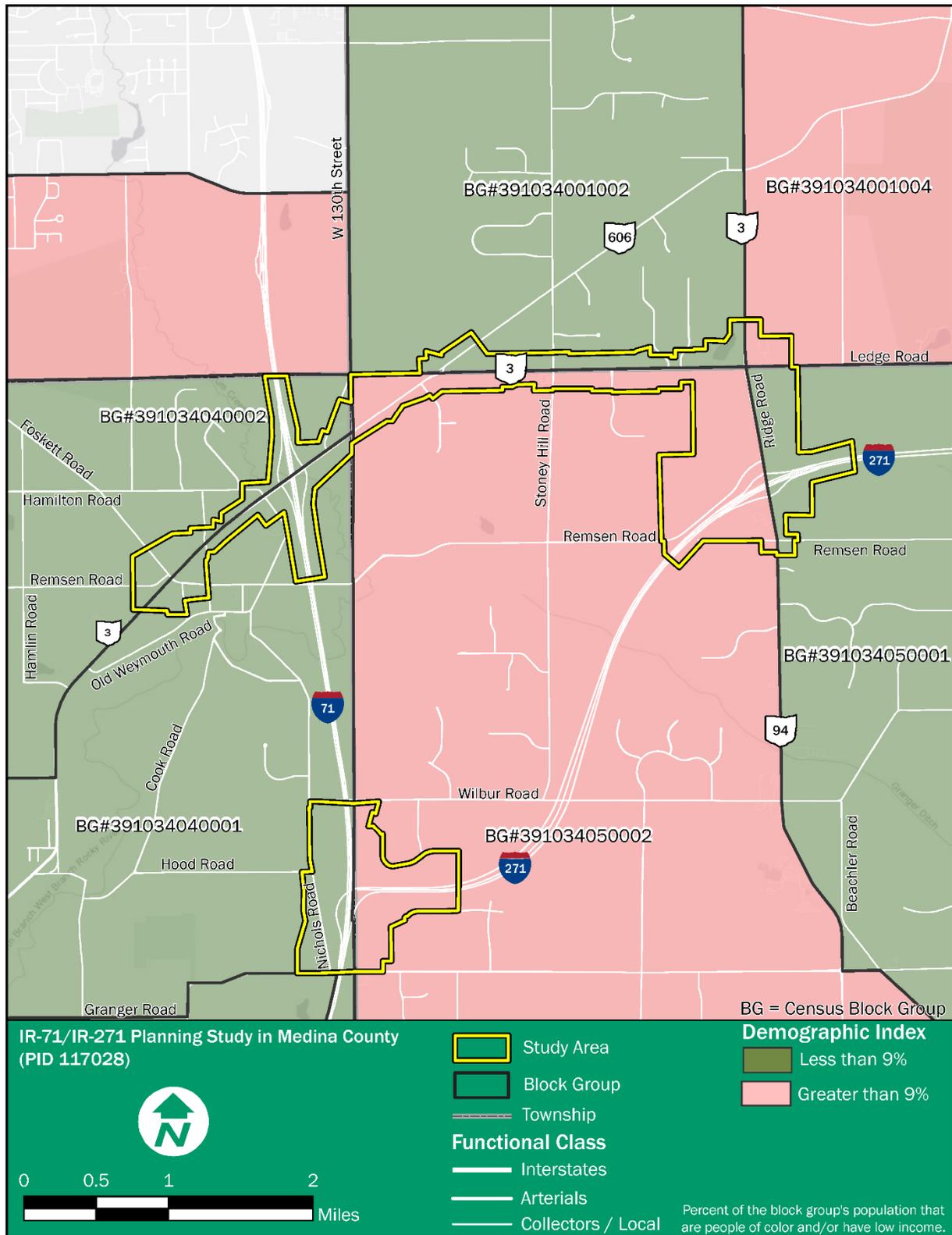


Figure 2 Demographic Index Breaking Point



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## Impact Assessment of Preferred Alternatives on Vulnerable Populations

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### Impact Assessment Methodology

The following methodology was used to assess the potential impacts of the Preferred Alternatives on vulnerable populations within the IR-71/IR-271 Planning Study Area:

1. Utilize Census Block Group data to map and visualize concentrations of low-income and minority populations within block groups that intersect the project area boundaries.
2. Determine if any U.S. Department of Housing and Urban Development (HUD) or Section 8 properties are located within the project area boundaries.
3. Review feedback gathered during Stakeholder and Public Meetings highlighting potential impacts to vulnerable communities.
4. Conduct a desktop review to identify potential impacts to vulnerable populations at each preferred alternative site.

### Anticipated Impacts to Vulnerable Populations

The anticipated impacts on vulnerable populations within the study area, based on the preferred alternatives identified through the IR-71/IR-271 Planning Study, are summarized below.

#### *SR-94/Ledge Road Intersection #10 - Preferred Alternative B*

Due to the high safety priority of the SR-94/Ledge Road intersection (ID #10), the significant reduction in predicted crashes, and notable improvements in Level of Service (LOS), the Alternative B roundabout has been identified as the recommended alternative. However, there are potential impacts to vulnerable populations due to the need for additional right-of-way to implement the improvements.

This intersection is located within four separate block groups (BG):

- **BG #391034001002 (northwest):** Falls within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.
- **BG #391034050002 (southwest):** Falls within the 40th-50th Demographic Index State Percentile, the highest in the study area, and above the nine percent Demographic Index Breaking Point.
- **BG #391034050001 (southeast):** Falls within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.
- **BG #391034001004 (northeast):** Falls within the 30th-40th Demographic Index State Percentile and above the nine percent Demographic Index Breaking Point.

The existing land use adjacent to the intersection includes an equestrian center (northeast), a towing business (southwest), and several private single-family residences (northwest and southeast). Additional right-of-way needs southwest of the intersection fall within BG #391034050002, which is within the 40th-50th Demographic Index State Percentile, the highest

in the study area, and above the nine percent Demographic Index Breaking Point. Additionally, right-of-way needs northeast of the intersection fall within BG #391034001004, which is within the 20th-30th Demographic Index State Percentile and above the nine percent Demographic Index Breaking Point.

There are no HUD or Section 8 properties located within the improvement area, and no structures appear to be impacted by the improvements. However, the right-of-way needs in the southwest corner of the intersection would shift the property line closer to the existing outbuilding structure located on the north side of the property where the towing company is based. The impact of the revised property boundary should be discussed with the local planning agency to ensure the existing structure will still meet the required setbacks per the zoning code. The impacts of shifting the right-of-way line in the northeast corner of the intersection appear to be minimal, as there are no existing structures in this area.

Additional alternatives considered for this location included a no-build option and an adjustment to signal phasing and lengthening of the right-turn lane along SR-3. However, these alternatives would not meet both the primary and secondary project goals. Based on this analysis, there appear to be minimal impacts on the adjacent properties that fall within the areas with vulnerable populations. Wherever feasible, efforts should be made to avoid impacting vulnerable populations, and if avoidance is not feasible, minimization and/or mitigation measures should be implemented as necessary. Specific mitigation measures are beyond the scope of this feasibility study and may require additional consideration as part of a NEPA analysis.

#### *SR-3/West 130<sup>th</sup> Street Intersection #30 - Preferred Alternative A*

The Preferred Alternative for the intersection of SR-3 and West 130th Street (ID #30) is Alternative A. This plan includes constructing a southbound right-turn lane, which meets the primary and secondary needs of the study without impacting vulnerable populations. This addition is expected to reduce crashes and delays, although it will require some right-of-way acquisition. This low-cost solution is considered the best option for maintaining the current Level of Service (LOS) on SR-3 and improving the LOS on West 130th Street.

The intersection is located along the border of two block groups:

- **BG #391034040002 (north):** Falls within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.
- **BG #391034040001 (south):** Falls within the 30th-40th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.

The surrounding land uses are primarily undeveloped open space, and a trucking business located northeast of the intersection. The additional right-of-way required falls within BG #391034040002, which is within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point. There are no HUD or Section 8 properties near the intersection. Based on this analysis, implementing Alternative A is not expected to impact vulnerable populations.

#### *SR-3/IR-71 NB Intersection #40 - Preferred Alternative A*

The Preferred Alternative for the intersection of SR-3 and IR-71 Northbound (ID #40) is Alternative A. This plan includes constructing a northbound left-turn lane, addressing both the primary and secondary needs of the study without impacting vulnerable populations. This low-cost improvement is expected to reduce crashes and enhance the overall Level of Service (LOS) on SR-3 and IR-71 northbound.

The intersection is situated along the border of two block groups:

- **BG #391034040002 (north):** Falls within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.
- **BG #391034040001 (south):** Falls within the 30th-40th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.

There is no existing development adjacent to the intersection, and the proposed turn lane will fit within the existing right-of-way. Additionally, there are no HUD or Section 8 properties nearby. Based on this analysis, implementing Preferred Alternative A is not anticipated to impact vulnerable populations.

#### *SR-3/Remsen Road/Foskett Road Intersection #70 - Preferred Alternative A*

The Preferred Alternative for the intersection of SR-3, Remsen Road, and Foskett Road (ID #70) is Alternative A. This plan includes constructing left-turn lanes along SR-3, addressing the primary and secondary needs of the study without impacting vulnerable populations. This solution is expected to reduce crashes at the intersection, requires no additional right-of-way, and offers a high safety benefit without reducing the Level of Service (LOS).

The intersection is located along the border of two block groups:

- **BG #391034040002 (north):** Falls within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.
- **BG #391034040001 (south):** Falls within the 30th-40th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.

Adjacent land uses include undeveloped open space and a single-family residence. Since no additional right-of-way is needed, impacts to adjacent properties are expected to be minimal. There are no HUD or Section 8 properties near the intersection. Based on this analysis, implementing Recommended Alternative A is not anticipated to impact vulnerable populations.

#### *SR-94/Remsen Road South Intersection #220 - No Build*

The Preferred Alternative identified for the intersection of SR-94 and Remsen Road South (ID #220) is the No-Build scenario. Due to the high cost of the roundabout and bridge required as part of Alternative C, and only minor improvements of crash frequency, the current configuration is preferred. As such, there will be no impact on vulnerable populations at this location.

#### *SR-94/IR-271 Northbound Intersection #230 - Preferred Alternative A*

The Preferred Alternative for the intersection of SR-94 and IR-271 Northbound (ID #230) is Alternative A, which involves constructing a roundabout. This choice meets the primary and secondary needs of the study and does not anticipate impacts on vulnerable populations. Alternative A will significantly improve the Level of Service (LOS), reduce crash occurrences, and can be built within the existing right-of-way, making it a cost-effective solution.

The intersection is located along the border of two block groups:

- **BG #391034050002 (west):** Falls within the 40th-50th Demographic Index State Percentile and above the nine percent Demographic Index Breaking Point.
- **BG #391034050001 (east):** Falls within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.

Adjacent land uses include a truck towing business and a single-family residence. Since no additional right-of-way is needed, impacts to adjacent properties are expected to be minimal. Additionally, there are no HUD or Section 8 properties near the intersection. Based on this analysis, implementing Preferred Alternative A is not anticipated to impact vulnerable populations.

#### *SR-94/IR-271 Southbound/Remsen Road North Intersection #240-250 - Preferred Alternative A*

The Preferred Alternative for the intersection of SR-94 and IR-271 Southbound/Remsen Road North (ID #240-250) is Alternative A. This plan includes constructing two westbound right turn lanes on the IR-271 southbound exit ramp and a roundabout at the intersection of Remsen Road and Ridge Road. This alternative will improve the Level of Service (LOS) to C for all peak times at both intersections and is expected to significantly reduce annual crash predictions.

The intersection of SR-94 and IR-271 Southbound/Remsen Road North is situated along the border of two block groups:

- **BG #391034050002 (west):** Falls within the 40th-50th Demographic Index State Percentile and above the nine percent Demographic Index Breaking Point.
- **BG #391034050001 (east):** Falls within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point.

Adjacent land uses include a gas station and three outbuildings that appear to serve light industrial purposes. A private driveway will need to be diverted along the east side of SR-94, and partial right-of-way acquisition will be necessary for the improvements. However, properties in this area fall within BG #391034050001, which is within the 20th-30th Demographic Index State Percentile and below the nine percent Demographic Index Breaking Point. Based on this analysis, there are no anticipated impacts to vulnerable populations at this location.

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## Conclusion

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In summary, the preferred alternatives for key intersections were selected based on their ability to meet project goals while balancing impacts on vulnerable populations. This balanced approach to infrastructure development and social awareness reflects ODOT's dedication to creating a safer, more efficient transportation system that benefits all users.