SAFETY APPENDIX

Mid-States Corridor
Tier 1 Environmental Impact Study

Prepared for

Indiana Department of Transportation
Mid-States Regional Development Authority

AUGUST 13, 2019

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A safety analysis of roads in the twelve counties of the Project Study Area was performed using the Road Hazard Analysis Tool (RoadHAT) version 3.0.[1] This analysis identifies locations or road segments where the actual number of crashes and/or the costs of the actual crashes significantly exceed typical crash rates and costs on Indiana highways with similar geometrics and traffic volumes. This appendix contains the full details of the calculations, including the individual RoadHAT analysis for each non-interstate state-jurisdictional roads in the 12-county Study Area, the safety analysis tables, and a database of the crash records used for the crash analysis.

The crash data for this analysis was provided by INDOT from its ARIES report system. The crash cost index in RoadHAT requires separate inputs for injury crashes which do and do not result in incapacitating injuries. The ARIES database data does not distinguish these types of injury crashes. For this reason, only the index of crash frequency from RoadHAT is used in this analysis.

RoadHAT analysis report for individual state-jurisdictional roads

The index of crash frequency and cost for each of the non-interstate state-jurisdiction roads analyzed in the twelve-county region can be found in each of the respective County RoadHAT Analysis folders of the Safety Appendix. If a road's crash index exceeds 0.0, then that highway has more frequent/more costly crashes than Indiana highways with similar geometrics and traffic volumes. If an index is 1.0 or higher, then that road has crash occurrences which are at least 1 standard deviation higher than comparable highways throughout Indiana. Roads with indices of 1.0 or over are considered "high crash" locations

Safety Analysis Tables

The Safety Analysis tables can be found in the corresponding PDF file located in the Safety Appendix. These tables calculate county-level weighted by VMT crash indices. Included are tables which summarize US 231 crash indices by County, and "higher-crash" roads by County.

Crash Record Database

The database containing crash records used for the RoadHAT analysis can be found in the Microsoft Access file located in the Safety Appendix. This database includes collision data used for crash analysis for all roads analyzed within the twelve-county region. It was obtained from the INDOT ARIES database.

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[1] Purdue University researchers developed RoadHAT for INDOT as a comprehensive and complete software-based tool for safety management related to road improvements. This program supports evaluation of crash hazards for road sections and intersections; identification of hazards causing road deficiencies and related safety countermeasures; estimations of economic effectiveness for proposed safety countermeasures; and estimations of effectiveness of implemented road improvements to increase safety.