

Focus on...
Traffic Crash Studies

Make your roads safer

The University of Michigan reports that a crash occurs on Michigan roadways about once every 2 minutes, on average. Some crashes are largely attributable to single obvious causes, such as drunk driving or “texting” on a cell phone. However, many crashes are affected by a combination of factors that might include:

- Unusual roadway design
- Traffic control feature(s) different than the driver expected
- Poor visibility due to darkness and/or weather
- An unforgiving roadside

The likelihood of crashes and/or severe injuries occurring can generally be reduced by improving the roadway, roadside, and/or traffic controls (i.e., pavement markings, signs, signals).

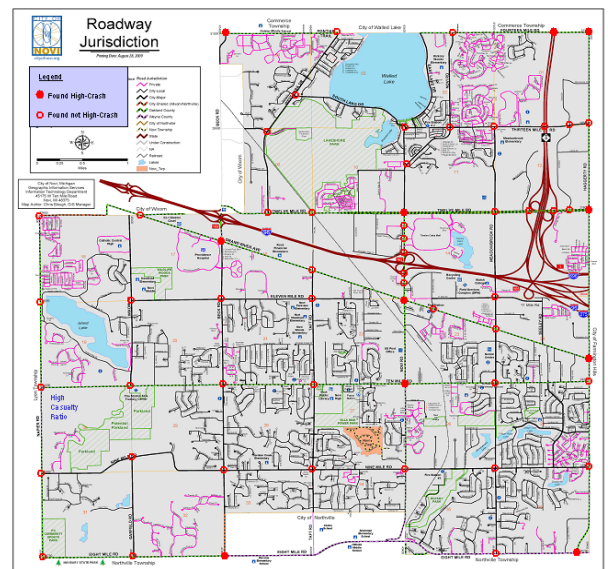
Municipalities and road agencies have often directed their limited safety improvement funds to a few specific high-crash locations. However, the total number of crashes occurring at a given location may be a more direct reflection of traffic volume than true driving risk.

To assist in the development of a more cost-effective local safety program, SEMCOG published a *Traffic Safety Manual* to help police, public works personnel, and traffic engineers identify high-crash locations based on a variety of factors:

- Accounting for exposure by computing crash rates expressed in crashes per million entering vehicles,
- Comparing each studied intersection only to similar intersections throughout the region,
- Determining whether or not the amount by which a crash rate is above-average is meaningful, and
- Determining whether or not the crash severity is significantly above-average.



In 2011-12, Clearzoning assisted the City of Novi with a citywide crash study using methods found in the *SEMCOG Traffic Safety Manual*. The study identified 11 high-crash intersections and one high-crash-severity intersection (out of 62 locations evaluated). Subsequent crash data analysis and expert inspection identified leading safety concerns and candidate mitigation, and the City is using these results to better target its Capital Improvement Program.



If you have any questions about traffic crash studies, feel free to contact staff at Clearzoning.

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