

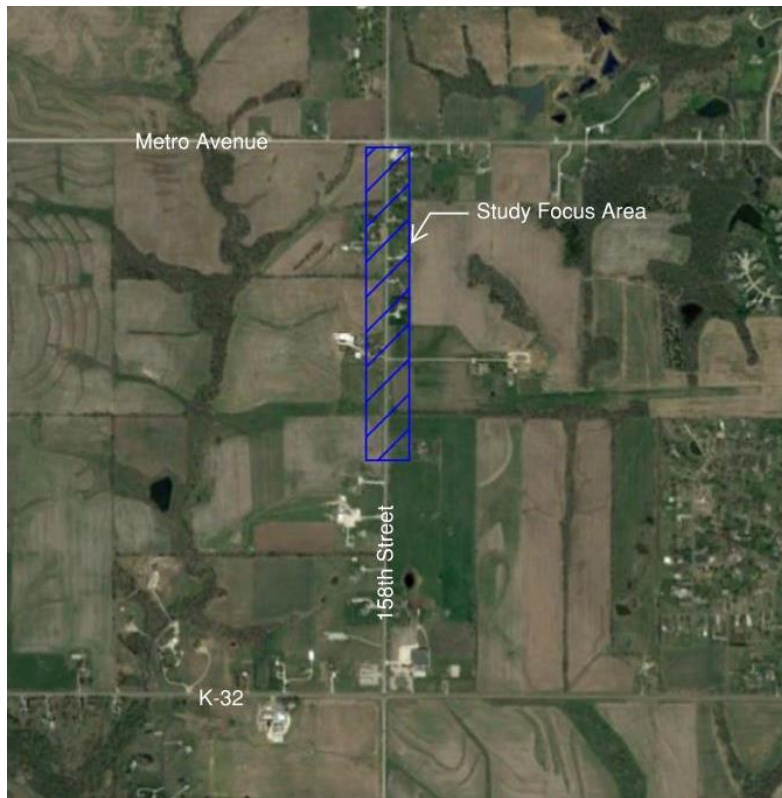
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TO:	Lauren Anderson, IE Leavenworth County Public Works
FROM:	Tom Fulton, Vice President Shannon Jeffries, PE PTOE, Project Engineer
RE:	158 th Street near Metro Avenue Crash Review
DATE:	March 27 th , 2020
PROJECT #:	019-2831

Leavenworth County staff requested a review of crash history along a segment of 158th Street south of Metro Avenue in Leavenworth County, Kansas. The general location of the segment is illustrated in **Figure 1**.

Figure 1. Segment Location.



*Google Earth Pro



158th Street is a two-lane, north/south roadway south of Metro Avenue. Roadway classification was determined referencing Kansas Department of Transportation (KDOT) roadway functional classification maps. Based on this information, the roadway is classified as a major collector. The posted speed limit along this segment of 158th Street is 40 mph for north and southbound traffic. Terrain along the roadway is generally level. The roadway is paved with no shoulder and open ditch drainage along the study section.

Leavenworth County requested Olsson review crash history for the segment of 158th Street extending from the intersection with Metro Avenue to a point approximately 2,500 feet south of the intersection.

Roadway Segment Crash Type Review

Leavenworth County provided crash data for the roadway segment for the years 2016-2020. Data provided for the year 2020 was partial. From the years 2016-2020, a total of 16 crashes were reported along the segment of roadway reviewed. This total excludes crashes reported as occurring at or related to the intersection of 158th Street and Metro Avenue. **Table 1** provides a summary of reported crashes by year as well as classification as property damage only (PDO), injury or fatality.

Table 1. Crash Summary by Year and Severity

Year	Reported Number of Crashes	Property Damage Only	Injury	Fatality
2016	2	1	1	0
2017	5	4	1	0
2018	4	2	2	0
2019	4	2	0	2
2020*	1	1	0	0
Total	16	10	4	2

*Partial year data

Sixteen crashes were reported to occur within the study area. Reviewing available crash data, reported crashes occur along the entire study segment. Of those crashes, nine were indicated within the report to be associated with overcorrection. However, several other crashes may have been associated with overcorrection although it was not specifically noted in the crash documentation. Factors related to initial loss of control include, but are not limited to, distraction and inattention.

Traffic volume data along the roadway was not available at the time of this review. Without volume data such as average daily traffic (ADT), segment crash rates cannot be determined. It is recommended to collect ADT data to determine a crash rate for the



segment. If statewide crash rates are available for a similar roadway type, a comparison of crash rate to similar roadway type can be conducted to determine if this segment of roadway is experiencing a higher or lower crash rate.

Reviewing the crash reports and considering that a higher percentage of the crashes are attributed to a loss of control/overcorrection measure, the County may consider construction of shoulders along the roadway. Further investigation could be pursued to determine if construction of shoulders is recommended and recommended shoulder width.

Summary and Recommendations

Sixteen crashes were reported along the roadway segment for the period of 2016 to current. Reviewing the crash reports, several crashes indicated a loss of control or overcorrection associated with the reported crash.

It is recommended to obtain ADT data for the roadway segment. This data can be used to develop a segment crash rate.

Construction of shoulders along this segment of roadway may be a possible treatment to address the occurrence of loss of control/overcorrection crashes. Further investigation could be pursued into this treatment option.

We hope that we have provided adequate information for your request. If you have additional questions, please contact us at 913.381.1170.