

Traffic Study Summary

Date:	March 15, 2022
Prepared By:	Mary K. Hamann, P.E., Assistant City Engineer
Request:	Lower existing 50 mph speed limit on Cordova Road to 40 mph
Recommendation:	Lower existing 50 mph speed limit on Cordova Road to 45 mph

Background

Cordova Road is a two-lane roadway that connects SH 46 and SH 123 with traffic signals at the intersections with SH 46 and SH 123. Major intersections on Cordova Road include intersections with Barbarossa Road and Huber Road, which are both stop controlled on the minor streets.



Figure 1. Cordova Road between SH 46 and SH 123.

An engineering study was completed to evaluate lowering the existing 50 mph speed limit to 40 mph on Cordova Road. The study was completed due to requests received by City staff due to the increased residential growth.

Guidance

Speed limits applicable to public streets are established:

- Statutorily – a maximum speed limit applicable to a particular class of road that is established by State Law; or
- As altered speed zones – based on engineering studies.

The maximum speed limits posted should be based primarily on the 85th percentile speed – the speed at or below which 85 percent of vehicles travel. Other factors that may be considered when establishing or reevaluating speed limits include the following:

- Road characteristics;
- Roadside development and environment;
- Parking practices and pedestrian activity; and

- Reported crash experience.

A city may declare a lower speed limit of not less than 25 miles per hour if the governing body determines that the prima facie speed limit on the street is unreasonable or unsafe. By State Law, a traffic engineering study is required for a city to lower a speed limit below 25 mph.

Site Investigation

A traffic study was completed for Cordova Road in February 2022 due to concerns with safety and speeding due to the increased residential development along Cordova Road. The investigation included a review of the road characteristics and roadside environment.

Cordova Road is 22 to 24 feet in width and is classified as an arterial in the City of Seguin's Master Thoroughfare Plan. It has a posted speed limit of 50 miles per hour (mph), except for near the intersections with both SH 46 and SH 123 where the posted speed limit is 35 mph. The surrounding land use is primarily farmland but is becoming more built-out as there are numerous residential developments planned or with construction underway throughout this corridor (which is over 2,300 new single-family homes at this time). Each new development shown in Figure 2 has at least one driveway onto Cordova Road, which will increase conflict points in the future as developments are completed.

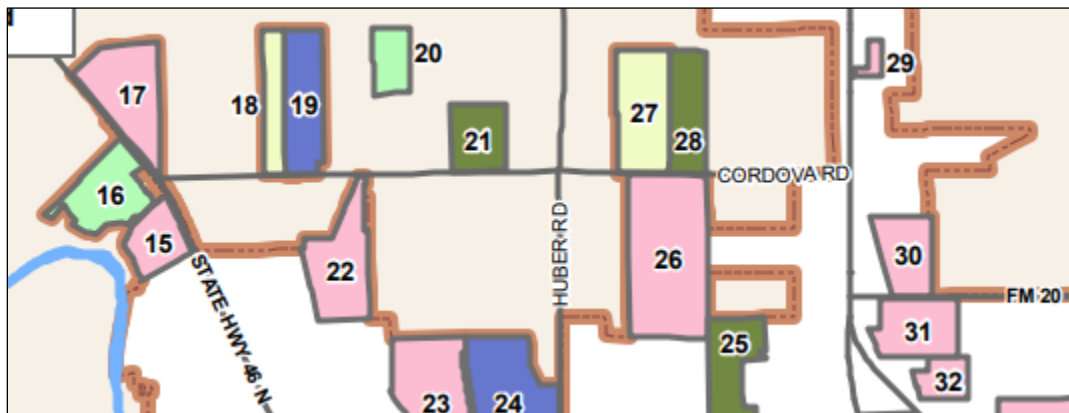


Figure 2. Current development in review or construction along Cordova Road between SH 46 and SH 123.

There are currently no sidewalks on Cordova Road. However, there is a funded project to widen the existing roadway to a four-lane divided section with separated pedestrian/bicycle facilities. That project is scheduled to let in FY2024.

Crash History

Traffic crash data for 2019 through February 2022 were found through TxDOT's Crash Records Information System. There were 23 reported crashes during that time with eight of the crashes citing unsafe speeds or failure to control speeds as contributing factors. The heat map of the crashes shows that most occur at intersections with Cordova Road, with the most occurring at the intersection of Cordova Road and Huber Road.

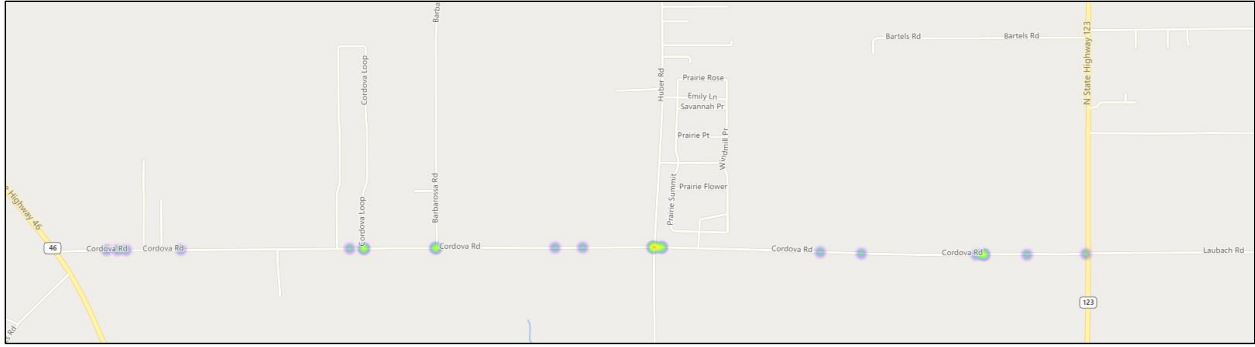


Figure 3. Heat map showing crash locations on Cordova Road between 2019 and February 2022.

Data Collection

Traffic speed and volume data were collected on February 1 and 16, 2022 in three locations on Cordova Road, shown in Figure 3. All data was collected at points within the existing posted 50 mph speed limit. The results of these studies are shown in Table 1 below.



Figure 4. Cordova Road data collection locations.

Table 1. Cordova Road speed and volume study results.

Location	Average Daily Volume (vpd)	Average Speed (mph)	85 th Percentile Speed (mph)
Near SH 46	4,377	49	54
Between Barbarossa Rd and Huber Rd	4,242	49	54
Near SH 123	4,856	49	55

Recommendation

With the increased growth along Cordova Road, staff recommends lowering the speed limit on Cordova Road from 50 mph to 45 mph and retaining the existing 35 mph speed limits near the intersections with SH 46 and SH 123. Although the measured 85th percentile speed is over the currently posted 50 mph, the character of Cordova Road is changing with the increased residential growth along the corridor, leading to increased access points and volumes as the subdivisions are completed.