

Traffic Study Summary

Date:	November 1, 2023
Request:	Lower existing 40 mph speed limit on Goodwin Lane near FM 306
Recommendation:	Establish speed limit of 35 mph on Goodwin Lane between FM 306 and Conrads Lane and maintain the 40 mph speed limit on Conrads Lane

Background

An engineering study was completed to evaluate the appropriate speed limits on Goodwin Lane and Conrads Lane. The study was completed in response to a safety concern about the speed limit on Goodwin Lane near the intersection with FM 306 where an all-way stop was recently implemented. The statutory maximum speed limit in the City of New Braunfels is 30 miles per hour (mph) except where otherwise established by ordinance and posted by official traffic signs. The city may alter speed limits based on the result of an engineering study.

Goodwin Lane is an approximately 2-mile-long minor arterial that spans from FM 306 to Conrads Lane. It provides access to commercial, residential, and industrial uses. The posted speed limit on Goodwin Lane is 40 mph from FM 306 to a point just south of the intersection with Aspen Waters. The speed limit is then posted at 30 mph until the first intersection with Conrads Lane where it returns to 40 mph. There is a school zone along Goodwin Lane for Oak Creek Elementary School. During the active hours of the school zone, the speed limit is 20 mph. Goodwin Lane is currently stop-controlled at FM 306. Other than the frontage of Oak Creek Elementary School and the Wasser Ranch subdivision, there are no sidewalks on Goodwin Lane. Conrads Lane is a major collector that spans from IH 35 to FM 1102. At the intersection with Goodwin Lane, the two segments of Conrads Lane are offset by approximately 1,000 feet. Conrads Lane provides access to several existing single family residential subdivisions and will provide future access to commercial and multi-family properties currently being developed. The posted speed limit on both segments of Conrads Lane is 40 mph. Conrads Lane has sidewalks near the intersection with IH 35 in the project limits of TxDOT's Conrads/Kohlenberg overpass reconstruction.

The city is currently working on the final design of a roadway project for Goodwin Lane and Conrads Lane from Goodwin Lane to IH 35. The project includes roadway widening, sidewalks, turn lanes, and traffic control upgrades. Upon completion of the project, the speed limit will be reevaluated, but with construction being several years out and active concerns about traffic safety, a pre-project study is warranted to determine potential near-term actions.

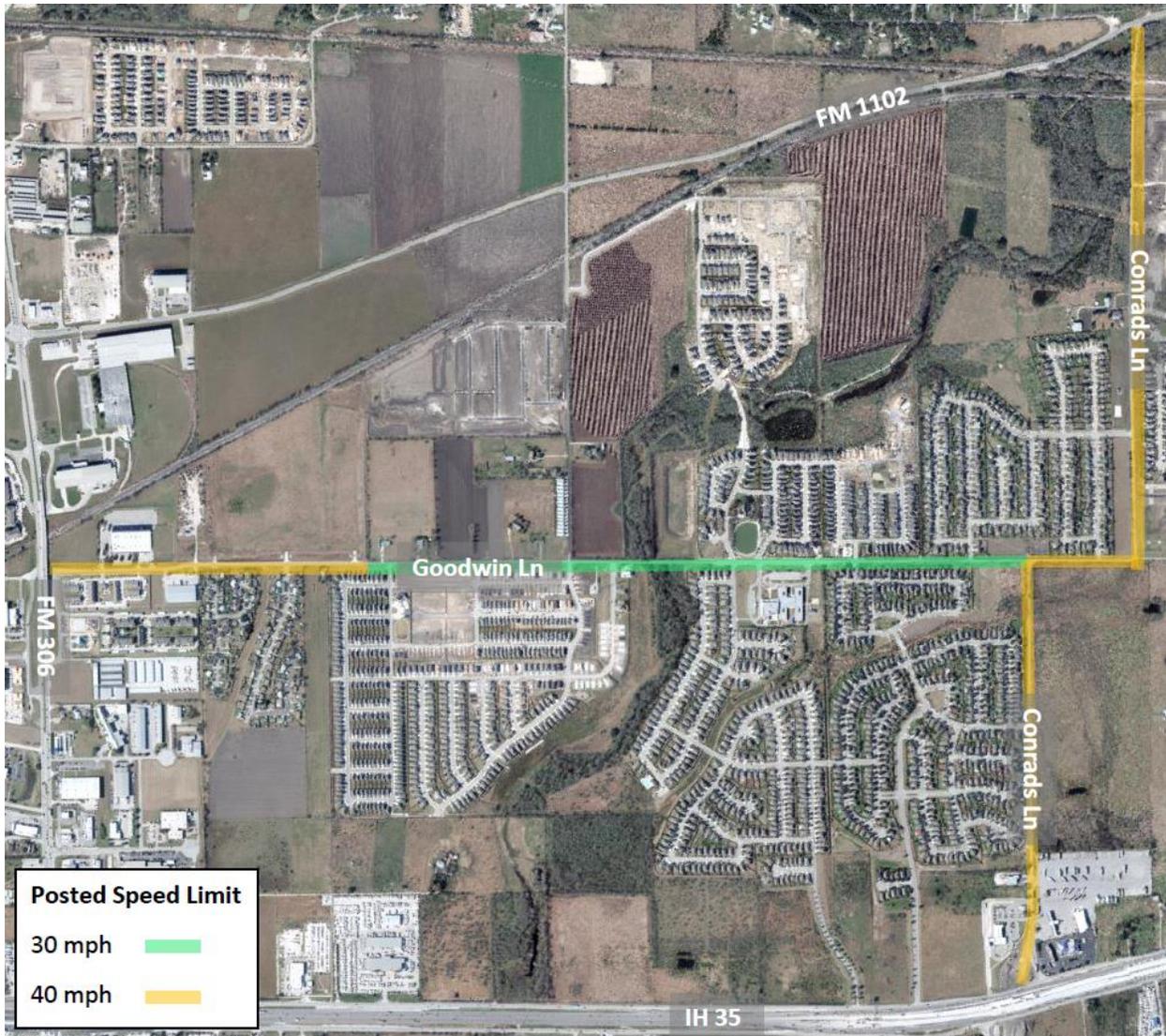


Figure 1. Posted Speed Limits on Goodwin Lane and Conrads Lane

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
- 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 streets is unreasonable or unsafe. By State Law, a traffic engineering study is required in order for a city to lower a speed limit below 25 mph.

Site Investigation

Site investigations and a traffic study were completed for Goodwin Lane and Conrads Lane in the Summer of 2023. Goodwin Lane provides direct access to multiple commercial and industrial businesses, as well as an elementary school. Many residential subdivisions connect to Goodwin Lane, but there are still homes along Goodwin Lane with driveways fronting the roadway.

City staff determined that the current posted speed limit of 40 mph on sections of Goodwin Lane and the entirety of Conrads Lane is not supported by ordinance. Any posted speed limit other than 30 mph is required to be documented in the City of New Braunfels Code of Ordinances.

Crash History

Traffic crash data for October 2020 through October 2023 was found through TxDOT's Crash Records Information System. There were 21 reported crashes on Goodwin Lane during this time, of which 11 were speeding related. There were 17 reported crashes on Conrads Lane during this time, of which 3 were speeding related.

Data Collection

Traffic speed and volume data were collected in August 2023 for multiple locations along Goodwin Lane and Conrads Lane. The data collection points were selected to represent the differing adjacent land uses along different segments of these roadways. The average daily traffic (ADT) and 85th percentile speed for each collection point is documented in Table 1.

Table 1. Traffic Speed and Volume Data

Roadway	Limits	Direction	ADT (vpd)	85th % speed (mph)
Goodwin Ln	FM 306 to Northgate Cir	Northbound	3,435	36
		Southbound	2,786	40
	Aspen Waters to Orion Dr	Northbound	2,250	44
		Southbound	1,661	43
	Dove Hollow Dr to Conrads Ln	Northbound	1,743	40
		Southbound	1,336	40
Conrads Ln	Goodwin Ln to Morning Quail	Eastbound	3,648	44
		Westbound	3,417	45
	NW Blvd to Black Cloud Dr	Eastbound	2,248	44
		Westbound	2,110	43

Recommendation

Based on the site investigation and collected speed data, it is recommended that the regulatory speed on Goodwin Lane be revised to 35 mph from the intersection with FM 306 to the northern intersection with Conrads Lane. The measured 85th percentile speeds in the 36-44 mph range do not support a speed

limit of 30 mph. However, the direct residential driveway access and pedestrian activity around the school with scarce pedestrian facilities are conditions for which a 40 mph speed limit is not suitable. The regulatory speed on both segments of Conrads Lane is recommended to be maintained at 40 mph. This area has high 85th percentile speeds between 43 and 45 mph and very few direct access driveways or pedestrian activity.