



MEMORANDUM
10/3/2023

TO: Honorable Mayor and City Council Members
FROM: Andrew Simmons, P.E., City Engineer
SUBJECT: Avenue 49 Speed Limit Change

This memorandum has been prepared to provide an assessment of traffic safety concerns pertaining to Avenue 49 between Grapefruit Blvd and Van Buren Street.

In accordance with the California Vehicle Code (CVC) sections 22348-22366, the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD) and 2020 California Manual for Setting Speed Limits, an engineering study was conducted from Grapefruit Boulevard to Van Buren Street.

EXISTING CONDITION:

Avenue 49 is a two-lane urban street with bicycle facilities and on street parking, per the City's General Plan, between Grapefruit Boulevard and Van Buren Street. Avenue 49 intersects Van Buren Street from the west as a three-legged traffic signal-controlled intersection. Avenue 49 intersects Grapefruit Boulevard from the east as a three-legged traffic signal-controlled intersection. Between Grapefruit Boulevard and Van Buren Street, there is a stop condition at the intersection of Frederick Street. Frederick Street intersects Avenue 49 from the south as a three-legged intersection. North of the Frederick Street and Avenue 49 intersection is a multi-use bicycle and pedestrian trail that travels to Rancho Las Flores Park. The posted speed limit along Avenue 49 is 40 MPH.

CONSIDERED CRITERIA:

The CA MUTCD and Caltrans Policy Directive 09-04 recommend setting a speed limit at the nearest 5 mph increment to the 85th percentile speed of free-flowing traffic. The MUTCD and Caltrans Policy Directive also allow for speed limit reduction below the 85th percentile, where an engineering study indicates the need for a reduction in speed to match existing conditions with the traffic safety needs of the community and such reduction will facilitate the safe and orderly flow of traffic.

Other factors that may be considered when establishing speed limits include the following:

- A. Road characteristics, shoulder condition, grade, alignment, and sight distance;

Ave 49 has a strait alignment with no grade or sight distance impairments.

B. The pace speed;

Based on visual observation and community feedback the pace speed has been determined to be highly irregular. Due to the strait and flat alignment of the road, some vehicles are found to travel at speeds in excess of the speed limits while other vehicles are found to travel well below the speed limit due to the high density of driveways, pedestrians and roadside development of a Mosque. This disparity in pace speed results in vehicular conflict and frequent community complaint.

C. Roadside development and environment;

The east end of the roadway includes a heavily trafficked commercial development which includes four commercial driveways and a street intersection within 300 feet of a signalized intersection. This heavy concentration of vehicle turning movements adjacent to an intersection does not meet typical commercial standards of development and driveway separation. Reduction of speeds will reduce potential conflicts in this zone. The north side of the road also has a fully developed Mosque which results in heavy vehicular traffic and pedestrian traffic. The Mosque also offers daytime educational opportunities which would typically justify a maximum speed limit of 25 miles per hour due to the proximity of pedestrian-based children. The central section of Ave 49 bisects a multi-use trail that serves high volumes of pedestrian, bicycle and multi modal transportation from the adjacent communities to Las Flores Park to the North. The increased volume of pedestrian and multi modal traffic further justifies a reduction in speed. The West end of Ave 49 includes a reduction in road width and two-lane shifts. A reduction in speed will improve the overall safety of the vehicle/multi modal interactions.

D. Driveway Density;

Approximately 15 driveways exist in the eastern third of the roadway. This driveway density is typically associated with speed limits of 25 miles per hour per Caltrans standards. Many of these driveways are not readily apparent to a driver.

E. Parking practices and pedestrian activity; and

Roadside parking is allowed on both sides of the street along nearly the entire corridor. Roadside parking and pedestrian activities are much higher than typical due to the presence of the mosque and the intersecting multi modal trail. The City has received petitions to place midblock crosswalks from community members to accommodate the high volumes of pedestrians and parked vehicles. The City has denied the requests for a mid-block crossing for safety reasons, so that pedestrians will utilize the existing crosswalks at existing intersections. However, reduced speeds are warranted to facilitate the safe loading and unloading of parallel parked vehicles.

F. Reported crash experience for at least a 12-month period

The most recent crash date available is from 2016 and there were 18 collisions with 6 collisions providing injury in a three-year period. Almost half of these collisions were caused by unsafe speed and two collisions were with pedestrians. A safety problem, is indicated by five or more reported crashes in a 12-month period. In general, a lower speed collision is less severe than higher speed collisions. Higher speeds increase stopping distances and the energy dissipated in an accident. Higher speeds could raise the severity of the collisions occurring in this area. A speed reduction is warranted due to number of collisions and high volume of pedestrians.

CONCLUSIONS AND RECOMMENDATIONS:

After evaluation current critical and pace speeds it is recommended that a 25-mph speed limit be implemented to be in concurrence with section 2B.13 of the CA MUTCD. The 25-mph speed limit was obtained by prima facie due to the pace speed, the number of access points, reported collision experience, and pedestrian activity as described in Section 2B.13 of the CA MUTCD.

Installation of speed limit change along Avenue 49 should be established in accordance with the CA MUTCD along with placement of advance warning signs and/or changeable message signs noting the change in traffic control at the subject location.



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