



CITY OF SALINAS

TRAFFIC AND TRANSPORTATION COMMISSION STAFF REPORT

DATE: MAY 10, 2018

DEPARTMENT: PUBLIC WORKS

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TITLE: STOP SIGN APPLICATIONS INFORMATIONAL REPORT

RECOMMENDED MOTION:

There is no recommended motion; this report is for informational purposes only.

RECOMMENDATION:

The Commission is recommended to receive the report from staff.

EXECUTIVE SUMMARY:

Since the launch of the SalinasConnect, City staff has received an influx in request for both two-way and all-way stop sign applications. Citizen requesting stop signs are often times unaware of the state and federal guidelines for stop sign applications and perceive the lack of a stop sign as a City oversight and not by design. The purpose of this report is to clarify some common misconceptions regarding stop sign application and to describe City policies and processes related to stop sign application.

BACKGROUND:

A request for a stop sign or multiple stop signs at an intersection is common. However, with the launch of the SalinasConnect, City staff has received an influx in request for both two-way and all-way stop sign applications. The request have become so frequent staff has perceived the need to better inform our community. The purpose of this informational staff report is to help shed some light on stop sign applications, city policies and common misconceptions.

The tremendous importance of clear and consistent messaging when alerting drivers of roadway conditions is a critical element of traffic safety and is embedded in Federal and State standards for traffic control. It is important that as drivers move from the one city to another, or to different regions, traffic control devices remain unambiguous and clear. Having different standards for signs or other traffic control devices between agencies would be confusing and potentially dangerous to drivers. It is important that drivers are conveyed a clear and simple meaning when using a traffic control device. This practical need was recognized as far back as the 1930's when

the American Association of State Highway Officials (AASHTO) published the first Manual of Uniform Traffic Control Devices (MUTCD). The MUTCD was created in an effort to standardize sign shapes, colors and applications. Over the decades, this manual has evolved and been updated to keep consistent with the times and advancing best practices. For California, the Department of Transportation (Caltrans) has the responsibility for keeping the standards current.

In 2005, the Salinas City Council approved the use of the policies and guidelines contained in the California MUTCD (CA-MUTCD) as the local standard for traffic control devices. This action was taken in pursuant to special provisions of the California Vehicle Code (CVC) Section 21400.

A stop sign is a regulatory traffic control device. The MUTCD has mandatory standards and recommended guidelines on every aspect of a stop sign including: the size, shape, colors, border, font, kerning, roadside placement, mounting height, relationship with other signs, and application. The city of Salinas uses the standards outline in the MUTCD when determining the appropriate application of a stop sign, usually indicated as a stop sign warrant.

CA MUTCD One-Way Stop Warrant:

- “A. The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;*
- B. A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or*
- C. Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.”*

CA MUTCD Multi-Way Stop Warrant:

- “A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
- B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
- C. Minimum volumes:*
 - 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.”

In accordance with the CA-MUTCD guidelines, City staff applies these warrants as indicators to determine when a stop sign application is appropriate and necessary. Additional consideration is given at some locations where unique conditions exist depending on left-turn conflicts, pedestrian volumes, sightlines and traffic operations.

In residential areas and on local roads, a stop warrant analysis is conducted at the time of development or if roadway conditions change. These areas typically do not increase in travel demand unless there is new development or roadway conditions change. A stop warrant analysis is relatively time intensive and requires allocation of City general fund resources to conduct. Staff will typically only conduct a warrant analysis in residential areas or on local roads when development occurs, resulting in increase activity or if roadway conditions change.

Since, the release of SalinasConnect staff has received numerous request new stop signs or reports missing stop signs. A common misconception is that an intersection without a stop sign is an oversight by the City and a dangerous facility. Whereas intersections without stop signs are often by design and careful consideration. A stop sign is one of the most important and effective traffic control devices when installed in the right place and under the right conditions. A stop sign installed where it is not warranted or appropriate can result in motorist disregard and noncompliance and can be detrimental to safety. Stop signs can give pedestrians and compliant vehicles a false sense of safety if it is assumed that all vehicles will come to a complete stop at the proper location.

Another common request is for a stop sign to be installed to help slow vehicles. This is also another common misconception. Traffic speeds are generally not considered when determining a stop sign warrant. This is for good reasons. Many studies have shown that stop signs are not an effective measure for controlling or reducing speeds. In fact, overuse of stop signs can lead to increasing peak speeds of vehicles accelerating between stop signs, because motorist tend to increase their speeds. Over use of stop signs when not warranted typically leads to disregard or noncompliance by motorists. When installed improperly stop signs can create unnecessary violations, and increase speeds between stop signs. Stop signs are used to communicate right of way at an intersection, not control or reduce speeds.

STRATEGIC PLAN INITIATIVE:

The appropriate use of traffic control devices and compliance with the California Manual of Uniform Traffic Control Devices supports the Council’s goal of “Well planned city and excellent infrastructure.”

FISCAL AND SUSTAINABILITY IMPACT:

Improper use of traffic control devices may lead to a proliferation of unnecessary signs that increases city maintenance costs.

ATTACHMENTS:

Attachment 1: Resolution 20705

Attachment 2: CA MUTCD extracted pages

Attachment 3: DMV FAQ13 “Why can’t we have a stop signs to reduce speeding along my street?”

Attachment 4: DMV FAQ20 “When do intersections receive stop signs and signals?”