

CITY OF RANCHO SANTA MARGARITA TRAFFIC ENGINEERING POLICY AND PROCEDURES

The City of Rancho Santa Margarita City Council has adopted these policies and procedures to provide a uniform methodology to address and mitigate unacceptable traffic conditions occurring on the city's public streets. Communication, cooperation and involvement in fostering resident consensus in the identification of traffic related issues and their resolution is an integral component of these policies and procedures.

I. TRAFFIC REVIEW PANEL

The City Council shall appoint a City Traffic Review Panel comprised of the Chief of Police Services, City Engineer and City Traffic Engineer or their designee. The Traffic Review Panel shall serve both as an advisory body to the City Council and a decision making body whose functions shall include the following:

- a) Review all traffic engineering studies, analysis and reports relative to requests for traffic control devices or actions. (For purposes of this Policy, "traffic control devices or actions" means those devices or strategies which serve to reduce the incidence of excessive speed (traffic calming) or mitigate excessive traffic volumes on residential streets).
- b) Determine, based on studies, analysis and reports, if requests for traffic control devices or actions meet the minimum Warrant, criteria or standards of the City for implementation of the requested device(s) or action(s).
- c) Make recommendation to the City Council for consideration of those requests for traffic control devices or actions that meet the City's minimum warrants, criteria or standards.
- d) Notify the party initiating the request that:
 - The request has been approved by the Traffic Review Panel and will be recommended to the City Council. The staff report and the time and date that the item will be considered by the City Council will be provided to the initiating party by City staff; or,
 - The request has not met the City's warrants, criteria or standards for the requested traffic control device or action and has been denied by the Traffic Review Panel. The staff report justifying the Traffic Review Panel's denial will be attached to the notice to the initiating party. Any request denied by the Traffic Review Panel may be appealed by the initiating party to the City Council within fifteen (15) days of the Traffic Review Panel action.

- The Traffic Review Panel shall report a summary of its activities to the City Council once each month or more frequently as necessary.

II. INITIATING A TRAFFIC ENGINEERING STUDY

The City Traffic Engineer may conduct a Traffic Engineering Study ("traffic study") on a street or intersection when:

- City staff has been contacted and advised of a traffic problem or dangerous condition. To maintain a chain of communication, the initiating party may be asked to submit the request in brief, written form. A petition to initiate a conventional traffic study will not normally be required.
- City Council has been requested to address a traffic issue and this request has been directed to staff.
- City Council initiates a traffic study.
- Another agency requests the City's participation in a cooperative traffic study.
- City staff initiates a traffic study.

If an issue surrounding the consideration of implementation of a traffic control device or similar action has been addressed by a traffic study during the previous 12 month period, the initiating party will be advised of the results of the previous study and that no further action will be taken by City staff on the issue unless or until there has been a recognizable change in area conditions or traffic characteristics.

If a traffic control issue is remedial (missing sign, faded pavement legends, traffic signal malfunction, burned out street light etc.), or regarding parking restrictions, or the need for more signs or striping for traffic calming or information; then the City Traffic Engineer may take the appropriate corrective action, advise the initiating party of his action and place a memorandum in the department files describing the corrective action.

The City Traffic Engineer may decline to conduct a traffic study if:

- a) Any requested action is in conflict with provisions of the California Vehicle Code or other similar City policy.
- b) Any requested action has been the subject of a traffic study by the Traffic Review Panel during the previous 12-month period.
- c) Any requested action is not directly related to traffic and transportation engineering practices.
- d) Any requested action, as determined by the Traffic Review Panel, does not represent the best interest of the City.

III. TRAFFIC ENGINEERING STUDY

The traffic study is a five part procedure and may, depending upon the nature of the issue, evaluate:

- **Street Characteristics**

The traffic study will review the existing street or intersection characteristics to include:

- a) Street width, improvements, alignment and lighting.
- b) Existing traffic control.
- c) Sight distance restraints, if applicable.
- d) Development and access characteristics.

- **Traffic Characteristics**

The traffic study will measure traffic characteristics applicable to the initiating request to include:

- a) Directional 24-hour weekday traffic counts (mechanical).
- b) Directional weekday peak hour vehicle and pedestrian counts (manual).
- c) Directional “through” traffic surveys.
- d) Directional weekday peak hour radar speed zone surveys or 24-hour Speed Profiles. The radar survey will generally measure the speeds of 100 samples. The Speed Profile will measure the speed of all vehicles on the study street for a 24-hour or longer period.
- e) Diagram and review the characteristics of all police-investigated accidents occurring at the study location for a 1-3 year period.
- f) Traffic composition surveys (i.e.: commercial vehicle by number of axles vs. conventional passenger vehicles).

- **Data Evaluation**

The traffic study data is compiled into a statistical format and applied to recognized engineering warrants, criteria and standards.

Warrants, criteria and standards are not considered “absolutes” in the determination of traffic control need but are intended to provide guidelines, in conjunction with engineering judgment for the Traffic Engineer and Traffic Review Panel and the City Council to compare the conditions at a study location with those

conditions that have necessitated traffic control installations at other similar locations to successfully resolve traffic issues.

- **Traffic Report**

Upon completion of the Traffic Study, a report will be prepared by City engineering staff for presentation to the Traffic Review Panel. The initiating party will be provided a copy of the Staff Report. If the Traffic Review Panel's recommendation is to approve the implementation of a traffic control device, that recommendation will be presented to the City Council for consideration.

The City Council may take the following actions upon consideration of the Traffic Review Panel's recommendation:

1. Approve, modify or deny the Staff recommendation;
2. continue the item for further deliberations or citizen input; or,
3. return the issue to staff for additional analysis or alternatives.

- **Implementation of Traffic Control Device**

Upon City Council's approval, by Resolution, to install a traffic control device, the City Traffic Engineer will prepare and issue a Work Order to the appropriate department, agency or contractor for the traffic control device installation. A copy of the executed Work Order will become a part of the project file.

The City Council may only deviate from the Traffic Engineering Policy and Procedures by making findings to substantiate the reason(s) for the deviation.

IV. TRAFFIC CALMING

Traffic calming is the application of specific devices or strategies to reduce the incidence of excessive speed or excessive traffic volumes on residential streets. In applying traffic calming measures there are three tenants: (1) the device or strategy should never resolve the problem on one street by shifting the problem to another street; (2) traffic calming type mitigation should be applied incrementally; and, if possible, (3) traffic calming measures should be field tested before they are permanently installed.

- **Traffic Speeds**

The speed limit on residential streets is normally posted at 25 MPH. However, for purposes of considering the application of traffic calming measures only and not traffic enforcement, accepted traffic engineering standards accept speeds of up to 35 MPH on these streets. It would be expected, given this threshold, that the 85th percentile speed on a residential street would be 35 MPH or less. Measured speeds in excess of 35 MPH on a residential street are considered unacceptable

and may necessitate incremental corrective actions. These traffic-calming strategies could initially include:

- a) Forming Neighborhood Watch to assist Police Services in resolution of problem.
- b) Placement of the radar trailer.
- c) Concentrated enforcement effort by the Sheriff's Department.
- d) Installation of additional 25 MPH signs and 25 MPH pavement legends.
- e) Installation of "STRICT ENFORCEMENT AREA" signs and, as applicable, raised pavement markers (RPM) rumble strips.

Topographic or geometric conditions may require additional signing to include:

- a) "CURVE" signs with advisory speed limit signs and centerline striping with RPMs.
- b) "WATCH DOWNHILL SPEED" signs.
- c) Other signs and pavement markings that may be appropriate for the respective street or intersection conditions.

"STOP" signs, which are often requested for speed control, are not typically used for this purpose, as their designated function as defined in the Manual of Uniform Traffic Control Devices (MUTCD) is to delegate right-of-way and reduce certain types of accidents. Under special circumstances "STOP" signs may be used for traffic calming.

90 days after completion of the enforcement effort and signing and pavement marking installations the street would be re-evaluated to determine the effectiveness of the remedial actions.

Results of the re-evaluation will be submitted to the Traffic Review Panel. If the 85th percentile speed has not reduced to 35 MPH, the Traffic Review Panel may recommend that other traffic calming measures be considered. These measures could include speed humps, chokers, area slow points, traffic circles, full or partial diverters or street closures.

- **Traffic Volume**

The inherent traffic volume on a residential street will vary depending upon the number of dwelling units the street serves, the street width, alignment and operating speed and its proximity and accessibility to arterial streets and neighborhood traffic attractions such as schools and parks. Pass-through traffic

(as opposed to inherent traffic) is that traffic that has no destination within the neighborhood and is using the residential street, generally because it is more efficient or more direct to point of destination than an adjacent arterial street.

A change in the neighborhood street that reduces its efficiency – normally an increase in travel time or restricting of access to some attraction – will generally eliminate or reduce the pass-through traffic demand while inherent traffic demand will remain constant.

Traditionally, Average Daily Traffic Volumes in excess of the 6-8,000 vehicles per day capacity for a two-lane street has been the determinant for excessive traffic demand on a residential street. For practical purposes this criteria precludes traffic calming on residential streets except in the most extreme of street conditions.

A more contemporary criteria is the concept of Tolerance Level, which may be defined as the maximum traffic volume that should be expected to occur or be “tolerated” by the residents on a residential street. The commonly accepted Tolerance Level of 1,500 - 2,000 vehicles per day has become the threshold in determining if traffic calming measures should be considered on a residential street.

If traffic counts conducted in response to possible excessive traffic volume indicate a residential street is experiencing an ADT in excess of 2,000 vehicles per day, the Traffic Review Panel may recommend that a traffic calming study be undertaken to determine the magnitude of the problem and the appropriate calming device or strategy, if any, to be employed.

Traffic calming studies must determine the extent of pass-through traffic, its origin and destination, time of occurrence, probable cause, “best” calming device or strategy given the circumstances and conditions and affect on adjacent streets that could be anticipated by reducing or eliminating pass-through traffic on the study street. While some calming measures are relatively inexpensive, others such as diverters or street closures can cost many thousands of dollars.

- **Notification**

As there may be significant local and area-wide circulation impacts associated with physical traffic calming device installation and, as these devices may also adversely impact the operation, routing and response time of some emergency transit and maintenance vehicles, it is important that affected parties be notified of the possible installation of the calming devices before a traffic study is undertaken. To assure awareness of a possible calming device installation the Traffic Review Panel may require the party initiating a traffic study to circulate a notice and petition, as prepared by the City, requiring:

- a) That 100% of the households on a study street or in a study area be notified of the pending traffic study, and of the characteristics of the traffic devices or strategies that may be recommended; and,
- b) That 66% of the households located on the study street or in the study area approve conducting the traffic study; and,
- c) That 66% of the households potentially affected by the recommended traffic devices or strategies approve of the implementation; and,
- d) That 100% of the households immediately adjacent to a possible physical traffic device such as a speed hump, choker, slow point or street closure approve of its installation.

Concurrent with the circulation of the Petition and Notices, the Traffic Engineer shall notify and solicit comments from both the Orange County Fire Authority and Orange County Transit Authority in connection with the pending Traffic Study and consideration of traffic devices. Significant in the reply from both Authorities would be the impact of proposed traffic devices on each respective agency's emergency or operational response time.

All Petitions and Notices, as well as any comments from the Orange County Fire Authority and the Orange County Transit Authority would become an integral part of the traffic study and report.

- **Street Characteristics**

A "candidate" residential street shall meet certain minimum requirements before traffic control measures are considered.

- a) Street must be no more than one lane in each direction and no wider, curb-to-curb, than 42 feet.
- b) Street must be classified as a residential street. The street cannot be any class of Arterial Street.
- c) Street must not provide primary access to a fire station or medical facility served by ambulances or other paramedic type vehicles nor can the street be on an established transit district route.
- d) Street must have a posted speed limit no greater than 25 MPH and the speed limit must have been in place for 6 months.
- e) For traffic volume mitigation, the average daily traffic volume (measured by averaging 3-24 hour counts must be at least 2,000 vehicles, total of both directions, in a 24-hour period.

- f) For speed control mitigation, street must have an 85th Percentile speed in excess of 35 MPH for a minimum of six hours per day and have a minimum traffic volume of 100 vehicles per hour for each of the six hours that vehicular speed is in excess of 35 MPH.
- g) A street or street segment meeting all other criteria must have a minimum straight length of 800 ft. uninterrupted by traffic signal, STOP or YIELD control.
- h) Devices may not be constructed on streets with a continuous grade in excess of 5%.
- i) A street must have a minimum unobscured sight distance of 250 ft. between an approaching vehicle and the advance signing for a traffic calming/management device. This distance may be increased by 20% on streets with a grade in excess of 3%.
- j) Speed control devices may not be installed on streets scheduled for reconstruction or major maintenance in the two-year period following program application. If approved, the devices may be installed with or after the reconstruction or maintenance activity.
- k) The City Traffic Engineer may add other considerations as necessary.

- **Device Removal**

The Traffic Review Panel may recommend that a traffic calming device, except for street closures, be removed and the street reverted to its previous state if:

- a) Conditions have changed on the street precluding the necessity for traffic calming.
- b) A petition as prepared by the City Traffic Engineer and circulated by the initiating party or the City indicates 100% of the households on a candidate street have been notified of the request to remove a device and 66% of the households on a candidate street approve of the device removal.

Removal of the traffic device will be dependent upon available funding.

Removal of a traffic control device may be scheduled with pending street work.

Replacement of a traffic device once removed will be at the expense of the initiating party.