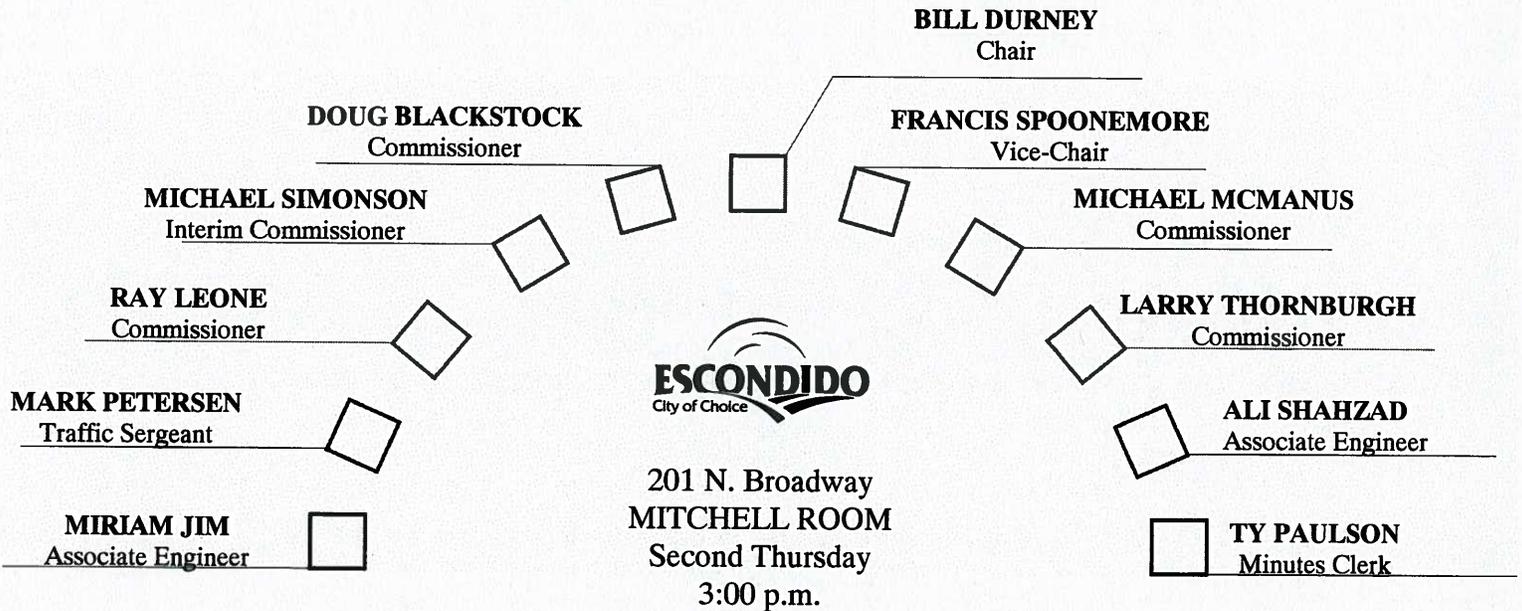


# CITY OF ESCONDIDO

## Transportation & Community Safety Commission



### AGENDA

January 12<sup>th</sup>, 2017

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- A. FLAG SALUTE
- B. ROLL CALL AND DETERMINATION OF QUORUM
- C. ORAL COMMUNICATIONS\* (At this time, members of the public are encouraged to speak to the Commission concerning items not already on this agenda. A time limit of three [3] minutes per speaker and a total time allotment of fifteen [15] minutes will be observed.)

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*The Brown Act provides an opportunity for the members of the public to directly address the Commission on any item of interest to the public, before or during the Commission's consideration of the item. If you wish to speak regarding an agenda item, please fill out a speaker's slip and give it to the minute's clerk who will forward it to the Chairman.*

*If you wish to speak concerning an item not on the agenda, you may do so under "Oral Communications" which is listed on the agenda.*

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*The City of Escondido recognizes its obligation to provide equal access to public meetings to those qualified individuals with disabilities. Please contact the Human Resources Department (839-4643) with any requests for reasonable accommodation, to include sign language interpreter, at least twenty-four (24) hours prior to the meeting.*

D. APPROVAL OF MINUTES OF OCTOBER 13<sup>th</sup>, 2016 MEETING

E. CONSENT ITEMS – Staff will provide Overview for single vote - No Items

F. NEW BUSINESS

1. Review of Citracado Parkway and Avenida Del Diablo Turn Restrictions

Source: Staff  
Recommendation: Receive and File report  
Previous action: None.

2. Calvin Cristian Crosswalk retrofit with Rectangular Rapid Flashing Beacons (RRFB)

Source: Staff  
Recommendation: Receive and File report  
Previous action: None.

3. Radar Speed Data: Gamble Speed Analysis

Source: Staff  
Recommendation: Receive and File report  
Previous action: None.

4. Speed Surveys – Various Citywide

Source: Staff  
Recommendation: Approval  
Previous action: On-going new surveys of expired segments.

5. Municipal Code, Chapter 28 (Traffic) Article 1, Update

Source: Staff  
Recommendation: Approval and forward recommendation to City Council.  
Previous action: None.

G. OLD BUSINESS

1. An overview of various projects involving the City.

Source: Staff

Written or verbal reports may be presented on the following topics:

- a. Traffic Signals in Design: El Norte/Fig & East Valley Pkwy/Date – Design 100% complete, NEPA revalidation received from Caltrans. Submitted documents for Construction Authorization of funds – Awaiting Approval. Felicita/Escondido Blvd LTP signal modification – Design in progress.
- b. Traffic Signals – in Plancheck: Hotel Traffic Signal on La Terraza Blvd. (2<sup>nd</sup> check). Centre City/Mission signal modification. El Norte/Bike Path crossing near bridge over flood control channel (Plancheck in progress). Under Construction: North Ash/ Vista Ave., North Ash/Sheridan Avenue, El Norte/Vista Verde Way, Centre City/Washington signal modification, Emmanuel Faith Traffic Signal on Encino/17<sup>th</sup> Ave. (to be constructed) Construction Finished: Harmony Grove/Citracado Pkwy., County/City Signal on Boyle/Bear Valley Pkwy. (pending Maintenance Agreement).
- c. FY 15/16 TMPL Project Progress – Gamble St. Radar Signs, N. Broadway Radar Sign installation. Complete and Radar Signs are active, data downloaded.
- d. Centre City Pkwy ICM I-15 corridor and 9<sup>th</sup> Avenue corridor – Traffic signal timing synchronization.

H. SCHOOL AREA SAFETY

- a. Construction at Central Elementary – Temporary bus zone.
- b. Construction at Orange Glen Elementary – New crosswalk striping by school district (Hold)
- c. Future bond projects coordination.

I. COUNCIL ACTION\* (A briefing on recent Council actions on Commission related items.)

- a. Municipal Code revision for Sec. 28-142. (October 26, 2016).
- b. All-Way Stop at N. Escondido Blvd. and W. Lincoln Ave (Sept. 14, 2016).
- c. Pilot Residential Parking Permit Program (RPPP) for NTP #2 (Sept. 28, 2016)
- d. Downtown Parking from 2 to 3 hr. from CCP to Valley Blvd. (Sept. 28, 2016)
- e. Establish Engineering and Traffic Surveys (Speed Zones) at Seven Locations Citywide (Nov 16, 2016)

J. ORAL COMMUNICATIONS\* (At this time, members of the public are encouraged to speak to the Commission.)

K. TRANSPORTATION COMMISSIONERS\* (Commissioners may bring up questions or items for future discussion.)

L. ADJOURNMENT

\*In order for the Transportation Commission to take action or conclude discussion, an item must appear on the agenda which is posted 72 hours in advance of the meeting. Therefore, all items brought up under the categories marked with an asterisk (\*) can have no action. Such items can be referred to staff or scheduled for a future agenda.

**AVAILABILITY OF SUPPLEMENTAL MATERIALS AFTER AGENDA POSTING:** Any supplemental writings or documents provided to the Commission regarding any item on this agenda will be made available for public inspection in the Engineering Office located at 201 N. Broadway during normal business hours, or in the Council Chambers while the meeting is in session.

(January 12<sup>th</sup>, 2017) TCSC Agenda

## CITY OF ESCONDIDO

### MINUTES OF THE REGULAR MEETING OF THE TRANSPORTATION AND COMMUNITY SAFETY COMMISSION

**October 13, 2016**

The Special meeting of the Escondido Transportation and Community Safety Commission was called to order at 3:00 p.m., Thursday, by Chair Durney, in the City Council Chambers, 201 North Broadway, Escondido, California.

**Commissioners present:** Chair Durney, Commissioner Simonson, Commissioner Thornburgh, Commissioner McManus, and Commissioner Blackstock.

**Commissioners absent:** Commissioner Leone and Vice-chair Spoonemore.

**Staff present:** Julie Procopio, Assistant Director of Public Works; Homi Namdari, Assistant City Engineer; Ali Shahzad, Associate Engineer/Traffic Division; Miriam Jim, Associate Engineer; Virpi Kuukka-Ruotsalainen, Department Specialist; Mark Peterson, Traffic Sergeant; and Ty Paulson, Minutes Clerk.

**ORAL COMMUNICATIONS:** None.

#### **MINUTES:**

Moved by Commissioner Simonson, seconded by Commissioner Blackstock, to approve the minutes of the August 4, 2016, special meeting. Motion carried unanimously.

**CONSENT ITEMS:** None.

#### **NEW BUSINESS:**

- 1. Centre City Parkway from Citracado Parkway to El Norte Parkway – Signal Coordination Project – Before and After Travel Time with new signal timing plans**

Ali Shahzad, Associate Engineer/Traffic Division, referenced the staff report and requested input.

Commissioner Blackstock asked if a physical test was done with a vehicle. Mr. Shahzad replied in the affirmative.

Commissioner Simonson and staff discussed the status of the projected traffic

signals on El Norte Parkway.

## **2. Speed Surveys – Various Citywide**

Virpi Kuukka-Ruotsalainen, Department Specialist, referenced the staff report and noted staff recommended the Commission recommend to City Council approval of the various 4 speed surveys as presented in the staff report.

### **ACTION:**

Moved by Commissioner Thornburgh, seconded by Commissioner Simonson, to approve staff's recommendation. Motion carried unanimously.

### **OLD BUSINESS:**

1. An overview of various projects involving the City
  - a. Traffic Signals in Design
  - b. Traffic Signals
  - c. FY 15/16 TMPL Project Progress
  - d. Centre City Parkway ICM I-15 corridor and 9<sup>th</sup> Avenue corridor.

Received.

**Brian Eveland, Escondido**, referenced the area of Gamble Lane and noted that he had received the data from the radar signs as well as being informed that enforcement was occurring for approximately 30 minutes every other week. He stated that the data showed that over 16,000 vehicles traveled on Gamble in a 21-day period, with over 9,100 going over the speed limit and over 3,600 going over the tolerance level. He stated that he had observed four motorcycle police officers issuing citations, which he was impressed with. He then asked how often selective enforcement was occurring and how many citations had been issued.

Mark Peterson, Traffic Sergeant, stated that he had issued 10 citations last month.

Mr. Shahzad noted that according to the data there was a reduction in speed on Gamble of 8.8 miles per hour Northbound and 4.8 miles per hour Southbound after the speed radar signs were installed.

Chairman Durney noted that even though there was still issues with speeding there had been a reduction in speed.

### **SCHOOL AREA SAFETY:**

- a. Construction at Central Elementary – Temporary bus zone.
- b. Construction at Orange Glen Elementary – New crosswalk striping by school district.
- c. Future bond projects coordination.

Received.

**COUNCIL ACTION: LTT DURNEY**

- a. Municipal Code revision for Sec. 28-142. (October 26, 2016)
- b. All-Way Stop at N. Escondido Blvd. and W. Lincoln Ave. (September 14, 2016)
- c. Pilot Residential Parking Permit Program (RPPP) for NTP #2 (September 28, 2016)
- d. Downtown Parking from 2- to 3-hr. from CCP to Valley Blvd.

Chair Durney requested updates on Item c. He also requested an update on the pilot residential parking permit program at the next meeting.

**ORAL COMMUNICATIONS:** None.

**TRANSPORTATION COMMISSIONERS:**

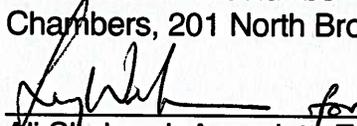
Discussion ensued regarding some public concerns for speeding occurring in the area of Felicita and Redwood.

Commissioner Blackstock and staff discussed the future improvements to Bear Valley Parkway. They also discussed the status for the striping on 13<sup>th</sup> Avenue.

Commissioner Thornburgh noted that he had observed most cities having continental crosswalks and asked if this could be considered for uncontrolled crosswalks. Mr. Shahzad noted the City of San Diego had continental striping, noting that there was additional costs associated with this striping. Commissioner Thornburgh felt the continental look was more progressive and more consistent with the other jurisdictions, but noted that he understood the cost factors.

**ADJOURNMENT:**

Chair Durney adjourned the meeting at 3:47 p.m. The next meeting of the Commission would be held January 12, 2017, at 3:00 p.m. in City Council Chambers, 201 North Broadway, Escondido.

  
\_\_\_\_\_  
Ali Shahzad, Associate Engineer

\_\_\_\_\_  
Ty Paulson, Minutes Clerk



**CITY OF ESCONDIDO  
TRANSPORTATION and  
COMMUNITY SAFETY COMMISSION**

**Commission Report of: January 12, 2017**

**Item No.: F1**

**Location: Intersection of Citracado Parkway and Avenida Del Diablo**

**Initiated by: Leona Stringfield, member of Casa De Amigos HOA**

**Request: Review of Citracado Parkway and Avenida Del Diablo Turn Restrictions**

**Background:**

Citracado Parkway and Avenida Del Diablo is an existing 4-legged intersection with left-turn restrictions in the southbound, eastbound, and westbound approaches. The Citracado Parkway Extension project proposed turn restrictions allowing only northbound left-turn movement at the intersection with the anticipated increase in traffic on Citracado Parkway with the extension and developments in the area. These turn restrictions were implemented in 2015 as part of the Harmony Grove Village project improvements. The project improved Citracado Parkway in accordance with those proposed by the Citracado Parkway Extension project as an interim improvement because of the anticipated growth in traffic due to the development and with the assumption that the Citracado Parkway Extension project would begin soon after.

Harmony Grove Village project proposed the development of 750 homes with retail and parks on site. The location of the development is shown in Figure 1. One of the primary accesses to the site is provided via the recently built road, Harmony Grove Village, connecting to Citracado Parkway. The construction of the project started in 2014 and is still ongoing. Currently the project is approximately 25% built. The built-out conditions of the project would add about 3,700 daily trips on Citracado Parkway.

The location of the Citracado Parkway and Avenida Del Diabale intersection is shown in Figure 1 along with the Harmony Grove project and the future Citracado Parkway extension.

Since the implementation of the turn restrictions at Citracado Parkway/Avenida Del Diablo intersection, requests to allow all left-turn movements have been received mainly from motorists wishing to make a westbound left-turn from Avenida Del Diablo onto Citracado Parkway.

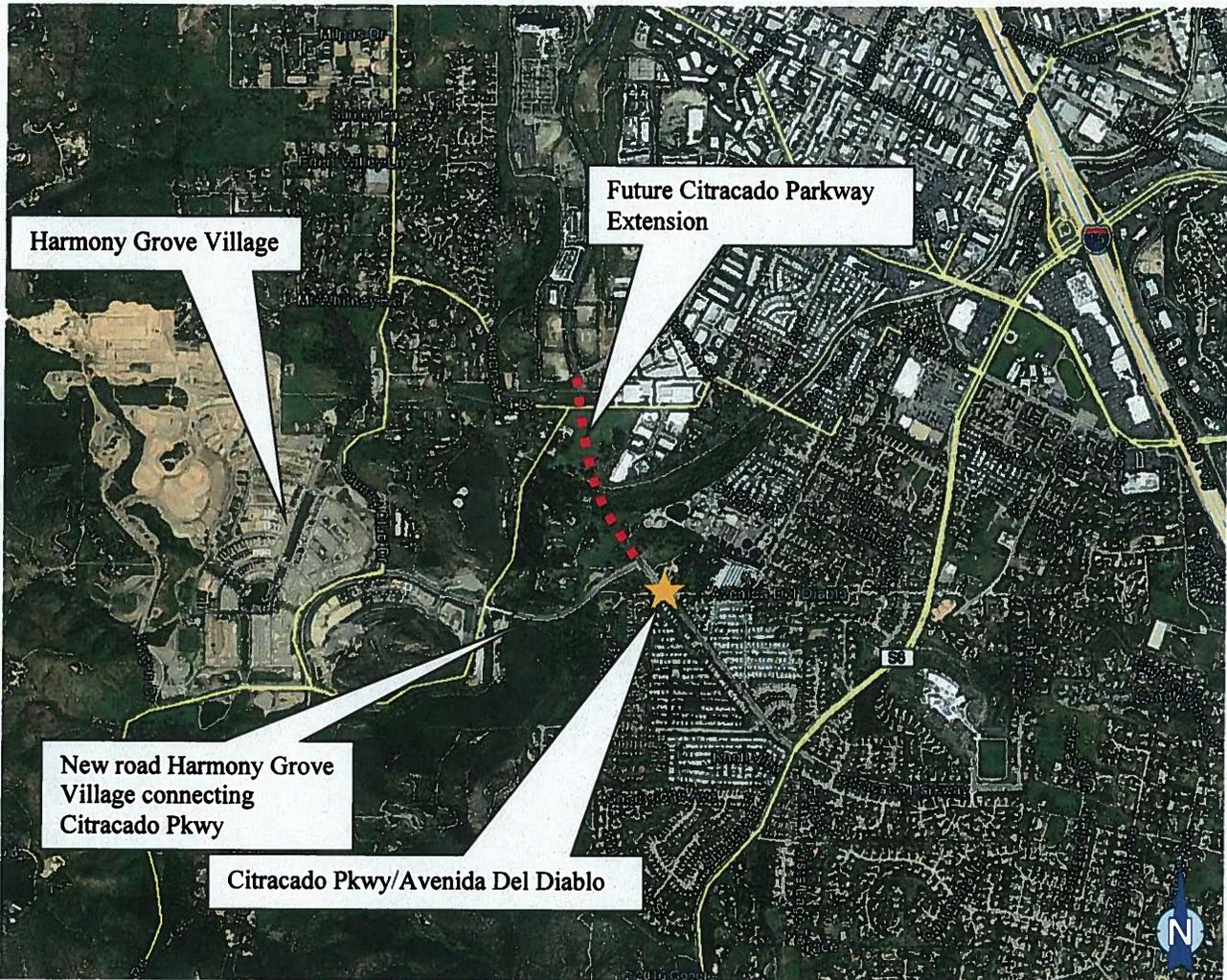


Figure 1: Location Map

**Existing conditions:**

Citracado Pkwy. is a two-lane divided major road with a speed limit of 40 MPH. There is a wide median and buffered bike lane on both sides of the roadway south of Avenida Del Diablo. Avenida Del Diablo is a two-lane undivided local collector with a speed limit of 35 MPH.

24-hour vehicular counts were collected on Citracado Parkway and on Avenida Del Dialo, as well as turning movement counts at the intersection. Based on the traffic counts collected, the daily traffic on Citracado Parkway north of Avenida Del Diablo is 4,345 vehicles and that on Avenida Del Diablo east of Citracado Parkway is 2,010 vehicles. The turning movement counts for the AM and PM peak hours are shown on Figure 2.

With the turn restrictions at the intersection, vehicles from westbound Avenida Del Diablo heading south on Citracado Parkway would require to make a right-turn onto Citracado Parkway and a U-turn at the new intersection at Citracado Parkway/Harmony Grove Village as shown in Figure 2. Based on the data collected, 21 and 27 vehicles turning right onto Citracado Parkway from Avenida

Del Diablo made a U-turn at Harmony Grove Village intersection in the AM and PM peak hour, respective, which accounted to about 4% of all volumes at the intersection at Citracado Parkway/Avenida Del Diablo.

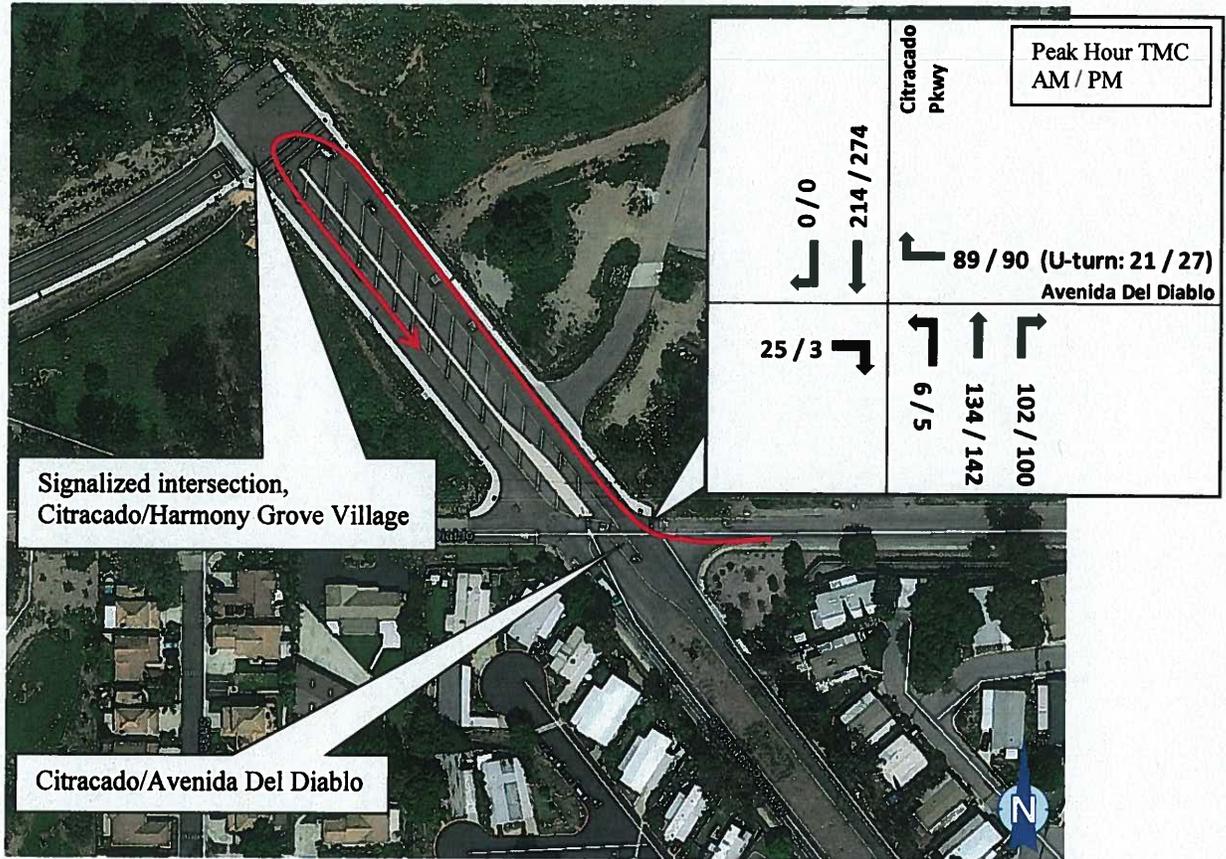


Figure 2: Citracado/Avenida Del Diablo intersection

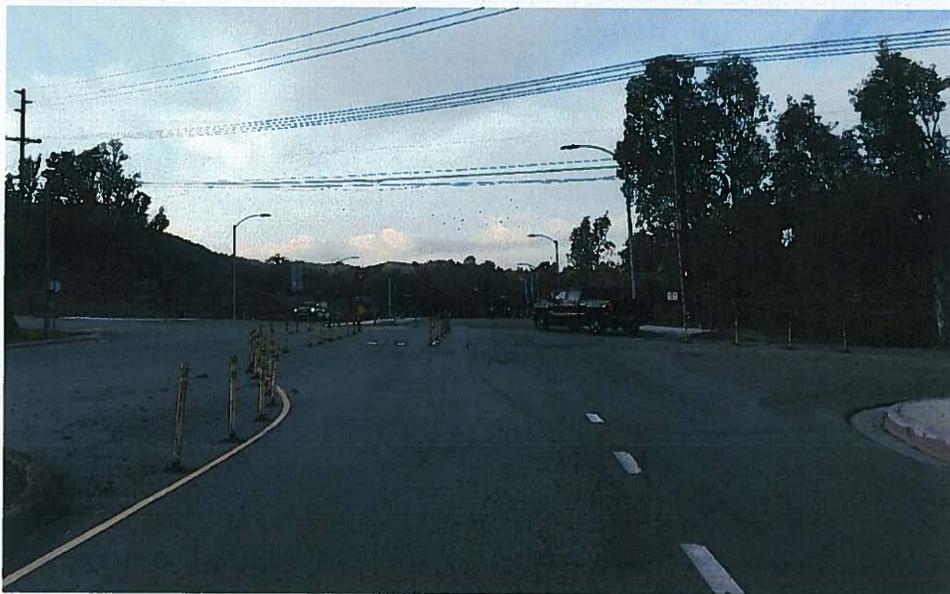


Figure 3: Citracado/Avenida Del Diabale (Looking North)

**Discussion and Purpose:**

The purpose of this staff report is to evaluate the existing conditions at the intersection of Citracado Parkway/Avenida Del Diablo and recommend if changes would be appropriate. The following points were considered:

- The turn restrictions were implemented as an interim improvement prior to the Citracado Parkway extension, which are consistent with the improvements proposed by the Citracado Parkway Extension project. The primary reason for the turn restrictions as evaluated in the EIR for the Citracado Parkway Extension project was to eliminate cut through traffic from disturbing the quality of life for residents on Avenida Del Diablo. Figure 4 shows the route of a potential cut through on Avenida Del Diablo. It is estimated that 1,390 of the 3,700 daily vehicles generated from the Harmony Grove Village project would use Avenida Del Diablo as a cut through with residences fronting on Avenida Del Diablo and a narrow roadway section that is not fully improved. This roadway is not suited for additional cut through traffic. Further, another project is under review adjacent to Harmony Grove Village that would add further cut through traffic if the turn restriction is eliminated.

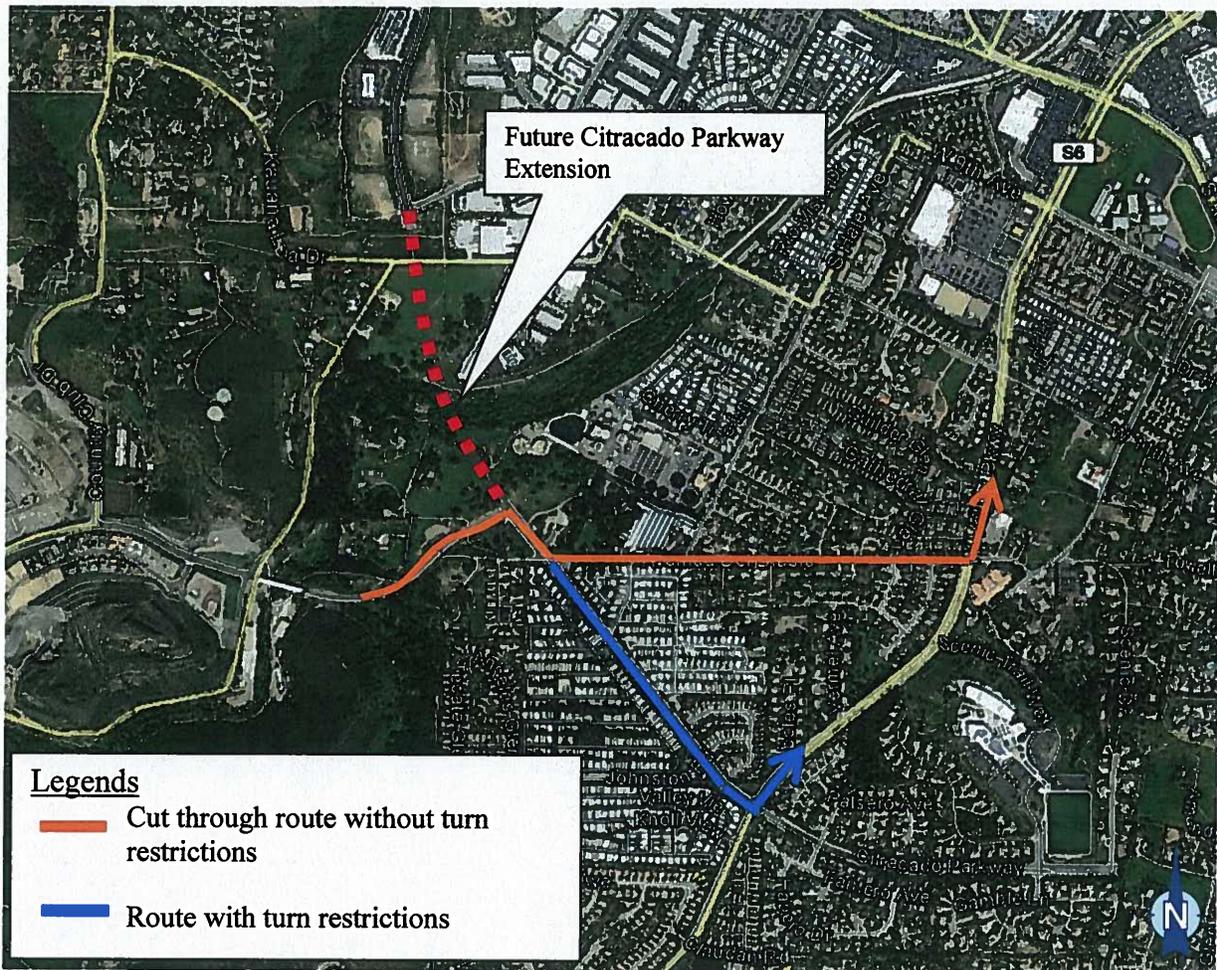


Figure 4: Potential Cut Through Route

- With the turn restrictions, traffic can access Citracado Parkway via Valley Parkway as shown in Figure 5. The amount of traffic intended to make a westbound left-turn at the intersection of Citracado Parkway/Avenida Del Diablo has been reduced significantly based on a comparison of traffic counts collected before and after the turn restrictions (from 149 to 21 in the AM peak and from 139 to 27 in the PM peak). This confirms that motorists have found and used alternate routes.

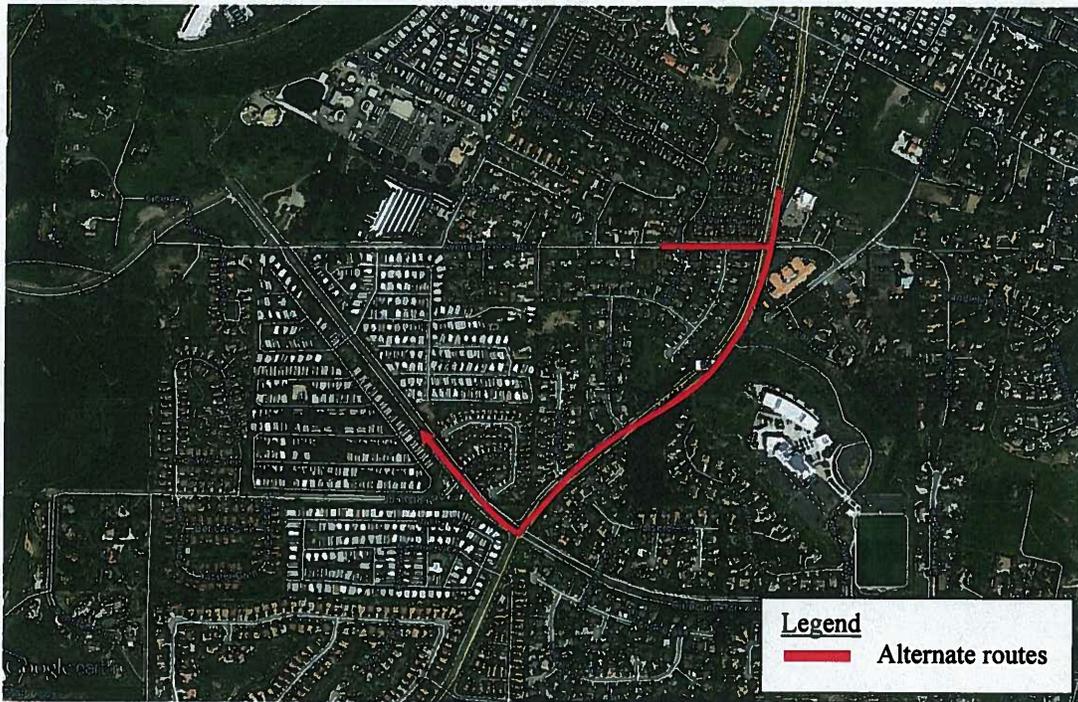


Figure 5: Available Alternate Routes

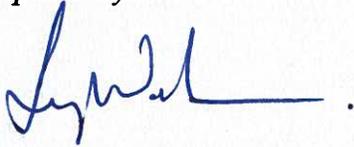
- An all-way stop control at this location would add delay to all traffic approaching this intersection and will not be consistent with the proposed improvements of the future Citracado Parkway Extension project. Based on the existing traffic volumes and the historic accident data, the all-way stop control warrant per CA MUTCD would not be met.
- With the on-going Harmony Grove Village project and other developments planned in the area, traffic on Citracado Parkway would continue to grow while traffic intended to make a westbound left-turn at the intersection is anticipated to remain the same or decrease.
- The turn restrictions have enhanced safety by reducing uncontrolled traffic movements at the intersection with the tradeoff of added slight inconvenience to a relatively small amount of traffic, 4% of all traffic at the intersection.

**Recommendation:** Given that the turn restrictions were implemented as a part of an EIR, additional environmental analysis would be required to remove the turn restriction. This is not recommended because of the minor inconvenience is affecting few (4% of traffic). Staff recommends the turn restrictions at the intersection to remain with no changes made.

**Necessary Council Action:** None.

**Respectfully submitted,**

*Prepared by:*



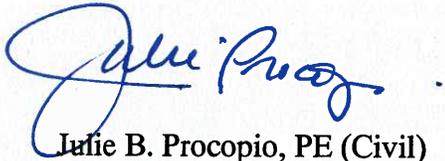
Miriam Jim, PE (Civil and Traffic)  
Associate Engineer/Traffic Division

*Reviewed by:*



Homi Namdari, PE (Civil)  
Assistant City Engineer

*Approved by:*



Julie B. Procopio, PE (Civil)  
Director of Engineering Services/City Engineer



## **CITY OF ESCONDIDO**

### **TRANSPORTATION and COMMUNITY SAFETY COMMISSION**

**Commission Report of: January 12, 2017**

**Item No.: F2**

**Location: Vista Avenue between N Broadway and Paradise Street**

**Initiated By: Calvin Christian School**

**Request: Calvin Christian School Crosswalk Retrofit with Rectangular Rapid Flashing Beacon (RRFB)**

#### **Background:**

On June 9, 2015, City of Escondido Planning Commission approved a modification to a conditional use permit request at the Calvin Christian High/Middle School property located at the northeastern quadrant of North Broadway and Vista Avenue. This modification included the construction of a new auditorium building of 15,515 SF within the existing school area. Due to the anticipated increase in pedestrian activities in the area, the project was conditioned to retrofit the existing mid-block crossing on Vista Avenue with Rectangular Rapid Flashing Beacon (RRFB) or an equal device.

This project was approved prior to the establishment of the City's Crosswalk Policy for mid-block crossing, which was presented and approved by the Transportation and Community Safety Commission on January 14, 2016. The Crosswalk Policy is under review and will be further evaluated prior to its adoption by City Council.

Vista Avenue between N Broadway and Ash Street is a two-lane collector roadway with a speed limit of 35 MPH and Average Daily Traffic (ADT) of 4,170 vehicles.

#### **Discussion & Purpose:**

Calvin Christian School is located at the northeastern quadrant of the intersection of N Broadway and Vista Avenue with school entrance located on Vista Avenue, as depicted in Figure 1. The existing mid-block crosswalk is located on Vista Avenue between N Broadway and Paradise Street. The existing mid-block crosswalk is a standard crosswalk consisting of two 12" yellow stripes. Existing "School crossing with diagonal downward arrow" SW24-2 (CA) signs and "SLOW SCHOOL XING" pavement legends were installed in advance of the crossing on each approach of Vista Avenue. The crosswalk location and a picture of the existing crosswalk are shown in Figure 2 and Figure 3, respectively.

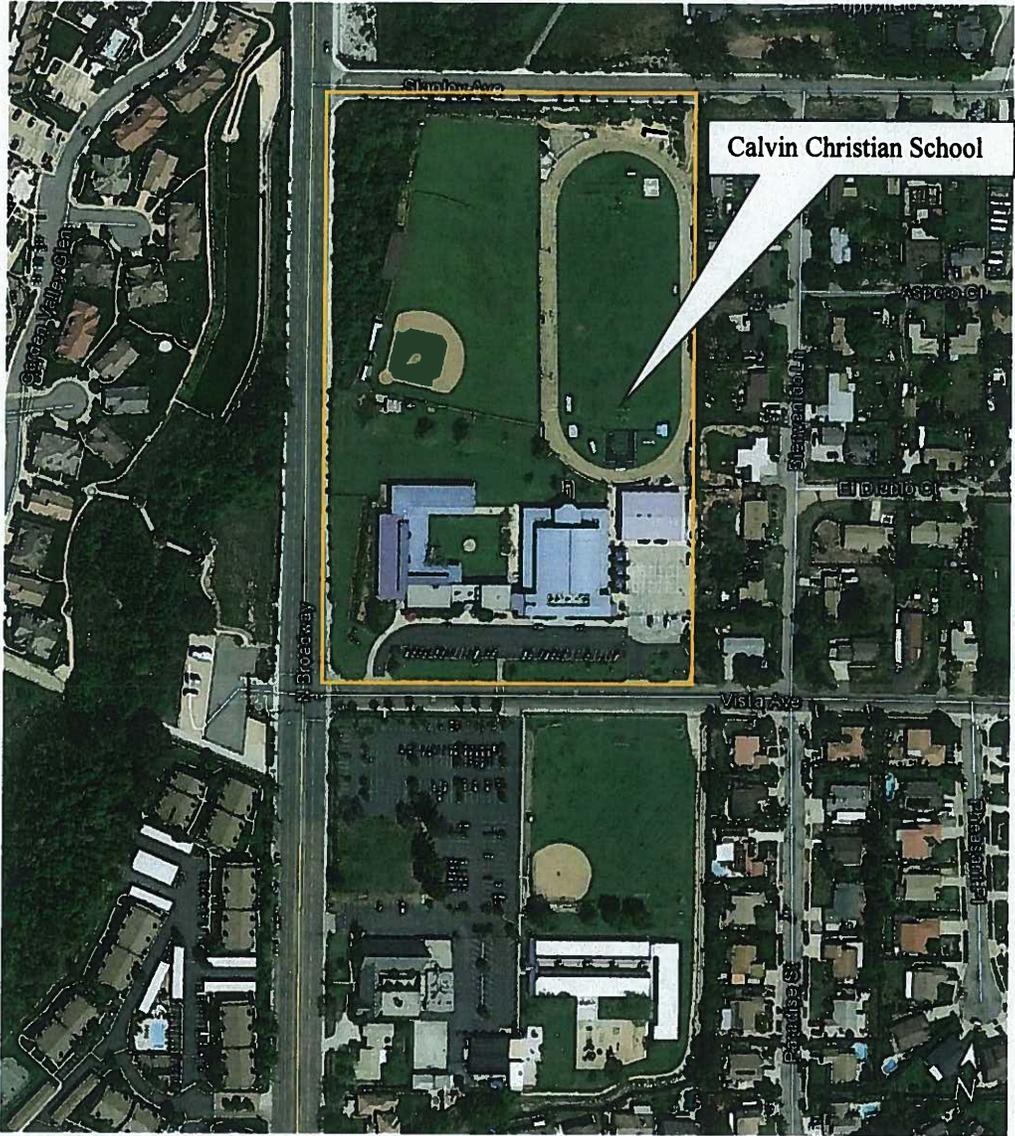


Figure 1: Calvin Christian School Location



Figure 2: Existing Mid-block Crosswalk on Vista Avenue



Figure 3: Existing Mid-Block Crosswalk on Vista Avenue (Looking West)

## Existing Mid-block Crosswalk Retrofit

### Rectangular Rapid Flashing Beacon (RRFB)

On August 10, 2011, California adopted the FHWA Interim Approval on the optional use of RRFB as warning beacons to supplement standard pedestrian crossing and school crossing signs at uncontrolled crosswalks on state highways and local jurisdiction's roadways.

The installation of Rectangular Rapid Flashing Beacon (RRFB) at the existing mid-block crosswalk on Vista Avenue would increase driver awareness of this crossing. Features of the proposed RRFB are listed below and an example of the use of RRFB at a mid-block crosswalk is shown in Figure 4.

- Each RRFB consists of two rectangular-shaped yellow LED indications. The RRFB with the "School crossing with diagonal arrow" SW24-2 (CA) sign will be installed on both sides of the crosswalk, one on the right-side and one on the left-side of the roadway, for both approaches.
- Actuated by pedestrian push buttons. When activated, the two yellow indications in each RRFB will flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on) for a predetermined period of time based on CA MUTCD requirements for timing of pedestrian clearance times.
- Solar-powered with solar panel installed on top of the RRFB post.

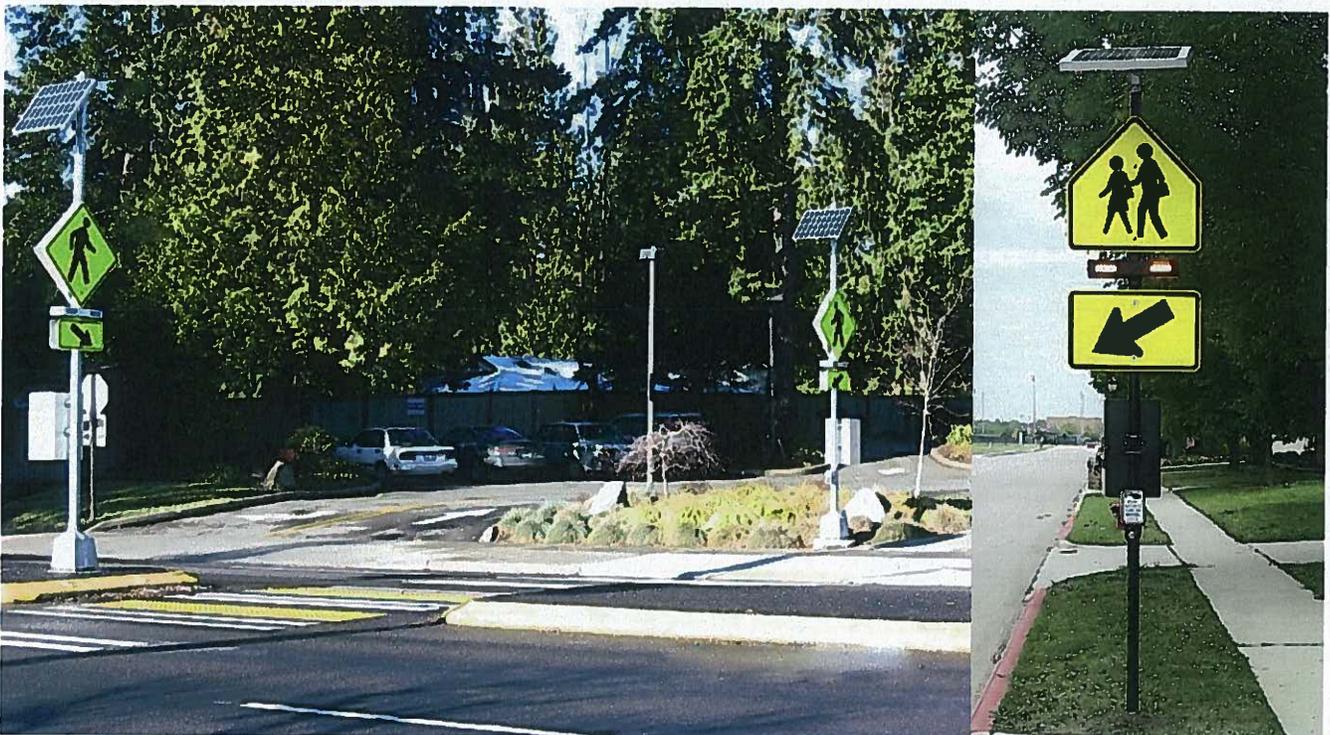


Figure 4: Example of RRFB at mid-block crosswalk

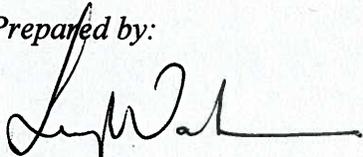
**Recommendations:**

Staff recommends the commission note and file the proposed design for the Calvin Christian School Crosswalk Retrofit with Rectangular Rapid Flashing Beacon (RRFB).

**Necessary Council Action:** None

**Respectfully submitted,**

*Prepared by:*



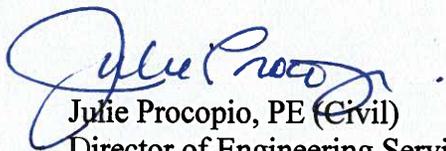
Miriam Jim, PE (Civil and Traffic)  
Associate Engineer/Traffic

*Reviewed by:*



Homi Namdari, PE (Civil)  
Assistant City Engineer

*Approved by:*



Julie Procopio, PE (Civil)  
Director of Engineering Services/City Engineer



## **CITY OF ESCONDIDO**

### **TRANSPORTATION and COMMUNITY SAFETY COMMISSION**

**Commission Report of: January 12, 2017**

**Item No.: F3**

**Location: Gamble Street in the City of Escondido.**

**Initiated By: Brian Eveland – a resident on Gamble Street**

**Subject: Evaluation of Effectiveness of Radar Speed Signs on Gamble Street.**

#### **Background:**

In 2014, City staff received complaints related to speeding and cut-through traffic on Gamble St. Escondido Police Department (EPD) also expressed its concern regarding speeding on Gamble St. The traffic calming project on this street was included in the 2015 City of Escondido Traffic Management Project List (TMPL) prioritization process and it was presented to Transportation and Community Safety Commission (TCSC) in April. At its July 2015 meeting, TCSC recommended staff to design the project and present it to Commission in October for final approval and budget allocation. Two Speed Radar Feedback Signs were approved by TCSC on October 8<sup>th</sup>, 2015.

Traffic Logix Radar signs were installed for Northbound and Southbound Gamble Street in May, 2016. Signs provide feedback to drivers on their speed with the goal of slowing traffic down to the posted speed of 25 MPH. In June 2016, additional R2-1 (25 MPH) signs were installed to remind drivers of existing speed limit.

# Gamble Street Radar Speed Signs

January 12<sup>th</sup>, 2017

Page 2 of 4

**Picture 1:** Location of radar speed signs and speed limit signs on Gamble Street (between East El Norte Parkway and East Lincoln Avenue).



**Picture 2:** Northbound radar sign on Gamble Street (June 2016).



# Gamble Street Radar Speed Signs

January 12<sup>th</sup>, 2017

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**Picture 3:** Southbound radar sign on Gamble Street (June 2016).



## Data collection and results:

Radar speed signs are effective in slowing cars down, particularly with today's highly visual, often distracted drivers. Also called speed display signs, driver feedback signs, and "your speed" signs, radar signs operate based on the feedback loop theory: when we are presented with information about our performance, we tend to notice and improve our driving habits. Extensive research has proven that feedback loops cause real and positive changes in people's behavior. Speed radar display signs have been shown to slow driver speeds an average of 10%, usually for several miles. Studies have also shown that the speed reduction effectiveness continues to increase over time.

The data for this evaluation was collected 5/19/2016-11/14/2016, a period of 175 days. During this time, the number of Average Daily Trips travelled Southbound on Gamble Street was 561 vehicles per day and Northbound 1145 vehicles per day.

<b>GAMBLE STREET</b>	<b>NORTHBOUND</b>	<b>SOUTHBOUND</b>
<b>Posted Speed Limit (MPH)</b>	<b>25</b>	<b>25</b>
<b>Average Daily Trips</b>	<b>1145</b>	<b>561</b>
<b>Average Vehicle Speed (MPH)</b>	<b>24</b>	<b>25</b>
<b>85<sup>th</sup> % Speeds (MPH)</b>	<b>31</b>	<b>34</b>
<b>50<sup>th</sup> % Speeds (MPH)</b>	<b>25</b>	<b>27</b>
<b>Vehicles driving at or under speed limit ≤25 MPH (%)</b>	<b>84%</b>	<b>71%</b>
<b>Vehicles driving over the speed limit</b>	<b>16%</b>	<b>29%</b>
<b>Vehicles in Tolerated Range (≤35 MPH)</b>	<b>95%</b>	<b>87%</b>

Gamble Street Radar Speed Signs

January 12<sup>th</sup>, 2017

Page 4 of 4

Prior to the installation of radar signs, the 85<sup>th</sup> % speed was 39 MPH (Northbound) and 39 MPH (Southbound). These speeds have now been reduced to 31 MPH and 34 MPH, respectively.

**Conclusion:** The radar speed feedback signs have been effective at reducing the average speed to at or below the speed limit. Between 87% and 95% of drivers are now travelling at or below 35 MPH (within 10 MPH of speed limit). No further Traffic Calming is recommended.

**Necessary Council Action:** None

**Respectfully submitted,**

*Prepared by:*



Ali M. Shahzad, PE (Traffic)/ Virpi Kuukka-Ruotsalainen  
Associate Engineer/Traffic Division

*Reviewed by:*



Homi Namdari, PE (Civil)  
Assistant City Engineer

*Approved by:*



Julie Procopio, PE (Civil)  
Director of Engineering Services/City Engineer



**CITY OF ESCONDIDO**  
**TRANSPORTATION and**  
**COMMUNITY SAFETY COMMISSION**

**Commission Report of: January 12<sup>th</sup>, 2017**

**Item No.: F4**

**Location: Various locations Citywide**

**Initiated By: City Staff**

**Request:** Recommend approval to the City Council of updated Engineering & Traffic Surveys (E&TS) for posted speeds on various street segments Citywide.

**Background & Survey Methodology:**

To satisfy the requirements of Section 40802(b) of the California Vehicle Code (CVC), Engineering and Traffic Surveys are required by the State of California to establish speed limits and to enforce those limits using radar or other speed measuring devices. These surveys must be updated periodically (every 5, 7 or 10 years, depending upon specific criteria) to ensure the speed limits reflect current conditions as dictated by the 2016 California Vehicle Code (CVC). The surveys must be conducted in accordance with applicable provisions of Section 627 "Engineering and Traffic Survey" of the California Vehicle Code (CVC), following procedures outlined in the California Manual on Uniform Traffic Control Devices (CA-MUTCD) dated November 7, 2014.

A brief description of the procedure is presented below:

**1. Measurement of Actual Prevailing Speeds**

The actual speed of 100 vehicles on each street segment was measured using a calibrated radar meter. Both directions of travel were surveyed. From this data, the prevailing or 85<sup>th</sup> percentile speed (speed at or below which 85 percent of the vehicles sampled were traveling), ten miles per hour pace speed (increment of ten miles per hour containing the greatest number of measurements) and percent of vehicles in the pace were determined.

**2. Accident Records**

From the accident reports, the number of accidents for each segment was used to calculate the accident rate, which is defined as the number of accidents per million vehicle miles (acc/mvm) of travel on that segment. The accident rate for each segment was then compared to the most recent statewide average for similar type roads. This information is shown on the survey summary sheets.

**3. Traffic and Roadside Conditions**

Each route was driven and notation made of its features, especially those not readily apparent to reasonable drivers, as well as those that might be combined with other factors to justify downward or upward speed zoning. These features are listed in the survey summary sheets for each segment.

#### 4. Residential Density

A comprehensive review of the residential density was not done, but information regarding the adjacent land use to the roadway segments was noted and included in the survey summary sheets.

#### 5. Pedestrian and Bicyclist Safety

The accident records were used to evaluate the pedestrian and bicyclist safety aspects of the roadway segments.

#### 6. School Zones

Proximity to schools was taken into account to evaluate the speeds through the roadway segments.

The standard used followed procedures outlined in the California Manual on Uniform Traffic Control Devices (CA-MUTCD) Section 2B.13, dated November 7, 2014, Rev.1.

***Standard:***

*When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the two Options below.*

***Option:***

*1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Sections 627 and 22358.5. See Standard below for documentation requirements.*

*2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).*

#### Discussion & Purpose:

Per California Vehicle Code Section 22354, in order for a posted speed limit to be legally enforceable by the Police Department radar detection, it must be all of the following:

- 1) Between 25 mph and 65 mph,
- 2) Supported by an engineering speed survey, and
- 3) Ratified by City Council by resolution or ordinance.

The guidelines for preparing an engineering speed survey are found within the California Manual on Uniform Traffic Control Devices (CA-MUTCD) 2014 edition, a document published by the Federal Highway Administration and modified by CALTRANS for use in California. The 85<sup>th</sup> percentile speed (the speed at which 85% of drivers drive at or below) is often referred to as the critical speed; it is the primary speed that determines what drivers believe to be safe and reasonable. When determining speed limits, the California MUTCD gives guidance that states, *"The speed limit should be established at the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed of free-flowing traffic."*

Additional guidance from the MUTCD California states, *"The establishment of a speed limit of more than 5 mph below the 85<sup>th</sup> percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85<sup>th</sup> percentile generally results in an increase in collision rates; in addition, this may make violators of a disproportionate number of reasonable majority of drivers."*

Although conditions on the roadway such as width, curvature, surface conditions and any other readily apparent features do not provide a basis for downward speed zoning, the CA-MUTCD states that local authorities may consider residential density, as well as pedestrian and bicycle safety.

**Recommendation:**

As part of the City of Escondido's speed survey program, staff has performed speed surveys at 4 segment locations, with data being collected for each segment.

Based on the above guidelines, all of the surveyed segments were evaluated and speed limits recommended. The overview of the Speed Surveys is presented in Table 1; the last column shows the recommended speed limits on all study segments.

For speed surveys 1, 2 and 4, the recommended speed limit is set based on the 85th-percentile speed of the new speed survey.

For speed survey 3, the recommended speed limit reflects a reduction of 5mph from the 85<sup>th</sup>-percentile speed based on **Option 2** in the MUTCD standard, as delineated above. In this case, then, the posted speed limit will not change.

Table 1 - Overview of Speed Surveys

Segment No.	Street Name	Segment		Previous Speed Survey	Posted Speed Limit (MPH)	Classification	85 <sup>th</sup> Percentile (MPH)	Recommended Speed Limit (MPH)	Speed Limit to be posted, per Traffic Engineer
		From	To						
1	Bear Valley Parkway	Boyle Avenue	Oak Hill Drive	04/04/06	45 (25WCAP)	M 50	46	45	45 (25WCAP)
2	Bear Valley Parkway	Oak Hill Drive	Citrus Avenue	03/16/06	45 (25WCAP)	M 50	47	45	45 (25WCAP)
3**	Bear Valley Parkway	Citrus Avenue	Valley Parkway	10/28/10	45 (25WCAP)	M 50	49	45	45
4	La Terraza Blvd	9th Avenue	Valley Parkway	01/10/07	40	LC 35	42	40	40

\* Indicates new established speed survey which requires City Council approval.

\*\* Indicates round down the speed limit to the lower five miles per hour increment, per CVC 21400 (b), or higher than average collision rate.

↓ Indicates speed going down.

↑ Indicates speed going up.

**Necessary Council Action:** None as all are re-certifications and existing speed limits remain.

**Respectfully submitted,**

Prepared by:



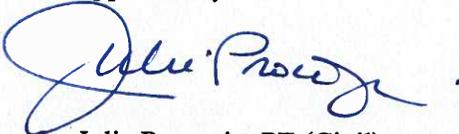
Ali M. Shahzad, PE (Traffic)/ Virpi Kuukka-Ruotsalainen  
 Associate Engineer/Traffic Division

Reviewed by:



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 Assistant City Engineer

Approved by:



Julie Procopio, PE (Civil)  
 Director of Engineering Services/City Engineer



**CITY OF ESCONDIDO**  
**TRANSPORTATION and**  
**COMMUNITY SAFETY COMMISSION**

**Commission Report of: January 12, 2017**

**Item No.:F5**

**Locations: City Wide**

**Initiated by: Staff**

**Subject: Municipal Code, Chapter 28 (Traffic) Article 1, Update**

**Background:**

Chapter 28 (Traffic), of the City of Escondido Municipal Code originally was adopted by the City Council in 1972. Article I of this Chapter has not been substantially revised for many years.

**Discussion and Purpose:**

Escondido Municipal Code Chapter 28, Article 1 covers a variety of topics, from definitions, identification of holidays, the "official time standard," applicability to emergency vehicles, property damage reports, and pedestrian use of freeways and crosswalks. Significant portions of Article 1 are outdated, have been superseded by other ordinances, practices, or state laws, and continuing to have them on the books is both unnecessary and risks confusion.

Traffic staff from the Engineering and Police Departments, in consultation with the City Attorney, have developed the proposed updated Chapter 28 (Traffic), Article 1 of the Escondido Municipal Code, to bring Article I up to date. The proposed revisions to Chapter 28, Article 1 include eliminating sections that are no longer applicable, updating sections with current information and legal terms.

More significantly, the proposed updates will streamline the approval of traffic schedules, signs and markings by providing authority to the City Traffic Engineer to authorize placement of traffic signs and markings; this authority includes designation of no parking zones and limited time parking zones (outside Central/Downtown traffic district). The changes enable staff to handle the process more efficiently and according to professional traffic standards.

**Recommendation:**

Staff recommends the commission adopt the updated Chapter 28, Section 28, Article 1 of the Escondido Municipal Code to the City Council.

**Necessary Council Action:** Adoption of Ordinance

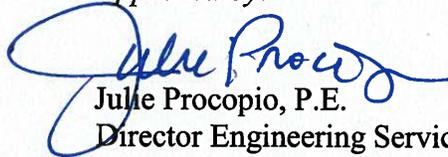
**Respectfully submitted,**

*Prepared by:*



Homi Namdari, P.E.  
Assistant City Engineer

*Approved by:*



Julie Procopio, P.E.  
Director Engineering Services/City Engineer

## **ARTICLE 1. IN GENERAL**

### **Sec. 28-1. General definitions.**

As used in this chapter, the following words and phrases shall have the meanings set forth below.

(a) Central traffic district shall include all of the following named streets and portions of streets:

(1) Grand Avenue, from the easterly right-of-way line of Spruce Street to the westerly right-of-way line of Hickory Street;

(2) Valley Parkway, from the easterly right-of-way line of Centre City Parkway to the westerly right-of-way line of Valley Boulevard;

(3) Second Avenue, Third Avenue and Fourth Avenue, from the easterly right-of-way line of Centre City Parkway to the westerly right-of-way line of Ivy Street;

Broadway Avenue, from the northerly right-of-way line of Fifth Avenue to the southerly right-of-way line of Woodward Avenue;

(5) Ivy Street, from the northerly right-of-way line of Second Street to the southerly right-of-way line of Pennsylvania Avenue;

(6) Juniper Street, Kalmia Street, Broadway, Escondido Boulevard and, all from the northerly right-of-way line of Fifth Avenue to the southerly right-of-way line of Pennsylvania Avenue;

(7) Orange Street and Maple Street, from the northerly right-of-way line of Fifth Avenue to southerly right-of-way line of Valley Parkway;

(b) "Holidays" within the meaning of this chapter, will be as set from time to time by resolution of the city council.

(c) Loading zone shall mean the space adjacent to a curb reserved for the exclusive use of vehicles during the loading or unloading of passengers or materials.

(d) Parking meter shall mean a mechanical device installed within or upon the curb or sidewalk area, immediately adjacent to a parking space, for the purpose of controlling the period of time such parking meter space is occupied by any vehicle.

(e) Parkway shall mean that portion of a street other than a roadway or a sidewalk.

(f) Passenger loading zone shall mean that space adjacent to a curb reserved for the exclusive use of vehicles during the loading and unloading of passengers.

(g) Police officer shall mean the same as "peace officer" as defined in Penal Code, Section 7.

(g) Vehicle code shall mean the Vehicle Code of the State of California.

**Sec. 28-2. Applicability of California Vehicle Code definitions.**

All definitions for words or phrases used in this chapter from the California Vehicle Code are incorporated by this reference and shall be used for purposes of the Chapter.

**Sec. 28-4. Official time standard.**

Whenever certain hours are named in this chapter, they shall mean standard time or daylight saving time as may be in current use in the city.

**Sec. 28-5. City Council authority to establish, amend traffic schedules.**

The City Council shall establish and may amend by resolution certain traffic schedules listed below. Such traffic schedules should consist of the adopted resolution and shall be maintained on file in the office of the City Clerk.

- (1) Stop intersections.
- (2) Time parking zones in the Central Traffic District (Downtown).
- (3) Truck routes.
- (4) Speed zones.

Editor's note—All traffic schedules of the city are on file in the office of the city clerk.

**Sec. 28-6. Traffic Engineer Authority.**

The City Traffic Engineer shall have the authority to designate the locations and direct the placement of signs or markings regarding:

- (a) U-turns.
- (b) Through streets.
- (c) Railroad Stops.
- (d) No-parking zones.
- (e) Overnight parking.
- (f) Non-commercial routes
- (g) One-way streets.
- (h) Yield intersections.
- (i) Time Parking Zones (Outside Central Traffic District)

- (j) Other regulatory and advisory signs recommended by the Manual on Uniform Traffic Control Devices (MUTCD)

**Sec. 28-7. Applicability of chapter to vehicles on emergency call.**

The provisions of this chapter regulating the operation, parking and standing of vehicles shall not apply to any vehicles operated by the police or fire department, any public or private ambulance or public utility in use for the official or normal course of business.