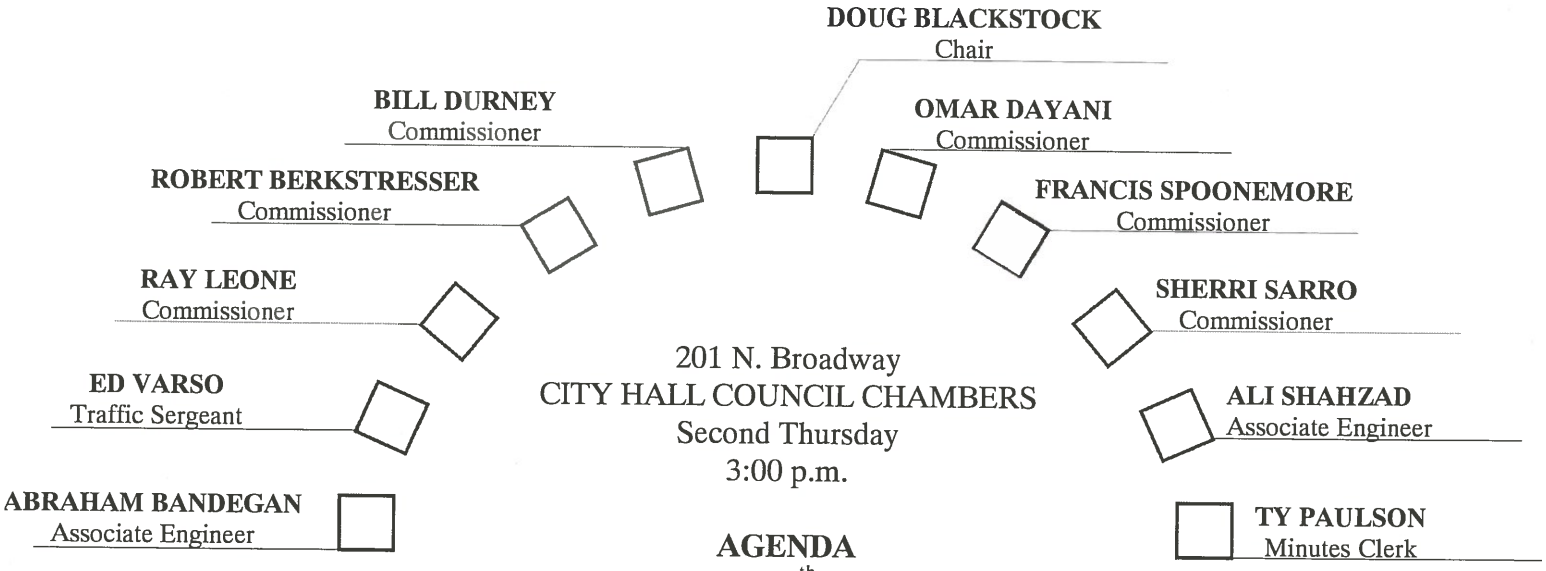
CITY OF ESCONDIDO

Transportation & Community Safety Commission



201 N. Broadway
CITY HALL COUNCIL CHAMBERS
Second Thursday
3:00 p.m.

AGENDA
January 8th, 2015

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.)

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.

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 09, 2014 MEETING

E. CONSENT ITEMS – Staff will provide Overview for single vote

1. Citracado Bike Lanes
2. Pavement rehab Cross-Sections

F. NEW BUSINESS

1. Crosswalks on E. Grand Avenue near Palomar Hospital

Source:	Angela Hill, Commissioners, & Staff
Recommendation:	Review of U.C. Berkeley Tech Pedestrian Safety Assessment Report and recommend best solutions.
Previous action:	Recommendation of Senior Citizen Signs and flexible Yield to Pedestrian signs; held off by Commission for further study. Installation of Crosswalk per CA-MUTCD standards, Street Light, ADA Ramps. Discussion on LED Rectangular Rapid Flashing Beacons.

2. Beethoven Drive and Inspiration Lane Intersection Control

Source:	Staff
Recommendation:	Approval
Previous action:	None

3. El Norte Parkway HAWK Evaluation at Bike Path Crossing

Source:	Staff
Recommendation:	Approval
Previous action:	None

4. Traffic Management Projects Initiation and Approval Process

Source:	Staff
Recommendation:	Approval
Previous action:	None

5. Speed Surveys Citywide – New batch of speed surveys, including new speed limits

Source: Staff

Recommendation: Approval

Previous action: None

F. 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. New Striping including Bike Lanes on Ash St. and 9th Avenue

b. MTS Rapid Bus TSP Project Update

c. Complaints of vehicular speeds in the area of Willowbrook Street and Shadyridge Avenue

d. 2nd Avenue and Quince Striping

Recommendation: Receive and file reports.

G. SCHOOL AREA SAFETY

a. Intersection Crosswalk Striping near Schools.
b. LR Green and Bear Valley Middle School.

H. ANY OTHER BUSINESS

1. Future Agenda Items -- A briefing of future agenda items proposed to be presented to the Transportation Commission.

Source: Staff

Recommendation: None (informational)

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

a. Alexander Stop Signs
b. Chestnut Traffic Calming Stop Signs
c. Eucalyptus and Hamilton Stop Signs
d. Classical Academy School Zone Stop Signs
e. Upas No Parking – Lighting Evaluation

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.

CITY OF ESCONDIDO

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

October 09, 2014

The regular meeting of the Escondido Transportation and Community Safety Commission was called to order at 3:06 p.m., Thursday, by Chairman Blackstock, in the City Council Chambers, 201 North Broadway, Escondido, California.

Commissioners present: Chair Blackstock, Vice-chairman Durney, Commissioner Dayani, Commissioner Spoonemore, and Commissioner Sarro.

Commissioners absent: Commissioner Leone, and Commissioner Berkstresser.

Staff present: Julie Procopio, Assistant Public Works Director/Engineering; Homi Namdari, Assistant City Engineer; Ali Shahzad, Associate Engineer/Traffic; Abraham Bandegan, Associate Engineer/Traffic; Beth Kassebaum, Department Specialist; Sergeant Varso, Escondido Police Department; and Ty Paulson, Minutes Clerk.

ORAL COMMUNICATIONS:

Sandy Dabasinskas, Escondido, Board Member of Summer Creek, expressed her concern with having issues with excessive vehicular speed in the area of Willowbrook Street and Shadyridge Avenue and asked if the City could do anything to help reduce speeds.

Peter Saltamachio, Escondido, noted that he lived on Willowbrook Street. He expressed his concern with having issues with excessive vehicular speeds in the area of Willowbrook Street and Shadyridge Avenue. He asked that the City consider traffic calming measures for the subject area.

MINUTES:

Moved by Commissioner Durney, seconded by Commissioner Dayani, to approve the minutes of the July 10, 2014, meeting. Motion carried unanimously.

NEW BUSINESS:

1. Classical Academy School Zone on Pennsylvania Avenue, Waverly Place, Kalmia Street and Juniper Street – Crossing Guard monitored crossing on Pennsylvania Avenue. Change Yield Control to Stop Control on Waverly Place & Kalmia Street with school zone crossings.

Ali Shahzad, Associate Engineer, referenced the staff report and noted staff recommended the following: 1) Upgrading the Yield Signs to Stop Signs on Waverly Place and Kalmia Street at the intersection of Pennsylvania Avenue as part of the School Zone Package; 2) prohibit parking on Kalmia and Pennsylvania along school frontage from 7 to 9 A.M. and 2 to 4 P.M. on school days per EMC 28-143 (b); and 3) establish turn restrictions on Kalmia Street to prevent through traffic on Valley Parkway.

Commissioner Durney asked if there was some way to warn students related to crossing the street near the Parking Lot B. Mr. Shahzad noted that crossing guards would be present to prevent this.

ACTION:

Moved by Chairman Blackstock, seconded by Commissioner Durney, to approve staff's recommendation. Motion carried unanimously.

2. Alexander at Citracado Parkway and Brotherton Road

Abraham Bandegan, Associate Engineer, referenced the staff report and noted staff recommended installing two new Stop Signs on Alexander Drive at the intersection of Brotherton Road and install two new Stop Signs on Alexander Drive at the intersection of Citracado Parkway and all the necessary AWSC plaques.

ACTION:

Moved by Commissioner Durney, seconded by Chairman Blackstock, to approve staff's recommendation. Motion carried unanimously.

3. Caroline Way & N. Upas Street – No Parking restrictions

Beth Kassebaum, Department Specialist, referenced the staff report and noted staff recommended supporting the request to install No Parking signs along the east side of Caroline Way and North Upas Street.

Discussion ensued regarding a clarification of the location for the gaps between the red curbs.

Commissioner Sarro asked staff to respond to the resident request for security lighting. Ms. Kassebaum noted staff felt adequate lighting currently existed.

Commissioner Durney and staff discussed who signed the petition for this item.

Chairman Blackstock asked if No Parking signage would be installed. Ms. Kassebaum replied in the affirmative.

William Werson, Escondido, suggested adding another street light in the area of 121 Caroline Way, noting there was a base for one already.

Tracy Bohlen, Escondido, noted that very few residents parked on the street, noting it was typically family and friends. She stated that the intent was to only restrict parking in the area of the curve and wall due to the amount of loitering occurring in this area. She asked that the item be pulled if any additional parking was slated to be removed.

Jeff Bohlen, Escondido, stated that the intent was to only restrict parking in the area of the curve and wall.

Joseph Dyal, Escondido, was opposed to staff's recommendation, feeling it would place the burden in other areas along the street.

Jeff Johnson, Escondido, asked that the no parking restriction include his property frontage in order to mitigate the subject problem occurring in front of his residence.

Felipe Martinez, Escondido, stated that the area had very low traffic. He suggested limiting the parking restriction to the area with the curve and wall and include "No Loitering" signage.

Daniel Martinez, Escondido, stated that vandalism has been an issue. He felt the street needed to be patrolled more often. He indicated that the issues that were occurring were happening in the early morning hours. He was opposed to loosing the parking in the area, noting there were very few cars traveling in the area. He also stated that more lighting was needed.

Chairman Blackstock and staff discussed using restricted hour no parking signage.

Commissioner Dayani and Ms. Kassebaum discussed the standards for emergency vehicles. Commission Dayani felt additional enforcement would help the subject problems.

Sergeant Varso noted that most of their calls were in the area of the street curve. He also stated that parking restrictions would help enforcement.

Chairman Blackstock questioned whether emergency services would now come forward and request no parking markers due to the street width being 24-feet and this item being brought to the attention of the City. Mr. Namdari noted that the fire department could request parking restrictions due to the street width.

The Commission asked staff to evaluate the lighting in the subject area.

****ACTION:**

Moved by Commissioner Durney, seconded by Commissioner Sarro, to approve staff's recommendation with a modification to restrict parking in the area. Motion carried. Ayes: Blackstock, Sarro, and Durney. Noes: None. Abstained: Dayani. (3-0-1)

4. Speed Surveys Citywide – New batch of speed surveys, including one new speed limit.

Beth Kassebaum, Department Specialist, referenced the staff report and noted staff recommended approval to the City Council of updated Engineering and Traffic Surveys (E&TS) for posted speeds on various street segments Citywide.

Commissioner Durney referenced Speed Survey No. 6 on Rose Street at Lincoln Avenue.

ACTION:

Moved by Commissioner Dayani, seconded by Chairman Blackstock, to approve staff's recommendation. Motion carried unanimously.

5. Crosswalks on East Grand Avenue near Palomar Hospital

Ali Shahzad, Associate Engineer, referenced the staff report and noted staff recommended the Commission direct staff to evaluate relocation of the crosswalk to Path A, working with the surrounding residents to receive their input. The item would come back to the Commission at the next meeting.

Chairman Blackstock and staff discussed relocating the bus stop.

Commissioner Durney suggested using Crosswalk A as outlined in the staff report.

Chairman Blackstock suggested looking at pedestrian activated flashing signage.

ACTION:

Moved by Chairman Blackstock, seconded by Commissioner Sarro, to approve staff's recommendation. Motion carried unanimously.

OLD BUSINESS:

1. An overview of various projects involving the City

a. Chestnut Traffic Calming
b. Eucalyptus and Hamilton Stop Signs
c. Intersection Crosswalk Striping near Schools
d. New Striping including Bike Lanes on Ash Street and 9th Avenue
e. MTS Rapid Bus deployment – San Diego Association

Received update from staff.

SCHOOL AREA SAFETY

1. Pedestrian Safety – Escondido Union School District – Nine (9) walk audits that were conducted by the school district, draft responses submitted to EUSD.

Ali Shahzad, Associate Engineer, provided the update and requested input.

Discussion ensued regarding a clarification of the timeline for the projects.

ANY OTHER BUSINESS:

1. Future Agenda Items – A briefing of future agenda items proposed to be presented to the Transportation Commission.

Ali Shahzad, Associate Engineer, noted staff would be bringing back Item 5 at the next meeting as well as additional speed surveys.

COUNCIL ACTION: Received.

ORAL COMMUNICATIONS: None.

TRANSPORTATION COMMISSIONERS:

Commissioner Durney asked staff to look into the lane alignments at the eastbound intersection of 2nd Avenue and Quince. He asked staff to agendize an item to discuss excessive vehicular speeds in the area of Willowbrook Street and Shadyridge Avenue as commented in Oral Communications. He also asked what the protocol was for oral communications when the public was addressing the Commission. Ms. Procopio noted that City Council oftentimes would direct individuals with oral communications to the proper staff after they had spoken.

ADJOURNMENT:

Chairman Blackstock adjourned the meeting at 4:38 p.m. The next meeting of the Commission would be held January 8, 2015, at 3:00 p.m. in City Council Chambers, 201 North Broadway, Escondido.

Ali Shahzad, Associate Engineer

Ty Paulson, Minutes Clerk

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TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: January 8th, 2015 **Item No.: E1**

Location: Citracado Parkway

Initiated By: City Staff

Subject: Approve Striping Cross Section for Citracado Parkway

Background:

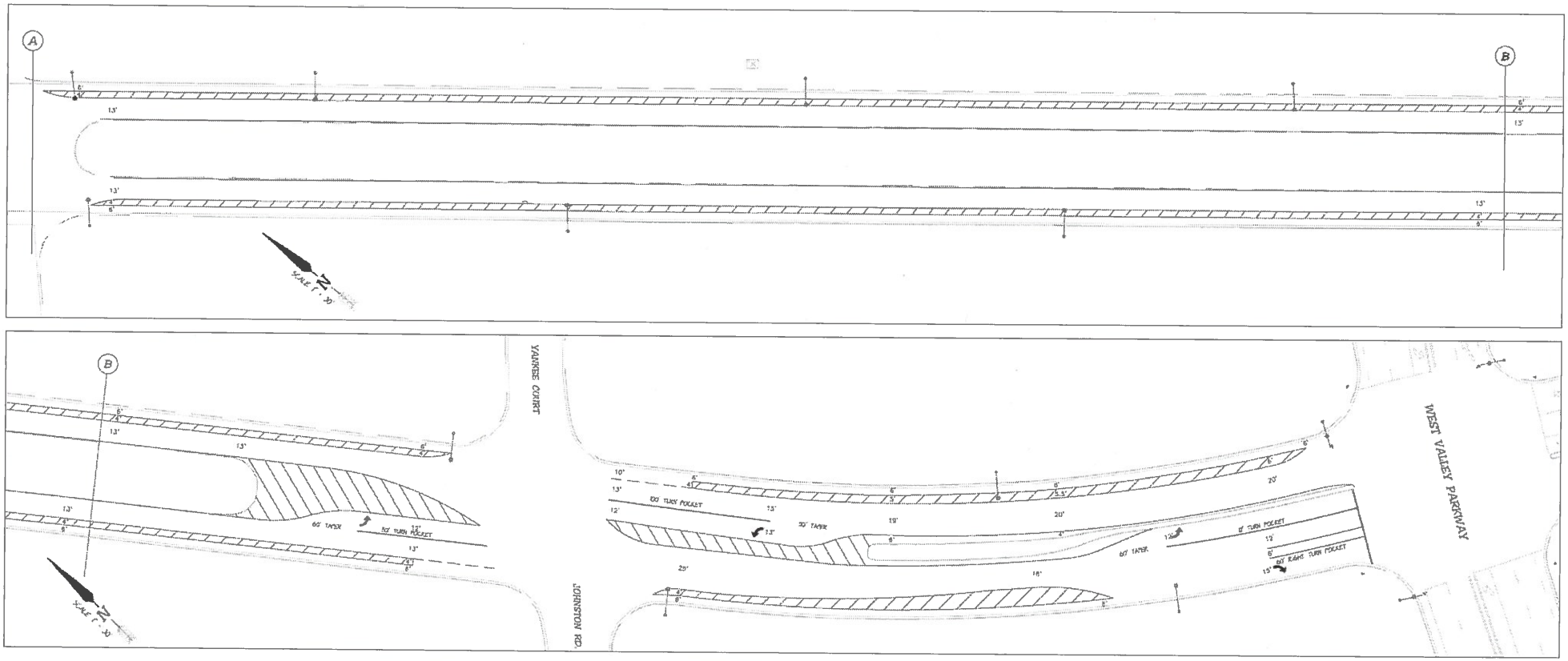
In order to better implement the current City of Escondido General Plan goal of "Complete Streets" to accommodate all modes of traffic including pedestrians and bicyclists and also in compliance with City of Escondido Bicycle Master Plan, City Staff plans to design new striping plans for streets as they are being resurfaced.

Discussion & Purpose:

A road segment that is scheduled to be resurfaced as a part of Harmony Grove Village project is Citracado Parkway from West Valley Parkway to Harmony Grove Village Drive. According to the City of Escondido Bicycle Master Plan, this segment of Citracado Parkway is categorized as a class II bike-lane. Citracado Parkway is classified as a Major road in City of Escondido General Plan. Engineering staff has designed new striping cross-sections based on the classifications of the bike-lanes on these street segments.

Currently, because of the existing wide median of the segment between West Valley Parkway and Avenida Del Diablo, it's not feasible to resurface the road and stripe it to its ultimate Major classification cross section. Considering the segment's available width, travel-lane widths were narrowed from 21 feet to 13 feet for the purpose of traffic management on the segment and also to accommodate the necessary width for the class II bike-lanes. New striping cross-section was designed by City Staff for the mentioned segment. North of Avenida Del Diablo, the new striping cross section will be continued on Citracado Parkway until Harmony Grove Village Drive. The new proposed striping is shown in the next exhibit.

Proposed Striping Cross Section for Citracado Parkway between West Valley Parkway and Avenida Del Diablo



Recommendation:

Approve the proposed new striping cross-section for Citracado Parkway from West Valley Parkway to Harmony Grove Village Drive

Necessary Council Action: None

Respectfully submitted,

Prepared by:

Abraham Bandegan, TE, PTP
Associate Engineer/Traffic Division

Reviewed by:

Julie B. Procopio, PE (Civil)
Assistant City Engineer

Approved by:

Edward N. Domingue, PE (Civil)
Director of Public Works/City Engineer

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TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: January 8th, 2015 **Item No.: E2**

Location: 2nd Avenue from Juniper Street to Grand Avenue and Mission Avenue from Rose Street to Midway Drive

Initiated By: City Staff

Subject: Approve Striping Cross Section for 2nd Avenue and Mission Avenue

Background:

In order to better implement the current City of Escondido General Plan goal of "Complete Streets" to accommodate all modes of traffic including pedestrians and bicyclists and also in compliance with City of Escondido Bicycle Master Plan, City Staff plans to design new striping plans for streets as they are being resurfaced.

Discussion & Purpose:

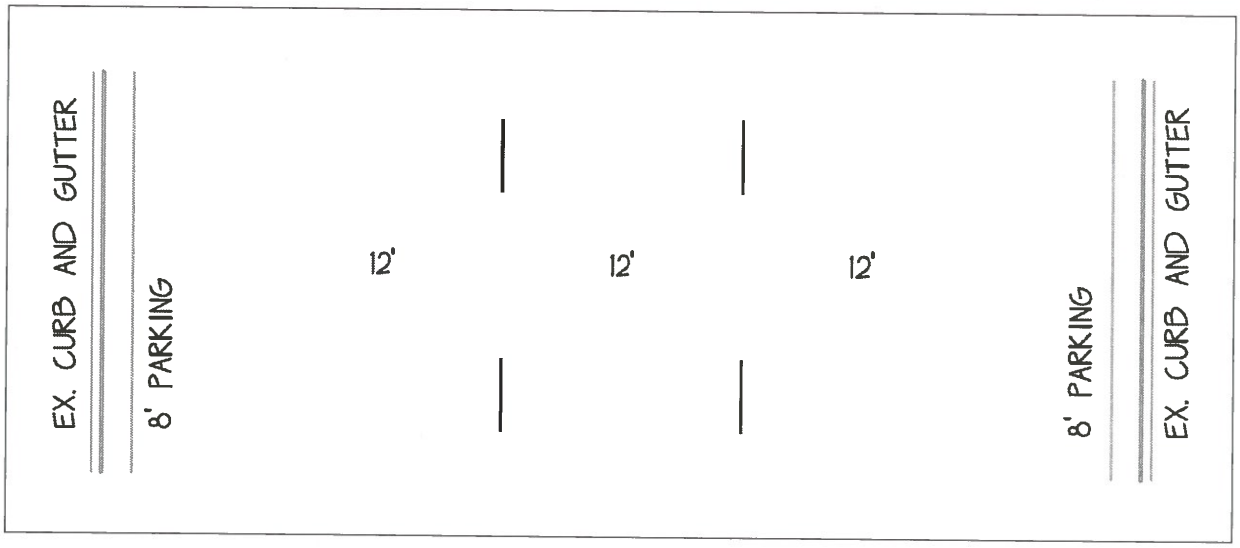
Two of the road segments that are scheduled to be resurfaced completely during the FY14/15 Street Rehabilitation Project are 2nd Avenue from Juniper Street to Grand Avenue and Mission Avenue from Rose Street to Midway Drive. According to the City of Escondido Bicycle Master Plan, 2nd Avenue from Juniper Street to Grand Avenue is categorized as a class II bike-lane and Mission Avenue from Rose Street to Midway Drive is categorized as a class III bike route. Engineering staff has designed new striping cross-sections based on the classifications of the bike-lanes on these street segments.

Index 301.2 of Highway Design Manual recommends "*Reduction of Cross Section Elements Adjacent to Class II Bikeways as follow:*

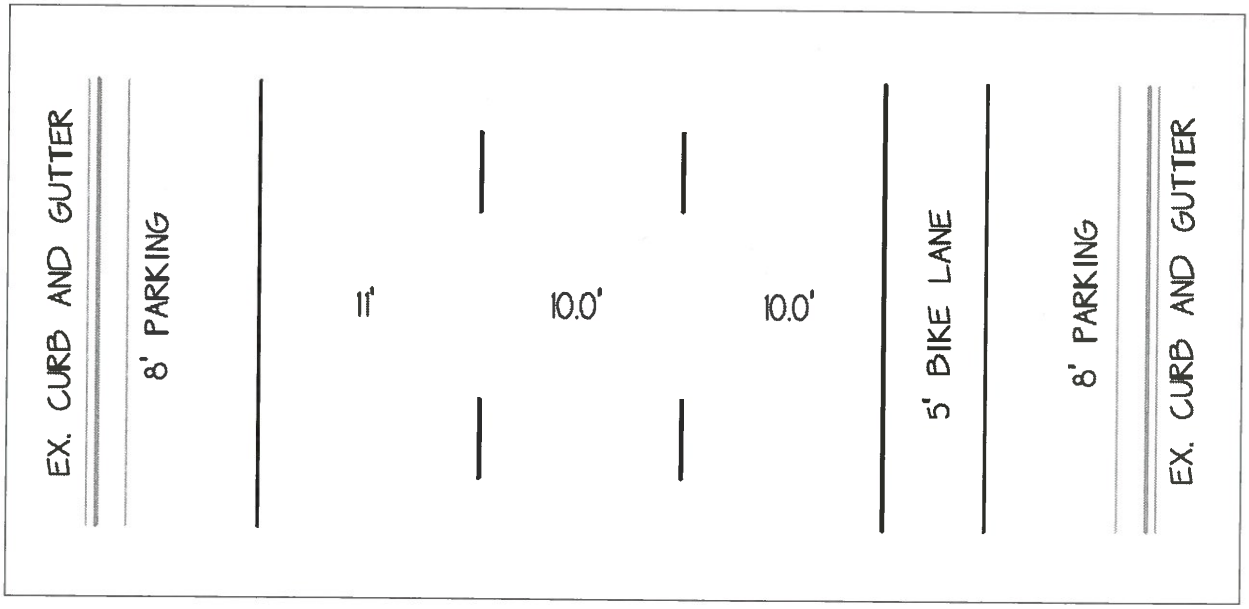
1) *There are situations where it may be desirable to reduce the width of the lanes in order to add or widen bike lanes or shoulders.*
2) *In determining the appropriateness of narrower traffic lanes, consideration should be given to factors such as motor vehicle speeds, truck volumes, alignment, bike lane width, sight distance, and the presence of on-street parking.*
3) *When on-street parking is permitted adjacent to a bike lane, or on a shoulder where bicycling is not prohibited, reducing the width of the adjacent traffic lane may allow for wider bike lanes or shoulders, to provide greater clearance between bicyclists and driver-side doors when opened."*

Considering the segments' available widths, narrower lane widths were chosen for the purpose of traffic management on 2nd Avenue and also to accommodate the necessary width for the class II bike-lanes. Class III bike routes will be painted on Mission Avenue between Rose Street and Midway Drive as well. Based on the above standards and guidelines, new striping cross-sections were designed by City Staff for the mentioned segments. Current and proposed striping cross-sections are shown in the next exhibits. The proposed striping cross-sections will be shared with the City's Neighborhood Groups for their information.

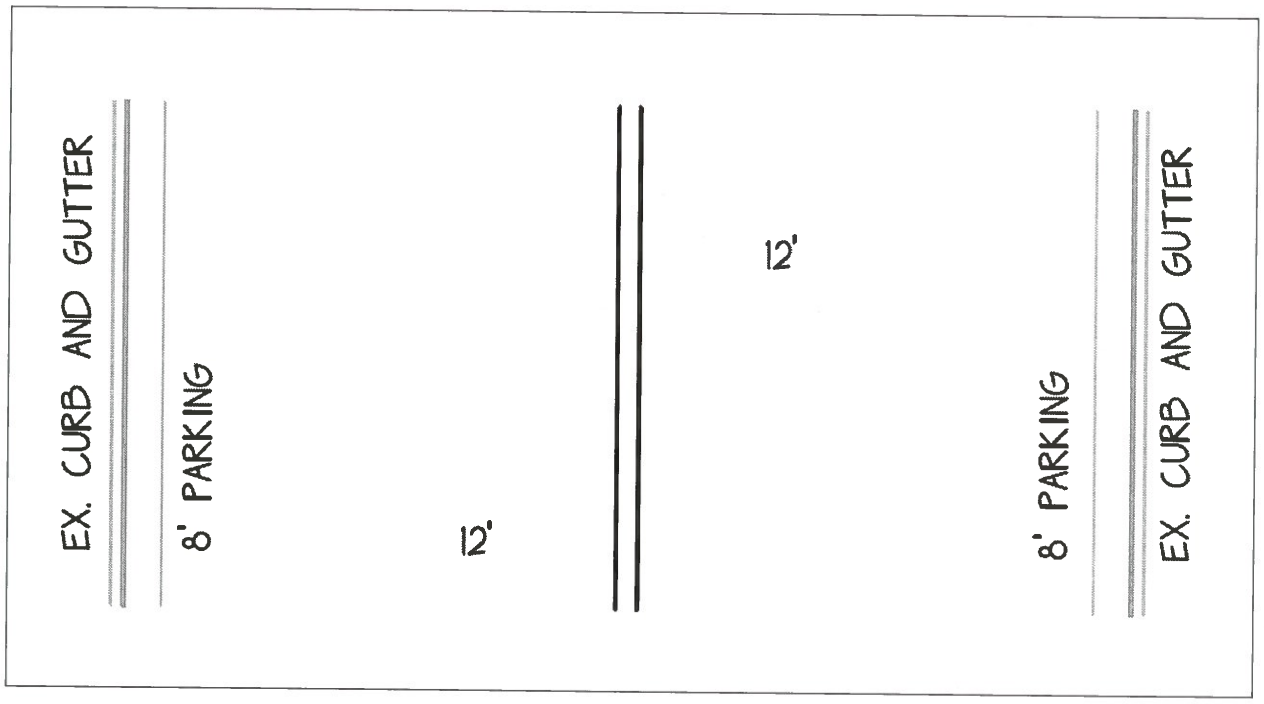
Existing Striping Cross Section for 2nd Avenue



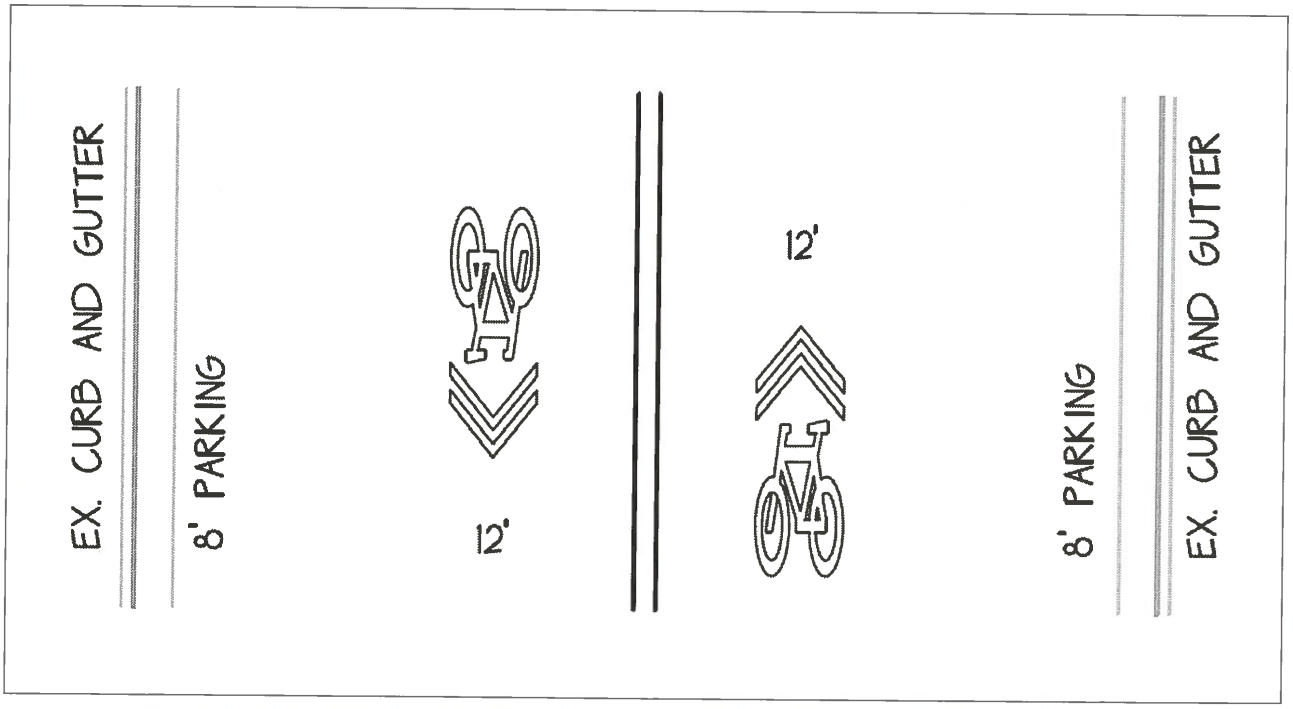
Proposed Striping Cross Section for 2nd Avenue



Existing Striping Cross Section for Mission Avenue



Proposed Striping Cross Section for Mission Avenue



Recommendation:

Approve the proposed new striping cross-section for 2nd Avenue and Mission Avenue

Necessary Council Action: None

Respectfully submitted,

Prepared by:

Abraham Bandegan, TE, PTP
Associate Engineer/Traffic Division

Reviewed by:

Julie B. Procopio, PE (Civil)
Assistant City Engineer

Approved by:

Edward N. Domingue, PE (Civil)
Director of Public Works/City Engineer

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CITY OF ESCONDIDO

TRANSPORTATION and COMMUNITY SAFETY COMMISSION

Commission Report of: January 8th, 2015 **Item No.: F1**

Location: 511 E. Grand Avenue

Initiated By: City Staff

Request: Angela Hill, Greg Birch, Fari Sayre, Commissioners & Staff

Subject: Crosswalks on East Grand Avenue near Palomar Hospital enhancements & possible All-Way Stop at Grape Street and Grand Avenue.

Background:

In 2013 the cross walk on East Grand Avenue between the Senior Community and Palomar Hospital was upgraded considerably with the installation of the crosswalk at the vertical curve crest and with California Manual on Uniform Traffic Control Devices (CA-MUTCD) signage and striping at the crosswalk, advance warning signage for pedestrian crossing approaches, ADA ramps and a street light. The crosswalk at the apex of the hill was requested by Villa Escondido residents as their access to the Emergency Entrance to Palomar Hospital.

At the April 2014 Transportation Commission meeting during public comment, Ms. Angela Hill expressed her concern with not being able to safely cross the street in the area of 511 East Grand Avenue, noting her concern with the high speeds of vehicles and limited visibility.

Staff was directed to investigate options to improve safety at this location by including a senior speed zone.

Staff submitted application to University of California Berkeley for evaluation. A copy of the final report is attached at the end for this location. There were solutions presented at the July 2014 Transportation Commission meeting included Senior Citizen Signage 25 MPH, upgraded double-sided pedestrian crossing signage, yield pavement legends preceding the Yield Saw tooth line, right only at Grape St. and pavement mounted flexible Yield to Pedestrians in crosswalk areas. Commissioners requested that the item be brought back for discussion with additional information from the U.C. Berkeley Tech Transfer Pedestrian Safety Assessment study.

We recently scheduled a meeting with the Villa Escondido residents on Thursday, December 11th, 2014 and presented the feasibility of relocating the crosswalk near the bus stop as shown in the figure on the next page. Villa Escondido facility Property Manager Maria Rojas indicated that they have an Emergency Response Service Plan for an event needing the service to occur; the patients do not walk to the Emergency Room on such an occasion.

Discussion & Purpose:

As mentioned in the background, ITS Berkeley Tech Transfer Pedestrian Safety Assessment was to be reviewed and suggestions presented. Staff received the study on Sept. 26, 2014.

Some of the Site–Specific suggestions are presented below as excerpts from the study that would in the best engineering judgment work for this segment, staff comments are in green to compliment the excerpt.

E. Grand Ave. between E. 2nd Ave. and S. Fig St. (Palomar Hospital)

The above figure shows existing context along East Grand Avenue near Palomar Hospital. Solid yellow rectangles indicated existing unmarked controlled crosswalks across Grand along this block at the two signalized intersections and the marked uncontrolled crosswalk across East 2nd Avenue just east of South Hickory Street. The dotted rectangle shows the location of a previously marked uncontrolled mid-block crosswalk at the hospital's parking garage driveway where there is a westbound bus stop.

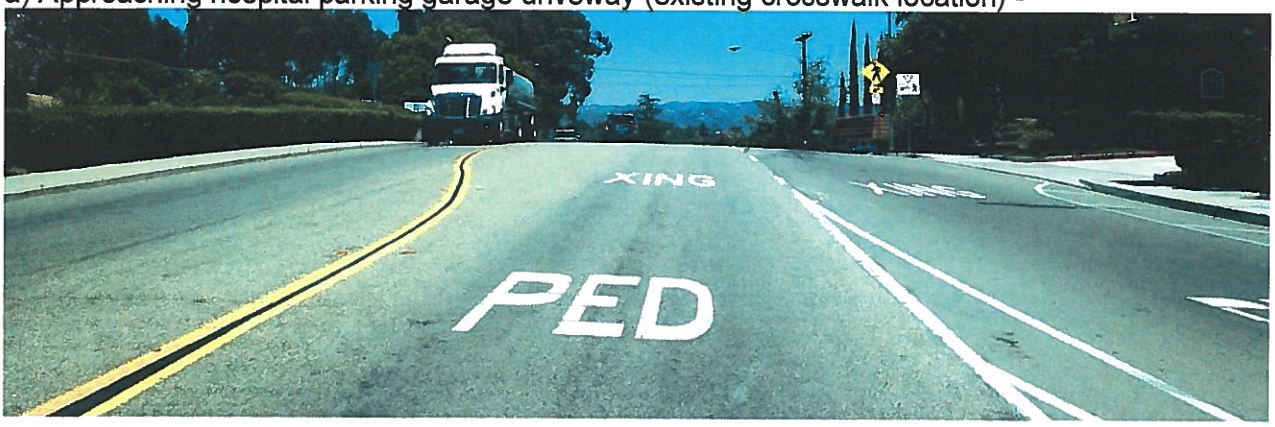
East Grand Avenue runs east-west between signalized intersections at Valley Parkway and South Fig Street. Grand ascends a grade between Valley Parkway and South Grape Street and then descends to Fig.

Palomar Hospital occupies the entire north side between these intersections. Its ER driveway is at the crest of the hill just west of Grape. There is a marked uncontrolled crosswalk on the west leg at the main driveway. At that crosswalk Grand has four lanes: one westbound and three eastbound (one left turn into the hospital, a through lane, and through-and-right serving Grape). Just west of this crosswalk, East 2nd Avenue joins eastbound Grand tangentially on a large radius curve after intersecting with South Hickory Street. to "apex" the curve at high speed.

The hospital's parking garage driveway is midway between Valley and Grape, aligned with South Hickory Street. There is a westbound bus stop just east of that driveway. The nearest eastbound stop is just down the hill on the southeast corner of the Valley / Grand intersection. Staff said that a mid-block crosswalk was previously marked across Grand at the east (uphill) side of the parking garage driveway. (dashed yellow rectangle in Figure on page 2).

Figure below shows eastbound Grand at the parking garage driveway, at the merge from East 2nd Avenue, and approaching the main driveway crosswalk at the crest.

a) Approaching hospital parking garage driveway (existing crosswalk location) -



b) Added lane from East 2nd Avenue

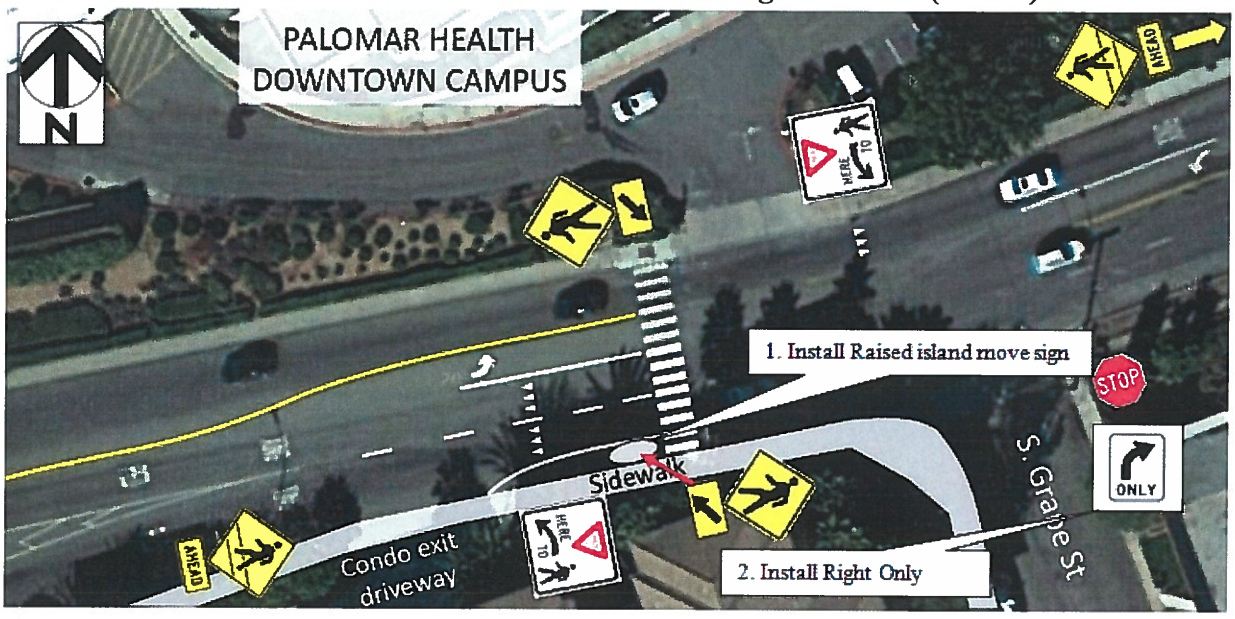
c) Approaching hospital main driveway crosswalk at crest near Grape

Some Additional approach views as follows:

Westbound View of Crosswalk on E. Grand Avenue

ITS Berkley Tech Transfer Observations, Analysis and Suggestions

Palomar Health main crosswalk – existing conditions (Area 1)



Area 1 – Grand Avenue At Palomar Hospital main driveway near South Grape Street

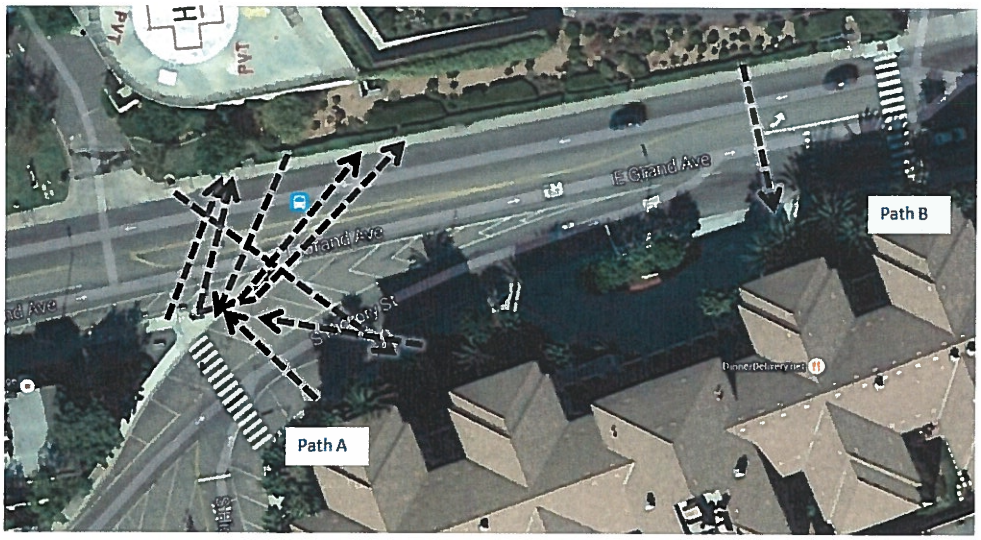
Eastbound vehicles from 2nd Avenue enter eastbound Grand at high speed because their lane continues eastbound without a merge or yield and the curve has a large radius.

The PSA provides recommendations for how the current crosswalk can be improved. However, after evaluating accident data, residential concerns and pedestrian counts, the Transportation Commission directed staff to evaluate relocation of the crosswalk.

City Staff conducted A.M. Peak Hr. Ped Count data at this location, the results are presented below. There are about 58 pedestrians crossing at Path A and 12 pedestrians crossing at Path B in a 4-hr. period.

Path A has more than 10 peds at this location in an hour, whereas Path B only has a max. of 4 peds in an hour. The AM count does not warrant a crosswalk at Path B. In the PM Peak hour 14 peds were counted on Path A and 0 peds on Path B. Per the City Council adopted Traffic Policy #4 Pedestrian Crosswalks – Crosswalks threshold warrant is more than 10 peds/hr. Jaywalkers were also counted crossing closer to Path B (see figure below).

Jaywalking



COLISSION DATA:

Crash #	Primary	Secondary	Dir	Feet	VC	Factor	Date	Time	# INJ	# FAT	Collision Type	Notes
09014060	Grand	Grape	W	60	21801A		09/24/09	6:30	0	0		
09004082	Grand	Grape	W	100	22350		03/20/09	18:12	1	0		
10011098	Grand	Grape			21801A		08/02/10	17:00	2	0		
11011533	Grand	Grape			22102		09/07/11	13:43	1	0		
11008001	Grand	Grape			21801A		06/20/11	14:50	1	0		
11015304	Grand	Grape			21802A		11/29/11	15:24	1	0		
11007242	Grand	Grape	W	34	21801A		06/04/11	16:20	2	0		
1115866	Grand	Grape	W	54	22350		12/12/11	17:28	1	0	Vehicle/Ped	Ped crossing SB at crosswalk, struck by vehicle driving EB on Grand. Severity was "visible".
12008148	Grand	Grape	W	82	23152A		07/01/12	16:52	1	0		
13005897	2nd	Hickory	E	79	22106		05/14/13	15:45	0	0		

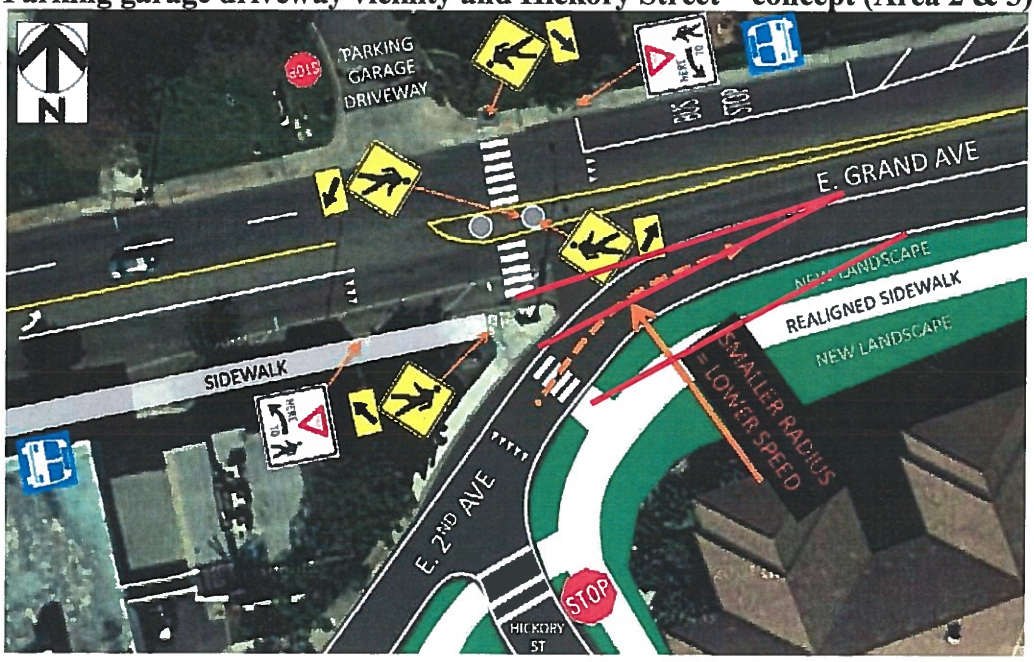
After meeting with the Escondido Villas residents, general support for the new location was received. Staff recommends that left turns be prohibited at Grand and Grape due to limited sight distance.

View looking west making left out of Grape St. @ Grand Ave. – Restrict Left out – Signage for "Right Turn Only" recommended.

As there is a problem with Left Turn conflicts out of Grape Street and as considering the "Evaluation using CA-MUTCD guidelines" the installation of an ALL-WAY STOP is not supported. It would be prudent to install a "Right Turn Only" at Grape Street, below the existing Stop sign, per suggestion #2. As well as consideration of removing the apex of the hill crosswalk at Palomar Hospital driveway.

Additionally, the Senior Citizen signage as previously proposed in the staff report would address advance notification concerns by the residents that seniors live in the vicinity.

Parking garage driveway vicinity and Hickory Street – concept (Area 2 & 3)



Suggestions – Grand Avenue at Palomar Hospital parking garage driveway

	#	Suggestion	Rationale
☑	8	Restore the marked crosswalk across Grand at the east side of the hospital parking garage driveway, near the eastbound bus stop.	Several persons were seen crossing here during a brief observation. At least one was a bus patron. Pedestrians from Hickory bound for the WB bus stop are unlikely to walk to the signalized crosswalk at Valley or the crosswalk at the crest, due to the distance and grade.
☑	9	Add a median refuge within the existing painted island on the east (uphill) side of the hospital driveway's outbound left turn sweep.	Protect crossing pedestrians. Protect a double-sided crosswalk warning sign assembly.
☑	10	Add a single-lane-approach crosswalk warning signs and markings package. Place the left-side signs on one of the median islands.	(Applies to any such crosswalk)
☑	11	Mark bus stop with 10' wide rectangle and BUS STOP legend.	Indicate the bus stop area to WB drivers, reinforcing the message that they need to move left.
☑	12	Set the bus stop back 20' from (i.e. east/uphill of) the crosswalk.	Ensure that stopped buses do not hide pedestrians starting to cross Grand Avenue from north to south

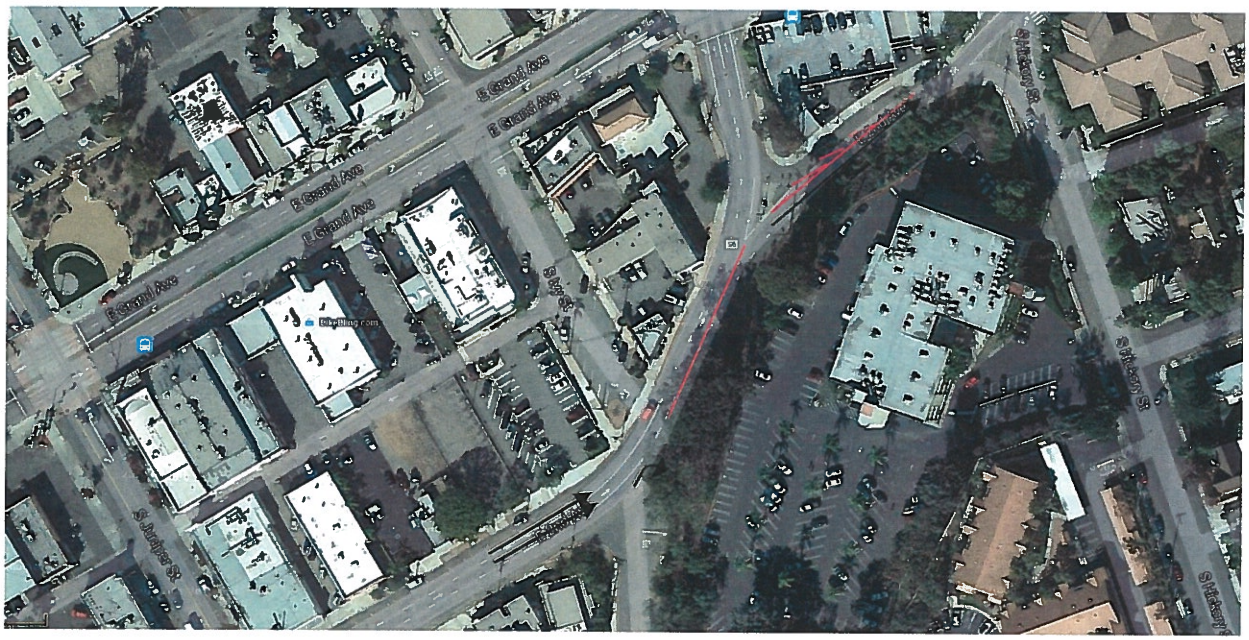
	#	Suggestion	Rationale
☑	13	Install an upstream gore directing westbound traffic away from the curb to avoid the bus stop	Enable bus to stop out of traffic. Reduce abrupt weaving around stopped buses. Ensure that the north leg of the crosswalk just beyond the bus stop is 1-lane, to eliminate the multiple threat collision mode
☑	14	Extend the broken white (passing) line upstream from the Valley Boulevard signal to the hospital driveway	Indicate to motorists passing the bus stop that they may queue in two lanes beyond the driveway

East 2nd Avenue at South Hickory Street (Area 3)

The figure on page 5 shows additional improvements aimed at making the existing crosswalk safer however, given the recommendation to relocate the crossing these improvements are not needed at this time.

Moreover, staff recommends that the 2nd Avenue approach to Hickory St. will be redesigned for a right only single narrowed down lane just past Ivy Street, so that vehicles do not speed up in the drop lane and compete for space at the Hickory St. crosswalk – A concept plan is shown below.

Revised approach travelling eastbound on 2nd Avenue Merge



Recommendations:

It is requested that the Transportation and Community Safety Commission approve as recommended

1. Remove the crosswalk at the Emergency Entrance at the apex of the hill at Palomar Hospital driveway. And consider installing the crosswalk at 2nd and Hickory N-S to the Bus Stop per ped counts and Berkeley Study suggestion. As also discussed with residents by the traffic staff meeting with the Villa Escondido senior housing residents on December 11th, 2014.
2. Install "Right Only" R3-5 (R) out of Grape Street due to crest of hill sight distance.
3. Install pavement Legends for "Yield" at the approaches preceding the Saw Tooth Yield pavement legends at the proposed crosswalk. Bus Box and taper striping.
4. Revise the approach eastbound on 2nd Avenue Merge as described above.
5. Install Senior speed limit signage SW 50 (CA) at all approaches with 25MPH signs.

Fiscal Impact:

The estimated cost of relocating the crosswalk with signage and striping, and removals of legends any additional signs and pavement markings (Labor & Materials) as described in the recommendations is $5,200. Based on the proposed recommendations, table below shows a preliminary cost estimate for the project.

Item	Quantity	Unit of Measure	Average Unit Price	Item Total
Fabricate and install new signs & posts	10	EA	$300	$3000
"Yield" Thermoplastic legends, Bus Box with taper striping	1	LS	$1000	$1000
Removals & Relocate Ped barricades signs	1	LS	$1500	$1500
Total				**$5,500**

Necessary Council Action: None

Respectfully submitted,

Prepared by:

Ali Shahzad, PE (Traffic)
Associate Engineer/Traffic

Reviewed by:

Julie Procopio, PE (Civil)
Assistant Director of Public Works

Approved by:

Edward N. Domingue, PE (Civil)
Director of Public Works/City Engineer

ITSBerkeley TECH TRANSFER | PS1406

CITY OF ESCONDIDO
PEDESTRIAN SAFETY ASSESSMENT

FINAL REPORT

SEPTEMBER 2014

EVALUATION TEAM

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City of Escondido
Pedestrian Safety Assessment
September 2014

4.2 SITE-SPECIFIC SUGGESTIONS

Focus Area 1: E. Grand Avenue between E. 2nd Avenue and S. Fig Street (Palomar Hospital)

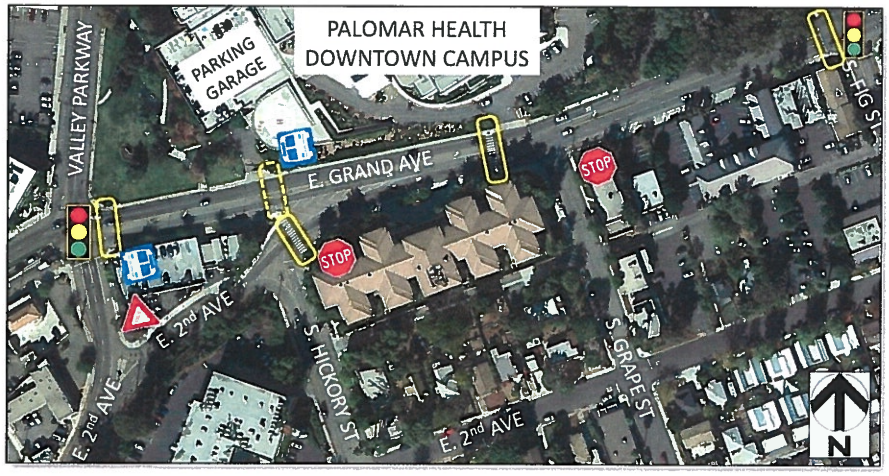
Comment [JC1]:

Comment [.2]: Ali, in this section (402) there was text insterted by the the City which said "SEE ATTACHED PDF WITH STRIKEOUTS FOR THIS LOCATION". We do not have the mentioned attached PDF. Abe, said you can address this.
Thank you!

Setting

Figure 4-3 shows existing context along East Grand Avenue near Palomar Hospital. Solid yellow rectangles indicated existing unmarked controlled crosswalks across Grand along this block at the two signalized intersections and the marked uncontrolled crosswalk across East 2nd Avenue just east of South Hickory Street. The dotted rectangle shows the location of a previously marked uncontrolled mid-block crosswalk at the hospital's parking garage driveway where there is a westbound bus stop.

Figure 4-3: E. Grand Ave. between E. 2nd Ave. and S. Fig St. (Palomar Hospital)



East Grand Avenue runs east-west between signalized intersections at Valley Parkway and South Fig Street. Grand ascends a substantial hill between Valley Parkway and South Grape Street and then descends to Fig.

Palomar Hospital occupies the entire north side between these intersections. Its main driveway is at the crest of the hill just west of Grape. There is a marked uncontrolled crosswalk on the west leg at the main driveway. At that crosswalk Grand has four lanes: is one westbound and three eastbound (left turn into the hospital, through, and through-and-right serving Grape). Just west of this crosswalk, East 2nd Avenue joins eastbound Grand tangentially on a large radius curve after intersecting with South Hickory Street. Large areas of excess pavement are available to motorists to "apex" the curve at high speed.

The hospital's parking garage driveway is midway between Valley and Grape, aligned with South Hickory Street. There is a westbound bus stop just east of that driveway. The nearest eastbound stop is just down the hill on the southeast corner of the Valley / Grand intersection. Staff said that a mid-block crosswalk was previously marked across Grand at the east (uphill) side of the parking garage driveway. (dashed yellow rectangle in Figure 4-3).

Figure 4-4 shows eastbound Grand at the parking garage driveway, at the merge from East 2nd Avenue, and approaching the main driveway crosswalk at the crest.

Figure 4-4: Eastbound Grand Avenue between Valley Parkway and South Grape Street

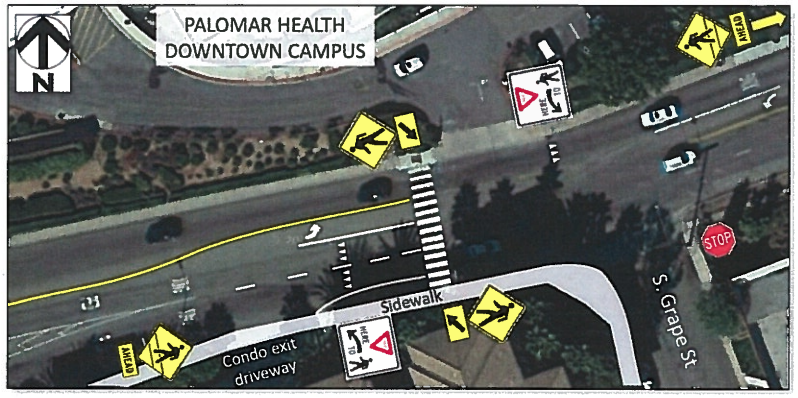
a) Approaching hospital parking garage driveway (former crosswalk location)

b) Added lane from East 2nd Avenue

c) Approaching hospital main driveway crosswalk at crest near Grape

Figure 4-5 shows the existing signs and markings at the main driveway crosswalk.

Figure 4-5: Palomar Health main crosswalk – existing conditions



a) Approaching hospital parking garage driveway (a former crosswalk location)

Observations, Analysis and Suggestions

Area 1 – Grand Avenue At Palomar Hospital main driveway near South Grape Street

Eastbound vehicles from 2nd Avenue enter eastbound Grand at high speed because their lane continues eastbound without a merge or yield and the curve has a large radius. A resident of the residential complex opposite the hospital said that some motorists had lost control while making the turn onto Grand.

Subsequent to the field visit, staff evaluated the feasibility of merging 2nd Avenue traffic into a single lane on eastbound Grand. Eliminating the second eastbound lane was determined to be infeasible due to capacity needs.

Given that reducing the number of lanes approaching the crosswalk is currently considered infeasible, pedestrian safety efforts could focus on improving the conspicuity of the crosswalk and increasing yielding compliance by motorists. The latter can be addressed in part by reducing approach speeds in the both lanes, but particularly in the outside lane that joins eastbound Grand from eastbound 2nd Avenue.

If in the future it is determined that one eastbound lane could be removed and its width repurposed, this could enable installation of a median refuge island to enable pedestrians to divide their full-street two-direction gap decision into two half-street one-direction decisions separated in time. A median island can also support a double-sided warning sign to more effectively signify the crossing location than is possible with a pair of curbside signs.

Table 4-2: Suggestions – Eastbound 2nd Avenue and Grand between Valley Parkway and South Grape Street

#	Suggestion	Rationale
Crosswalk across Grand at crest of hill, near Grape Street		
1	Install raised island at south curb immediately upstream of crosswalk. Relocate right-side crosswalk warning sign assembly and advance Yield Here sign onto curb extension.	Shorten pedestrian exposure distance. Enable pedestrians to wait safely in a prominent position further from the street's outer curb, where they may experience more yielding by motorists. Improve visibility of the signs, and create a visually narrower crossing to increase yielding.
2	Consider prohibiting left turns out of Grape Street	The evaluators support staff's observation that decision sight distance is inadequate due to the crest vertical curve
Eastbound 2nd Avenue junction with eastbound Grand, just east of Hickory		
3	Realign junction to create a smaller radius curve where 2nd joins Grand	Reduce approaching speeds at Hickory. Reduce approach speeds at main crosswalk near Grape.
4	Create a large curb extension to support the realigned junction	Eliminate potential for impatient motorists to "apex" the turn by cutting across the existing painted curb extension. Physically shorten crosswalk across EB 2nd just east of Hickory.
Eastbound 2nd Avenue diverge from Valley Parkway 1 block west of Hickory		
5	Reduce the radius of the eastbound diverging movement of 2nd Avenue from Valley Parkway, to reduce speeds on the block approaching Hickory	Improve user experience in crosswalk across 2nd at Hickory. Make it easier for NB Hickory traffic to enter EB 2nd after stopping. Set lower speed expectation approaching junction with eastbound Grand.
6	If feasible based on volume, reduce the diverge at the start of Valley Blvd from 2 lanes to 1 lane	Potentially make it possible to enable left turns from Hickory toward Valley. (Currently there is WB circulation only from the north-side parcel's east driveway; a curb extension blocks left turns from Hickory.)
7	If 2nd Avenue between Valley Blvd and Hickory becomes 1-lane, use the north half for a WB connection between Hickory and NB Valley	Add new circulation option for neighborhood bounded by Hickory, Grand, 4th Avenue and Fig Street

Area 2 – Grand Avenue ~~At~~ at Palomar Hospital parking garage driveway

Figure 4-6~~Figure 4-6~~ shows the existing conditions at the hospital's parking garage driveway. The dashed yellow rectangle shows the location of a previously marked crosswalk.

Figure 4-6: Parking garage driveway vicinity and Hickory Street – existing conditions

Figure 4-7~~Figure 4-7~~ shows a concept for restoring a mid-block crosswalk to serve the westbound bus stop at the hospital's parking garage driveway, and to enable pedestrians to directly access the eastbound bus stop and south sidewalk. The painted median is wide enough for small islands to create a pedestrian refuge and to protect a double-sided crosswalk warning sign assembly.

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Figure 4-7: Parking garage driveway vicinity and Hickory Street – concept

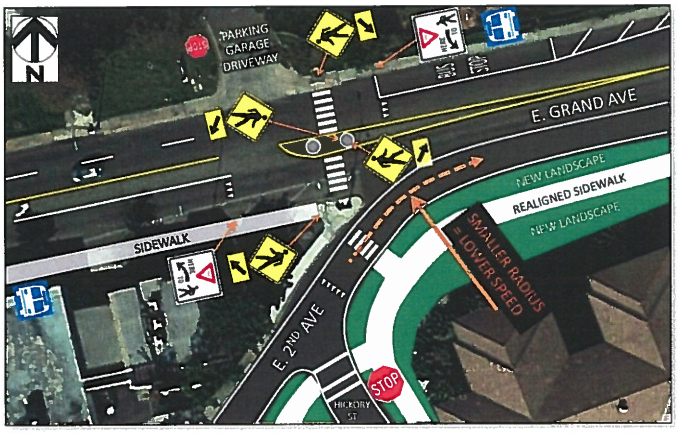

Table 4-3: Suggestions – Grand Avenue at Palomar Hospital parking garage driveway

#	Suggestion	Rationale
8	Restore the marked crosswalk across Grand at the east side of the hospital parking garage driveway, near the eastbound bus stop.	Several persons were seen crossing here during a brief observation. At least one was a bus patron. Pedestrians from Hickory bound for the WB bus stop are unlikely to walk to the signalized crosswalk at Valley or the crosswalk at the crest, due to the distance and grade.
9	Consider adding a median refuge within the existing painted island on the east (uphill) side of the hospital driveway's outbound left turn sweep.	Protect crossing pedestrians. Protect a double-sided crosswalk warning sign assembly.
10	Add a single-lane-approach crosswalk warning signs and markings package. Place the left-side signs on one of the median islands.	(Applies to any such crosswalk)
11	Mark bus stop with 10' wide rectangle and BUS STOP legend.	Indicate the bus stop area to WB drivers, reinforcing the message that they need to move left.
12	Set the bus stop back 20' from (i.e. east/uphill of) the crosswalk.	Ensure that stopped buses do not hide pedestrians starting to cross Grand Avenue from north to south

#	Suggestion	Rationale
13	Install an upstream gore directing westbound traffic away from the curb to avoid the bus stop	Enable bus to stop out of traffic. Reduce abrupt weaving around stopped buses. Ensure that the north leg of the crosswalk just beyond the bus stop is 1-lane, to eliminate the multiple threat collision mode
14	Extend the broken white (passing) line upstream from the Valley Boulevard signal to the hospital driveway	Indicate to motorists passing the bus stop that they may queue in two lanes beyond the driveway

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Area 3 – East 2nd Avenue at South Hickory Street

Figure 4-7 also shows a significant realignment of eastbound East 2nd Avenue and its junction with South Hickory Street, achieved by extending the south curb line to absorb the exiting "no-man's land". This would improve pedestrian safety by dramatically shorten the crosswalk across East 2nd Avenue. The narrower space could significantly reduce eastbound vehicle speeds approaching this crosswalk and the curve onto eastbound Grand, which in turn may improve yielding behavior at the main crosswalk across Grand at the crest of the hill beyond.

Table 4-4: Suggestions – East 2nd Avenue at South Hickory Street

#	Suggestion	Rationale
15	Add a marked crosswalk across eastbound 2nd Avenue from Hickory's west sidewalk	Enable pedestrians originating on west side to reach the corner (triangular) parcel without needing to cross Hickory west-to-east first.
16	If left turns from Hickory are supported, provide a squared-up waiting area for left turners	Geometrically support the left turn movement
17	Extend the SE corner curb substantially	Shorten N-S crosswalk Shorten E-W crosswalk (across Hickory)
18	Extend the north curb of 2nd Avenue substantially toward the south	Shorten N-S crosswalk
19	Mark a crosswalk across Hickory, with a 4' advanced limit line.	Support pedestrians crossing Hickory at the 2nd Avenue intersection

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TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: January 8th, 2015 **Item No.: F2**

Location: Intersection of Beethoven Drive and Inspiration Lane

Initiated by: Staff

Request: Review and Approve All-Way Stop Control (AWSC) for the intersection

Background:

This segment of Beethoven Drive is a non-classified residential street located southeast of Bear Valley Pkwy. Ms. Susan Allen, a resident of the neighborhood has expressed the need to evaluate the intersection control and sight distance at the intersection of Beethoven Drive and Inspiration Lane. The intersection is currently One-Way Stop Controlled (OWSC) and only Inspiration Lane is stopped at this intersection.

Discussion and Purpose:

The purpose of this study was to evaluate the proper intersection control needed for the Intersection of Beethoven Drive and Inspiration Lane. The next figure shows the location of Beethoven Drive and the intersections of Inspiration Lane.

The two streets are both residential streets and are not classified in City of Escondido General Plan. Beethoven Drive in this area is located southeast of Bear Valley Pkwy and Inspiration Lane is a non-through residential street that intersects Beethoven Drive at both ends. Currently, only Inspiration Lane is stop controlled at its intersection with Beethoven Drive.

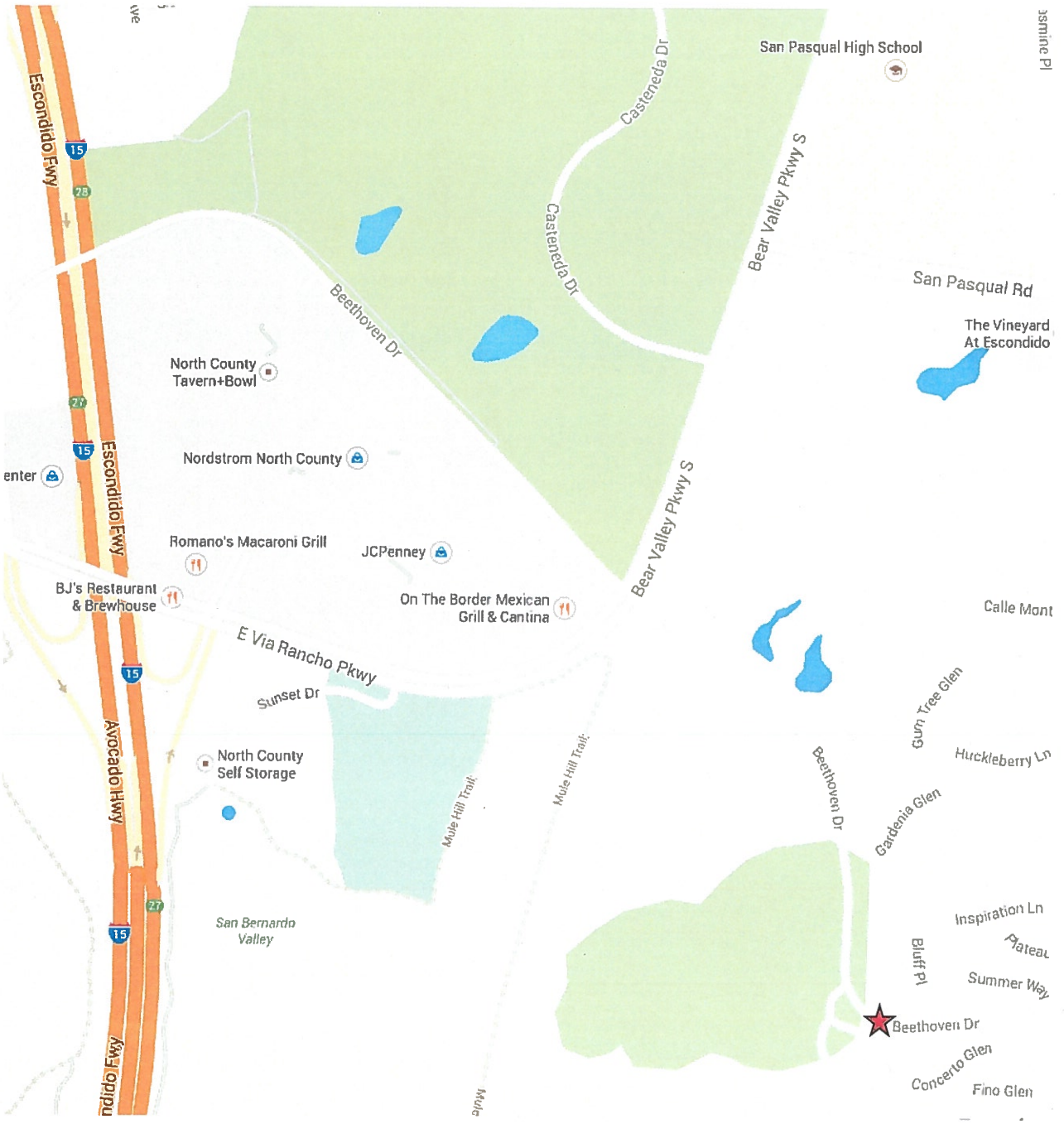
Option 05 of Section 2B.07 of CA-MUTCD2012 states that an AWSC may be considered at *"Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop".*

Considering the geometry of Beethoven Drive at this intersection (7% grade) and also considering the fact that this intersection is located at the turning-point of the Beethoven Drive sharp horizontal curve, sight distance is limited for the vehicles on Inspiration Lane and Beethoven Drive. Because of the relatively steep grade and limited sight distance, detecting the conflicting volumes to ensure safe turn maneuver is not easy at this intersection for neither the minor nor the major street approaches of the intersection.

Currently, vehicles on Inspiration Lane after coming to a complete stop at this intersection, do not have adequate sight distance to maneuver through the intersection. The following figures show the limited sight distance on Beethoven Drive and Inspiration Lane approaches.

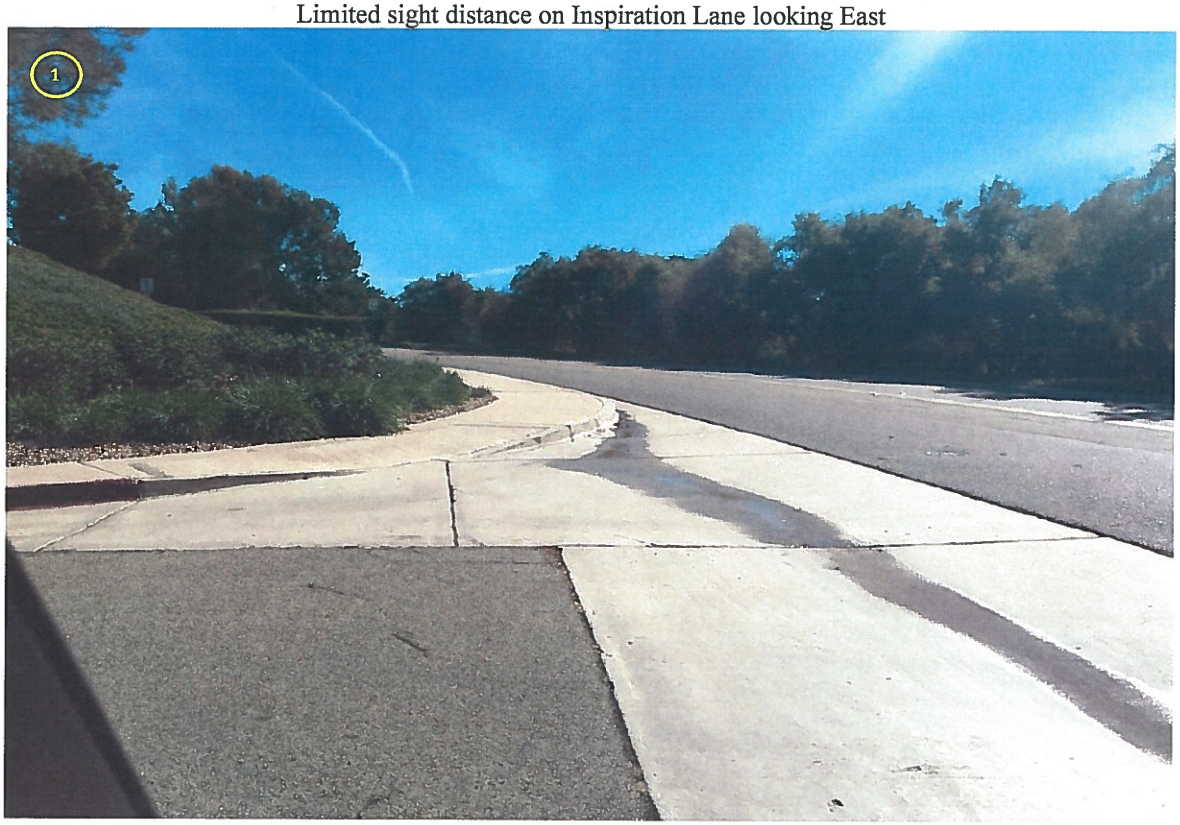
Considering the limited sight distance at this intersection for all approaches, City staff recommends adding two new Stop Signs to Beethoven Drive to provide for an All-Way Stop Control (AWSC) at this intersection. Due to possible limited visibility of the new STOP signs, two new "STOP AHEAD" (W3-1) signs and "STOP AHEAD" pavement markings will be installed on both E/B and W/B approaches of Beethoven Drive in advance of the intersection.

Beethoven Drive Aerial view



Limited sight distance and grades on E/B and W/B Beethoven Drive approaches

Limited sight distance on Inspiration Lane looking East



Limited sight distance on Inspiration Lane looking West

Limited visibility of the intersection and stopped vehicles on E/B approach of Beethoven Drive

Limited visibility of the intersection and stopped vehicles on W/B approach of Beethoven Drive

Recommendation:

Approve Staff recommendation to recommend to City Council the installation of stop-signs on Beethoven Drive at the intersection of Inspiration Lane.

Necessary Council Action: Approval of the Stop-Signs

Respectfully submitted,

Prepared by:

Abraham Bandegan, TE, PTP
Associate Engineer/Traffic Division

Reviewed by:

Julie B. Procopio, PE
Assistant Director of Public Works

Approved by:

Edward N. Domingue, PE
Director of Public Works/City Engineer

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CITY OF ESCONDIDO

TRANSPORTATION and COMMUNITY SAFETY COMMISSION

Commission Report of: January 08th, 2015 **Item No.: F3**

Location: El Norte Parkway Multi-use Class 1 Bike Path Crossing near Escondido Creek

Initiated By: City Staff

Request: N/A

Subject: Warrant Analysis for a HAWK, a pedestrian hybrid beacon

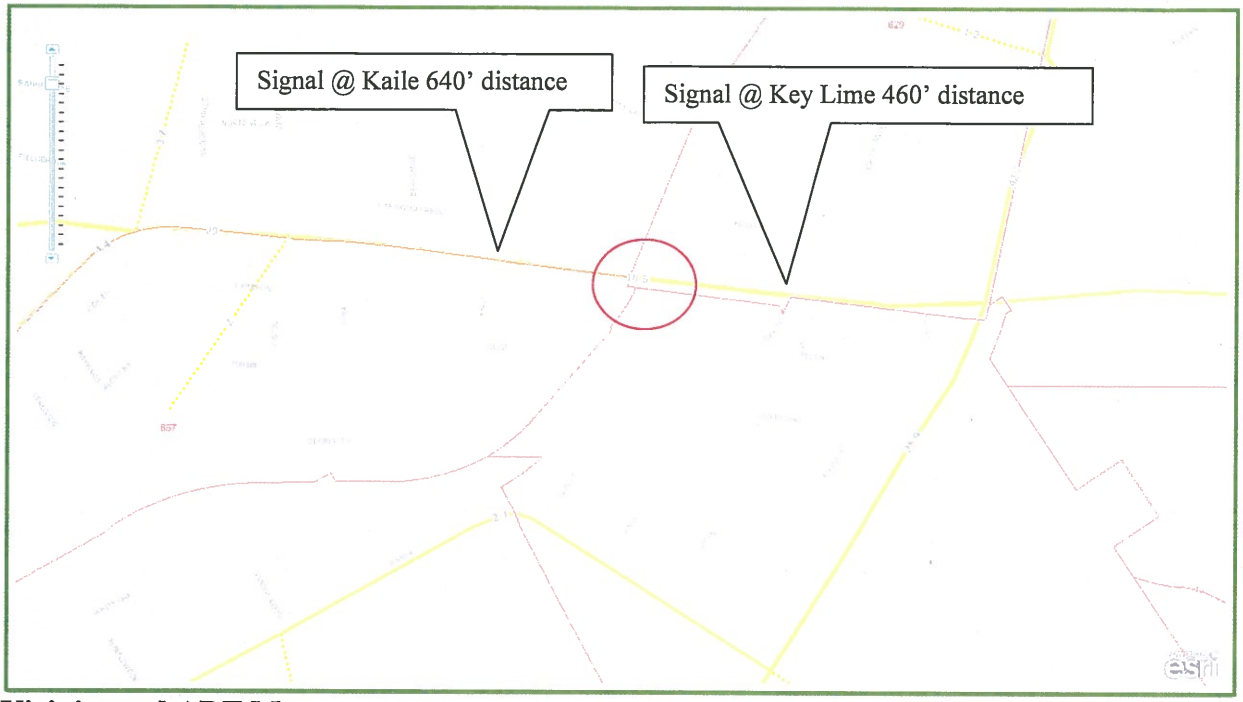
Background & Data:

The bridge is to be widened over the Escondido Creek Flood Control Channel to match the ultimate width on the north side for El Norte Parkway- a Major Road (4-lanes) with a posted speed of 45MPH and ADT of 13,500 in this vicinity.

As the Multi-Use Class 1 Bike Path crosses El Norte Parkway, it would be prudent to review the crossing for the latest design treatments and enhancements needed to make it a safe crossing for the bicyclists and pedestrians. The crossing distance will be widened to 82 feet with the bridge construction.

The analysis for the Bike Path installation of a controlled crossing in this report is based on the California Manual on Uniform Traffic Control Devices (CA-MUTCD) 2014 pedestrian hybrid beacon warrant analysis.

Data was collected by a traffic data vendor via a video camera for 24hrs per day from Thursday November 6th through Sunday November 9th, 2014. The data shows frequent usage of the Multi-Use Path between the PM Peak hour of 4 to 6 pm, Thursday through Saturday. The highest usage was observed on Sunday between 8 am to 9 am, demonstrating that the path is being used for recreational purposes.



Vicinity and ADT Map

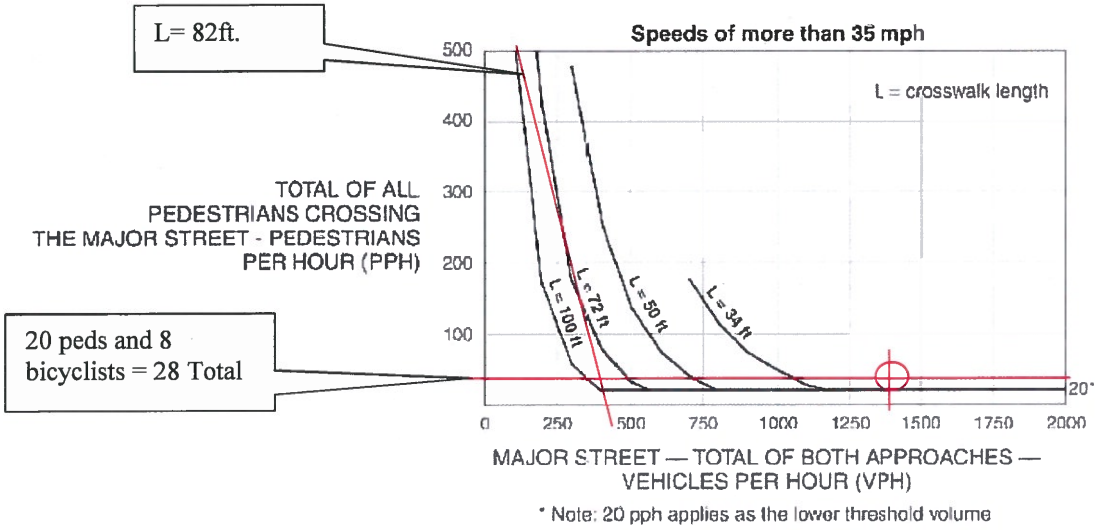
Bridge Widening on the North side to match ultimate street width.

Discussion & Purpose:

The HAWK (High Intensity activated crosswalk) pedestrian hybrid beacon is used to warn and control traffic at an unsignalized location to assist pedestrians in crossing a street or highway at a marked crosswalk. The lights are activated with pedestrian push buttons on either side of the intersection, so there is minimal disruption to vehicular traffic. When the pedestrian phase is activated, the signal turns red, requiring vehicles to stop.

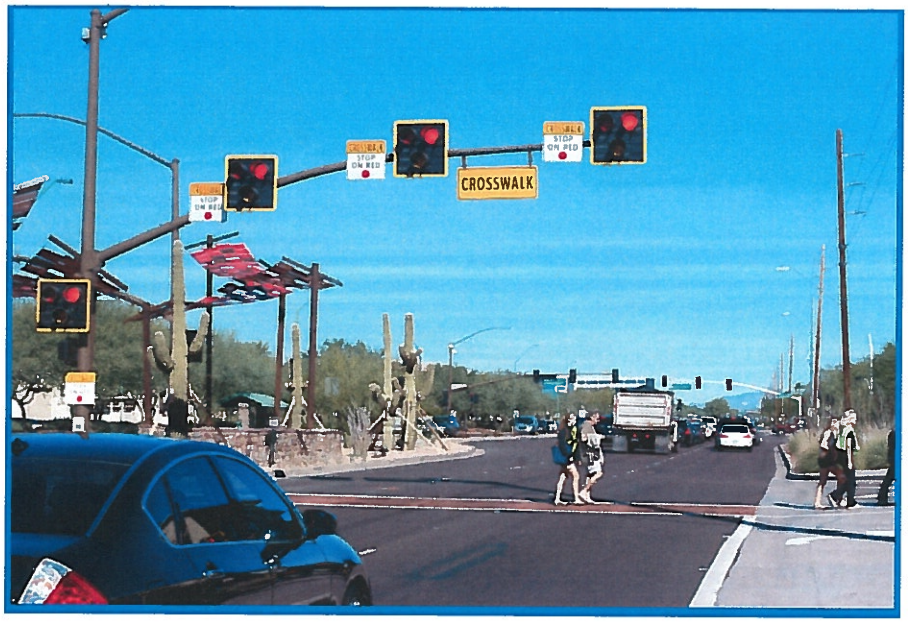
The CA-MUTCD contains warrant guidelines for pedestrian hybrid beacons that utilize automobile traffic, pedestrian traffic, automobile speeds, and pedestrian crossing distance. HAWK beacons may be installed where the crossing volume is as low as 20 pedestrians per hour (pph), depending on the crossing distance, automobile traffic volume, and engineering judgment. Figure 4F-2 from the CA-MUTCD is provided to determine the need for a pedestrian hybrid beacon.

Figure 4F-2. Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways

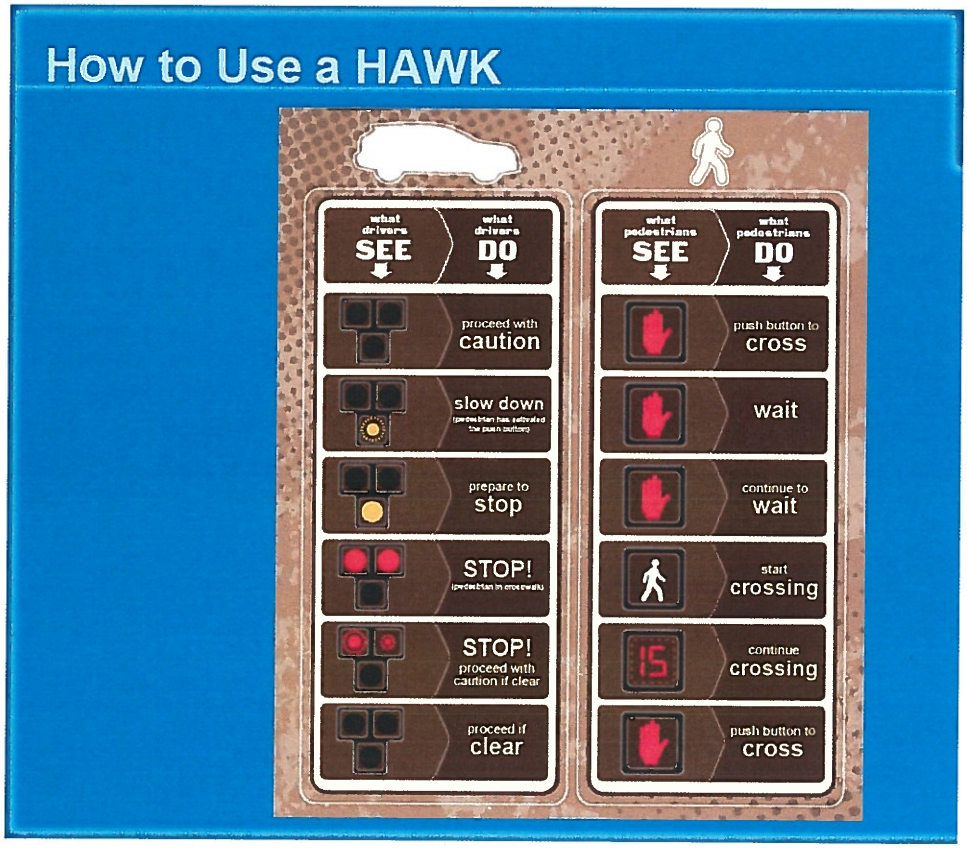


The HAWK Warrant is as shown above for this location. The pedestrian volume at the intersection crossing meets the 20 pph lower threshold recommended in the CA-MUTCD.

The cost of equipment and installation is approximately $100,000 plus ongoing maintenance costs. The nearby Traffic Signals at Kaile Ln at 640 ft to the west and the Traffic Signal at Key Lime Way at 460' to the east would have to be Interconnected to the HAWK, so as to provide coordination to the signal system. An example is shown in the picture of the HAWK below. However, the CA-MUTCD allows application of a standard two phase signal in place of the HAWK.



The Operation of a HAWK **(H**igh-intensity **A**ctivated cross**W**al**K)** as the drivers sees it and as the Pedestrian sees it.



Eastbound El Norte Pkwy just west of the Bridge

Westbound El Norte Pkwy just east of the Bridge

Recommendation:

It is requested that the Transportation and Community Safety Commission approve the warrant analysis to support a pedestrian signal at the El Norte Pkwy creek trail crossing and direct staff to investigate the feasibility for its installation to assist in alerting drivers of a Mid-Block Pedestrian/Bicycle Crossing.

Necessary Council Action: City Council approval for installation of a pedestrian signal and funding for the signal is required.

Respectfully submitted,

Prepared by:

Ali Shahzad, PE (Traffic)
Associate Engineer/Traffic

Reviewed by:

Julie Procopio, PE (Civil)
Assistant Director of Public Works

Approved by:

Edward N. Domingue, PE (Civil)
Director of Public Works/City Engineer

BICYCLE COUNTS

#001 Escondido Creek bike/ped path & El Norte Pkwy - Day 4

LOCATION#:	001	QTD PROJ#:	2014224
NORTH / SOUTH:	Escondido Creek bike/ped path	DATE:	Sunday, November 09, 2014
EAST / WEST:	El Norte Pkwy	VICINITY:	Escondido, CA

DIRECTION:	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND	TOTALS
0:00	0	0	0	0	
0:15	0	0	0	0	
0:30	0	1	0	0	1
0:45	0	0	0	0	
1:00	0	0	0	0	
1:15	0	0	0	0	
1:30	0	0	0	0	
1:45	0	0	0	0	
2:00	0	0	0	0	
2:15	0	0	0	0	
2:30	0	0	0	0	
2:45	0	0	0	0	
3:00	0	0	0	0	
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6:30	0	0	0	0	
6:45	0	0	0	0	
7:00	0	0	0	0	
7:15	0	0	0	0	
7:30	0	0	0	0	
7:45	2	1	0	0	3
8:00	1	1	0	0	2
8:15	0	0	0	0	
8:30	1	1	0	0	2
8:45	0	1	0	0	1
9:00	3	0	0	0	3
9:15	2	1	0	0	3
9:30	1	1	0	0	2
9:45	1	0	0	0	1
10:00	3	1	0	0	4
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11:15	0	1	0	0	1
11:30	0	0	0	0	
11:45	0	0	0	0	
12:00	0	4	0	0	4
12:15	0	0	0	0	
12:30	2	0	0	0	2
12:45	0	1	0	0	1
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14:30	0	1	0	0	1
14:45	0	2	0	0	2
15:00	2	2	0	0	4
15:15	0	0	0	0	
15:30	1	0	0	0	1
15:45	3	0	0	0	3
16:00	0	0	0	0	
16:15	2	0	0	0	2
16:30	0	0	0	0	
16:45	0	0	0	0	
17:00	0	0	0	0	
17:15	1	6	0	0	7
17:30	0	1	0	0	1
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21:45	0	0	0	0	
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22:15	0	0	0	0	
22:30	0	0	0	0	
22:45	0	0	0	0	
23:00	0	0	0	0	
23:15	0	0	0	0	
23:30	0	0	0	0	
23:45	0	0	0	0	

8 AM

8 BIKERS.

9 AM

VOLUME STATS:	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND	
TOTAL:	28	37	0	0	65
P.H.V: (1)	7	3	0	0	10
P.H.F: (2)	0.583	0.750	0.000	0.000	0.625

(1) Peak Hour Volume (Peak hour begins at: 915 AM)
(2) Peak Hour Factor

PEDESTRIAN COUNTS

#001 Escondido Creek bike/ped path & El Norte Pkwy - Day 4

LOCATION#:	001	QTD PROJ#:	2014224
NORTH / SOUTH:	Escondido Creek bike/ped path	DATE:	Sunday, November 09, 2014
EAST / WEST:	El Norte Pkwy	VICINITY:	Escondido, CA

DIRECTION:	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND	TOTALS
0:00	0	0	0	0	
0:15	0	0	0	0	
0:30	0	0	0	0	
0:45	0	0	0	0	
1:00	0	0	0	0	
1:15	0	0	0	0	
1:30	0	0	0	0	
1:45	0	0	0	0	
2:00	0	0	0	0	
2:15	0	0	0	0	
2:30	0	0	0	0	
2:45	0	0	0	0	
3:00	0	0	0	0	
3:15	0	0	0	0	
3:30	0	0	0	0	
3:45	0	0	0	0	
4:00	0	0	0	0	
4:15	0	0	0	0	
4:30	0	0	0	0	
4:45	0	0	0	0	
5:00	0	0	0	0	
5:15	0	0	0	0	
5:30	0	0	0	0	
5:45	0	0	0	0	
6:00	0	0	0	0	
6:15	0	0	0	0	
6:30	0	0	0	0	
6:45	0	0	0	0	
7:00	1	0	0	0	1
7:15	0	1	0	0	1
7:30	0	1	0	0	1
7:45	0	1	0	0	1
8:00	3	4	0	0	7
8:15	1	3	0	0	4
8:30	0	2	0	0	2
8:45	2	0	0	0	2
9:00	0	5	0	0	5
9:15	0	0	0	0	
9:30	1	0	0	0	1
9:45	0	0	0	0	
10:00	0	0	0	0	
10:15	0	0	0	0	
10:30	0	0	0	0	
10:45	0	1	0	0	1
11:00	0	0	0	0	
11:15	0	0	0	0	
11:30	0	0	0	0	
11:45	0	0	0	0	
12:00	0	0	0	0	
12:15	0	1	0	0	1
12:30	1	0	0	0	1
12:45	0	0	0	0	
13:00	0	0	0	0	
13:15	0	0	0	0	
13:30	0	0	0	0	
13:45	0	0	0	0	
14:00	0	0	0	0	
14:15	0	0	0	0	
14:30	0	0	0	0	
14:45	0	0	0	0	
15:00	0	0	0	0	
15:15	0	0	0	0	
15:30	0	0	0	0	
15:45	1	0	0	0	1
16:00	0	0	0	0	
16:15	1	1	0	0	2
16:30	0	1	0	0	1
16:45	2	0	0	0	2
17:00	2	1	0	0	3
17:15	1	1	0	0	2
17:30	0	0	0	0	
17:45	0	0	0	0	
18:00	0	0	0	0	
18:15	0	0	0	0	
18:30	1	0	0	0	1
18:45	0	0	0	0	
19:00	0	0	0	0	
19:15	0	0	0	0	
19:30	0	0	0	0	
19:45	0	0	0	0	
20:00	1	0	0	0	1
20:15	0	0	0	0	
20:30	0	0	0	0	
20:45	0	0	0	0	
21:00	0	0	0	0	
21:15	0	0	0	0	
21:30	0	0	0	0	
21:45	0	0	0	0	
22:00	0	0	0	0	
22:15	0	0	0	0	
22:30	0	0	0	0	
22:45	0	0	0	0	
23:00	0	0	0	0	
23:15	0	0	0	0	
23:30	0	0	0	0	
23:45	0	0	0	0	

VOLUME STATS:	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND	
TOTAL:	18	23	0	0	41
P.H.V: (1)	6	9	0	0	15
P.H.F: (2)	0.500	0.563	0.000	0.000	0.536

(1) Peak Hour Volume (Peak hour begins at: 800 AM)
(2) Peak Hour Factor

8 AM
20 PEDS
9 AM

ESCONDIDO
City of Choice

CITY OF ESCONDIDO

TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: January 8th, 2015 **Item No.: F4**

Location: Citywide

Initiated By: City Staff

Subject: A Policy for Traffic Management Projects Initiation and Approval

Background:

Over the last several years, an increasing number of residents, communities and advocacy groups have approached the Engineering Division with issues of speeding and cut-through traffic in different locations around the city. Historically, these concerns were addressed with the use of police enforcement and residents education. However, an expanded menu of options called "Traffic Calming" or "Traffic Management" is available and is increasingly being used to address these concerns.

Traffic Management involves modifications in signage and striping, changes in street alignment, installation of barriers, and other physical measures or implementation of other effective nonphysical measures to reduce traffic speeds and/or cut-through volumes, in the interest of safety.

Discussion & Purpose:

The traffic management projects initiation and approval procedure policy is intended to establish a process by which potential traffic management projects will be initiated, processed and approved for implementation under the guidance of Transportation and Community Safety Commission (TCSC). The goal is to select the highest priority traffic management projects for evaluation and to develop the most effective solution that has the highest level of support from the impacted residents.

The projects can be initiated based on several different types of requests. Requests that are submitted by individuals are first logged in by Traffic Engineering for further review. Sources such as accident data, police department input, school district feedback, citizen reports and site visits are utilized to confirm the problem. Once Engineering Division confirms the problem, the request is added to the Traffic Management Project List (TMPL).

If after evaluation, a problem is not detected by the Traffic Engineering Section or if the problem severity is considered to be very low and the cost/benefit ratio of a solution is infeasible, a summary of the undertaken study and analysis will be provided to the requesting individual and the project will NOT be added to the TMPL. In these cases, if an individual requests that the problem be included in the TMPL and be presented to TCSC for further discussion, he or she would be responsible to provide to the City, a petition signed by 33%+1 of the residents of the area. The petition document and the affected area will be prepared and provided by the Traffic Engineering Section to the requesting individual for their use in gathering signatures.

When a petition is submitted with 33%+1, Traffic Engineering Section will include the project in TMPL and will prepare a preliminary study of the problem. The study will be presented to Transportation and Community Safety Commission (TCSC) and TCSC will then be asked to select prioritized traffic management projects for design, funding and implementation. The procedure to prioritize, select and fund traffic management and traffic calming projects on TMPL has been approved by TCSC at its January 2014 meeting.

Selected projects will be designed by City Staff and will be presented to affected residents prior to final approval and budget allocation by TCSC. Affected residents' feedbacks will also be collected and the necessary modifications will be made prior to presenting the item to TCSC.

If for any reason, the final project would need City Council approval, affected residents will be notified in advance of the date that the project will be taken to City Council.

Recommendation:

Approve the proposed policy on traffic management projects initiation and approval

Necessary Council Action: None

Respectfully submitted,

Prepared by:

Abraham Bandegan, TE, PTP
Associate Engineer/Traffic Division

Reviewed by:

Julie B. Procopio, PE (Civil)
Assistant Director of Public Works

Approved by:

Edward N. Domingue, PE (Civil)
Director of Public Works/City Engineer

ESCONDIDO
City of Choice

CITY OF ESCONDIDO

TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: January 8th, 2015 **Item No.: F5**

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 2012 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 85th 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:

> *"**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).*
>
> ***Standard:***
> *If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.*
>
> *Support:*
> *The following examples are provided to explain the application of these speed limit criteria:*
> *Example 1. Using Option 1 above and first step is to round down: If the 85th percentile speed in a speed survey for a location was 37 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 37 mph speed. As indicated by the option, this 35 mph established speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.*
> *Example 2. Using Option 1 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 33 mph speed. As indicated by the option, this 35 mph speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.*
> *Example 3. Using Option 2 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, instead of rounding up to 35mph, the speed limit can be established at 30mph, but no further reductions can be applied (which is allowed in the two examples above).*
>
> ***Standard:***
> *Examples 1 and 2 for establishing posted speed limits shall apply to engineering and traffic surveys (E&TS) performed on or after July 1, 2009 in accordance with the Department's Traffic Operations Policy Directive Number 09-04 dated June 29, 2009.*

Option:
After January 1, 2012, Example 3 may be used to establish speed limits. Refer to CVC 21400(b).
Support:
Any existing E&TS that was performed before July 1, 2009 in accordance with previous traffic control device standards is not required to comply with the new criteria until it is due for reevaluation per the 5, 7 or 10 year criteria."

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 85th 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 85th-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 85th percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85th 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 15 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 and 2, the recommended speed limit is changing (decrease by 5mph) based on the 85th-percentile speed of the new speed survey. Per the CA-MUTCD and CVC this speed is compliant for increment, as it is within 5 mph of adjacent speed zones for upward and downward speeds. For speed survey 8, the recommended speed limit is changing (increase by 5mph) based on the 85th-percentile speed of the new speed survey.

For speed surveys 9 and 12, the recommended speed limit reflects a reduction of 5mph from the 85th-percentile speed based on Option 2 in the MUTCD standard, as delineated above. In this case, then, the posted speed limit will not change.

Speed surveys 4-7, 10-11, and 14-15 are new speed zones; the recommended speed limits are based on the 85th-percentile speed. For speed surveys 3 and 13, the recommended speed limits for the new speed zones reflect a 5mph reduction from the 85th-percentile. Since there is no previously posted speed on each of these segments, all ten (10) surveys will have to be approved by City Council.

Table 1 - Overview of Speed Surveys

Segment No.	Street Name	Segment		Previous Speed Survey	Posted Speed Limit (MPH)	85th Percentile (MPH)	Recommended Speed Limit (MPH)	Speed Limit to be posted, per Traffic Engineer
		From	To					
1	Bear Valley Parkway	Beethoven	Mary Lane	3/14/07	50 (25 WCAP)	43	45	45 (25 WCAP)
2	Bear Valley Parkway	Mary Lane	Las Palmas Drive	3/14/07	50 (25 WCAP)	45	45	45 (25 WCAP)
3	Falconer Road	Oak Hill Drive	Reed Road	N/A	None	35	35	30 (25 WCAP)
4	Harding Street	Lincoln Avenue	Mission Avenue	N/A	None	38	40	35
5	Harding Street	Mission Avenue	Valley Parkway	N/A	None	33	35	35
6	Imperial Drive	Iris Lane	End	N/A	None	29	30	30
7	Lake Wohlford Road	Valley Parkway	City Limits	N/A	None	37	35	35
8	Lincoln Parkway/Avenue	Broadway	Fig Street	8/29/06	40	44	45	45
9	Lincoln Avenue	Fig Street	Ash Street	8/30/06	40 (25 WCAP)	46	45	40 (25 WCAP)
10	Lincoln Avenue	Metcalf Street	Morning View Drive	N/A	None	37	35	35
11	Lincoln Avenue	Escondido Boulevard	N. Ivy Street	N/A	None	32	30 (25 WCAP)	30 (25 WCAP)
12	Oak Hill Drive	Rose Street	Midway Drive	6/12/07	35 (25 WCAP)	39	40	35 (25 WCAP)
13	Oak Hill Drive	Hayden Drive	Falconer Road	N/A	None	34	35	30
14	Stanley Avenue	Broadway	City Limits	N/A	None	38	40	40
15	Vista Avenue	Broadway	City Limits	N/A	None	36	35 (25 WCAP)	35 (25 WCAP)

Necessary Council Action: Approval of ten (10) new speed zones and three (3) changes in speed limit.

Respectfully submitted,

Prepared by:

Beth Kassebaum, EIT
Department Specialist

Reviewed by:

Ali M. Shahzad, PE (Traffic)
Associate Engineer/Traffic Division

Approved by:

Edward N. Domingue, PE (Civil)
Director of Public Works/City Engineer