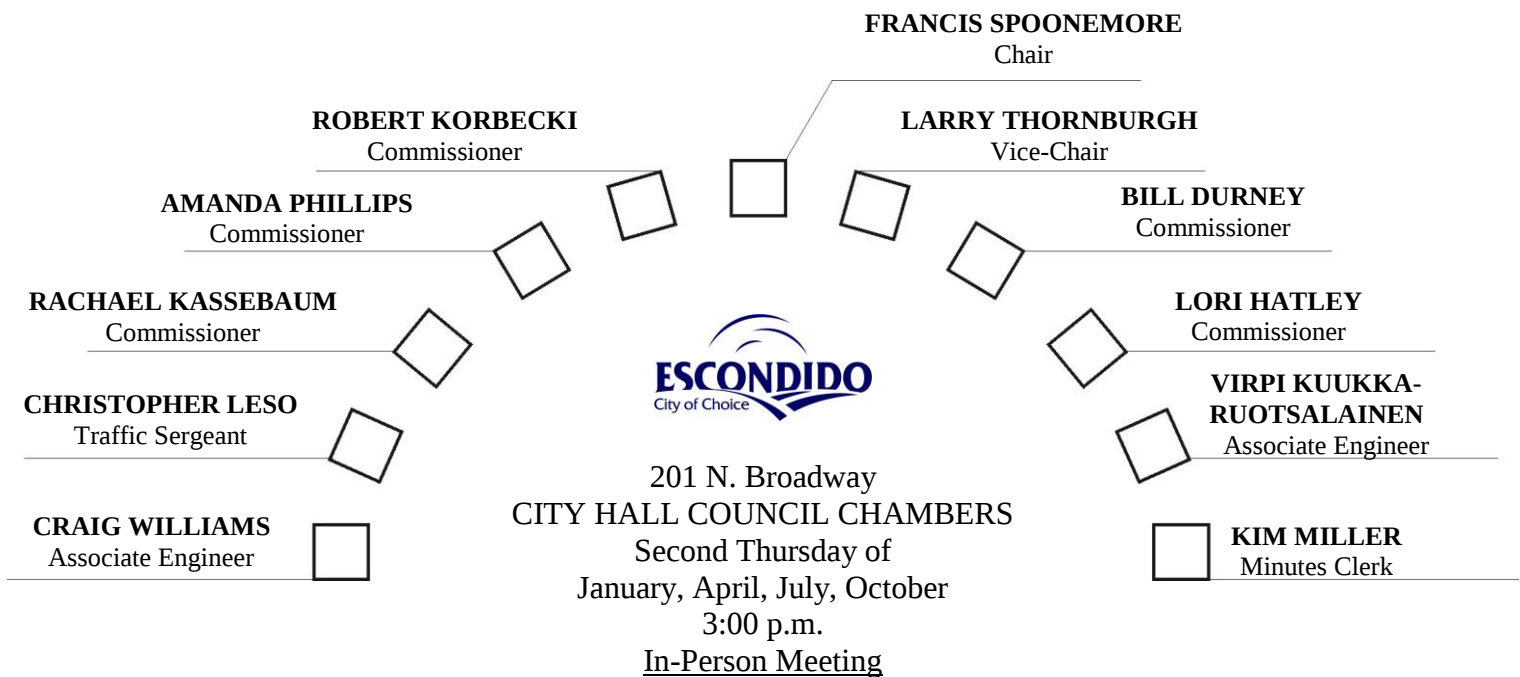


CITY OF ESCONDIDO

Transportation & Community Safety Commission



AGENDA

July 8, 2021

Page | 1

- 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 April 8, 2021 MEETING

E. CONSENT ITEMS – None.

F. NEW BUSINESS

1. City of Escondido 2021/22 Traffic Management Project List, Final Review and Approval

Source: Staff

Recommendation: Approval

Previous action: None

2. Speed Surveys – Various locations Citywide

Source: Staff

Recommendation: Approve Staff Recommendation

Previous action: Approved 7 Speed Surveys (April 2021)

3. Local Roadway Safety Plan Progress Update

Source: Staff

Recommendation: Information Only

Previous action: Verbal report on award of contract to Michael Baker International and work kick-off (April 2021)

G. OLD BUSINESS

1. An overview of various projects involving the City.

Source: Staff

a) TMPL Project Updates

a. FY20/21: Maple Street and 4th Avenue at Central Elementary School: Rectangular Rapid Flashing Beacons, striping and signage improvements are completed. Oak Hill Drive at Rose Street striping and signage improvements are completed. Pedestrian Countdown Indications at four locations: Contractor selected for work. Project completion summer 2021.

b) VMT Phase 2 Mitigation Program Development – Fehr & Peers continuing work on VMT Guidelines to develop Mitigation Program. Work has been authorized and started in June, 2021.

c) Traffic Signal Communications Grant Application. Application approved March 30, 2021; total project \$2.32m; local share \$1.16m. Funding Allocation request submitted; preparing Request for Proposals Scope of Work for Phase 1 Engineering.

d) Creek Crossings – Design approved for seven Creek Crossings. Construction estimated to begin late 2021.

e) Traffic Signals - New

a. In Design:

- i. Meyers Avenue at Barham Drive
 - ii. Citracado Pkwy at Mountain Shadows (Citracado Extension Project)
 - b. Design approved:
 - i. Quince St at Escondido Creek Trail
 - ii. Tulip St at Escondido Creek Trail
 - iii. Midway Drive at Escondido Creek Trail
 - c. Under construction
 - i. Country Club Ln at Gary Ln (The Villages)
 - ii. Country Club Ln at Nutmeg St (The Villages).
- f) Traffic Signal Modifications:
 - a. In Design:
 - i. Felicita Ave at Escondido Blvd - protected left-turns; part of Active Transportation Fund project; consultant design at 90%.
 - ii. Juniper St at Felicita-17th Ave. - protected left-turns; part of Active Transportation Fund project; consultant design at 90%.
 - iii. Bear Valley Parkway at Mary Lane – protected left-turns. CIP-funded. Consultant selected for design work.
 - b. Design approved:
 - i. El Norte Pkwy at Nordahl/Nutmeg St. (The Villages).
 - ii. Hale Ave at Tulip St (Carvana)
 - c. Under Construction
 - i. El Norte Pkwy at West Country Club Lane/Madrid Manor (The Villages)
- g) Roundabouts
 - a. Country Club Lane at Golden Circle (The Villages) (construction nearing completion).
 - b. Country Club Lane at La Brea (The Villages) (design approved /construction starting soon).
 - c. Felicita Rd at Park Drive (design approved/construction starting soon).

H. SCHOOL AREA SAFETY

1. Del Dios Academy – School Bond Improvements. Signing/Striping design and crosswalk improvements including Rectangular Rapid Flashing Beacon for 9th Avenue reviewed.
2. Juniper Elementary. School Bond Improvements for parking lot and drop off/pick up areas. City Active Transportation Grant project to improve sidewalk, relocate student crosswalk and install RRFB.

3. ATP Grant Submittal for Citrus Ave sidewalk (not approved, but additional funding is being considered for the program)
- I. COUNCIL ACTION* (A briefing on recent Council actions on Commission related items.)
 1. NONE
- 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.

(July 8, 2021) TCSC Agenda

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

April 8th, 2021

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

Commissioners present: Chair Spoonemore in person; via video: Vice Chair Thornburgh, Commissioner Durney, Commissioner Hatley, Commissioner Korbecki, Commissioner Phillips, and Commissioner Kassebaum.

Commissioners absent: none

Staff present: via video: Julie Procopio, Director of Engineering Services; Owen Tunnell, Assistant City Engineer; Virpi Kuukka-Ruotsalainen, Associate Engineer; Craig Williams, Associate Engineer; Amanda Bajhart, Engineer I; in person: Kimberlianne Miller, Minutes Clerk.

DETERMINATION OF QUORUM

Moved by Commissioner Spoonemore to approve. Motion carried unanimously.

ORAL COMMUNICATIONS:

None

CONSENT ITEMS:

None

ACTION:

MINUTES:

Commissioner Spoonemore requested approval of the minutes of the January 14, 2021 TCSC meeting. Moved by Commissioner Kassebaum, seconded by Commissioner Durney, to approve. Motion carried unanimously.

NEW BUSINESS:

1. Speed Surveys – Various Locations Citywide

Engineer Amanda Bajhart referenced the staff report. Staff recommended approval of updated Engineering and Traffic Surveys (E&TS) for posted speeds on various (26)

street segments Citywide. Recommendations included a speed reduction on one (1) segment: Kauana Loa Drive from Harmony Grove Road to City Limits/Oak View Way.

Commissioner Thornburgh commented that he logged into the meeting late and that he has no comments or questions.

Action: Moved by Commissioner Spoonemore, seconded by Commissioner Hatley, to approve staff's recommendation. Motion carried unanimously.

2. Vehicle Miles Traveled (VMT) /Traffic Impact Analysis(TIA) Guidelines Approval

Associate Traffic Engineer, Craig Williams, presented a report on the final draft of the Traffic Impact Analysis - VMT Guidelines, with an overview of its development, decision points, and screening criteria. Staff was requesting that the Commission recommend to City Council to accept Staff recommendations for VMT Methods, Thresholds and Screening Criteria.

Commissioner Hatley requested to elaborate if we have any additional information regarding the locally-serving projects, and which projects are considered locally-serving. She also requested which projects are to be and not to be included in the guidelines.

Mr. Williams replied that locally-serving projects are discussed in the VMT guidelines. Mr. Williams also replied that some criteria, such as projects having only a 200 ADT, or a 0.5-mile radius from the transit line would not require a VMT analysis. He mentioned this is discussed in greater detail in the document.

Commissioner Thornburgh commented that the new change with the type of analysis may or may not affect the result of the projects. He then requested whether or not there is a threshold to meet certain criteria when completing a VMT analysis. Also, he requested whether or not there are projects that are performing VMT analysis at the moment. He also requested whether or not developers have made any comments on the document.

Mr. Williams replied that there is a threshold for determining whether or not VMT analysis would be a requirement for a project. He also replied that there are no projects currently performing this analysis and no developers have made any comments regarding the document.

Action: Moved by Commissioner Spoonemore, seconded by Commissioner Durney to approve the staff's recommendation. Motion carried unanimously.

3. Approve Continental Crosswalk Standard

Associate Traffic Engineer, Craig Williams presented for the approval of the Continental Crosswalk as the City of Escondido High Visibility Crosswalk Standard. The City of

Escondido Crosswalk Policy is to be amended to replace 'Ladder-style' crosswalk with 'Continental-style' crosswalk as the City Standard for High Visibility Crosswalks for use in mid-block and uncontrolled locations as referenced in the April 14, 2016 Commission meeting. An element of this recommendation is to be consistent with neighboring and guiding agencies' designs.

Commissioner Durney commented that a few years ago this consistency problem arose and that he appreciates our effort.

Commissioner Thornburgh commented that at some intersections, such as North Broadway and Valley Parkway, it would not be preferred as there are some areas with decorative pavement.

Mr. Williams replied that we will have the freedom to use the parallel cross bars at the discretion of the engineer. He also stated that we would not need to use this style crosswalk at every location, rather it would only be used as our typical standard.

Action: Moved by Commissioner Durney, seconded by Commissioner Hatley to approve staff's recommendation. Motion carried unanimously.

4. 2021/2022 Traffic Management Priority List (TMPL) Preliminary List of Projects

Associate Traffic Engineer, Virpi Kuukka-Ruotsalainen requested that the TCSC to provide direction to staff as to which projects should be selected for further evaluation and design. Staff will report back in July with detailed design and cost information for TCSC consideration. Transportation and Community Safety Commission (TCSC) approved a policy to evaluate and prioritize proposed projects using a Traffic Management Project List (TMPL) on January 9, 2014. As stated in the policy, a list of projects needs to be evaluated by staff and presented to TCSC for consideration each year.

Commissioner Hatley requested why crossing guards are not considered a part of a traffic control measure.

Mrs. Kuukka-Ruotsalainen replied, saying that most schools have that service provided by students and parents, and that is one of the reasons why we don't consider it a traffic control measure. She also mentioned vehicles have been seen to still fail to yield to pedestrians even with crossing guards.

Mrs. Kuukka-Ruotsalainen reiterated that traffic control equipment has been shown to be more effective overall.

Mr. Tunnell replied that these additional improvements give crossing guards a safer platform to operate from.

Commissioner Korbecki requested whether or not TCSC has to adhere to the list recommended by staff to select which projects should be selected and funded.

Mrs. Kuukka-Ruotsalainen replied, saying that TCSC does not need to follow this list, although there would need to be justification for not following.

Commissioner Thornburgh commented whether or not the North Broadway improvements should be made by the school. He also mentioned that he thinks Juniper School is not as big a priority compared to the Felicita School improvements needed. He also commented whether or not the street improvement project is incorporated with these improvements.

Mrs. Kuukka-Ruotsalainen replied that the annual street improvement project is in conjunction with the recommendation made per the TMPL improvements list.

Commissioner Durney stated that he is concerned with the amount of money that would be needed for the Felicita improvement project.

Commissioner Thornburgh replied that it would be towards the end of the list.

Action: Moved by Commissioner Thornburgh, seconded by Commissioner Durney to approve and amend the list to five (5) projects per staff's recommendation. Motion carried unanimously.

OLD BUSINESS:

1. An overview of various projects involving the City
 - a) Source: Associate Engineers Virpi Kuukka-Ruotsalainen and Craig Williams
2. Written or verbal reports were presented on the following topics:
 - a) TMPL Project Updates
 - i. FY20/21: Contractor selected for work. Project completion Spring/Summer 2021.
 - b) LRSP – Local Road Safety Plan. Plan development was awarded to Michael Baker International; work on the plan has recently started.
 - c) Traffic Signal Communications Grant Application. Application approved March 30, 2021; total project \$2.32m; local share \$1.16m.
 - d) Traffic Signals - New
 - a. In Design
 - b. Design approved:
 - i. Quince Street at Escondido Creek Trail

- ii. Tulip Street at Escondido Creek Trail
- c. Under construction
 - i. El Norte Parkway at E. Lincoln Avenue (Henry's Ranch) (just completed)
 - ii. Country Club Lane at Gary Lane (The Villages)
 - iii. Country Club Lane at Nutmeg Street (The Villages).
- e) Traffic Signal Modifications:
 - a. In Design:
 - i. Felicita Avenue at Escondido Boulevard - protected left-turns; part of Active Transportation Fund project; consultant design at 90%.
 - ii. Juniper Street at Felicita-17th Avenue. - protected left-turns; part of Active Transportation Fund project; consultant design at 90%.
 - iii. Hale Avenue at Tulip Street (in design)
 - b. Design approved:
 - i. El Norte Parkway at Nordahl/Nutmeg Street (The Villages).
 - c. Under Construction
 - i. El Norte Parkway at Country Club Lane (The Villages)
- f) Roundabouts
 - a. Country Club Lane at Golden Circle (The Villages) (construction nearing completion).
 - b. Country Club Lane at La Brea (The Villages) (design approved /construction starting soon).
 - c. Felicita Rd at Park Drive (design approved/construction starting soon).

SCHOOL AREA SAFETY:

- 1) Del Dios Academy – School Bond Improvements. Signing/Striping design and crosswalk improvements including Rectangular Rapid Flashing Beacon for 9th Avenue reviewed.
- 2) Juniper Elementary. School Bond Improvements for parking lot and drop off/pick up areas. City Active Transportation Grant project to improve sidewalk, relocate student crosswalk and install RRFB. Two (2) signal modifications for protected left-turns in design.
- 3) ATP Grant Submittal for Citrus Avenue sidewalk (not approved)

COUNCIL ACTION:

None

ORAL COMMUNICATIONS:

None

TRANSPORTATION COMMISSIONERS:

Commissioner Thornburgh advised staff to be ready for possible additional funding from COVID relief funds. He also reiterated his earlier concerns about the intersection of Escondido Blvd and Centre City Parkway, as well as the Brotherton intersection, and if we had an update on possible funding requests for those locations.

Mr. Tunnell stated we applied for funding to make improvements to those intersections, but that funding was not approved from this latest round of Caltrans approvals. We would keep looking for opportunities to make improvements.

ADJOURNMENT:

Motion by Commissioner Thornburg, Seconded by Commissioner Kassebaum to adjourn the meeting, which was carried unanimously.

Owen Tunnell, Asst. City Engineer

Kimberlianne Miller, Minutes Clerk



CITY OF ESCONDIDO
TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: July 8th, 2021

Item No.: F1

Location: Citywide

Initiated By: Staff

Request: Final Review and Approval of City of Escondido 2021/22 Traffic Management Project List

Background:

At its January 9, 2014 meeting, the Transportation and Community Safety Commission (TCSC) adopted a policy to evaluate and prioritize traffic safety improvement projects using a Traffic Management Project List (TMPL). A scoring criteria for prioritization of the projects was presented to and approved by TCSC on April 9, 2014. High priority projects are selected by TCSC each year.

The City of Escondido 2021/22 Traffic Management Project List (TMPL) and preliminary prioritization based on approved scoring criteria were presented to TCSC at the April 8th, 2021 meeting. Five (5) projects were selected for detailed design and possible funding in the 2021/22 funding cycle.

Discussion & Purpose:

The following five projects were selected by TCSC at the April 2021 meeting for final design and approval.

1. Mission Middle School Mid-Block Crosswalk Improvements

On April 12, 2018, crosswalk improvements at Mission Middle School were recommended to be included on the 2018 TMPL due to the high volume of students utilizing this crosswalk and the amount of traffic on Mission Avenue. Further analysis showed that a traffic signal would be warranted for the crossing as CA MUTCD signal warrant #5, School Crossing criterion was met based on the number of students and the available gaps in traffic. In July 12, 2018 TCSC determined that since the cost of these improvements exceeded the annual TMPL budget of \$50,000, City would coordinate with EUSD on the then current campus modernization project and also determine potential funding sources, including EUSD funding that might be available as a part of the bond improvements. In addition, \$20,000 of 2018 TMPL funding was set aside towards future crosswalk improvements. The campus modernization project is complete and crosswalk conditions can be re-evaluated.

Mission Middle School, with a student population of approximately 970, is located at 939 E Mission Avenue, see Figure 1. According to the school district, a large number of students walk to school and utilize the existing crosswalk. Based on the estimate provided by COMPACT, 150 to 200 students utilize the crosswalk during the school peak hour (under normal school conditions).

Under existing conditions, Mission Avenue is a two-lane Local Collector roadway with a center two-way-left-turn lane. On-street parking is prohibited. The average daily traffic on this segment of Mission Avenue is 8,830 and the speed limit is 35 MPH per speed survey updated in 2020.

Currently the crosswalk is equipped with signage and high visibility markings as shown in Figure 2.

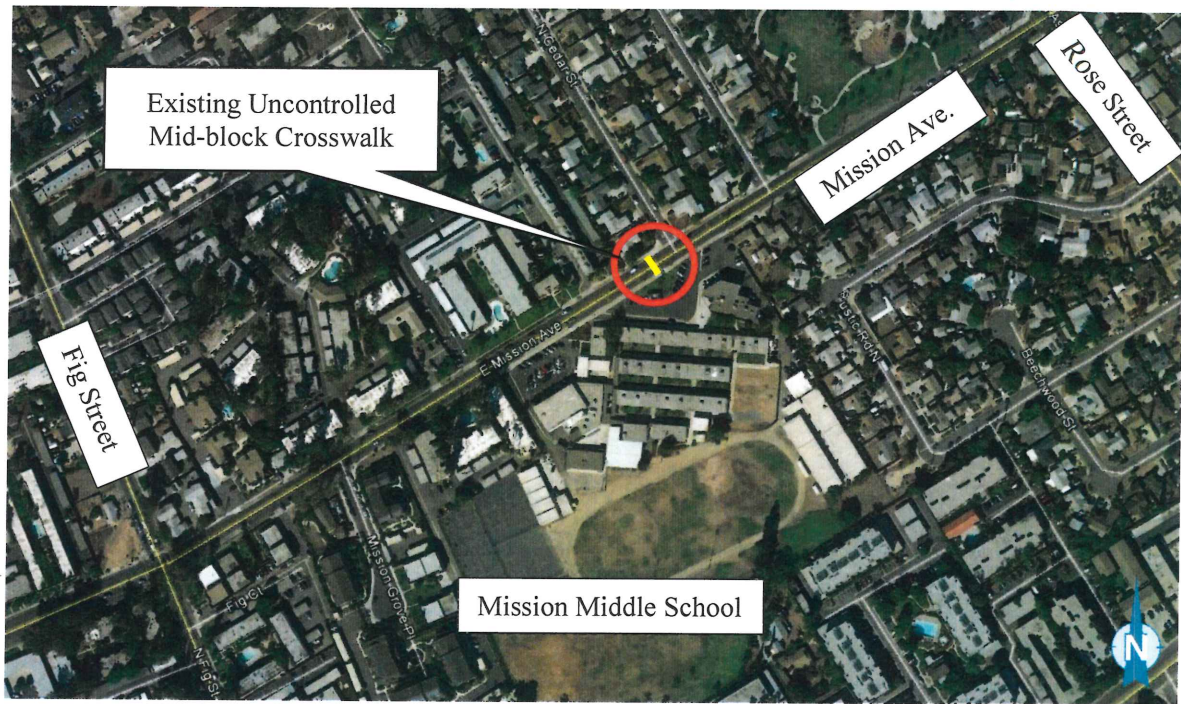


Figure 1: Mission Middle School is located on East Mission Avenue.



Figure 2: Current conditions at Mission Middle School's Mid-Block Crosswalk.

Proposed Improvements

Improvements were designed based on the current roadway configuration. Per City's Crosswalk Policy, based on the existing traffic data and roadway conditions, the crosswalk treatments are Std + RRFB and 1 measure from "B".

As a measure from Group "B", pedestrian refuge islands were considered as a potential treatment. A pedestrian refuge island is a raised median placed on a street at intersections or mid-block locations. They promote safer crossing by separating and protecting pedestrians from motor vehicles as they make a two-stage crossing. While refuge islands are particularly helpful as resting areas for seniors and persons with disabilities, the crosswalk at Mission Middle School frontage measures 40 feet in length and most pedestrians would be able to cross the street in one stage. In addition, the crosswalk is in close proximity to the school's driveways and it was determined that adding refuge islands would restrict vehicle movements to and from the school site. Therefore refuge islands are not recommended for this location.

For this location radar speed feedback signs (RSFS) are proposed. Per the City's Crosswalk Policy, they should be installed for both directions of travel. RSFS provide a real-time dynamic display of a driver's vehicular speed. When used in conjunction with a regulatory speed limit sign, drivers receive immediate confirmation of their actual speed in comparison to the legal speed. RSFS are typically used at locations where a speed limit transition occurs or in an area where driving the appropriate speed is particularly critical, such as around school speed zones.

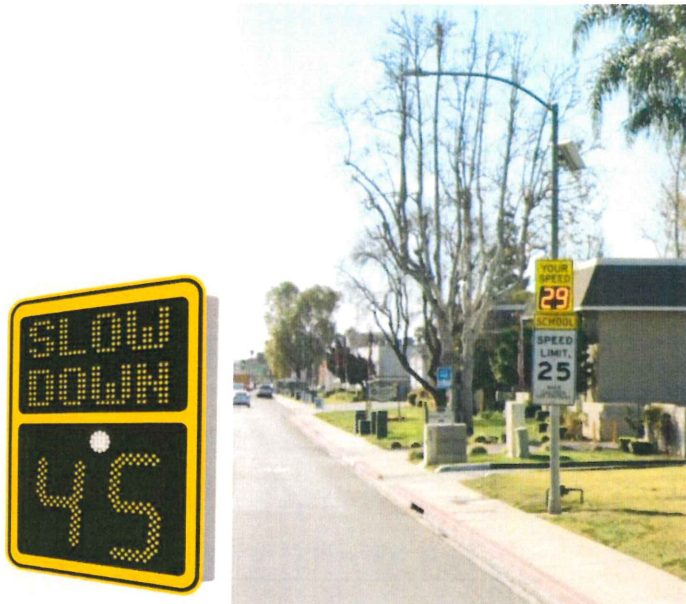


Figure 3: Radar Speed Feedback Signs, comparable to those on North Broadway could be installed for both approaches.

Improvements also include the installation of RRFBs for the crosswalk. The project includes refreshing existing crosswalk markings, implementing the high visibility continental crosswalk, installing Yield pavement markings for both approaches, and installing yellow, continental crosswalk markings on North Cedar Street. School signage is also proposed to be refreshed at several locations on Mission Avenue, North Cedar Street and North Beech Street. Signage improvements include adding "25 mph school speed limit zone ahead" signage for both approaches.

The cost for this project is \$40,000 including the RRFBs and Radar speed feedback signs.



Figure 4-5: Continental crosswalk markings could be added on North Cedar Street.



Figure 6: Radar Speed Feedback Signs and approach warning signage could be added.

2. Crosswalk Improvements at Oak Hill Elementary School Frontage

Oak Hill Elementary School, with a student population of approximately 690, is located at 1820 Oak Hill Drive. The crosswalk at the intersection of Oak Hill Drive and Nancy Street at the frontage of Oak Hill Elementary School has been recommended to be included on this year's TMPL by the School District.

Oak Hill Drive between South Rose Street and Midway Drive is classified as a Local Collector Road per the City's Circulation Element. Under existing conditions, Oak Hill Drive is a two-lane roadway without a center two-way-left-turn lane. On-street parking is allowed. The roadway segment is 80% fully improved with concrete sidewalk. Existing flashing beacons on mast arms for both approaches are currently set to operate during school's arrival and dismissal times. The average daily traffic on this segment of Oak Hill Drive is 3,250 (2020) vehicles per day and the speed limit is set at 35 (25WCAP) MPH. The 85th percentile speed on Oak Hill Drive was measured to be 41 MPH (39 MPH under normal traffic conditions, Pre-Covid). Figure 7 depicts the location of the existing mid-block crosswalk on Oak Hill Drive at Nancy Street.

The intersection of Rose Street and Oak Hill Drive was nominated and selected for 2020 TMPL funding for the addition of crosswalk striping and improved signage. This 2020 TMPL project has been completed.



Figure 7: Oak Hill Elementary School's Crosswalk at Oak Hill Drive and Nancy Street.



Figure 8: Existing crosswalk conditions in March 2021.



Figure 9: Flashing beacons are installed for both approaches to inform drivers of school speed limit during arrival and dismissal times. Additional beacons are not proposed.

Proposed Improvements

Based on the existing traffic data and roadway classification, and per the City's Crosswalk Policy, the recommended crosswalk treatments are standard signage and striping treatments and the installation of RRFB or other approved flashing beacon. The school speed limit assembly is already equipped with a flashing beacon and additional beacons are not recommended.

Recommended improvements for this Oak Hill Drive location include relocating the existing crosswalk to allow construction of a new pedestrian ramp, constructing the new ramp on the north-side of the crosswalk, adding two yellow, continental style high visibility crosswalks, adding new yield pavement markings for Oak Hill Drive and a Stop limit line for Nancy Street. Recommended signage improvements include adding double-sided crosswalk warning signage and "Yield here to pedestrians" signage. The proposed project includes refreshing advance school warning signage and installing red-curbing to keep the curb between yield markings and crosswalk clear from parked cars.

The cost for this project is \$16,000 including the proposed ramp improvements.

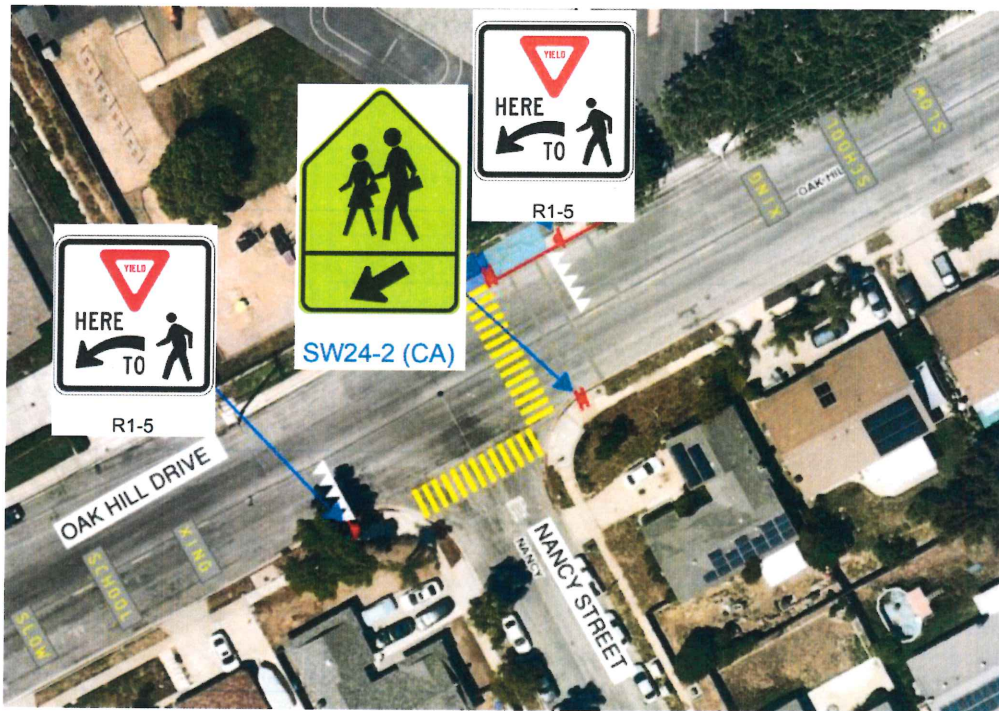


Figure 10: Improvements could include ramp upgrades, crosswalk markings and signage.



Figure 11: Approach signage could be refreshed.

North Broadway Elementary School, with a student population of approximately 570 students, is located at 2301 N. Broadway Avenue. North Broadway between Country Club Lane and Jesmond Dene Road is classified as a Collector Road per the City's Circulation Element. Under existing conditions, North Broadway is a four-lane roadway with a center two-way-left-turn lane. On-street parking is prohibited. The average daily traffic on this segment of N Broadway is 8,500 and the speed limit is 45 (25 WCAP) MPH. The 85th percentile speed on this segment is 48 MPH. This segment is fully improved with sidewalk and street lighting. Traffic signal controls the intersection of North Broadway at Country Club Lane and student drop-off zones are located on Country Club Lane just to the west of North Broadway.

Further EUSD school staff have expressed concern with perceived speeding and vehicles failing to yield or stop for crossing pedestrians at the intersection of N Broadway at Country Club Lane and have requested that accident data for this intersection be evaluated.

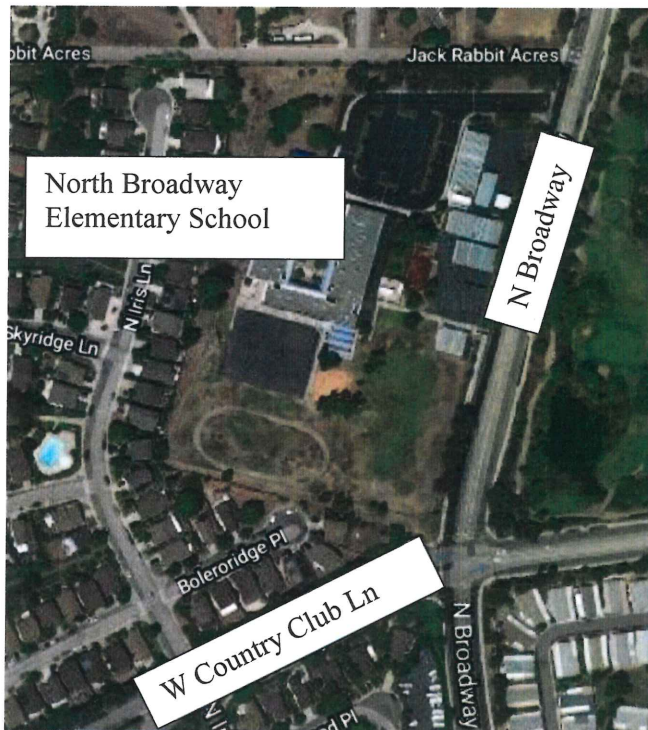


Figure 12: North Broadway Elementary School entrance is located North of West Country Club Lane.



Figure 13: North Broadway corridor has several school zones.

Improvements currently in design

New striping and signage is in design to be constructed by City's Pavement Rehabilitation project 2021-22. Per the City's Bicycle Master Plan, buffered Class 2 Bike Lanes are designed for Country Club Lane between North Broadway and Centre City Parkway. This new design will improve bicyclist's safety and provide traffic calming by narrowing the width of the vehicle travel lanes. Also a contractor has been selected to install pedestrian countdown indications for all legs of the signalized intersection of North Broadway at Country Club Lane and the traffic signal on North Broadway at Reidy Creek School using 2020/21 TMPL funding.

Proposed Improvements:

As this is not a pedestrian crosswalk location, proposed improvements are not based on the City's Crosswalk Policy. Proposed improvements focus on signage and striping. Existing signage meets the CAMUTCD requirements but could be refreshed with yellow-green colored school signage. The City's Street Maintenance Program will install yellow continental crosswalk markings at these signalized intersections and will also install Class #3 Bike Route signage on North Broadway. Keep Clear pavement markings will be added for the school entrance.

The cost of the improvements is \$8,000.



Figure 14: Northbound signage could be refreshed. End School Zone sign could be added end of segment.



Figure 15: Southbound signage could be refreshed.



Figure 16: School signage on Country Club Lane and Rincon Avenue will be refreshed. Existing Radar Speed Feedback Sign will remain in place on Country Club Lane.





Figure 17 and 18: Existing Keep Clear markings for Jack Rabbit Acres can be paired with new Keep Clear markings at school driveway. Pavement arrows and turn arrows added for the TWLTL.

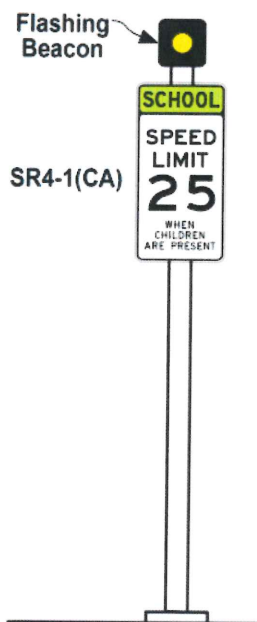


Figure 19: In the future when funding becomes available, solar powered flashing beacon or radar speed feedback signs can be considered.

4. Crosswalk Improvements at Hidden Valley Middle School Frontage

Reed Rd between Citrus Avenue and Falconer Road is classified as a Local Collector Road per the City's Circulation Element. Under existing conditions, Reed Road is a two-lane roadway without a center two-way-left-turn lane. On-street parking is allowed with some exceptions. The roadway is partially improved with concrete sidewalk. The average daily traffic on this segment of Reed Road is 1,453 (2020 Pre Covid) and the speed limit is 40 (25WCAP) MPH. The 85th percentile speed on Reed Rd was measured to be 42 MPH (under normal traffic conditions, Pre-Covid).

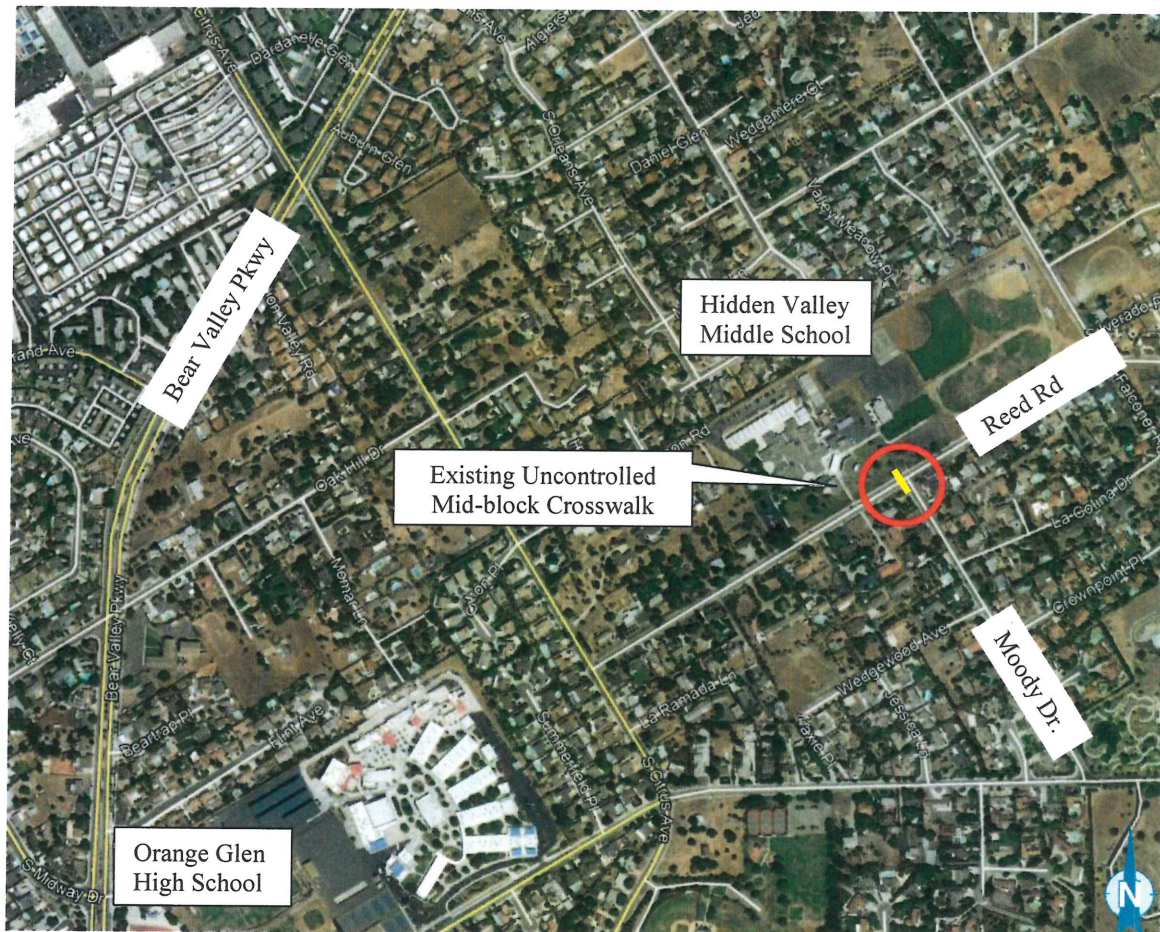


Figure 20: Mid-block Crosswalk at Reed Road located at Hidden Valley Middle School's frontage.



Figure 21: Current conditions on Reed Rd.

Proposed Improvements

Based on existing traffic data and roadway classification, and per the City's Crosswalk Policy, the proposed treatments include adding a yellow Continental, High visibility Crosswalk markings with new yield markings and refreshed "slow school crossing" markings on Reed Road. Signage improvements include adding double-sided crosswalk warning signage and "Yield here to pedestrians" signage for Reed Rd. The project also includes refreshing advance school warning signage. Red-curbing will be installed to keep the curb between yield markings and crosswalk clear from parked cars, and constructing two new ramps.

The cost of this project is \$24,000 which includes \$18,000 in ramp and sidewalk improvements. This cost estimate is based on the latest bids for similar projects and is significantly higher than the preliminary cost estimate of \$15,000 reported in April, 2021 TCSC Staff Report due to recent cost escalations and requirement to construct two ramps.

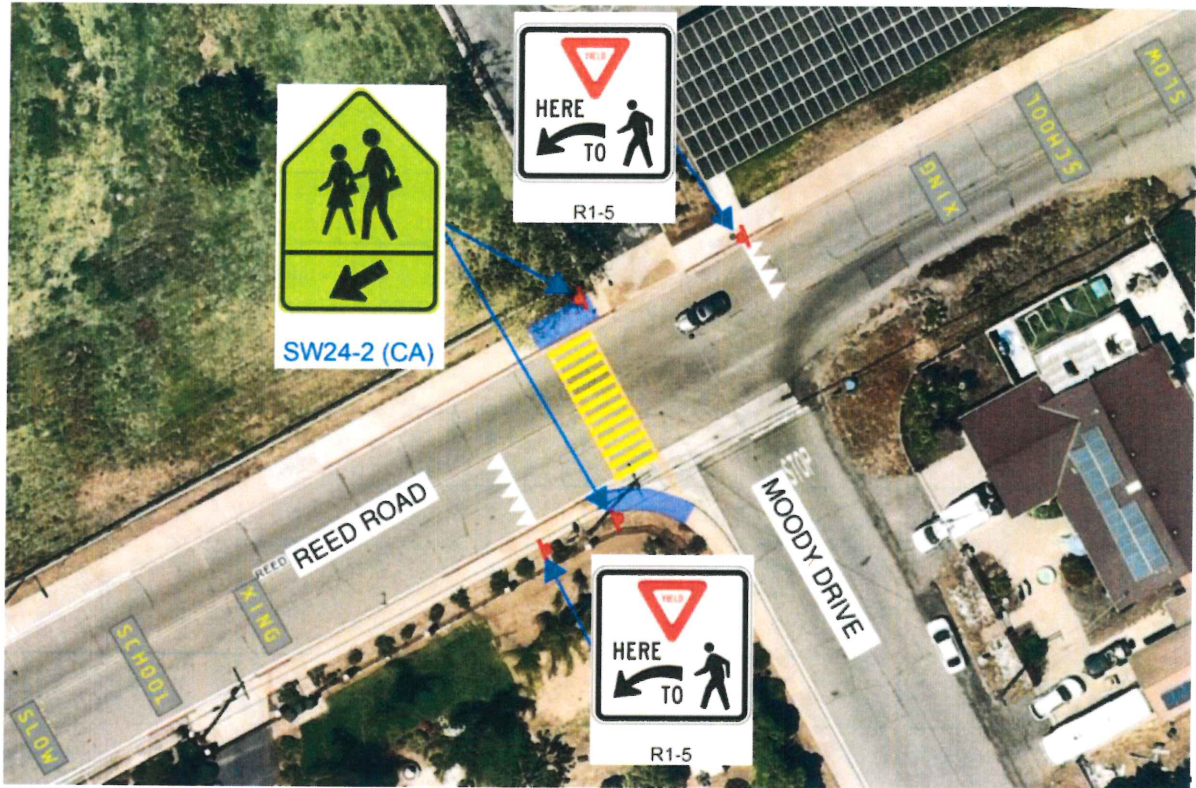


Figure 22: Proposed improvements at crosswalk include signage and ADA compliant ramps.



Figure 23: Project updates signage at several locations on Reed Rd.

5. Crosswalk Improvements at Tulip St and 15th Ave (Felicita Elementary School)

The intersection of Tulip Street and 15th Avenue is located at the southwest corner of the Felicita Elementary School campus. This uncontrolled crosswalk on 15th Avenue at Tulip Street was first recommended by EUSD and COMPACT to be included on the 2020/21 TMPL evaluations. At that time, the project scored 14 points which placed these improvements 4th on the 2020/21 TMPL priority list. The annual budget of \$50,000 allowed the implementation of the top three (3) projects (Report of TCSC 07/09/2020). For these reasons, project is included in 2021/22 TMPL.

Felicita Elementary School, located at 737 W. 13th Avenue, has a student population of approximately 550. Crosswalks are provided at the intersections of Tulip Street/13th Avenue and Redwood Street/13th Avenue. These are all-way-stopped intersections and therefore the crosswalks are stop-controlled. The intersection of Tulip Street/15th Avenue is a side-street-stop-controlled location with stop control on Tulip Street. The school Principal, parents, EUSD, and COMPACT requested improvements at this intersection.

In January 2020, City staff attended a meeting with the school Principal, COMPACT staff, and parents to discuss the traffic safety concerns at crosswalks and around the school. Students heading to Boys and Girls Club for afterschool programs are required to cross at the uncontrolled crosswalk on 15th Avenue. The concerns brought to City staff related to this crosswalk location included cars not yielding to pedestrians and speeding on 15th Avenue. Figure 24 depicts the crosswalks adjacent to the school campus and Figure 25 shows the existing crosswalk on 15th Avenue.

Pedestrian counts provided by COMPACT and collected during normal school conditions Pre-Covid reflect that 15 and 20 students cross the uncontrolled crosswalk on 15th Avenue at Tulip Street during the AM drop-off and that 20 and 30 students cross the uncontrolled crosswalk on 15th Avenue at Tulip Street during the PM pick-up time.

15th Avenue is a two-lane Residential street without a two-way-left-turn lane. On-street parking is allowed. There is a concrete sidewalk along the south side of the roadway but only a portion of the north side has sidewalk. The average daily traffic on 15th Avenue between S Tulip St and S Redwood St is 400 vehicles per day and the speed limit is 25 MPH.

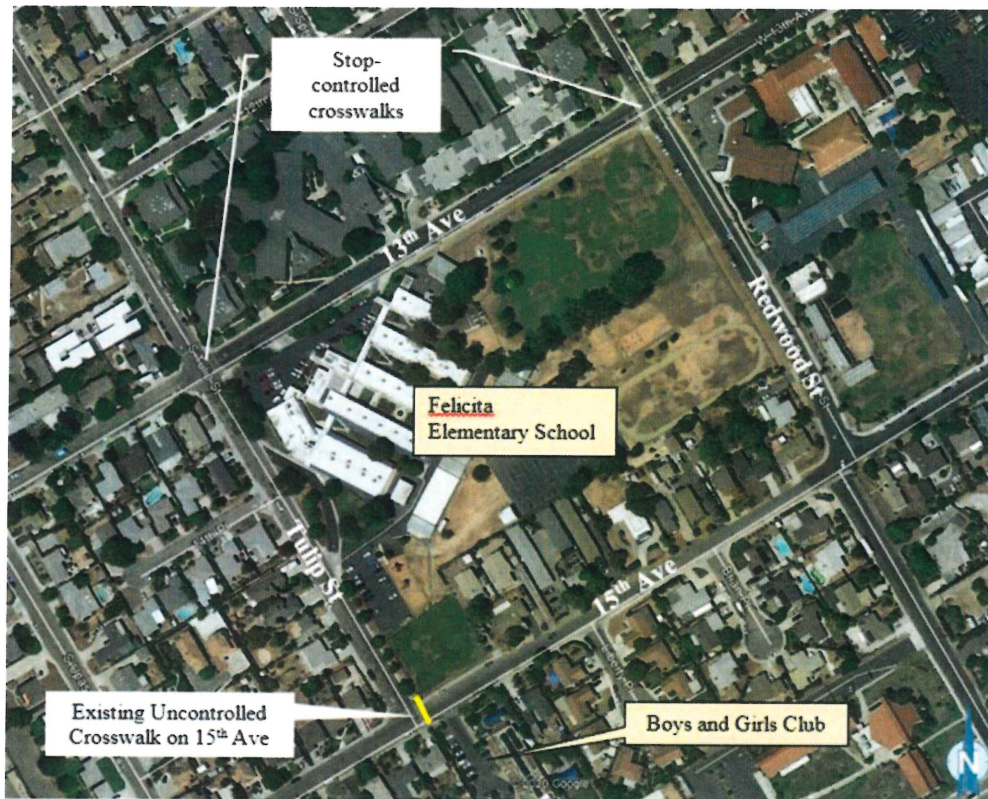


Figure 24: Crosswalks around Felicita Elementary School.



Figure 25: Current conditions at the uncontrolled crosswalk at 15th Avenue, Westbound view.

Proposed Improvements:

The proposed improvements for this 15th Avenue location include adding two yellow, continental style high visibility crosswalks, new yield pavement markings at 15th Avenue and a refreshed Stop limit line and Stop pavement markings at the Stop-controlled Tulip Street approach. Proposed signage improvements include adding double-sided crosswalk warning signage, adding “Yield here to pedestrians” signage for the 15th Avenue crosswalk and refreshing advance school warning signage. Red-curbings could be installed to keep the curb between yield markings and crosswalk clear from parked cars and pedestrian ramps could be replaced to meet the current ADA requirements.

The estimated cost estimate for this project is \$24,000 which includes \$17,000 for the ramp improvements.



Figure 26: Proposed improvements include a new ramp, signage and markings.



Figure 27: Approach signage could be improved at several locations.

TMPL Prioritization:

At April 8th, 2021 TCSC meeting six projects were evaluated and scored using the point-based scoring criteria. The TCSC selected the five top ranked projects for implementation considering an estimated \$50,000 budget. Additional \$20,000 from TMPL 2018-19 budget has been assigned for Mission Middle School Improvements.

Project Name	Measures of Prioritization								Score (max. 30)	Estimated Cost
	Road Condition (max. 6)		Road Usage (max. 6)		Anticipated Effectiveness (max. 6)		Problem Severity x 2 (max. 12)			
	Geometric Design	Roadside Improvement	Bike and Pedestrian Volume	Average Daily Traffic (ADT)	Feasibility of the Solution	Effectiveness of the Solution	Frequency of Accidents	Speeding Problem		
1. Mission Middle School Mid-Block Crosswalk Improvements	2	1	3	3	1	3	2	4	19	\$40,000
2. Oak Hill Elementary School Crosswalk Improvements at Oak Hill Drive and Nancy Street	1	1	1	1	2	2	6	4	18	\$16,000
3. North Broadway Elementary School Improvements	0	0	1	3	2	2	4	6	18	\$8,000
4. Hidden Valley Middle School Crosswalk Improvements at Reed Rd and Moody Dr	1	1	2	1	3	3	2	4	17	\$24,000
5. Felicita Elementary School Crosswalk Improvements at Tulip St and 15th Ave	1	2	2	0	3	2	0	4	14	\$24,000

Points Details:

Road Condition:

Geometric Design of Road: Not Standard = 3, Substandard = 2, Partially Substandard = 1
 Roadside Improvement: Unimproved = 3, Partially Unimproved = 2, Mostly Improved with Gaps in Improvement = 1

Road Usage:

Bike and Pedestrian Volume: High = 3, Medium = 2, Low = 1
 ADT: >7400veh/day = 3, >5400veh/day and <=7400 veh/day = 2, >3400veh/day and <=5400veh/day = 1

Anticipated Effectiveness:

Feasibility of the Solution: High=3, Medium=2, Low=1
 Effectiveness of the Solution: High=3, Medium=2, Low=1

Problem Severity:

Frequency of Accidents: Accident Rate >= 1.5 = 6, 1.5 > Accident Rate >= 0.5 = 4, 0.5 > Accident Rate = 2
 Speeding Problem: (85% - Design Speed) >= 10mph = 6, 5mph <= (85% - Design Speed) < 10mph=4, (85% - Design Speed) < 5mph=2

Recommendation: Staff recommends Projects #1, #2 and #3 for implementation.

Necessary Council Action: None.

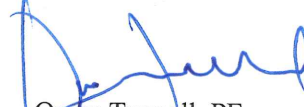
Respectfully submitted,

Prepared by:



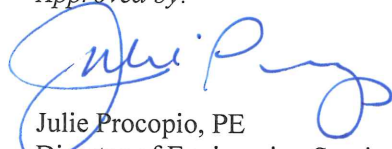
Virpi Kuukka-Ruotsalainen
 Associate Engineer

Reviewed by:



Owen Tunnell, PE
 Assistant City Engineer

Approved by:



Julie Procopio, PE
 Director of Engineering Services/City Engineer

Attachment 1: City's Crosswalk Policy – Treatments (1 of 2)

3. Treatments

If a proposed crossing location meets the criteria set by both the Basic and Point warrants, the next step is to evaluate the most appropriate crossing treatment(s) to be installed with the marked crosswalk.

Using paragraphs 09 and 09a of section 3B.18 of the new 2014 CA-MUTCD as a guideline, and also considering City of San Diego proposed treatments for different cross sections, ADTs and speed limits, the following treatment thresholds are proposed to be added to the new City of Escondido Crosswalk Policy.

ADT Cross Section	<1500	1500 - 5000	5000-12000	> 12000
Two-lane roads (without TWLTL)	Std.	Std. + RRFB**	Std. + RRFB** + one from (A)	D
Two-lane roads (with TWLTL)	Std. one measure from (B)	For SL < 35 Std. + RRFB** For SL ≥ 35 Std. + RRFB** + one measure from (B)	Std. + RRFB** + one measure from (B)	D
Four Lanes or more	N/A	Std. + RRFB** + one measure from (C)	For SL < 35 Std. + RRFB** + one measure from (C) For SL ≥ 35 Measure D	Signal or HAWK

* SL: Speed Limit of the roadway

** RRFB (Rectangular Rapid Flashing Beacons), or other approved flashing beacon.

Std.: Advanced yield lines with associated Yield Here to Pedestrians (R1-5, R1-5a) signs should be placed 20 to 50 feet in advance of the crosswalk, adequate visibility should be provided by parking prohibitions, pedestrian crossing (W11-2) warning signs with diagonal downward pointing arrow (W16-7p) plaques should be installed at the crosswalk, and a high-visibility crosswalk marking pattern should be used. All Signing and Striping shall comply with CA-MUTCD standards.

MEASURES:

(A)

1. Raised Crosswalk or other traffic calming treatment in accordance with C.O.E. TMPL Guidelines
2. Speed Radar Feedback Signs for both approaches

(B)

1. Raised Crosswalk
2. Speed Radar Feedback Signs for both approaches
3. Pedestrian refuge islands

(C)

1. Road Diet
2. Raised Crosswalk
3. Speed Radar Feedback Signs for both approaches
4. Pedestrian refuge islands
5. Road Diet

Attachment 1: City's Crosswalk Policy – Treatments (2 of 2)

- (D)**
1. A Traffic Signal is required if the CA MUTCD warrants are met and it is recommended by a traffic engineering study. Otherwise at least one of the following is required.
 2. HAWK Hybrid Beacon if the CA MUTCD warrants are met.
 3. Horizontal deflection traffic Calming treatment (**) with RRFBs if the City of Escondido's Traffic Calming Guidelines are met to include:

- a. Pedestrian refuge islands & Bulbouts
- b. Road Diet
- c. Roundabouts

(**) Horizontal deflection treatments include, but are not limited to: roundabouts, pedestrian refuge islands, and pedestrian bulb-outs.



CITY OF ESCONDIDO
TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: July 8, 2021

Item No.: F2

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 2021 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 2014 California Manual on Uniform Traffic Control Devices (CA-MUTCD) Revision 6 dated March 30, 2021,

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 Engineering and Traffic Survey (E&TS) for each segment.

4. Residential Density

Information regarding the adjacent land use was noted and included in the Engineering and Traffic Survey.

5. Pedestrian and Bicyclist Safety

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

6. School Zones

Proximity to schools and school speed limit zones were noted and included in the Engineering and Traffic Survey.

The standard used followed procedures outlined in the California Manual on Uniform Traffic Control Devices (CA-MUTCD) Section 2B.13, Revision 6 dated March 30, 2021,

“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 and Traffic 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 Revision 6 dated March 30, 2021, 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 roadway conditions 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. Staff recommends approval of the speed limit per Table 1 below.

Based on the above guidelines, all of the surveyed segments were evaluated. 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 1,6, 8, 10-13, and 15 the recommended speed limit is set based on the 85th-percentile speed of the new speed survey. The posted speed limit will remain unchanged for survey 1, 6, 8, 10-13, and 15.
- For speed survey 2-5, 7, 9, and 14 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, the posted speed limit will remain unchanged for survey 2-5, 7, 9, and 14.

Table 1 - Overview of Speed Surveys

Segment No.	Street Name	Segment		Previous Speed Survey	Posted Speed Limit (MPH)	Classification	85 th Percentile (MPH)	Rounded speed Limit (MPH)	Speed Limit to be posted, per Traffic Engineer
1	Grand Ave 1	Centre City Pkwy	Valley Blvd	5/30/13	30	PA	32	30	30
2	Grand Ave 2	Valley Blvd	Fig Street	8/5/13	30	MA	37	35	30***
3	Grand Ave 3	Fig Street	Ash Street	8/5/13	35	MC	39	40	35***
4	Grand Ave 4	Ash Street	Rose Street	9/20/13	35	MC	38	40~	35
5	Grand Ave 5	Rose Street	Midway Drive	8/23/13	35	MC	42	40	35***
6	Grand Ave 6	Midway Drive	Bear Valley Pkwy	8/23/13	35	LC	37	35	35
7	Valley Pkwy E4	Rose Street	Harding Street	11/5/13	35	PA	38	40~	35
8	Valley Pkwy W1	N Broadway	Centre City Pkwy	11/5/13	35	PA	37	35	35
9	Valley Pkwy W2	Centre City Pkwy	Tulip Street	11/5/13	35	PA	40	40	35***
10	Valley Pkwy W3	Tulip Street	I-15 Ramps	11/5/13	35	PA	35	35	35
11	Valley Pkwy W4	I-15 Ramps	Ninth Avenue	11/6/13	45(25WC AP)	PA	44	45	45(25WCAP)
12	Valley Pkwy W5	Ninth Avenue	Avenida Del Diablo	11/6/13	45(25WC AP)	PA	46	45	45(25WCAP)
13	Oak Hill Dr 4	Bear Valley Pkwy	Citrus Avenue	8/30/13	35	LC	37	35	35
14	Lincoln Ave 4	Fig Street	Ash Street	11/6/14	40(25WC AP)	MA	43	45~	40(25WCAP)
15	Lincoln Ave 3	N Broadway	Fig Street	11/6/14	45(25WC AP)	MA	46	45	45(25WCAP)

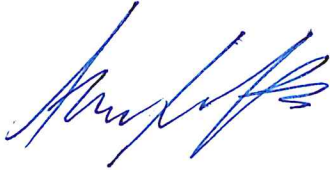
~ Indicates round down the speed limit to the lower five miles per hour increment, per CVC 21400 (b)

*** Indicates speed limit downgraded 5 mph due to conditions not readily apparent to the driver.

↓ Indicates speed going down.

Respectfully submitted,

Prepared by:



Amanda Bajhart, EIT
Engineer I/Traffic Division



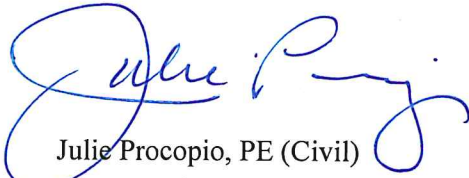
Virpi Kuukka-Ruotsalainen
Associate Engineer/Traffic Division

Reviewed by:



Owen Tunnell, 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: July 8, 2021

Item No.: F3

Location: Citywide

Initiated By: Staff

Request: Update on Local Roadway Safety Plan

Background and Chronology:

The City applied to Caltrans for Local Roadway Safety Program (LRSP) funding in 2019. Funding was awarded in December 2019. Council authorized the City to accept the LRSP grant on September 23, 2020.

The Request for Proposals for consultant services was issued November 30, 2020; 5 responses were received. Michael Baker International was ultimately selected, and their contract was approved May 19, 2021. The kick-off meeting between the City team and consultant took place on May 20, 2021. The work will continue through the end of the year.

Discussion & Purpose:

The Local Roadway Safety Program was set up by Caltrans in order to provide equal footing to all agencies to compete for Highway Safety Funds. Sufficient funding was provided so that all cities could complete their own plans. All agencies must have a completed LRSP in order to compete for funding starting in 2022.

According to Caltrans' website:

- A Local Road Safety Plan (LRSP) provides a framework for organizing stakeholders to identify, analyze, and prioritize roadway safety improvements on local and rural roads. The process of developing an LRSP can be tailored to local protocols, needs, and issues. However, safety projects stemming from the plan need to be consistent with Federal and State project funding requirements if those funds will be used for project implementation. Also, the plan should be viewed as a living document that can be continually reviewed and updated to reflect changing local needs and priorities.

The City was selected to receive grant funds from the Caltrans Highway Safety Improvement Program (HSIP) to prepare a Local Roadway Safety Plan (LRSP). The LRSP is an effort supported and funded by Caltrans, as part of the state-wide Strategic Highway Safety Plan. This program uses a consistent approach to examine accident history and apply known countermeasures to address identified deficiencies city-wide.

The process of preparing an LRSP creates a framework to systematically identify and analyze safety problems and recommend safety improvements. Collision data has been analyzed and priority locations are currently being identified within the City. Roadway safety-related improvements and countermeasures, including enforcement and education, will be developed for each priority location with the goal of improving roadway safety. The process results in a prioritized list of improvements and actions that can demonstrate a defined need and contribute to the statewide plan. Importantly, the effort

actions that can demonstrate a defined need and contribute to the statewide plan. Importantly, the effort provides a data-driven traffic safety plan that places a city in a better position to apply for and receive Highway Safety Improvement Program (HSIP) funds. Caltrans is requiring all agencies to have a Local Roadway Safety Plan in order to be eligible for Highway Safety Improvement Program funds during the next grant cycle, anticipated in 2022.

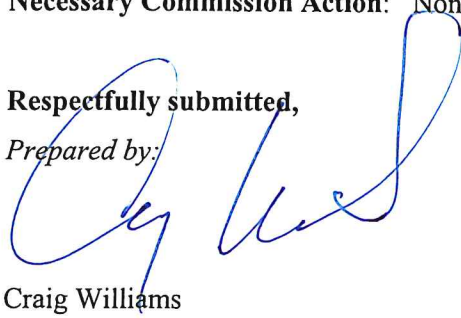
The plan's Scope of Work and Schedule are attached as information. Staff will report again to the Transportation and Community Safety Commission at the October 14 meeting.

Recommendation: Receive report and schedule for upcoming work

Necessary Commission Action: None

Respectfully submitted,

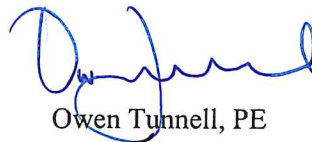
Prepared by:



Craig Williams

Associate Engineer/Traffic Division

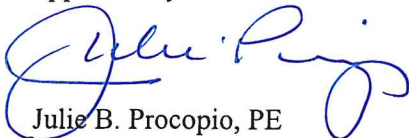
Reviewed by:



Owen Tunnell, PE

Assistant City Engineer

Approved by:



Julie B. Procopio, PE

Director of Engineering Services/City Engineer

Attachment: Local Roadway Safety Plan Scope of Work and Schedule

ATTACHMENT “A”

Scope of Work

A. General

Michael Baker International, a Pennsylvania corporation (“Consultant”) will provide the City of Escondido, a California municipal corporation (“City”) with consulting services to develop a Local Roadway Safety Plan in accordance with the guidelines and procedures established by the California Department of Transportation (“Caltrans”) and the City’s Request for Proposals issued on November 30, 2020 regarding the Local Roadway Safety Plan (the “Project”).

B. Location

Consultant to provide services in relation to the Project, including certain services located at Escondido City Hall, 201 N. Broadway, Escondido, CA 92025.

C. Services

TASK 1: PROJECT MANAGEMENT & VISIONING

TASK 1.1 Project Kick-off Meeting:

At Project initiation, Consultant will facilitate a Project kick-off meeting to discuss Project approach, key deliverables and Project schedule. In advance of the meeting, Consultant will request information needed from the City including available crash data, list of stakeholders, and any relevant reports related to this Project.

TASK 1.2 Team Meetings:

Consultant will schedule and facilitate three team meetings. Consultant will use these meetings to review the Project schedule and upcoming deliverables as well as to present materials and receive input from City staff. Consultant’s Project Manager and Task Managers will participate in the Team Meetings.

TASK 1.3 Materials and Management Tools:

Consultant will be responsible for preparing all agendas and meeting minutes. Consultant will establish a SharePoint site that will be used to share files and store information related to the Project. Quality Control (“QA/QC”) will be consistently and thoroughly applied throughout the Project development. This will be done by placing a priority on deliverables, which will be organized, thorough, and streamlined to maximize efficiency. The QA/QC manager will conduct the appropriate level of oversight and will demonstrate a concerted commitment to provide a high-quality product. This will also be applied to the invoice process and related Project documentation forms required by the City and Caltrans.

Deliverables:

- Up to four Team Meetings, including the Kick-off Meeting
- All meeting agendas and minutes stored on a SharePoint site developed specifically for this Project

TASK 2. STAKEHOLDER OUTREACH

TASK 2.1 Outreach Plan:

Consultant will conduct three stakeholder meetings in addition to presentations to Transportation and Community Safety Commission and City Council. The stakeholder meetings will be used to share information gathered and evaluated for the Project and to share recommendations and emphasis areas with key members of the community. Consultant, as part of the outreach plan,

ATTACHMENT “A”

Scope of Work

will recommend to the City key stakeholder groups that should be involved including law enforcement and first responders, ambulatory services, school districts, North County Transit District (“NCTD”), Caltrans, San Diego Association of Governments (“SANDAG”) and community-based organizations that represent the diverse culture and needs of members of the community.

TASK 2.2 Stakeholder Meetings:

Consultant will provide all meeting materials for the three stakeholders meetings, which will focus on goal setting and review of existing conditions, review of potential countermeasures and presentation of findings. Consultant will facilitate the meetings

TASK 2.3 Council and Commission Meetings:

In addition to working with the stakeholders, Consultant’s Project manager will work with the City to prepare materials for, present at, and attend both Transportation and Community Safety Commission and City Council meetings.

Deliverables:

- Three Stakeholders Meetings including preparation of meeting agendas, minutes and materials
- Materials for and presentation at Transportation and Community Safety Commission and City Council, including meeting preparation time.

TASK 3: CITYWIDE ROADWAY SAFETY ANALYSIS

TASK 3.1 Background Data Review:

The Consultant will review all pertinent City documents, existing policies and practices to summarize current City efforts in addressing transportation planning and safety. Consultant will establish an inventory of known safety concerns based on logged resident statements, previous safety assessments and input from City staff. Consultant will draw from the City’s General Plan, Bicycle Master Plan, available traffic count and collision data and Capital Improvement Project list to establish both the existing status of safety concerns and improvement Projects. Consultant will also include a review of planned Projects that may inform solutions to key areas of concern. Consultant also recognize several Projects to address safety and connectivity for pedestrians and bicyclists have recently been completed. Consultant will clearly document recently completed and planned Projects on a map that will be included in the data collection/existing conditions analysis and in the Local Road Safety Plan/final report.

TASK 3.2 State and Federal Review:

Conformance to the Local Road Safety Manual will be priority and consideration of Project implementation will be included in the document review. Consultant will use an established report and analysis template, consistent with Caltrans guidance, for the City’s Local Road Safety Plan (“LRSP”). The template will guide the analysis and the reporting to ensure Caltrans requirements are met in all aspects of the report.

The Consultant will utilize the Manual of Uniform Traffic Control Devices (“MUTCD”), Caltrans Highway Design Manual and the American Association of State Highway and Transportation Officials (“AASHTO”) policy on geometric design, as well as other recognized guides, in their design of roadway and traffic improvements. Consultant will apply their understanding of local,

ATTACHMENT “A”

Scope of Work

state and federal guidelines in safety, traffic and roadway design when identifying issues and potential solutions for the City.

TASK 3.3 Crash Data Research, Database Development, and Mapping:

Consultant will coordinate directly with City staff to collect and review traffic collision data, traffic count data and planned improvements. Consultant will develop a map that illustrates both the planned, and recently completed Projects within the City. In addition, Consultant will develop a citywide map of daily traffic volumes and speeds (as available) for all locations where data is provided by the City.

Potential data sources will be mined and coordinated with the City to develop a comprehensive database of available crash data. Consultant will build a crash database from the Statewide Integrated Traffic Records System (“SWITRS”), Transportation Injury Mapping System (“TIMS”) and the City’s Crossroads database as appropriate, to ensure all crashes are recorded. Consultant will also review specific crash reports should questions arise about the data included in the database to confirm the validity and correctness of the coding of data in SWITRS. Because the most recent SWITRS and TIMS data available dates up to 2018, Consultant will receive Crossroads crash data for 2019 and 2020 from the police department. Consultant will cross-reference the Crossroads crash data with the SWITRS/TIMS database. Five years of data will be compiled for the local roadway system.

Once the database is compiled, Consultant’s Geographical Information System (“GIS”) team will review the database to scrub out crash records that are either duplicative or incorrectly mapped. Traffic engineers will review the data refinements and confirm that the modifications adequately reflect the information reported on the collision reports. The refined database will be provided to the City in both GIS packages as well as PDF’s of maps illustrating the crash locations. Following the City’s review, Consultant will make refinements and finalize the database.

TASK 3.4 Development of Goals and Analysis Criteria:

One scheduled Project meetings will be dedicated to developing the goals and objectives for the Project. The Consultant team will facilitate a discussion focusing on the desired outcomes of the process as well as the desired outcomes of the plan. The goal of a LRSP is to identify, analyze and prioritize improvements on roadways that are customized for the City of Escondido.

Once established, the goals will transition to specific analysis criteria and metrics that will be used to identify emphasis areas. Analysis criteria and metrics will reflect the goals and strategies of the LRSP as well as align with the key issues identified as part of the crash data analysis. Since the LRSP is a requirement for the Highway Safety Improvement Program (“HSIP”) funding, analysis criteria will focus on frequency/severity of crashes and pedestrian/bicycle involved crashes as well as crashes correctable by Caltrans identified countermeasures.

To ensure a fair and unbiased approach to prioritizing Projects and identifying emphasis areas, a point system will be developed that aligns with the analysis criteria. Points will be assigned to crash locations based on factors such as volume on the roadway, severity of the crash, number of crashes, pedestrian or bicycle involved and other factors. The purpose of the goal setting, analysis criteria and point system is to identify emphasis areas and high priority areas or hot spots in the City.

The final goals, analysis criteria and point system will be presented to City staff and stakeholders including the analysis criteria and point system to identify high priority areas. The City and

ATTACHMENT “A”

Scope of Work

stakeholders will have an opportunity to provide input on the criteria, points and mapping, which will be incorporated into the final documents to the stakeholders and City.

TASK 3.5 Crash Analysis:

With the crash data compiled and refined, the Consultant team will conduct a detail analysis of crash data, trend analysis and identify emphasis areas, which will identify localized and systemic issues. Crash rates and trends will be compared to adjacent cities, the County and the statewide averages to provide a perspective on safety related issues compared to other local and regional jurisdictions.

To understand the types of crashes that occur within the City, Consultant will prepare a series of maps and graphics that summarize the crash data at a citywide level. Potential maps and data trends that will be included are listed below. Consultant will work with the City to refine this list.

TASK 3.6 Emphasis Areas

Using the analysis criteria and point system established specifically for the City of Escondido and an understanding of crash trends, Consultant will use GIS to prepare maps illustrating the emphasis areas. Emphasis areas may include, but not be limited to:

- Locations with sustained high crash severity and frequency
- Crashes near or involving vulnerable users
- Crashes near schools or senior communities
- Crashes involving pedestrian, bicycles, motorcycles or shared mobility scooters/e-bikes

Using this data, Consultant will prioritize and rank the top 30 locations in the City and identify additional Projects within Caltrans right of way. These prioritized or emphasis areas will be presented to the City for review and concurrence. With this information, the Consultant team will initiate the process of evaluating trends and developing solutions that address localized and systemic issues.

TASK 3.7 Crash History

Consultant will include a summary of the City's crash history over the past five years, prior to conducting field work.

TASK 3.8 Field Work

For each of the emphasis areas identified, the Consultant team will perform a Roadway Safety Audit (“RSA”) evaluating the existing critical roadway network locations and elements that may present a safety concern to 1) identify to what extent, to which road users, and under what circumstances these are attributed with, and 2) Identify opportunities to eliminate and mitigate safety issues.

Through the field assessment, Consultant will gain an understanding of possible deficiencies and potential for improvements, utilizing an understanding of risk factors commonly associated with certain crash types. As examples, risk factors can be any number of roadway and intersection features, ranging from existing vertical or horizontal curvature, sight distance, on-street parking, traffic volumes, speed, or signal phasing, operation, or deficient traffic control devices. For critical locations, Consultant will provide detailed diagrams and charts utilizing the field review and crash data for a roadway design review of risk factors. The field review team will utilize previously collected crash reports into the field and review the report at spot locations

ATTACHMENT “A”

Scope of Work

gain a more detailed understanding of the circumstances surrounding severe and fatal crashes in an effort to identify appropriate countermeasures.

The City will participate in the RSA both to gather information regarding safety concerns, but also to provide input and insight into recent crashes or safety concerns as well as any history with improvements or modifications within the emphasis area that may or may not be effectively addressing historic or systemic safety issues within the emphasis area.

Findings of the RSA will be summarized in a technical memorandum for the City to review. Following receipt of City comments on the memorandum, Consultant will finalize the document for future use in the LRSP.

Deliverables:

- Review City documents and map planned, recently completed Projects
- Technical memorandum summarizing relevant policies & programs
- GIS database of crash data
- Refine database
- Present data in map and GIS database to City
- Technical memorandum summarizing the systemic crash trends and hot spot locations citywide
- Tables, charts and maps summarizing five years of crash data
- Development of emphasis areas and field visit to validate conditions

TASK 4: SAFETY MEASURE DEVELOPMENT & IMPLEMENTATION PLAN

Consultant will identify systemic trends based on the types of collisions that occur and the frequency of those collisions, which the goal of LRSP is to apply available, applicable, and quality countermeasure solutions as outlined by the latest Caltrans Local Roadway Safety Manual (“CLRSM”). Countermeasures will be identified at intersections or along roadways to address system-wide trends. The CLRSM provides for over 21 signalized intersection, 23 non-signalized intersection, and 38 roadway countermeasures used for addressing varying crash types. These programmatic improvements will be identified in the HSIP as a system of improvements as opposed to an isolated intersection or a specific section of corridor, but notably the determination of availability, applicability, and quality will determine the most appropriate solutions.

TASK 4.1 Countermeasure Toolbox and Application:

Proposed countermeasures will include the traditional four Es of highway safety – Engineering, Enforcement, Education and Emergency response, but also Emerging technologies and Evaluation. In addition to the Caltrans Local Roadway Safety Manual, whose focus is primarily engineering countermeasures, several resources will guide the development of proven safety countermeasures as needed to address the remaining Es of highway safety. Countermeasures will specifically be targeted to address emphasis areas. Consultant will identify solutions for the high priority locations within the emphasis areas. Consultant will develop concept level countermeasure figure along with estimated costs for up to 10 locations within the top 30 highest priority locations or emphasis areas identified within the City. This will help garner community and decision maker support for Projects in the plan and increase the efficiency and competitiveness of future grant applications.

ATTACHMENT “A”

Scope of Work

In addition to developing specific recommendations for the highest priority locations within the emphasis areas, Consultant will also present a city-refined toolbox of solutions that address the safety issues specific to the City. The toolbox will include physical improvements, technology improvement such as signal timing and CCTV camera equipment, and programmatic recommendations. The draft toolbox will be submitted to the City for review. Once the toolbox of countermeasures is refined based on City comment, Consultant will present the toolbox to the stakeholders for input and concurrence.

TASK 4.2 Implementation Plan:

A key element to the LRSP is the detailed implementation plan that lays out the next steps and responsibilities moving forward. Consultant will identify a lead agency for each countermeasure. When the Project is complete, the City will use this implementation plan to ensure that actions and strategies are taken to move the highest priority Projects forward – which includes preparing the Projects for the next HSIP grant cycle. Low and medium priority Projects may not qualify for HSIP funding or may not be competitive. However, these Projects may qualify for other funding programs. Consultant will include in the LRSP a detailed summary of potential funding programs. Final metrics, countermeasures and implementation plan will be summarized in a technical memorandum and refined upon receipt of comments from City staff.

TASK 4.3 Validate Feasibility of Recommendations:

A second field review will be conducted to validate the feasibility of the countermeasures developed at the highest priority areas, and those which are most likely to move forward into the implementation phase. This process involves a field investigation to confirm that the solution accurately matches the issue identified and to confirm the constructability of the proposed improvement. The results of the field view will be used to refine the implementation plan if needed, or simply to confirm the findings for the high priority Projects. Consultant will calculate the Benefit Cost Ratio using the HSIP calculator tool for the top 10 locations.

Deliverables:

- Countermeasure selections
- Identification of recommended improvements for high priority locations including conceptual sketch of improvements
- Technical memorandum of priority Projects and countermeasures
- Field confirmation of feasibility of improvements

TASK 5: LOCAL ROAD SAFETY PLAN

TASK 5.1 Draft Local Road Safety Plan (65% submittal):

Consultant will compile the technical memorandums into a final LRSP document with a descriptive narrative and supporting documentation. The following outline reflects the series of technical memorandums to be prepared throughout the LRSP analysis process:

Introduction	Brief description of the City’s commitment to transportation safety and an overview of the LRSP
Vision & Goals	Description of the desired long-term outcomes of the LRSP, looking out five to 10 years. Explanation of what the City wants to achieve through the goals identified in this document.
Safety Partners	Identify who the safety partners (stakeholder group) are and their involvement in the process.

ATTACHMENT “A”

Scope of Work

Process	Explanation of the process for preparing the plan including community engagement, timeline and analysis methods
Existing Efforts	Description of what the City is currently doing related to transportation safety and efforts that lead to initiating the LRSP.
Data Summary	Summary of analysis conducted including data resources and findings. In this section, trends will be discussed that lead to the selection of the emphasis areas including crash type, driver factors, roadway features, vehicle factors and/or environmental conditions.
Priority Areas	Description of the multiple emphasis areas that were identified through the data analysis. Each emphasis area will include a description, a goal and strategies – including countermeasures and activities such as education and enforcement.
Evaluation & Implementation	Summary of the strategy to evaluate the success of the plan, ensure implementation and determine when the plan should be updated. This will include who will be responsible for strategies in the plan, where the funding for the plan may come from and what additional actions need to be taken.

Consultant will submit to the City a first draft of the report electronically and in hard copy. Once the City has provided comments and they are fully addressed, the draft report will be provided to the stakeholders for review and comment. The City and Consultant will review the stakeholder comments and identify a strategy for addressing and responding to comments.

TASK 5.2 Final Local Road Safety Plan (90% complete):

Following review by the stakeholders and a second review by City staff, Consultant will provide written responses to all comments on the revised draft report and prepare the Final report that will be presented to Transportation and Community Safety Commission and City Council.

TASK 5.3 Delivery of Final Product/Project Closeout (100% complete):

Any final comments on the LRSP – including those received from the Transportation and Community Safety Commission and City Council - will be completed and the final stamped and signed report will be submitted to the City electronically and in hard copies. All final documents will be uploaded to the Project SharePoint site and Consultant will close out the Project.

Deliverables:

- Draft Local Road Safety Plan, submitted electronically and posted on SharePoint Site
- Written Responses to Comments
- Final Local Road Safety Plan, submitted electronically and posted on SharePoint site
- Two hard copies of draft report and six hard copies of final report.
- Final report signed and stamped by registered traffic and civil engineer

D. Scheduling

Consultant may direct inquires relating to the Project, including scheduling matters, to Craig Williams, Associate Engineer, at 760-839-4812 or cwilliams@escondido.org.

E. Contract Price and Payment Terms

The contract price shall not exceed **\$70,863.54**. The contract price includes all labor, materials, equipment, and transportation required to perform the work. Services will be billed as services are performed. Payment will be made after services have been performed and within 30 days of receipt of an invoice for those services.

ATTACHMENT “A”

Scope of Work

The fees for services detailed in Exhibit 1 to this Scope of Work, which is attached hereto and incorporated by this reference, shall remain in effect throughout the term of this Agreement.

F. Term

The term of this Agreement shall be from the Effective Date of the Agreement through **June 30, 2022**.

The Project Schedule, including deadlines therein, shall remain in effect throughout the term of this Agreement. The Project Schedule is attached to this Scope of Work as Exhibit 2 and incorporated herein by this reference.

