# CITY OF REDLANDS TRAFFIC AND PARKING COMMISSION REGULAR MEETING AGENDA

KEVIN MORNINGSTAR, COMMISSIONER BILL WADDELL, COMMISSIONER ANDREW HODER, COMMISSIONER

CARL DAVIS, COMMISSIONER DONIVAN FOX, COMMISSIONER PATRICK TAYLOR, COMMISSIONER VINCENT FU, STUDENT COMMISSIONER

# Thursday, January 23, 2025, at 6:00 P.M. City Council Chamber, Civic Center 35 Cajon Street, Suite 2, Redlands, CA

This will be an open public meeting. The following information comprises the agenda for a meeting of the Traffic and Parking Commission of the City of Redlands.

# 1. ATTENDANCE & CALL TO ORDER

# 2. APPROVAL OF MINUTES

A. Minutes of the regular meeting of September 26, 2024

# 3. PUBLIC COMMENT

The public is invited to speak on items not listed on this agenda, but within the jurisdiction of the Commission. However, no general discussion of such items, or action on such items, may be taken. Comments are limited to three minutes.

# 4. NEW BUSINESS

- A. Election of 2025 Chair
- B. Election of 2025 Vice Chair

# 5. PRESENTATION

A. Engineering & Traffic Study Results

# 6. COMMUNICATIONS

- A. Volunteer for City Council annual report on February 18, 2025
- B. Discussion of possible RRFB installations at existing crosswalks
- C. Traffic improvement requests by citizens
- D. Status of work orders

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Goutam K. Dobey of Municipal Utilities/Engineering Department at (909) 798-7584 x2. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. NOTE: Any writings or documents distributed to a majority of the Traffic and Parking Commission regarding an open session agenda item less than 72 hours before this meeting are available at <a href="https://www.cityofredlands.org/traffic-and-parking-commission">https://www.cityofredlands.org/traffic-and-parking-commission</a> for public inspection or at the Municipal Utilities & Engineering Department, 35 Cajon Street, Suite 15A by calling 909-789-7584 x 7.

(28 CFR 35.102-35.104 ADA Title II)

# CITY OF REDLANDS TRAFFIC AND PARKING COMMISSION REGULAR MEETING AGENDA

- 7. COMMISSIONER ANNOUNCEMENTS, REPORTS ON ACTIVITIES, AND/OR REQUEST FOR FUTURE AGENDA ITEMS
- 8. ADJOURNMENT Next regular meeting is on March 27, 2025 at 6:00 PM

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(28 CFR 35.102-35.104 ADA Title II)

### CITY OF REDLANDS TRAFFIC AND PARKING COMMISSION REGULAR MEETING Thursday, September 26, 2024 at 6:00 P.M.

# <u>MINUTES</u>

## 1. ATTENDANCE & CALL TO ORDER

The regular meeting of the Traffic and Parking Commission was called to order at 6:00 pm by Chairperson Eric Shamp.

Roll Call: <u>Present</u> <u>Commissioners</u>: Eric Shamp Kevin Morningstar Carl Davis Andrew Hoder Benjamin D. Perez

<u>Staff</u>: Ryan Steinhaus, PD Johana Silva, MUED Goutam Dobey, MUED John Harris, MUED

### <u>Absent</u>

Cassie MacDuff (excused) Bill Waddell (excused)

# 2. APPROVAL OF MINUTES

Commissioner Hoder noted a few typographical errors in the minutes.

Commissioner Morningstar moved, and Commissioner Hoder seconded, to approve the minutes of the regular meeting held on July 25, 2024, with the typos corrected. The motion carried by a roll call vote of 5-0.

### 3. PUBLIC COMMENT

None.

### 4. OLD BUSINESS

# 4A. Review and clarify Traffic and Parking Commission responsibilities and consider ordinance updates

Chair Shamp explained that his initial proposal to amend the ordinance stemmed from concerns that the commission's scope did not adequately address non-motorized transportation issues and lacked clarity on the division of responsibilities between the Planning Commission and the Traffic and Parking Commission (TPC). He expressed

agreement with the language changes proposed in Mr. Harris's memorandum, with two corrections noted below in red.

"It shall be the duty of the Traffic and Parking Commission to advise the City Engineer, Planning Commission, City Manager, and City Council, and to generally serve as a liaison between the general public and the City Council regarding traffic matters, including:

- Receiving complaints relating to motorized and non-motorized traffic and parking matters and the enforcement of traffic regulations within public rights-of-way and parking facilities and to recommend<u>to</u> ways and means of improving traffic conditions;
- 2. Reviewing and providing input for traffic reports, studies, and analyses prepared by City staff and consultants related to public pedestrian, motorized and non-motorized transportation, and parking projects;
- 3. Reviewing and making recommendations on master plans, projects, and programs related to pedestrian, motorized, non-motorized, and mass transit facilities;
- Advising the City Council with respect to on-street and <u>public</u> off-street parking, posting of speed limits, traffic calming alternatives, bicycle and pedestrian facilities, and traffic circulation;

The commission shall keep records of all of its acts and proceedings and shall submit all of its recommendations to the City Council and to the City Manager."

The commission approved the proposed language changes in the ordinance, as detailed in the memorandum, with corrections noted (in red above). The motion was made by Hoder and seconded by Morningstar, with a 5-0 vote.

# 5. COMMUNICATIONS

### 5A. November meeting cancellation – Special meeting TBD

Ms. Silva informed the commission that the November Traffic and Parking Commission meeting traditionally falls on Thanksgiving Day and sought input on scheduling alternatives. She asked whether the commission wished to permanently cancel the November meeting or select a new standing date.

After deliberation, four of the five commissioners reached a consensus to cancel the November meeting, with the option to schedule a special meeting if needed.

### 5B. Discussion of possible RRFB installations at existing crosswalks

Ms. Silva explained that the City utilized unused funds from the 2023-2024 TPC budget to acquire Rectangular Rapid Flashing Beacons (RRFBs) for five locations. She noted that the commission had been provided with a map inventorying all existing midblock crosswalks in the city and requested recommendations on which locations should be prioritized for the new RRFBs. She also mentioned that three locations had received specific requests from the community.

Chairperson Shamp read a written comment from resident Sylvia Potter, who supported improving pedestrian safety at the Center Street crosswalk, south of Redlands Boulevard. Ms. Potter expressed concern about its proximity to Redlands Boulevard, high vehicle speeds, and the curved roadway, which obstructs visibility.

Angela Calabrate, representing the Braemar Co-Op, highlighted the dangers of the Center Street crosswalk due to the curved road, high traffic speeds, and frequent nearmisses between vehicles and pedestrians.

Mary Hanson, also speaking for the Braemar Co-Op, emphasized that the crosswalk is heavily used by elderly residents of Braemar Apartments, as the facilities are located on both sides of the street. She reiterated concerns about the dangerous location.

Mary McLoughlin raised additional concerns about the same crosswalk, citing the road's width, poor lighting, and sharp curves as safety hazards.

Evan Sanford, of the Chamber of Commerce, requested RRFBs at the Citrus Avenue and 9th Street crosswalks. He described the area as high-traffic, heavily used, and poorly lit, and suggested restriping the crosswalk for better visibility.

Don Bell, a Braemar Apartments resident, pointed out that the Center Street crosswalk is exceptionally wide, making it difficult for pedestrians to cross safely without running. He also suggested repainting the crosswalk.

No decisions were made regarding RRFB placement at this time. The Commission requested additional data from the Police Department on pedestrian-vehicle conflicts at all 44 crosswalks in the city.

# 5C. Striping on Colton Avenue fronting Slow Bloom Coffee

Ms. Silva presented a striping exhibit requested by Vice Chair MacDuff, delineating parking areas near Slow Bloom Coffee. She noted that no funding is currently available in the budget for this item. The commission asked whether striping could be applied along the entire length of Colton Avenue when funding becomes available or during the next resurfacing of the street, Mr. Dobey confirmed that it is possible.

## 5D. Update on Columbia Street parking restrictions

An update was provided that the Columbia Street parking restrictions will go to council for approval at their October 15th meeting. It was noted that the motion presented to council would be the same as the commission's recommendation from their July meeting.

## 5E. Update on Left-Turn Pocket Study

An update was given that per recommendations on the previous Left Turn Pocket Study, all the left turn lane lengths were extended by Facilities and Community Services.

### 5F. Status of work orders

Ms. Silva reported that there are no new work orders and all previous work orders have been completed.

### 6. COMMISSIONER ANNOUNCEMENTS, REPORTS ON ACTIVITES, AND/OR REQUEST FOR FUTURE AGENDA ITEMS

Chairperson Shamp asked if there were any comments or requests for future agenda items by the commission.

Items requested for the next regular Commission meeting agenda were as follows:

*Projects List* - A list of current projects related to traffic and transportation to be included as an information item.

Chairperson Shamp announced that he would not be seeking a second term as a commissioner on the TPC, making this his final meeting. He expressed gratitude for the opportunity to serve and contribute to community safety. Commissioner Hoder noted that his term is also ending and shared that he has not yet decided whether to serve another term. Ms. Silva added that this meeting marks Benjamin D. Perez's final session as a student commissioner.

7. ADJOURNMENT – Next regular meeting will be held on January 23, 2025.

The meeting was adjourned by Chairperson Shamp at 7:34 p.m.

#### SCHEDULE FOR COMMISSION ANNUAL REPORT PRESENTATIONS TO CITY COUNCIL

Below is the schedule developed for commission/board/committee annual report presentations to city council. Presentations should be limited to 5 minutes.

To minimize the number of presentations at any one council meeting, the commission will be forfeiting their opportunity to present in person if they change dates and will instead need to submit a staff report under consent.

	Council Meeting Date				
1 <sup>st</sup> Meeting in	2 <sup>nd</sup> Meeting in	1 <sup>st</sup> Meeting in	2 <sup>nd</sup> Meeting in	1 <sup>st</sup> Meeting in	2 <sup>nd</sup> Meeting
November	January	February	February	March	in March
Citrus Preservation Commission	Airport Board Presentation	Street Tree Committee	Human Relations Commission	Cultural Arts Commission Presentation	Measure T Oversight Committee- TENTATIVE IF NEEDED
	Parks and Recreation Commission		Traffic and Parking Commission	Municipal Utilities/Public Works Commission	A.K. Smiley Public Library





Incorporated 1888 Municipal Utilities & Engineering Department

# MEMORANDUM

TO:	Traffic and Parking Commission
FROM:	Johana Silva, Associate Engineer
DATE:	January 13, 2025
SUBJECT:	Speed Limit Recommendations

## **Background:**

The City of Redlands routinely conducts Engineering and Traffic Surveys (E&TS) to justify posted speed limits and enable the Police Department to enforce those limits using electronic devices. Under California Vehicle Code (CVC) Section 40802, state and local agencies must perform engineering studies every seven or fourteen years to reevaluate non-statutory speed limits, particularly on roadway segments that have undergone significant changes. Compliance with these regulations is critical to ensure the legal defensibility of traffic citations issued by law enforcement.

Assembly Bill 43 (AB 43), enacted in phases starting in 2022 and including additional provisions effective in 2024, grants local jurisdictions increased flexibility in setting speed limits. AB 43 enables agencies to consider factors such as pedestrian and bicyclist safety and high-collision areas, allowing for speed limit reductions where warranted to enhance roadway safety.

### **Discussion:**

An engineering firm, RK Engineering Group, Inc., recently conducted a comprehensive survey analyzing 137 street segments across 55 streets within the City limits. The study's findings and recommendations are summarized in the following table:

Roadway Segment		Existing Speed Limit (MPH)	Recommended Speed Limit (MPH)
Alabama Street	Barton Road to Park Avenue	45	40
Alabama Street	Park Avenue to Lugonia Avenue	35	35



Alabama Street	a Street City Limit s/o Santa Ana River to City Limit Line n/o Santa Ana River 55 55		55	
Alessandro Road	Crescent Avenue to Sunset Drive	40	40	
Alessandro Road	Sunset Drive to Creekside Drive	40	40	
Alessandro Road	Creekside Drive to San Timoteo Canvon		35	
Alta Vista Drive	Florida Street to Sunset Drive	40	35	
Barton Road	West City Limit to Terracina Boulevard	45	40	
Barton Road	Terracina Boulevard to Alabama Street	45	40	
Barton Road	Alabama Street to Lakeside Avenue	40	40	
Brockton Avenue	New York Street to Texas Street	30	30	
Brockton Avenue	Texas Street to Church Street	35	30	
Brockton Avenue	Church Street to Judson Street	35	30	
Brockton Avenue	Judson Street to Wabash Avenue	35	30	
Brookside Avenue	Lakeside Avenue to Center Street	35	35	
Brookside Avenue	Center Street to Eureka Street	35	35	
Cajon Street	Vine Street to Fern Avenue	30	30	
Cajon Street	Fern Avenue to Garden Street	35	30	
California Street	Palmetto Avenue to Almond Avenue(SB)	45	40	
California Street	Almond Avenue to Redlands Boulevard	Not Posted	40	
Center Street	State Street to Brookside Avenue	35	35	
Center Street	Brookside Avenue to Cypress Avenue	35	35	
Center Street	Cypress Avenue to Crescent Avenue	35	35	
Center Street	Crescent Avenue to Ridge Street	35	35	
Central Avenue	University Street to Judson Street	30	30	
Church Street	Pioneer Avenue to Redlands Boulevard	35	30	
Citrus Avenue	Eureka Street to Orange Street	30	30	
Citrus Avenue	Redlands Boulevard to University Street	30	30	
Citrus Avenue	University Street to Wabash Avenue	40	35	
Colton Avenue	Redlands Boulevard to Church Street	40	30	
Colton Avenue	Church Street to Grove Street	35	30	
Colton Avenue	Grove Street to Dearborn Street	40	35	
Colton Avenue	Dearborn Street to Wabash Avenue	45	40	
Crescent Avenue	Ramona Drive to Serpentine Drive	35	30	
Crestview Road	Ford Street to Buckingham Drive	30	25	
Cypress Avenue	Terracina Boulevard to Center Street	40	35	
Cypress Avenue	Center Street to Redlands Boulevard	40	35	
Cypress Avenue	Redlands Boulevard to Citrus Avenue	40	35	
Dearborn Street	5th Avenue to Colton Avenue	40	35	
Dearborn Street	Colton Avenue to Lugonia Avenue	35	35	
Dearborn Street	Lugonia Avenue to San Bernardino Avenue	45	40	



Dearborn Street	San Bernardino Avenue to Sessums Drive	40	35	
Elizabeth Street	Clizabeth Street Garden Street to Crescent Avenue		35	
Fern Avenue	Sern Avenue Redlands Boulevard to Cajon Street		35	
Fern Avenue	Cajon Street to Center Street	35	35	
Fern Avenue	Center Street to San Mateo Street	40	35	
Fern Avenue	San Mateo Street to Terracina Boulevard	35	35	
Fifth Avenue	Ford Street to Dearborn Street	45	40	
Fifth Avenue	Dearborn Street to Wabash Avenue	45	40	
Ford Street	Citrus Avenue to Fifth Avenue	40	40	
Ford Street	Fifth Avenue to Reservoir Road	40	40	
Ford Street	Reservoir Road to Sunset Drive	45	40	
Ford Street	Sunset Drive to Garden Hill Drive	40	40	
Franklin Avenue	Eucalyptus Drive to Oak Street	35	25	
Franklin Avenue	Oak Street to Garden Street	35	25	
Garden Street	Mariposa Drive to Cajon Street	40	35	
Grove Street	Highland Avenue to Citrus Avenue	35	30	
Grove Street	Citrus Avenue to Brockton Avenue	35	35	
Highland Avenue	Ford Street to Cajon Street	45	40	
Highland Avenue Cajon Street to San Mateo Street		35	35	
Highland Avenue San Mateo Street to Serpentine Driv		30	30	
Judson Street			35	
Judson Street	Colton Avenue to Lugonia Avenue	35	35	
Judson Street	Lugonia Avenue to Pioneer Avenue	35	35	
Live Oak Canyon Road	San Timoteo Canyon Road to Easterly Boundary	45	40	
Lugonia Avenue	1500' w/o Research Avenue to California Street	talifornia 50 45		
Lugonia Avenue	California Street to Alabama Street (EB)	40	40	
Lugonia Avenue	Alabama Street to Tennessee Street (EB)	40	40	
Lugonia Avenue	Tennessee Street to Texas Street	40	40	
Lugonia Avenue	Texas Street to Orange Street	40	40	
Mariposa Drive	Wabash Avenue to Country Club Drive	35	30	
Mariposa Drive	Country Club Drive to Garden Street	35	30	
Mariposa Drive	Halsey Street to Dwight Street	25	25	
Mountain View Avenue	I-10 Freeway to Central Avenue (NB)	45 / 50	45	
New York Street	Colton Avenue to Lugonia Avenue	40	40	
Olive Avenue	Citrus Avenue to San Mateo Street	35	35	
Olive Avenue	San Mateo Street to Terracina Boulevard	35	35	
Orange Street	Lugonia Avenue to Pioneer Avenue	40	40	
Orange Street	Pioneer Avenue to Hubbard Court	45	45	
Orange Street	Hubbard Court to City Limits	50	50	



Orange Tree Lane	California Street to Nevada Street	35	35
Orange Tree Lane	Nevada Street to Alabama Street	40	35
Pacific Street	Crescent Avenue to Carob Street	25	25
Pacific Street	Carob Street to Ridge Street	25	25
Palm Avenue	Serpentine Drive to San Mateo Street	30	30
Palm Avenue	San Mateo Street to Ford Street	40	35
Palmetto Avenue	Nevada Street to California Street (WB)	40	40
Palmetto Avenue	California Street to Marigold Avenue	Not Posted	40
Palo Alto Drive	Country Club Drive to Mirasol Drive	35	35
Palo Alto Drive	Mirasol Drive to Sunset Drive	30	30
Pennsylvania Avenue	Texas Street to Orange Street	35 Posted 30 Painted	35
Pennsylvania Avenue	Orange Street to Church Street	35	35
Pennsylvania Avenue	Church Street to University Street	35	35
Pennsylvania Avenue	University Street to Judson Street	35	35
Pioneer Avenue	Texas Street to Orange Street	35	35
Pioneer Avenue	Orange Street to Occidental Drive	35	35
Pioneer Avenue	Occidental Drive to Dearborn Street	45	40
Pioneer Avenue	Texas Street to I-210 Freeway	Not Posted	40
Redlands Boulevard	California Street to Texas Street	40	40
Redlands Boulevard	Texas Street to Eureka Street	35	35
Redlands Boulevard	Eureka Street to Citrus Avenue	30	30
Redlands Boulevard	Citrus Avenue to Highland Avenue	35 / 30	30
Redlands Boulevard	Highland Avenue to Ford Street	50	50
Reservoir Road	Ford Street to Wabash Avenue	50	45
Rossmont Drive	Garden Street to Sunset Drive	25	25
San Bernardino Avenue	Tennessee Street to Orange Street	45	40
San Bernardino Avenue	Orange Street to University Street	35 / 40	40
San Bernardino Avenue	University Street to Wabash Avenue	45	40
San Bernardino Avenue	Mountain View Avenue to California Street	50 EB/45 WB	50
San Mateo Street	Brookside Avenue to Fern Avenue	40	35
San Mateo Street	Fern Avenue to Highland Avenue	35	35
San Timoteo Canyon Road	Fern Avenue to Barton Road	45	40
Sunnyside Avenue	Fern Avenue to Cypress Avenue	25	25
Sunnyside Avenue	Cypress Avenue to Smiley Heights Drive	25	25
Sunset Drive N	Alta Vista Drive to Panorama Point	35 NB/30 SB	25
Sunset Drive N	Panorama Point to Wabash Avenue	30 NB/35 SB	25
Sunset Drive N	Wabash Avenue to Ford Street	35	25
Sunset Drive N	Ford Street to Franklin Avenue	35	25
Sunset Drive S	Serpentine Road to Alessandro Drive	25	25



Sunset Drive S	Sunset Drive S         Alessandro Drive to Ridge Street		25	
Sunset Drive S Ridge Street to Helen Drive		25	25	
Sunset Drive S	Helen Drive to Alta Vista Drive	25	25	
Tennessee Street & San Mateo Street	Colton Avenue to Brookside Avenue	40	40	
Terracina Boulevard	Barton Road to Olive Avenue	45	40	
Terracina Boulevard	Olive Avenue to Cypress Avenue	35	35	
Texas Street	Redlands Boulevard to Lugonia Avenue	35	35	
Texas Street	Lugonia Avenue to San Bernardino Avenue			
Texas Street	San Bernardino Avenue to Domestic Avenue	35	35	
University Street	Cypress Avenue to Colton Avenue	35	35	
University Street	Colton Avenue to Lugonia Avenue	35	35	
University Street	Lugonia Avenue to San Bernardino Avenue	25	25	
Via Vista Drive	Country Club Drive to Helena Lane	30	25	
Wabash Avenue	Fifth Avenue to Citrus Avenue	45	40	
Wabash Avenue	Citrus Avenue to Colton Avenue	40	35	
Wabash Avenue	Colton Avenue to Sessums Drive	35 / 40	35	
Wabash Avenue	Fifth Avenue to Panorama Drive	Not Posted	35	
Wabash Avenue         Reservoir Road to Palo Alto Drive		25	25	

#### Action:

Staff seeks the Traffic and Parking Commission's recommendation the 2024 Engineering and Traffic Survey Report to implement the proposed updates to citywide speed limits.

Thank you,

Johana Silva Associate Engineer jsilva@cityofredlands.org (909) 798-7584 x7

Attachments:

A-2024 Engineering and Traffic Survey without appendices





City of Redlands, California December 19, 2024



ENGINEERING GROUP INC.

rkengineer.com

# 2024 Engineering & Traffic Survey

# **City of Redlands, California**

**Prepared for:** City of Redlands 35 Cajon Street, Suite 15A Redlands, CA

# Prepared by:

RK Engineering Group, Inc. 1401 Dove Street, Ste. 540 Newport Beach, CA 92660

Robert Kahn, P.E., T.E. Bryan Estrada, AICP Sabrina Ayala





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# **1.0 Executive Summary**

This report contains the engineering and traffic speed survey for the one hundred and thirty-seven (137) roadway segments in the City of Redlands.

**Exhibit A** shows the location of the study area roadway segments.

For each roadway segment, information was collected on existing roadway characteristics, speed characteristics, traffic volumes, and traffic collisions. Statistical analysis of travel speeds and collisions was performed as part of this study.

Speed limits for each roadway section are recommended consistent with applicable procedures and sections in the California Vehicle Code (CVC) and the California Manual on Traffic Control Devices (CA MUTCD).

Appendix A includes the applicable sections of the California MUTCD for setting speed limits.

This report now incorporates additional speed reductions in response to the recent passage of California Assembly Bill (AB) 43 and the latest updates to the MUTCD, reflecting California's commitment to enhancing road safety.

Speed limit recommendations are made for each of the study area roadway segments and are illustrated in **Exhibit B**.

The speed survey information and recommended speed limits are summarized in Table 1.



# **2.0 Requirements for Establishing Speed Limits**

The CVC is specific in its mandate that an engineering and traffic survey is required to establish speed limits. In particular, Section 40802 indicates that the enforcement of speed limits with the use of radar or other electronic device that measures speed is not allowed unless the prima facie speed limit has been justified by an engineering and traffic survey within the last 5, 7 or 14 years. All local agencies must conduct engineering and traffic surveys to provide the following:

- 1. Raise State dictated "prima facie" limits above 25 miles per hour;
- 2. Lower the otherwise permitted maximum speed of 65 miles per hour; and
- 3. Enforce speed limits by the use of radar equipment.

The CVC Rules of the Road, Section 22350 is the basis of all speed zone legislation in that it states, "No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property."

Secondly, the CVC has established certain "prima facie" speed limits (Section 22352), which may not be exceeded unless the operator of a motor vehicle can prove that it is safe to do so under the Basic Speed Law.

The recommended posted speed limits are based on CA MUTCD Section 2B.13 which states:

"When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed of free-flowing traffic, except as shown in the two options below:

- 1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed, in compliance with CVC Sections 627 and 22358.3.
- 2. For cases in which the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85<sup>th</sup> percentile speed, if no further reduction is used."

Additionally, the recent approval of Assembly Bill No. 43 (AB 43) resulted in several changes to the CVC that now authorize local jurisdictions to consider additional parameters, beyond the 85<sup>th</sup> percentile speed, when setting speed limits on certain streets.

Two of the most significant changes to the CVC include the amendments to Section 22358, which now allow a local authority to declare a prima facie speed of 20 or 15 miles per hour on any street other than a state highway, and the amendment to Section 22358.8, which allows the current speed limit to be retained or immediately prior speed limit to be restored.



<u>22358</u> (a) Whenever a local authority determines upon the basis of an engineering and traffic survey that the limit of 65 miles per hour is more than is reasonable or safe upon any portion of any street other than a state highway where the limit of 65 miles per hour is applicable, the local authority may by ordinance determine and declare a prima facie speed limit of 60, 55, 50, 45, 40, 35, 30, 25, 20, or 15 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe, which declared prima facie limit shall be effective when appropriate signs giving notice thereof are erected upon the street.

<u>22358.8.</u> (a) If a local authority, after completing an engineering and traffic survey, finds that the speed limit is still more than is reasonable or safe, the local authority may, by ordinance, retain the current speed limit or restore the immediately prior speed limit if that speed limit was established with an engineering and traffic survey and if a registered engineer has evaluated the section of highway and determined that no additional general purpose lanes have been added to the roadway since completion of the traffic survey that established the prior speed limit.

(b) This section does not authorize a speed limit to be reduced by any more than five miles per hour from the current speed limit nor below the immediately prior speed limit.

(c) A local authority shall issue only warning citations for violations of exceeding the speed limit by 10 miles per hour or less for the first 30 days that a lower speed limit is in effect as authorized by this section.

AB 43 also enacted several other speed limit changes, including 22358.6(b) and 22358.6(c) which further authorize local agencies to lower speed limits by an additional 5 mph if, after completing an E&TS, it is found that the speed is still more than is reasonable or safe, for either of the following reasons:

- 1. The portion of highway has been designated as a safety corridor.
- 2. The portion of highway is adjacent to any land or facility that generates high concentrations of bicyclists or pedestrians, especially those from vulnerable groups such as children, seniors, persons with disabilities, and the unhoused.



# 3.0 Data Collection

This section discusses the survey methodology for the collection of data on existing roadway characteristics, travel speed surveys, and collision experiences. **Exhibit A** illustrates the roadway locations inventoried.

#### 3.1 Survey Methodology

- Speed limits are set based on the procedures and requirements set forth in the CVC and the California MUTCD. A copy of the MUTCD standards are provided in **Appendix A.**
- All roadways were surveyed to determine existing roadway characteristics and surrounding land uses.
- Existing travel speeds were obtained with the radar speed survey. A minimum of 100 speed observations were recorded at each survey location using calibrated and certified radar equipment. Radar speed survey data for each study segment is contained in **Appendix B.**
- Speed observation data was calculated to determine average speed, 85th percentile speed, and 10-mile per hour percentile speed.
- Collision data was provided by California Highway Patrol and tabulated for each roadway segment for consideration in the speed limit recommendations.
- To calculate and derive collision rates, existing average daily traffic (ADT) data was collected at each study roadway segment. ADT count data for the study segments are contained in **Appendix C**.
- E&TS Traffic Conditions forms have been prepared for each survey location and are included in **Appendix D**.

#### **3.2 Roadway Characteristics**

A visual inspection of each roadway survey location was performed. Based on the visual survey, speed study traffic conditions forms were completed for data entries such as the number of travel lanes, type of median, existing posted speed limit, and the types of surrounding land uses. Other special conditions inventoried include notations on horizontal and vertical curves, school crosswalks, and school speed zones.

Total curb-to-curb width was also measured and recorded at each speed survey location.

The predominant land use adjacent to the roadway by travel direction was identified. The surrounding uses were identified by the predominant or significant types of uses defining the character and intensity of development along the roadway. Adjacent land uses have direct access if driveways

serving the use intersect with the roadway and the land use directly fronts onto the roadway. Land uses not having direct access include those uses with rear or side yards facing the roadway with access from secondary or from parallel roadways. The number of driveways intersecting the roadway is defined as an approximate average distance between driveways along the road segment.

### 3.3 Speed Survey Data

Radar speed surveys were conducted within the City of Redlands at each study area roadway segment. Principles for survey methods utilized in this engineering survey followed the procedures set out by the California MUTCD shown in **Appendix A.** 

The California MUTCD sets forth the basic procedural steps in conducting an "engineering and traffic survey". This method is designed for use on all City and County through-highways, arterials, and collector streets.

Surveys were conducted during off-peak hours so that free-flow conditions would allow motorists to drive at a self-determined "safe speed". An unmarked vehicle was employed as the survey vehicle, with the radar device situated inconspicuously. The vehicle was located along a straight roadway segment, far enough away from signals, stop signs, major intersections, or roadway obstruction so that motorists were traveling at a free-flow velocity before passing the sampling vehicle.

The samples were recorded in one mile per hour increments. On two-way streets, samples in both directions were obtained. Care was also taken to include a representative proportion of trucks and buses. Speed zone statistical summary sheets for each location are provided in **Appendix B** of this report.

### 3.3.1 Speed Survey Data - Statistical Analysis

Statistical calculations included the 85th percentile (or critical) speed, 10-mile per pace speed, percentage of vehicles in the 10-mile per hour speed and 50th percentile speed. These terms are defined as follows:

#### <u>Average Speed</u>

The average or arithmetic mean speed characteristics of the speed observations which is calculated by dividing the summation of all observed speeds by the number of observations.

#### 85th Percentile Speed

The 85th percentile speed is the speed at or below which 85 percent of the vehicles traveled. It is the single most important measure used to determine posted speed limits.



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#### 10-Mile Per Hour Pace Speed

The 10-mile per hour pace speed is the 10-mile per hour range within which the largest number of observations fall. Typically, 70 percent of the vehicles are contained in this range, with 15% above and 15% below. A properly set speed limit will maximize the percent of vehicles in the 10-mile per hour pace speed.

#### 3.4 Collision History

Collision data for each of the survey segments were reviewed. Collisions that occurred in the intersections were proportionally allocated to each approach leg segment of the intersection. The total number of collisions was then divided by existing traffic volumes to determine a collision rate per million vehicle miles of travel for the (MVMT) roadway segment. Additionally, collisions were tabulated based on the severity of the collision to determine if a potential safety corridor exists along the study roadway segments.

**Table 2** summarizes accidents occurring on the roadway segment over the past three (3) years and shows the collision rate per million vehicle miles traveled (not occurring within 200 feet of a boundary intersection). The collision rate is compared to the Caltrans base collision rate for a typical roadway with similar characteristics to help identify areas with high accident rates.

**Table 3** shows all of the accidents occurring on the roadway segment over the past three (3) years inclusive of all intersection for informational purposes only.

**Table 4** shows the segments with the highest number of severe and fatal collisions. This information may be used to help identify potential Safety Corridors in the future.

#### 3.5 24-Hour Average Daily Traffic (ADT) Counts

24-hour two-way average daily traffic (ADT) counts were obtained on each roadway segment. The ADT data is used to help establish collision rates and functional classifications of roadways. ADT count data for the study segments are contained in **Appendix C.** 



# 4.0 Speed Limit Recommendations

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. In accordance with the California MUTCD:

Experience has shown that speed limits should be established at or below the 85th percentile speed. The speed chosen for speed zoning should be in 5-mile per hour increments and should normally be selected at a value nearest below the 85th percentile speed.

In general, the 85th percentile speed will dictate the speed limit to be established pursuant to the reasoning that most drivers are "reasonable and prudent". Speed limit selections resulting from this survey and analysis thus follow the above guideline. Recommended speed limits are for both directions of travel.

The primary selected speed limits were then considered in relation to roadway characteristics, collision experience, and nearby development on each respective roadway segment. Some of these characteristics may warrant a deviation from the 85th percentile speed. These characteristics include:

- 1. Higher than average collision histories;
- 2. Other physical features of the roadway, which are not readily apparent to the driver. These hazards include cross gutters, poor sight distance, and close spacing of controlled intersections; and
- 3. Compatibility and continuity with speed zones of adjacent cities and/or adjacent reaches of the same street within the City.

CVC 22358.6(b) and 22358.6(c) now authorize local agencies to lower speed limits by an additional 5 mph if, after completing an E&TS, it is found that the speed is still more than is reasonable or safe, for either of the following reasons:

- 1. The portion of highway has been designated as a safety corridor.
- 2. The portion of highway is adjacent to any land or facility that generates high concentrations of bicyclists or pedestrians, especially those from vulnerable groups such as children, seniors, persons with disabilities, and the unhoused.

The recommended speed limits and results of the analysis are summarized in **Table 1** and graphically shown in **Exhibit B**.

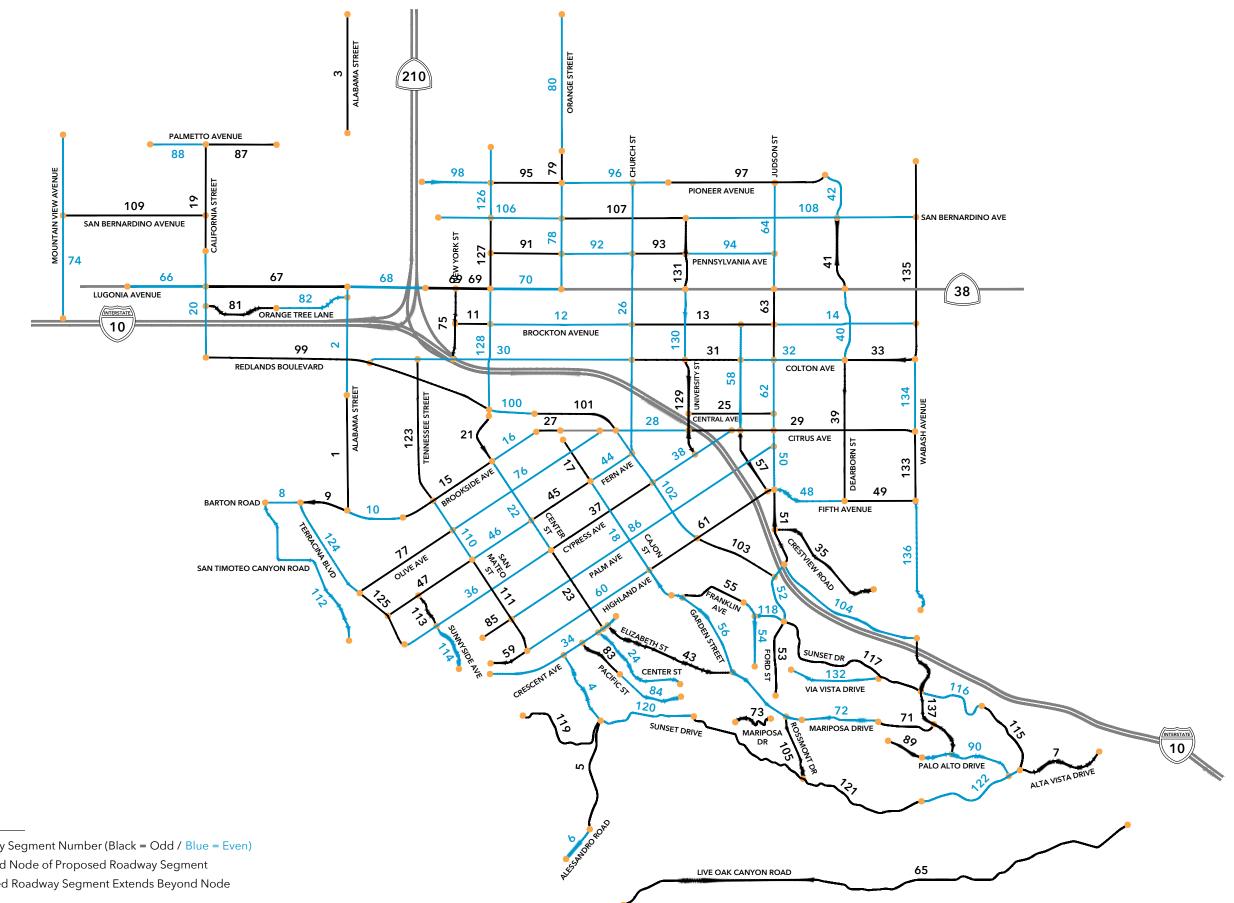
E&TS Traffic Conditions forms for each survey location and are included in **Appendix D**.



# **Exhibits**



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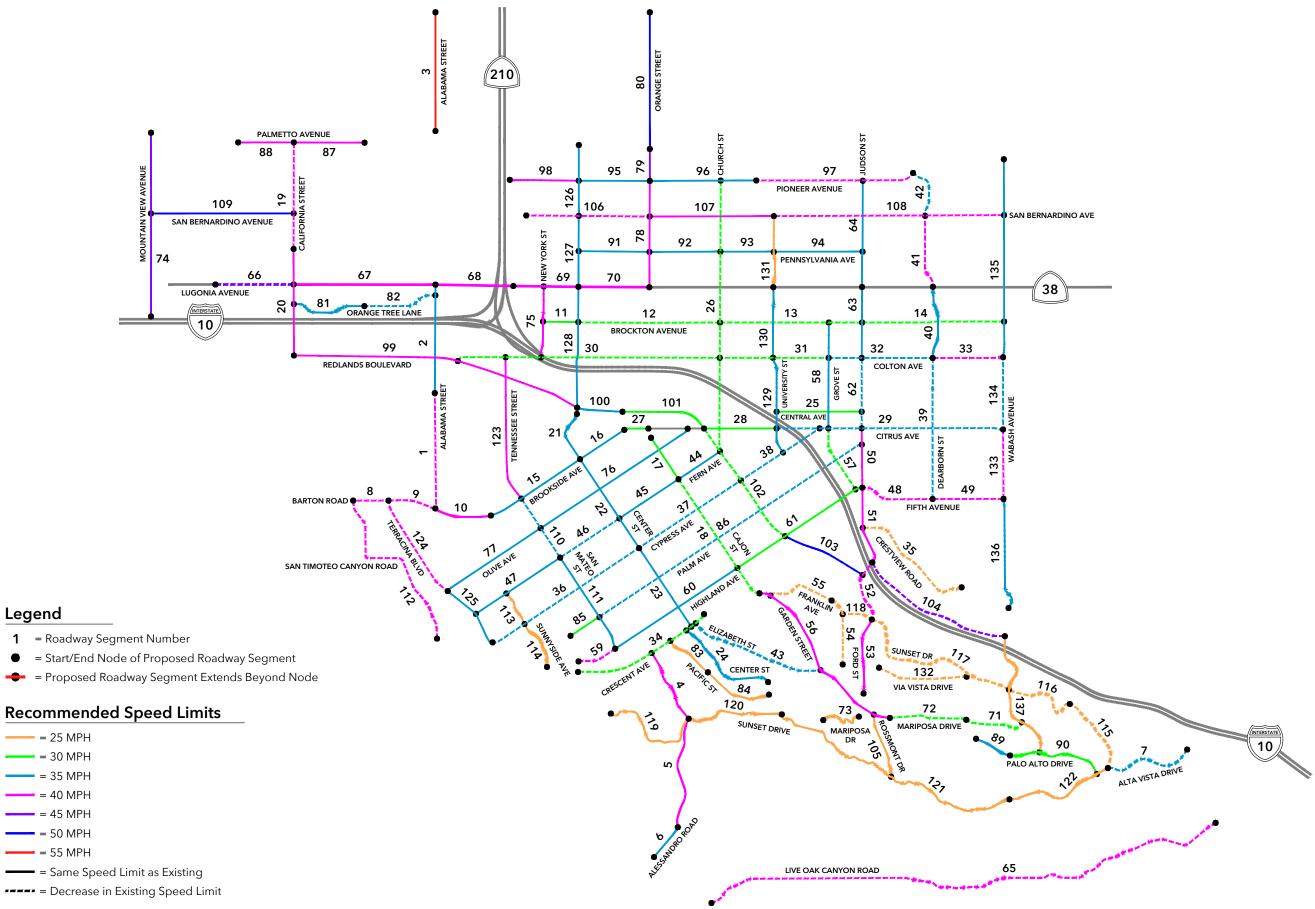
# Legend

- 1 = Roadway Segment Number (Black = Odd / Blue = Even)
- = Start/End Node of Proposed Roadway Segment
- = Proposed Roadway Segment Extends Beyond Node -



# Exhibit A Study Area Roadway Segments

2024 ENGINEERING & TRAFFIC SURVEY // CITY OF REDLANDS 2531-2024-01





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# **Exhibit B Recommended Speed Limits**

2024 ENGINEERING & TRAFFIC SURVEY // CITY OF REDLANDS 2531-2024-01

# **Tables**



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Table 1	
City of Redlands 2024 Engineering & Traffic Survey	
Speed Survey Summary	

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph) <sup>1,2</sup>	85 <sup>th</sup> Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed <sup>3</sup>
1.	<u>Alabama Street</u> Barton Road to Park Avenue	45	40	46	38 - 47	83%	1 & 7
2.	<u>Alabama Street</u> Park Avenue to Lugonia Avenue	35	35	44	35 - 44	79%	1, 4, 7, & 11i
3.	Alabama Street City Limit s/o Santa Ana River to City Limit Line n/o Santa Ana River	55	55	59	48 - 57	69%	1 & 4
4.	<u>Alessandro Road</u> Crescent Avenue to Sunset Drive	40	40	44	35 - 44	79%	1,3, & 4
5.	<u>Alessandro Road</u> Sunset Drive to Creekside Drive	40	40	44	36 - 45	79%	1 & 3
6.	<u>Alessandro Road</u> Creekside Drive to San Timoteo Canyon Road	35	35	36	27 - 36	77%	N/A
7.	Alta Vista Drive Florida Street to Sunset Drive	40	35	42	33 - 42	73%	2, 3, 4, & 5
8.	Barton Road West City Limit to Terracina Boulevard	45	40	46	38 - 47	84%	2 & 7
9.	Barton Road Terracina Boulevard to Alabama Street	45	40	46	35 - 44	75%	2 & 7
10.	Barton Road Alabama Street to Lakeside Avenue	40	40	45	36 - 45	82%	1,3, & 7
11.	Brockton Avenue New York Street to Texas Street	30	30	36	26 - 35	56%	2, 5, & 6
12.	Brockton Avenue Texas Street to Church Street	35	30	39	29 - 38	71%	1, 4, 5, 6, 7, 11h, 11i, & 11j
13.	Brockton Avenue Church Street to Judson Street	35	30	35	27 - 36	84%	1, 4, 5, 6, 11h, 11i, & 11j
14.	Brockton Avenue Judson Street to Wabash Avenue	35	30	36	27 - 36	78%	1, 4, 5, 6, 7, 11h, 11i, & 11j
15.	Brookside Avenue Lakeste Avenue to Center Street	35	35	43	34 - 43	86%	1, 4, 7, 11i, & 11j
16.	Brookside Avenue Center Street to Eureka Street	35	35	37	28 - 37	85%	N/A
17.	Cajon Street Vine Street to Fern Avenue	30	30	35	27 - 36	89%	2, 5, & 6
18.	Cajon Street Fern Avenue to Garden Street	35	30	37	28 - 37	82%	2, 5, 6, & 7
19.	California Street Palmetto Avenue to Almond Avenue (southbound)	45	40	42	35 - 44	70%	N/A
20.	California Street Almond Avenue to Redlands Boulevard	Not Posted	40	41	31 - 40	82%	N/A
21.	Center Street State Street to Brookside Avenue	35	35	38	30 - 39	86%	1, 3, 4, 5, & 6
22.	Center Street Brookside Avenue to Cypress Avenue	35	35	37	29 - 38	74%	N/A
23.	Center Street Cypress Avenue to Crescent Avenue	35	35	39	30 - 39	81%	1, 4, 5, & 6
24.	Center Street Crescent Avenue to Ridge Street	35	35	39	29 - 38	69%	1, 3, 4, & 6
25.	Central Avenue University Street to Judson Street	30	30	35	24 - 33	72%	2, 4, 5, 6, & 7
26.	Church Street Pioneer Avenue to Redlands Boulevard Citient Avenue to Redlands Boulevard	35	30	36	28 - 37	83%	2, 5, 6, & 7
27.	Citrus Avenue Eureka Street to Orange Street	30	30	34	26 - 35	85%	1, 5, 6, & 7
28.	Citrus Avenue Redlands Boulevard to University Street Citrus Avenue	30	30	35	27 - 36	84%	2, 5, & 6
29.	Citrus Avenue University Street to Wabash Avenue Citrus Avenue	40	35	43	34 - 43	80%	1, 4, 7, 11e, 11h, 11i, & 11j
30.	Colton Avenue Redlands Boulevard to Church Street Colton Avenue	40	30	41	31 - 40	76%	2, 3, 5, 6, 7, 11a, 11b, 11h, & 11i
31.	Colton Avenue Church Street to Grove Street Colton Avenue	35	30	40	31 - 40	76%	2, 5, 6, 7, 11c, 11e, 11h, & 11i
32.	Colton Avenue Grove Street to Dearborn Street Colton Avenue	40	35	44	34 - 43	74%	1, 4, 5, 6, 11h, & 11i
33.	Coltro Avenue Dearborn Street to Wabash Avenue Concernt Avenue	45	40	49	37 - 46	67%	1, 4, 5, 6, 11b, 11h, & 11i
34.	Crescent Avenue Ramona Drive to Serpentine Drive	35	30	37	29 - 38	73%	2, 5, & 6

Table 1
City of Redlands 2024 Engineering & Traffic Survey
Speed Survey Summary

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph) <sup>1,2</sup>	85 <sup>th</sup> Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed <sup>3</sup>
35.	Crestview Road	30	25	32	23 - 32	87%	2 & 8
36.	Ford Street to Buckingham Drive Cypress Avenue	40		41	24 42	759/	2, 5, 6, & 7
30.	Terracina Boulevard to Center Street	40	35	41	34 - 43	75%	
37.	Center Street to Redlands Boulevard	40	35	43	35 - 44	78%	1, 4, 5, 6, 7, 11c, 11h, 11i, & 11j
38.	<u>Cypress Avenue</u> Redlands Boulevard to Citrus Avenue	40	35	45	37 - 46	80%	2, 5, 6, 7, 11e, 11h, 11i, & 11j
39.	Dearborn Street 5th Avenue to Colton Avenue	40	35	41	33 - 42	70%	2, 5, & 6
40.	Dearborn Street Colton Avenue to Lugonia Avenue	35	35	38	29 - 38	75%	1, 3, 4, 5, & 6
41.	Dearborn Street Lugonia Avenue to San Bernardino Avenue	45	40	46	35 - 44	62%	2 & 4
42.	Dearborn Street San Bernardino Avenue to Sessums Drive	40	35	38	29 - 38	68%	1 & 4
43.	Elizabeth Street Garden Street to Crescent Avenue	45	35	42	33 - 42	67%	2, 3, 5, & 7
44.	Fern Avenue Redlands Boulevard to Cajon Street	35	35	40	31 - 40	74%	2, 5, & 6
45.	Fern Avenue Cajon Street to Center Street	35	35	39	30 - 39	78%	1, 4, 5, & 6
46.	Fern Avenue Center Street to San Mateo Street	40	35	42	33 - 42	70%	1, 5, 6, & 7
47.	Fern Avenue San Mateo Street to Terracina Boulevard	35	35	41	31 - 40	79%	2, 3, 5, & 6
48.	Fifth Avenue Ford Street to Dearborn Street	45	40	47	38 - 47	78%	2, 3, 5, & 6
49.	Fifth Avenue Dearborn Street to Wabash Avenue	45	40	48	39 - 48	70%	1, 4, 6, 11e, 11h, & 11j
50.	Ford Street Citrus Avenue to Fifth Avenue	40	40	44	37 - 46	84%	1, 5, & 6
51.	Ford Street Fifth Avenue to Reservoir Road	40	40	43	35 - 44	87%	1, 3, 4, & 7
52.	Ford Street Reservoir Road to Sunset Drive	45	40	39	31 - 40	89%	N/A
53.	Ford Street Sunset Drive to Garden Hill Drive	40	40	43	34 - 43	73%	1, 3, & 4
54.	Franklin Avenue Eucalyptus Drive to Oak Street	35	25	38	24 - 33	63%	1, 3, 4, 5, 6, 7, 8, & 11h
55.	Franklin Avenue Oak Street to Garden Street	35	25	31	24 - 33	85%	2, 3, 5, 6, 7, & 8
56.	Garden Street Mariposa Drive to Cajon Street	40	35	46	37 - 46	79%	2, 3, 5, 6, 11b, 11h, & 11i
57.	Grove Street Highland Avenue to Citrus Avenue	35	30	32	23 - 32	86%	N/A
58.	Grove Street Citrus Avenue to Brockton Avenue	35	35	41	32 - 41	69%	2, 5, & 7
59.	Highland Avenue Ford Street to Cajon Street	45	40	47	39 - 48	74%	2, 5, & 6
60.	Highland Avenue Cajon Street to San Mateo Street	35	35	44	32 - 41	66%	1, 4, 5, 6, 7, & 10
61.	Highland Avenue San Mateo Street to Serpentine Drive	30	30	39	31 - 40	67%	1, 3, 5, 6, & 10
62.	Judson Street Citrus Avenue to Colton Avenue	40	35	40	32 - 41	87%	2, 5, & 6
63.	Judson Street Colton Avenue to Lugonia Avenue	35	35	41	32 - 41	79%	2, 5, & 6
64.	Judson Street Lugonia Avenue to Pioneer Avenue	35	35	40	32 - 41	78%	2, 5, & 6
65.	Live Oak Canyon Road San Timoteo Canyon Road to Easterly Boundary	45	40	44	35 - 44	79%	1, 3, & 4

Table 1	
City of Redlands 2024 Engineering & Traffic Survey	
Speed Survey Summary	

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph) <sup>1,2</sup>	85 <sup>th</sup> Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed <sup>3</sup>
66.	Lugonia Avenue 1500' w/o Research Avenue to California Street	50	45	51	43 - 52	64%	2, 5, & 6
67.	Lugonia Avenue California Street to Alabama Street (eastbound)	40	40	46	34 - 43	70%	2, 4, & 6
68.	Lugonia Avenue Alabama Street to Tennessee Street (eastbound)	40	40	41	31 - 40	78%	N/A
69.	Lugonia Avenue Tennessee Street to Texas Street	40	40	40	30 - 39	83%	N/A
70.	Lugonia Avenue Texas Street to Orange Street	40	40	45	35 - 44	76%	2, 4, 5, 6, & 7
71.	Mariposa Drive Wabash Avenue to Country Club Drive	35	30	34	25 - 34	72%	1, 3, 5, & 6
72.	Mariposa Drive Country Club Drive to Garden Street	35	30	41	30 - 39	70%	2, 3, 4, 5, 6, & 11b
73.	Mariposa Drive Halsey Street to Dwight Street	25	25	24	16 - 25	69%	N/A
74.	Mountain View Avenue I-10 Freeway to Central Avenue (northbound)	45 / 50	45	49	37 - 46	67%	1 & 4
75.	New York Street Colton Avenue to Lugonia Avenue	40	40	44	35 - 44	69%	1, 4, & 6
76.	Olive Avenue Citrus Avenue to San Mateo Street	35	35	38	30 - 39	85%	1, 4, 5, & 6
77.	Olive Avenue San Mateo Street to Terracina Boulevard	35	35	40	31 - 40	72%	2, 5, 6, & 7
78.	Orange Street Lugonia Avenue to Pioneer Avenue	40	40	42	35 - 44	91%	N/A
79.	Orange Street Pioneer Avenue to Hubbard Court	45	45	48	39 - 48	75%	1, 4, & 7
80.	Orange Street Hubbard Court to City Limits	50	50	57	48 - 57	75%	2 & 10
81.	Orange Tree Lane California Street to Nevada Street	35	35	40	30 - 39	75%	2, 4, & 6
82.	<u>Orange Tree Lane</u> Nevada Street to Alabama Street	40	35	43	32- 41	68%	1, 3, 4, 6, 11f, 11h, & 11i
83.	Pacific Street Crescent Avenue to Carob Street	25	25	33	24 - 33	77%	1, 3, 4, 5, 8, & 10
84.	Pacific Street Carob Street to Ridge Street	25	25	32	24 - 33	59%	2, 3, 5, 6, & 8
85.	Palm Avenue Serpentine Drive to San Mateo Street	30	30	37	26 - 35	61%	2, 3, 5, 6, & 11h
86.	Palm Avenue San Mateo Street to Ford Street	40	35	42	33 - 42	81%	2, 5, & 6
87.	Palmetto Avenue Nevada Street to California Street (westbound)	40	40	40	30 - 39	54%	N/A
88.	Palmetto Avenue California Street to Marigold Avenue	Not Posted	40	46	38 - 47	57%	2 & 7
89.	Palo Alto Drive Country Club Drive to Mirasol Drive	35	35	41	33 - 42	81%	2, 3, 5, & 6
90.	Palo Alto Drive Mirasol Drive to Sunset Drive	30	30	35	27 - 36	78%	2, 3, 5, & 6
91.	Pennsylvania Avenue Texas Street to Orange Street	35 Posted 30 Painted	35	41	31 - 40	77%	2, 5, 6, & 7
92.	Pennsylvania Avenue Orange Street to Church Street	35	35	36	27 - 36	73%	N/A
93.	Pennsylvania Avenue Church Street to University Street	35	35	38	28 - 37	80%	1, 4, 5, & 6
94.	Pennsylvania Avenue University Street to Judson Street	35	35	41	30 - 39	64%	2, 4, 5, & 6
95.	Pioneer Avenue Texas Street to Orange Street	35	35	39	30 - 39	81%	1, 4, 5, 6, & 7
96.	Pioneer Avenue Orange Street to Occidental Drive	35	35	41	33 - 42	81%	2, 5, & 6
97.	Pioneer Avenue Occidental Drive to Dearborn Street	45	40	48	36 - 45	67%	1, 4, 11e, & 11h
98.	Pioneer Avenue Texas Street to I-210 Freeway	Not Posted	40	43	33 - 42	73%	2, 4, & 6
	<i>•</i>	•					

Table 1	
City of Redlands 2024 Engineering & Traffic Survey	
Speed Survey Summary	

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph) <sup>1,2</sup>	85 <sup>th</sup> Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed <sup>3</sup>
99.	Redlands Boulevard California Street to Texas Street	40	40	45	36 - 45	80%	2 & 7
100.	Redlands Boulevard Texas Street to Eureka Street	35	35	41	32 - 41	79%	2, 6, & 7
101.	<u>Redlands Boulevard</u> Eureka Street to Citrus Avenue	30	30	32	24 - 33	84%	N/A
102.	Redlands Boulevard Citrus Avenue to Highland Avenue	35/30	30	39	30 - 39	81%	1, 4, 7, 11a, 11e, 11h, & 11i
103.	Redlands Boulevard Highland Avenue to Ford Street	50	50	54	45 - 54	69%	1 & 4
104.	Reservoir Road Ford Street to Wabash Avenue	50	45	47	38 - 47	66%	N/A
105.	Rossmont Drive Garden Street to Sunset Drive	25	25	38	29 - 38	66%	1, 3, 4, 5, 8, & 10
106.	San Bernardino Avenue Tennessee Street to Orange Street	45	40	45	37 - 46	84%	2&6
107.	San Bernardino Avenue Orange Street to University Street	35 / 40	40	43	36 - 45	84%	1, 5, & 6
108.	San Bernardino Avenue University Street to Wabash Avenue	45	40	50	40 - 49	71%	2, 3, 4, 5, 11h, 11i, & 11j
109.	San Bernardino Avenue Mountain View Avenue to California Street	50 EB 45 WB	50	56	45 - 54	75%	1 & 4
110.	San Mateo Street Source to Fern Avenue	40	35	40	31 - 40	90%	1, 5, & 6
111.	San Mateo Street Fern Avenue to Highland Avenue	35	35	39	30 - 39	79%	1, 4, 5, & 6
112.	San Timoteo Canyon Road Fern Avenue to Barton Road	45	40	43	35 - 44	81%	1, 4, & 7
113.	Sunnyside Avenue Fern Avenue to Cypress Avenue	25	25	29	20 - 29	69%	1, 3, 4, & 5
114.	Sunnyside Avenue Cypress Avenue Cypress Avenue to Smiley Heights Drive	25	25	29	21 - 30	72%	1, 3, & 5
115.	Sunset Drive N Alta Vista Drive to Panorama Point	35 NB 30 SB	25	29	19 - 28	74%	1, 3, 4, & 5
116.	Sunset Drive N Panorama Point to Wabash Avenue	30 NB 35 SB	25	28	17 - 26	76%	1, 3, 4, 5, 6, & 7
117.	Sunset Drive N Wabash Avenue to Ford Street	35	25	36	27 - 36	83%	1, 3, 5, 6, 11h, & 11j
118.	Sunset Drive N Ford Street to Franklin Avenue	35	25	31	23 - 32	78%	1 & 5
119.	Sunset Drive S Serpentine Road to Alessandro Drive	25	25	30	21 - 30	76%	2, 3, 5, & 7
120.	Sunset Drive S	25	25	32	22 - 31	76%	2, 3, 5, & 7
121.	Alessandro Drive to Ridge Street Sunset Drive S Ridge Street to Helen Drive	25	25	25	15 - 24	67%	N/A
122.	Sunset Drive S	25	25	30	21 - 30	76%	2, 3, 5, & 7
123.	Helen Drive to Alta Vista Drive Tennessee Street & San Mato Street Chine See Provide the Street	40	40	44	35 - 44	83%	1, 4, 5, 6, & 7
124.	Colton Avenue to Brookside Avenue Terraina Boulevard	45	40	49	38 - 47	68%	1, 5, 6, 11d, 11h, 11i, &
125.	Barton Road to Olive Avenue Terracina Boulevard	35	35	41	31 - 40	71%	11j 2, 5, & 6
126.	Olive Avenue to Cypress Avenue Texas Street	35	35	40	31 - 40	78%	2, 5, 6, & 7
127.	Redlands Boulevard to Lugonia Avenue Texas Street	35	35	43	35 - 44	77%	1, 4, 5, 6, 11b, & 11i
128.	Lugonia Avenue to San Bernardino Avenue Texas Street	35	35	42	31 - 40	70%	2&5
129.	San Bernardino Avenue to Domestic Avenue University Street	35	35	39	31 - 40	92%	1, 5, 6, & 7
130.	Cypress Avenue to Colton Avenue University Street	35	35	38	30 - 39	88%	1, 4, 5, & 6
131.	Colton Avenue to Lugonia Avenue University Street	25	25	34	24 - 33	73%	1, 4, 5, & 11i
131.	Lugonia Avenue to San Bernardino Avenue <u>Via Vista Drive</u>	30	25	31	23 - 32	69%	2, 3, 5, & 8
132.	Country Club Drive to Helena Lane	30	23	51	23 - 32	01/0	2, 3, 3, 0 0

#### Table 1 City of Redlands 2024 Engineering & Traffic Survey **Speed Survey Summary**

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph) <sup>1,2</sup>	85 <sup>th</sup> Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed <sup>3</sup>
133.	Wabash Avenue Fifth Avenue to Citrus Avenue	45	40	47	38 - 47	70%	2, 5, & 6
134.	Wabash Avenue Citrus Avenue to Colton Avenue	40	35	39	30 - 39	82%	1, 5, & 6
135.	Wabash Avenue Colton Avenue to Sessums Drive	35 / 40	35	39	29 - 38	79%	N/A
136.	<u>Wabash Avenue</u> Fifth Avenue to Panorama Drive	Not Posted	35	41	31 - 40	63%	N/A
137.	Wabash Avenue Reservoir Road to Palo Alto Drive	25	25	37	27 - 36	75%	1, 3, 5, 6, 8, 11c, & 11i

<sup>1</sup>Recommended speed limits lower than the existing speed limit are shown in **Bold** and highlighted accordingly.

XX = Recommended speed limit lower than current speed limit (55 Roadway Segments)

Recommended speed is determined in accordance with methodologies, procedures and guidelines contained in the California Manual on Uniform Traffic Control Devices (Caltrans, 2014 Edition) and California Vehicle Code (CVC).

<sup>3</sup> Reason for Adjustment from 85th Percentile Speed:

1. 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.

2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding down, the posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed per CVC 627 and 22358.5.

- 3. Roadway characteristics not readily apparent to a driver such as shifting alignment, sight distance constraints, railroad crossings, curves, etc.
- 4. 10 mph pace speed
- 5. Roadside development and environment such as direct residential or commercial access and close vicinity to activity areas such as schools, parks, churches, community centers, or hospitals.
- 6. Parking practices and pedestrian activity
- 7. High accident rate

10. Retain current speed limit or immediately prior speed limit per CVC 22358.8

9. Business Activity District

- 11. Land or facility that generates high concentrations of bicyclists or pedestrians such as:
  - b. Parks, Multi-use Trails, & Recreational Destinations

8. Prima Facie speed limit established per CVC 22352 (b)(1)

- c. Schools / Universities
- d. Senior Centers
- e. Religious Facilities & Cultural Areas f. Health / Medical Facilities
- g. Transit Stops / Transit Oriented Developments / Transit Priority Areas
- h. Presence of Sidewalks
- i. Presence of Crosswalks
- j. Presence of Bikeways
- a. Presence of Retail

Table 2 City of Redlands 2024 Engineering & Traffic Survey Collision Rates for Study Area Roadway Segments

	Roadway Segment	Number of Collisions	Number of Months	Link Length (Miles)	2024 ADT <sup>1</sup>	Collision Rate <sup>2</sup>	Caltrans Base Rate <sup>3</sup>	Exceeds Base Rate?
1.	<u>Alabama Street</u> Barton Road to Park Avenue	21	46	0.82	14,254	1.42	0.94	Yes
2.	<u>Alabama Street</u> Park Avenue to Lugonia Avenue	67	46	0.76	18,050	3.88	0.94	Yes
3.	Alabama Street City Limit s/o Santa Ana River to City Limit Line n/o Santa Ana River	9	46	0.87	16,422	0.49	1.24	No
4.	Alessandro Road Crescent Avenue to Sunset Drive	4	46	0.40	7,045	1.25	1.68	No
5.	Alessandro Road Sunset Drive to Creekside Drive	3	46	0.80	6,448	0.46	1.68	No
6.	Alessandro Road Creekside Drive to San Timoteo Canyon Road	1	46	0.27	5,410	0.68	1.09	No
7.	Alta Vista Drive Florida Street to Sunset Drive	2	46	0.66	2,722	0.90	1.68	No
8.	Barton Road West City Limit to Terracina Boulevard	11	46	0.26	23,882	1.79	0.94	Yes
9.	Barton Road Terracina Boulevard to Alabama Street	7	46	0.33	16,672	1.18	0.94	Yes
10.	Barton Road Alabama Street to Lakeside Avenue	10	46	0.40	15,573	1.42	0.94	Yes
11.	Brockton Avenue New York Street to Texas Street	0	46	0.25	1,041	0.00	1.68	No
12.	Brockton Avenue Texas Street to Church Street Brockton Avenue	26	46	1.00	2,482	8.10	1.68	Yes
13.	Church Street to Judson Street Brockton Avenue	10	46	1.00	4,693	1.65	1.68	No
14.	Judson Street to Wabash Avenue Brookside Avenue	9	46	1.00	2,394	2.91	1.68	Yes
15.	Lakeside Avenue to Center Street Brookside Avenue	23	46	0.75	12,487	1.95	1.68	Yes
16.	Center Street to Eureka Street Cajon Street	9	46	0.37	11,337	1.93	1.68	Yes
17.	Vine Street to Fern Avenue Cajon Street	4	46	0.35	10,456	1.00	1.68	No
18.	Fern Avenue to Garden Street California Street	20	46	0.98	5,876	2.69	1.68	Yes
19.	Palmetto Avenue to Almond Avenue (southbound) California Street	0	46	0.75	5,889	0.00	0.94	No
20.	Almond Avenue to Redlands Boulevard Center Street	55	46	0.75	20,906	2.79	1.23	Yes
21.	State Street to Brookside Avenue Center Street	3	46	0.38	8,917	0.79	1.68	No
22.	Brookside Avenue to Cypress Avenue Center Street	6	46	0.75	6,070	1.05	1.68	No
23.	Cypress Avenue to Crescent Avenue Center Street	7	46	0.66	6,077	1.41	1.68	No
24.	Crescent Avenue to Ridge Street Central Avenue	1	46	0.75	823	1.29	1.68	No
25.	University Street to Judson Street Church Street	10	46	0.60	2,634	5.18	1.68	Yes
26.	Pioneer Avenue to Redlands Boulevard Citrus Avenue	43	46	1.90	7,875	2.14	1.68	Yes
27.	Eureka Street to Orange Street Citrus Avenue	3	46	0.17	10,552	2.16	0.94	Yes
28.	Redlands Boulevard to University Street Citrus Avenue	9	46	0.51	9,858	1.50	1.68	No
29.	University Street to Wabash Avenue Colton Avenue	21	46	1.60	9,332	1.06	0.96	Yes
30.	Redlands Boulevard to Church Street	111	46	1.86	12,117	3.67	0.96	Yes

Table 2 City of Redlands 2024 Engineering & Traffic Survey Collision Rates for Study Area Roadway Segments

	Roadway Segment	Number of Collisions	Number of Months	Link Length (Miles)	2024 ADT <sup>1</sup>	Collision Rate <sup>2</sup>	Caltrans Base Rate <sup>3</sup>	Exceeds Base Rate?
31.	Colton Avenue Church Street to Grove Street	16	46	0.77	6,496	2.54	1.68	Yes
32.	Colton Avenue Grove Street to Dearborn Street	7	46	0.73	8,294	0.92	1.68	No
33.	Colton Avenue	1	46	0.49	7,009	0.25	1.24	No
34.	Dearborn Street to Wabash Avenue Crescent Avenue	7	46	1.00	7,380	0.73	1.68	No
35.	Ramona Drive to Serpentine Drive <u>Crestview Road</u>	0	46	0.92	503	0.00	1.68	No
36.	Ford Street to Buckingham Drive Cypress Avenue	18	46	1.23	5,939	1.88	0.96	Yes
37.	Terracina Boulevard to Center Street  Cypress Avenue	14	46	0.87	7,120	1.77	0.96	Yes
38.	Center Street to Redlands Boulevard  Cypress Avenue	14	46	0.66	8,343	2.05	1.68	Yes
39.	Redlands Boulevard to Citrus Avenue Dearborn Street	3	46	0.99	2,853	0.82	1.68	No
40.	5th Avenue to Colton Avenue Dearborn Street	2	46	0.52	3,196	1.01	1.68	No
	Colton Avenue to Lugonia Avenue Dearborn Street							
41.	Lugonia Avenue to San Bernardino Avenue Dearborn Street	0	46	0.51	1,872	0.00	1.24	No
42.	San Bernardino Avenue to Sessums Drive Elizabeth Street	0	46	0.36	1,772	0.00	1.68	No
43.	Garden Street to Crescent Avenue Fern Avenue	5	46	0.97	1,403	2.85	1.24	Yes
44.	Redlands Boulevard to Cajon Street Fern Avenue	1	46	0.35	4,601	0.57	1.68	No
45.	Cajon Street to Center Street Fern Avenue	2	46	0.50	4,165	0.81	1.68	No
46.	Center Street to San Mateo Street Fern Avenue	6	46	0.50	4,159	2.43	1.68	Yes
47.	San Mateo Street to Terracina Boulevard Fifth Avenue	5	46	0.71	3,638	1.55	1.68	No
48.	Ford Street to Dearborn Street	2	46	0.52	9,124	0.35	1.24	No
49.	Fifth Avenue Dearborn Street to Wabash Avenue	1	46	0.50	8,427	0.20	1.24	No
50.	Ford Street Citrus Avenue to Fifth Avenue	1	46	0.42	5,537	0.38	1.68	No
51.	Ford Street Fifth Avenue to Reservoir Road	12	46	0.55	8,247	2.19	1.68	Yes
52.	Ford Street Reservoir Road to Sunset Drive	12	46	0.45	8,845	2.59	0.94	Yes
53.	Ford Street Sunset Drive to Garden Hill Drive	0	46	0.55	2,411	0.00	1.68	No
54.	Franklin Avenue Eucalyptus Drive to Oak Street	4	46	0.48	792	8.93	1.68	Yes
55.	Franklin Avenue Oak Street to Garden Street	0	46	0.49	697	0.00	1.68	No
56.	Garden Street Mariposa Drive to Cajon Street	4	46	1.35	2,696	0.83	1.68	No
57.	<u>Grove Street</u> Highland Avenue to Citrus Avenue	1	46	0.49	1,239	1.39	1.68	No
58.	Grove Street Citrus Avenue to Brockton Avenue	7	46	0.74	2,842	2.65	1.68	Yes
59.	Highland Avenue Ford Street to Cajon Street	8	46	1.00	5,607	1.10	1.24	No
60.	Highland Avenue	9	46	1.00	3,826	1.82	1.68	Yes
60.	Cajon Street to San Mateo Street	9	46	1.00	3,826	1.82	1.68	Yes

Table 2 City of Redlands 2024 Engineering & Traffic Survey Collision Rates for Study Area Roadway Segments

	Roadway Segment	Number of Collisions	Number of Months	Link Length (Miles)	2024 ADT <sup>1</sup>	Collision Rate <sup>2</sup>	Caltrans Base Rate <sup>3</sup>	Exceeds Base Rate?
61.	Highland Avenue San Mateo Street to Serpentine Drive	0	46	0.29	1,710	0.00	1.68	No
62.	Judson Street	5	46	0.49	7,355	1.17	1.68	No
63.	Citrus Avenue to Colton Avenue Judson Street	4	46	0.49	5,887	1.17	1.68	No
64.	Colton Avenue to Lugonia Avenue Judson Street	1	46	0.75	4,757	0.22	1.68	No
	Lugonia Avenue to Pioneer Avenue Live Oak Canyon Road							
65.	San Timoteo Canyon Road to Easterly Boundary Lugonia Avenue	7	46	3.68	5,379	0.26	1.24	No
66.	1500' w/o Research Avenue to California Street Lugonia Avenue	0	46	0.58	3,996	0.00	0.94	No
67.	California Street to Alabama Street (eastbound)	4	46	0.99	5,858	0.53	0.94	No
68.	Lugonia Avenue Alabama Street to Tennessee Street (eastbound)	13	46	0.55	16,897	1.16	0.94	Yes
69.	Lugonia Avenue Tennessee Street to Texas Street	20	46	0.46	23,208	1.60	0.94	Yes
70.	Lugonia Avenue Texas Street to Orange Street	21	46	0.50	15,254	2.32	0.96	Yes
71.	Mariposa Drive Wabash Avenue to Country Club Drive	0	46	0.42	613	0.00	1.68	No
72.	Mariposa Drive Country Club Drive to Garden Street	0	46	0.55	2,551	0.00	1.68	No
73.	Mariposa Drive Halsey Street to Dwight Street	0	46	0.34	180	0.00	1.68	No
74.	Mountain View Avenue	9	46	1.29	12,347	0.43	0.94	No
75.	I-10 Freeway to Central Avenue (northbound) New York Street	5	46	0.51	6,984	1.18	1.68	No
76.	Colton Avenue to Lugonia Avenue Olive Avenue	10	46	1.26	4,729	1.28	1.68	No
	Citrus Avenue to San Mateo Street Olive Avenue							
77.	San Mateo Street to Terracina Boulevard Orange Street	6	46	0.79	2,793	2.15	1.68	Yes
78.	Cugonia Avenue to Pioneer Avenue Orange Street	29	46	0.75	10,803	2.85	1.68	Yes
79.	Pioneer Avenue to Hubbard Court	6	46	0.22	13,982	2.13	1.24	Yes
80.	Orange Street Hubbard Court to City Limits	17	46	0.95	14,013	0.99	1.24	No
81.	Orange Tree Lane California Street to Nevada Street	3	46	0.53	4,588	1.03	1.68	No
82.	<u>Orange Tree Lane</u> Nevada Street to Alabama Street	1	46	0.52	3,193	0.50	1.68	No
83.	Pacific Street Crescent Avenue to Carob Street	0	46	0.35	445	0.00	1.68	No
84.	Pacific Street Carob Street to Ridge Street	0	46	0.50	215	0.00	1.68	No
85.	Palm Avenue	0	46	0.24	1,321	0.00	1.68	No
86.	Serpentine Drive to San Mateo Street Palm Avenue	13	46	2.21	4,466	0.97	1.68	No
87.	San Mateo Street to Ford Street Palmetto Avenue	0	46	0.50	2,690	0.00	1.68	No
	Nevada Street to California Street (westbound) Palmetto Avenue							
88.	California Street to Marigold Avenue Palo Alto Drive	1	46	0.39	1,714	1.33	0.94	Yes
89.	Country Club Drive to Mirasol Drive Palo Alto Drive	0	46	0.27	1,350	0.00	1.68	No
90.	<u>Palo Alto Drive</u> Mirasol Drive to Sunset Drive	0	46	0.68	1,141	0.00	1.68	No

Table 2 City of Redlands 2024 Engineering & Traffic Survey Collision Rates for Study Area Roadway Segments

	Roadway Segment	Number of Collisions	Number of Months	Link Length (Miles)	2024 ADT <sup>1</sup>	Collision Rate <sup>2</sup>	Caltrans Base Rate <sup>3</sup>	Exceeds Base Rate?
91.	Pennsylvania Avenue Texas Street to Orange Street	3	46	0.50	2,944	1.72	1.68	Yes
92.	Pennsylvania Avenue Orange Street to Church Street	3	46	0.50	4,000	1.26	1.68	No
93.	Pennsylvania Avenue Church Street to University Street	0	46	0.37	1,895	0.00	1.68	No
94.	Pennsylvania Avenue University Street to Judson Street	1	46	0.63	1,620	0.80	1.68	No
95.	Pioneer Avenue Texas Street to Orange Street	11	46	0.51	6,610	2.74	1.68	Yes
96.	Pioneer Avenue Orange Street to Occidental Drive	3	46	0.75	5,207	0.61	1.68	No
97.	Pioneer Avenue Occidental Drive Occidental Drive Occidental Drive to Dearborn Street	5	46	1.12	3,653	0.94	1.24	No
98.	Pioneer Avenue Texas Street to I-210 Freeway	6	46	0.55	6,983	1.30	1.31	No
99.	Redlands Boulevard California Street to Texas Street	66	46	2.10	7,122	3.27	0.94	Yes
100.	Redlands Boulevard Texas Street to Eureka Street	7	46	0.33	13,178	1.49	0.94	Yes
101.	Redlands Boulevard Eureka Street to Citrus Avenue	26	46	0.63	15,693	2.14	0.94	Yes
102.	Redlands Boulevard Citrus Avenue to Highland Avenue	30	46	0.95	12,726	1.93	0.94	Yes
103.	Redlands Boulevard Highland Avenue to Ford Street	4	46	0.61	14,422	0.37	0.94	No
104.	Reservoir Road Ford Street to Wabash Avenue	3	46	1.11	2,737	0.76	1.24	No
105.	Rossmont Drive Garden Street to Sunset Drive	0	46	0.46	781	0.00	1.68	No
106.	San Bernardino Avenue Tennessee Street to Orange Street	24	46	0.97	17,340	1.11	1.24	No
107.	San Bernardino Avenue Orange Street to University Street	9	46	0.88	11,076	0.72	1.68	No
108.	San Bernardino Avenue University Street to Wabash Avenue	15	46	1.62	8,047	0.86	1.68	No
109.	San Bernardino Avenue Mountain View Avenue to California Street	3	46	1.00	13,920	0.17	1.23	No
110.	San Mateo Street Brookside Avenue to Fern Avenue	3	46	0.50	9,031	0.56	0.96	No
111.	San Mateo Street Fern Avenue to Highland Avenue	3	46	0.75	5,244	0.61	0.96	No
112.	<u>San Timoteo Canyon Road</u> Fern Avenue to Barton Road	21	46	1.32	8,686	1.39	1.24	Yes
113.	Sunnyside Avenue Fern Avenue to Cypress Avenue	0	46	0.26	804	0.00	1.68	No
114.	Sunnyside Avenue Cypress Avenue to Smiley Heights Drive	0	46	0.37	423	0.00	1.68	No
115.	Sunset Drive N Alta Vista Drive to Panorama Point	0	46	0.57	574	0.00	1.68	No
116.	<u>Sunset Drive N</u> Panorama Point to Wabash Avenue	6	46	0.57	766	11.33	1.68	Yes
117.	Sunset Drive N Wabash Avenue to Ford Street	0	46	1.26	1,785	0.00	1.68	No
118.	Sunset Drive N Ford Street to Franklin Avenue	0	46	0.21	1,260	0.00	1.68	No
119.	Sunset Drive S Serpentine Road to Alessandro Drive	1	46	0.73	330	3.31	1.68	Yes
120.	Sunset Drive S Alessandro Drive to Ridge Street	1	46	0.70	627	1.83	1.68	Yes

Table 2 City of Redlands 2024 Engineering & Traffic Survey Collision Rates for Study Area Roadway Segments

	Roadway Segment	Number of Collisions	Number of Months	Link Length (Miles)	2024 ADT <sup>1</sup>	Collision Rate <sup>2</sup>	Caltrans Base Rate <sup>3</sup>	Exceeds Base Rate?
121.	Sunset Drive S Ridge Street to Helen Drive	4	46	1.92	972	1.60	1.68	No
122.	<u>Sunset Drive S</u> Helen Drive to Alta Vista Drive	2	46	0.78	987	2.06	1.68	Yes
123.	Tennessee Street & San Mateo Street Colton Avenue to Brookside Avenue	40	46	1.00	12,074	2.56	0.96	Yes
124.	Terracina Boulevard Barton Road to Olive Avenue	2	46	0.78	9,157	0.22	1.24	No
125.	Terracina Boulevard Olive Avenue to Cypress Avenue	0	46	0.49	5,837	0.00	0.96	No
126.	Texas Street Redlands Boulevard to Lugonia Avenue	23	46	0.85	9,293	2.29	0.96	Yes
127.	Texas Street Lugonia Avenue to San Bernardino Avenue	2	46	0.50	5,462	0.62	1.68	No
128.	Texas Street San Bernardino Avenue to Domestic Avenue	3	46	0.50	6,029	0.84	1.68	No
129.	University Street Cypress Avenue to Colton Avenue	36	46	0.69	16,751	2.50	1.68	Yes
130.	University Street Colton Avenue to Lugonia Avenue	9	46	0.50	10,659	1.42	1.68	No
131.	University Street Lugonia Avenue to San Bernardino Avenue	1	46	0.50	1,980	0.85	1.68	No
132.	<u>Via Vista Drive</u> Country Club Drive to Helena Lane	0	46	0.64	219	0.00	1.68	No
133.	Wabash Avenue Fifth Avenue to Citrus Avenue	1	46	0.49	4,640	0.37	1.24	No
134.	Wabash Avenue Citrus Avenue to Colton Avenue	3	46	0.51	6,044	0.82	1.68	No
135.	Wabash Avenue Colton Avenue to Sessums Drive	13	46	1.39	10,021	0.71	0.94	No
136.	Wabash Avenue Fifth Avenue to Panorama Drive	0	46	0.79	665	0.00	1.31	No
137.	<u>Wabash Avenue</u> Reservoir Road to Palo Alto Drive	2	46	0.98	2,420	0.65	1.68	No

<sup>1</sup> ADT = Average Daily Traffic

<sup>2</sup> Collisions per million vehicle miles traveled
 <sup>3</sup> Source: Caltrans Crash Data on California State Highways (Road Miles, Travel, Crashes, Crash Rates) (2022)

	Roadway Segment	2021	2022	2023	2024
1.	Alabama Street Barton Road to Park Avenue	6	8	9	3
2.	Alabama Street Park Avenue to Lugonia Avenue	24	14	23	13
3.	Alabama Street City Limit s/o Santa Ana River to City Limit Line n/o Santa Ana River	5	2	2	1
4.	Alessandro Road Crescent Avenue to Sunset Drive	2	0	2	2
5.	Alessandro Road Sunset Drive to Creekside Drive	2	1	2	1
6.	<u>Alessandro Road</u> Creekside Drive to San Timoteo Canyon Road	1	2	1	0
7.	<u>Alta Vista Drive</u> Florida Street to Sunset Drive	1	0	1	1
8.	<u>Barton Road</u> West City Limit to Terracina Boulevard	8	4	2	3
9.	<u>Barton Road</u> Terracina Boulevard to Alabama Street	1	4	4	3
10.	Barton Road Alabama Street to Lakeside Avenue	6	3	3	4
11.	Brockton Avenue New York Street to Texas Street	0	0	0	0
12.	Brockton Avenue Texas Street to Church Street	4	7	11	6
13.	Brockton Avenue Church Street to Judson Street	4	4	1	2
14.	Brockton Avenue Judson Street to Wabash Avenue	3	3	2	3
15.	Brookside Avenue Lakeside Avenue to Center Street	8	7	9	8
16.	Brookside Avenue Center Street to Eureka Street	8	4	10	3
17.	<u>Cajon Street</u> Vine Street to Fern Avenue	2	4	1	1
18.	<u>Cajon Street</u> Fern Avenue to Garden Street	5	8	11	1
19.	<u>California Street</u> Palmetto Avenue to Almond Avenue (southbound)	1	1	2	1
20.	<u>California Street</u> Almond Avenue to Redlands Boulevard	13	17	17	15
21.	<u>Center Street</u> State Street to Brookside Avenue	2	3	3	0
22.	<u>Center Street</u> Brookside Avenue to Cypress Avenue	2	6	2	2
23.	<u>Center Street</u> Cypress Avenue to Crescent Avenue	0	0	4	3

	Roadway Segment	2021	2022	2023	2024
24.	Center Street Crescent Avenue to Ridge Street	1	0	0	1
25.	Central Avenue University Street to Judson Street	1	1	9	2
26.	Church Street Pioneer Avenue to Redlands Boulevard	14	6	18	7
27.	<b>Citrus Avenue</b> Eureka Street to Orange Street	2	6	4	1
28.	<u>Citrus Avenue</u> Redlands Boulevard to University Street	10	4	5	4
29.	Citrus Avenue University Street to Wabash Avenue	3	8	7	7
30.	Colton Avenue Redlands Boulevard to Church Street	34	39	37	15
31.	Colton Avenue Church Street to Grove Street	7	2	9	1
32.	<u>Colton Avenue</u> Grove Street to Dearborn Street	2	1	6	1
33.	<u>Colton Avenue</u> Dearborn Street to Wabash Avenue	1	2	1	1
34.	<u>Crescent Avenue</u> Ramona Drive to Serpentine Drive	0	2	1	4
35.	<u>Crestview Road</u> Ford Street to Buckingham Drive	0	0	0	0
36.	<u>Cypress Avenue</u> Terracina Boulevard to Center Street	9	3	4	4
37.	<u>Cypress Avenue</u> Center Street to Redlands Boulevard	4	3	5	6
38.	<u>Cypress Avenue</u> Redlands Boulevard to Citrus Avenue	3	6	7	1
39.	Dearborn Street 5th Avenue to Colton Avenue	1	1	2	0
40.	Dearborn Street Colton Avenue to Lugonia Avenue	2	1	1	0
41.	<b>Dearborn Street</b> Lugonia Avenue to San Bernardino Avenue	0	0	0	0
42.	<u>Dearborn Street</u> San Bernardino Avenue to Sessums Drive	0	0	0	0
43.	Elizabeth Street Garden Street to Crescent Avenue	2	2	0	1
44.	Fern Avenue Redlands Boulevard to Cajon Street	0	2	2	1
45.	Fern Avenue Cajon Street to Center Street	2	1	2	0
46.	Fern Avenue Center Street to San Mateo Street	1	3	3	3

	Roadway Segment	2021	2022	2023	2024
47.	Fern Avenue San Mateo Street to Terracina Boulevard	1	1	0	0
48.	Fifth Avenue Ford Street to Dearborn Street	2	0	0	0
49.	Fifth Avenue Dearborn Street to Wabash Avenue	0	0	1	0
50.	Ford Street Citrus Avenue to Fifth Avenue	1	1	0	0
51.	<u>Ford Street</u> Fifth Avenue to Reservoir Road	2	2	10	3
52.	Ford Street Reservoir Road to Sunset Drive	3	3	5	2
53.	Ford Street Sunset Drive to Garden Hill Drive	0	0	0	0
54.	Franklin Avenue Eucalyptus Drive to Oak Street Franklin Avenue	1	2	0	1
55.	Franklin Avenue Oak Street to Garden Street Garden Street	0	0	0	0
56.	Garden Street Mariposa Drive to Cajon Street Group Street	0	1	3	2
57.	Grove Street Highland Avenue to Citrus Avenue Grove Street	0	0	0	0
58.	Citrus Avenue to Brockton Avenue Highland Avenue	4	0	2	2
59.	Ford Street to Cajon Street Highland Avenue	3	1	5	2
60.	Cajon Street to San Mateo Street Highland Avenue	4	0	5	2
61.	San Mateo Street to Serpentine Drive Judson Street	0	2	0	0
62.	Citrus Avenue to Colton Avenue Judson Street	0	2	2	2
63.	Colton Avenue to Lugonia Avenue Judson Street	1	1	3	1
64. 65	Lugonia Avenue to Pioneer Avenue Live Oak Canyon Road	1	1	1	0
65. 66.	San Timoteo Canyon Road to Easterly Boundary Lugonia Avenue	3	0	3	3
67.	1500' w/o Research Avenue to California Street Lugonia Avenue	0	2	2	3
68.	California Street to Alabama Street (eastbound) Lugonia Avenue	7	2	7	8
69.	Alabama Street to Tennessee Street (eastbound) Lugonia Avenue	10	10	4	4
	Tennessee Street to Texas Street				

	Roadway Segment	2021	2022	2023	2024
70.	Lugonia Avenue Texas Street to Orange Street	11	7	9	5
71.	Mariposa Drive Wabash Avenue to Country Club Drive	0	0	0	0
72.	<u>Mariposa Drive</u> Country Club Drive to Garden Street	0	0	0	0
73.	Mariposa Drive Halsey Street to Dwight Street	0	0	1	0
74.	Mountain View Avenue I-10 Freeway to Central Avenue (northbound)	3	3	4	0
75.	New York Street Colton Avenue to Lugonia Avenue	3	3	2	2
76.	Olive Avenue Citrus Avenue to San Mateo Street Olive Avenue	2	2	7	1
77.	San Mateo Street to Terracina Boulevard Orange Street	2	0	4	0
78.	Lugonia Avenue to Pioneer Avenue Orange Street	7	13	19	6
79. 80.	Pioneer Avenue to Hubbard Court Orange Street	6	0	5	1
81.	Hubbard Court to City Limits Orange Tree Lane	0	3	3	2
82.	California Street to Nevada Street Orange Tree Lane	1	0	3	0
83.	Nevada Street to Alabama Street Pacific Street Crescent Avenue to Carob Street	0	0	0	0
84.	Pacific Street Carob Street to Ridge Street	0	1	0	0
85.	<u>Palm Avenue</u> Serpentine Drive to San Mateo Street	0	0	0	0
86.	Palm Avenue San Mateo Street to Ford Street	2	5	6	2
87.	Palmetto Avenue Nevada Street to California Street (westbound)	0	0	1	0
88.	Palmetto Avenue California Street to Marigold Avenue Palo Alto Drive	1	0	0	0
89.	Country Club Drive to Mirasol Drive Palo Alto Drive	0	0	0	0
90.	Mirasol Drive to Sunset Drive Pennsylvania Avenue	0	0	0	0
91.	Texas Street to Orange Street Pennsylvania Avenue	2	1	2	1
92.	Orange Street to Church Street	2	1	0	0

	Roadway Segment	2021	2022	2023	2024
93.	Pennsylvania Avenue Church Street to University Street	0	0	0	0
94.	Pennsylvania Avenue University Street to Judson Street	0	0	1	0
95.	<u>Pioneer Avenue</u> Texas Street to Orange Street	6	4	2	1
96.	Pioneer Avenue Orange Street to Occidental Drive	0	0	1	2
97.	Pioneer Avenue Occidental Drive to Dearborn Street	2	1	0	0
98.	Pioneer Avenue Texas Street to I-210 Freeway Dedler de Bouleverd	3	0	3	2
99.	Redlands Boulevard         California Street to Texas Street         Redlands Boulevard	12	18	18	23
100.	Texas Street to Eureka Street Redlands Boulevard	2	6	5	0
101.	Eureka Street to Citrus Avenue Redlands Boulevard	4	7	6	11
102. 103.	Citrus Avenue to Highland Avenue Redlands Boulevard	10	9	10 6	7
103.	Highland Avenue to Ford Street           Reservoir Road	1	1	0	1
105.	Ford Street to Wabash Avenue Rossmont Drive	0	0	0	0
106.	Garden Street to Sunset Drive San Bernardino Avenue Tennessee Street to Orange Street	4	12	12	2
107.	San Bernardino Avenue Orange Street to University Street	1	2	5	2
108.	San Bernardino Avenue University Street to Wabash Avenue	2	5	6	4
109.	San Bernardino Avenue Mountain View Avenue to California Street	2	4	1	3
110.	<u>San Mateo Street</u> Brookside Avenue to Fern Avenue	1	0	1	2
111.	<u>San Mateo Street</u> Fern Avenue to Highland Avenue	2	1	1	0
112.	San Timoteo Canyon Road Fern Avenue to Barton Road	7	11	4	6
113.	Sunnyside Avenue Fern Avenue to Cypress Avenue	0	1	0	0
114.	Sunnyside Avenue Cypress Avenue to Smiley Heights Drive Sunset Drive N	0	0	0	0
115.	<u>Sunset Drive N</u> Alta Vista Drive to Panorama Point	0	0	1	0

Table 3
City of Redlands 2024 Engineering & Traffic Survey
Total Collisions by Year <sup>1</sup>

	Roadway Segment	2021	2022	2023	2024
116.	<mark>Sunset Drive N</mark> Panorama Point to Wabash Avenue	3	5	1	1
117.	Sunset Drive N Wabash Avenue to Ford Street	0	0	0	0
118.	<u>Sunset Drive N</u> Ford Street to Franklin Avenue	0	0	0	0
119.	<u>Sunset Drive S</u> Serpentine Road to Alessandro Drive	0	0	1	0
120.	Sunset Drive S Alessandro Drive to Ridge Street	0	0	1	1
121.	Sunset Drive S Ridge Street to Helen Drive	2	0	2	0
122.	Sunset Drive S Helen Drive to Alta Vista Drive	0	1	2	0
123.	Tennessee Street & San Mateo Street Colton Avenue to Brookside Avenue Terracina Boulevard	9	13	20	5
124.	Barton Road to Olive Avenue Terracina Boulevard	2	0	2	0
125.	Olive Avenue to Cypress Avenue Texas Street	2	0	0	0
126.	Redlands Boulevard to Lugonia Avenue Texas Street	5	8	6	7
127.	Lugonia Avenue to San Bernardino Avenue Texas Street	1	1	2	2
128.	San Bernardino Avenue to Domestic Avenue University Street	2	2	1	8
129. 130.	Cypress Avenue to Colton Avenue University Street	10	9	14	0
130.	Colton Avenue to Lugonia Avenue University Street	4	1	6	2
131.	Lugonia Avenue to San Bernardino Avenue <u>Via Vista Drive</u>	0	0	0	0
132.	Country Club Drive to Helena Lane Wabash Avenue	0	1	0	0
134.	Fifth Avenue to Citrus Avenue           Wabash Avenue           City of the state	0	0	2	1
135.	Citrus Avenue to Colton Avenue           Wabash Avenue           Colton Avenue to Sessums Drive	8	2	4	0
136.	Wabash Avenue         Provide to Sessums Drive           Fifth Avenue to Panorama Drive         Provide to Panorama Drive	0	1	0	0
137.	Wabash Avenue           Reservoir Road to Palo Alto Drive	2	0	0	0
	Total Collision	s 414	399	523	289

<sup>1</sup> Total collissions include all reported collissions along the segment, including collissions that occurred at intersections.

 Table 4

 City of Redlands 2024 Engineering & Traffic Survey

 Severe and Fatal Collisions<sup>1</sup>

	Roadway Segment	Total S+F Collisions	Severe Collisions	Fatal Collisions	Mode
	Colton Avenue		2	0	Vehicle / Other Motor Vehicle
30.	Redlands Boulevard to Church Street	5	1	1	Vehicle / Object
			1	0	Vehicle / Pedestrian
80.	Orange Street	4	1	0	Vehicle / Object Vehicle / Pedestrian
80.	Hubbard Court to City Limits	4	1	0	Vehicle / Other Motor Vehicle
	Alabama Street		1	0	Vehicle / Other Motor Vehicle
2.	Park Avenue to Lugonia Avenue	2	0	1	Vehicle / Train
	Citrus Avenue		1	0	Vehicle / Pedestrian
29.	University Street to Wabash Avenue	2	1	0	Vehicle / Other Motor Vehicle
37.	Cypress Avenue	2	1	0	Vehicle / Other Motor Vehicle
	Center Street to Redlands Boulevard	_	0	1	Vehicle / Pedestrian
38.	Cypress Avenue	2	1	0	Vehicle / Other Motor Vehicle
	Redlands Boulevard to Citrus Avenue		0	1	Vehicle / Other Parked Motor Vehicle
51.	Ford Street Fifth Avenue to Reservoir Road	2	1	0	Vehicle / Other Motor Vehicle
	Lugonia Avenue		1	0	Vehicle / Object Vehicle / Bicycle
69.	Tennessee Street to Texas Street	2	1	0	Vehicle / Pedestrian
	Lugonia Avenue			-	
70.	Texas Street to Orange Street	2	2	0	Vehicle / Other Motor Vehicle
74.	Mountain View Avenue	2	0	1	Vehicle / Pedestrian
74.	I-10 Freeway to Central Avenue (northbound)	2	1	0	Vehicle / Other Motor Vehicle
79.	Orange Street	2	1	0	Vehicle / Other Motor Vehicle
	Pioneer Avenue to Hubbard Court		1	0	Vehicle / Object
109.	San Bernardino Avenue	2	0	2	Vehicle / Pedestrian
	Mountain View Avenue to California Street Sunset Drive N		1	0	Vehicle / Other Parked Motor Vehicle
116.	Panorama Point to Wabash Avenue	2	1	0	Vehicle / Bicycle
126.	Texas Street	2	1	1	Vehicle / Pedestrian
	Alessandro Road				
4.	Crescent Avenue to Sunset Drive Cajon Street	1	1	0	Vehicle / Bicylce
18.	Fern Avenue to Garden Street Church Street	1	1	0	Vehicle / Other Motor Vehicle
26.	Pioneer Avenue to Redlands Boulevard Citrus Avenue	1	1	0	Vehicle / Pedestrian
27.	Eureka Street to Orange Street	1	1	0	Vehicle / Object
31.	Colton Avenue Church Street to Grove Street	1	1	0	Vehicle / Other Motor Vehicle
32.	<u>Colton Avenue</u> Grove Street to Dearborn Street	1	1	0	Vehicle / Pedestrian
39.	Dearborn Street 5th Avenue to Colton Avenue	1	1	0	Vehicle / Pedestrian
44.	Fern Avenue Redlands Boulevard to Cajon Street	1	1	0	Vehicle / Other Motor Vehicle
59.	Highland Avenue Ford Street to Cajon Street	1	1	0	Vehicle / Other Motor Vehicle
78.	<u>Orange Street</u> Lugonia Avenue to Pioneer Avenue	1	1	0	Vehicle / Bicycle
99.	Redlands Boulevard California Street to Texas Street	1	1	0	Vehicle / Pedestrian
102.	Redlands Boulevard Citrus Avenue to Highland Avenue	1	1	0	Vehicle / Object
110.	San Mateo Street Brookside Avenue to Fern Avenue	1	1	0	Vehicle / Other Motor Vehicle
112.	San Timoteo Canyon Road Fern Avenue to Barton Road	1	0	1	Vehicle / Object
121.	Ridge Street to Helen Drive	1	1	0	Vehicle / Bicycle
122.	<u>Sunset Drive S</u> Helen Drive to Alta Vista Drive	1	1	0	Vehicle / Pedestrian
123.	Tennessee Street & San Mateo Street Colton Avenue to Brookside Avenue	1	1	0	Vehicle / Pedestrian

## Table 4 City of Redlands 2024 Engineering & Traffic Survey Severe and Fatal Collisions<sup>1</sup>

	Roadway Segment	Total S+F Collisions	Severe Collisions	Fatal Collisions	Mode
125.	Terracina Boulevard Olive Avenue to Cypress Avenue	1	1	0	Vehicle / Object
130.	University Street	1	1	0	Vehicle / Pedestrian
131.	Colton Avenue to Lugonia Avenue University Street	1	0	1	Vehicle / Other Motor Vehicle
131.	Lugonia Avenue to San Bernardino Avenue	1	0	1	Venicie / Other Motor Venicie
135.	Wabash Avenue Colton Avenue to Sessums Drive	1	1	0	Vehicle / Other Motor Vehicle

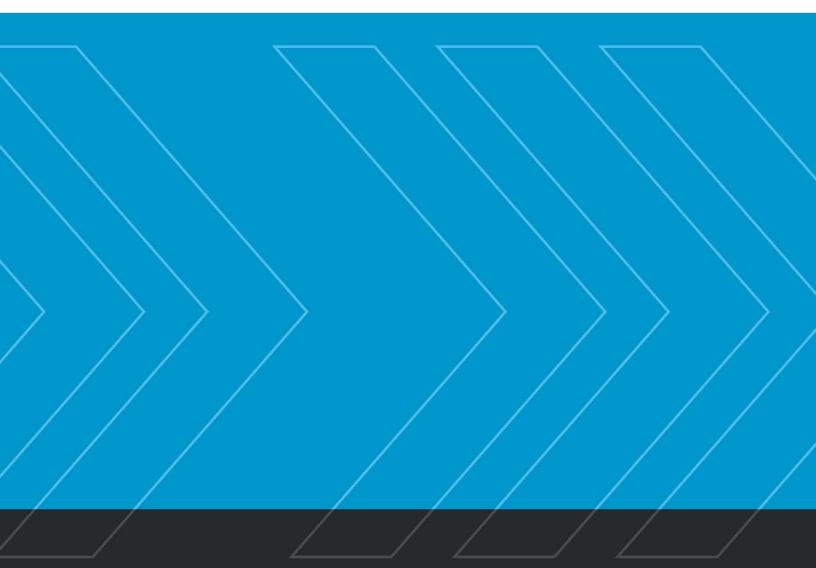
<sup>1</sup> Severe and fatal collisions reported from 2021 to 2024.

## Appendices



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#### Standard:

<sup>03</sup> If used, the In-Street Pedestrian Crossing sign shall be placed in the roadway at the crosswalk location on the center line, on a lane line, or on a median island. The In-Street Pedestrian Crossing sign shall not be post-mounted on the left-hand or right-hand side of the roadway.

04 If used, the Overhead Pedestrian Crossing sign shall be placed over the roadway at the crosswalk location.

<sup>05</sup> An In-Street or Overhead Pedestrian Crossing sign shall not be placed in advance of the crosswalk to educate road users about the State law prior to reaching the crosswalk, nor shall it be installed as an educational display that is not near any crosswalk.

#### Guidance:

<sup>06</sup> If an island (see Chapter 31) is available, the In-Street Pedestrian Crossing sign, if used, should be placed on the island.

#### Option:

<sup>07</sup> If a Pedestrian Crossing (W11-2) warning sign is used in combination with an In-Street or an Overhead Pedestrian Crossing sign, the W11-2 sign with a diagonal downward pointing arrow (W16-7P) plaque may be post-mounted on the right-hand side of the roadway at the crosswalk location.

#### Standard:

<sup>08</sup> The In-Street Pedestrian Crossing sign and the Overhead Pedestrian Crossing sign shall not be used at <del>signalized locations</del> controlled approaches.

<sup>09</sup> The STOP FOR legend shall only be used in States where the State law specifically requires that a driver must stop for a pedestrian in a crosswalk.

<sup>10</sup> The In-Street Pedestrian Crossing sign shall have a black legend (except for the red-STOP or YIELD sign symbols) and border on a white background, surrounded by an outer yellow or fluorescent yellow-green background area (see Figure 2B-2). The Overhead Pedestrian Crossing sign shall have a black legend and border on a yellow or fluorescent yellow-green background at the top of the sign and a black legend and border on a white background at the bottom of the sign (see Figure 2B-2).

11 Unless the In-Street Pedestrian Crossing sign is placed on a physical island, the sign support shall be designed to bend over and then bounce back to its normal vertical position when struck by a vehicle. Support:

<sup>12</sup> The Provisions of Section 2A.18 concerning mounting height are not applicable for the In-Street Pedestrian Crossing sign.

#### Standard:

<sup>13</sup> The top of an In-Street Pedestrian Crossing sign shall be a maximum of 4 feet above the pavement surface. The top of an In-Street Pedestrian Crossing sign placed in an island shall be a maximum of 4 feet above the island surface.

Option:

<sup>14</sup> The In-Street Pedestrian Crossing sign may be used <del>seasonably</del> seasonally to prevent damage in winter because of plowing operations, and may be removed at night if the pedestrian activity at night is minimal.

<sup>15</sup> In-Street Pedestrian Crossing signs, Overhead Pedestrian Crossing signs, and Yield Here To <del>(Stop Here For)</del> Pedestrians signs may be used together at the same crosswalk.

#### Section 2B.13 Speed Limit Sign (R2-1)

#### Support:

<sup>00</sup> The setting of speed limits can be controversial and requires a rational and defensible determination to maintain public confidence. Speed limits are normally set near the 85th-percentile speed that statistically represents one standard deviation above the average speed and establishes the upper limit of what is considered reasonable and prudent. As with most laws, speed limits need to depend on the voluntary compliance of the greater majority of motorists. Speed limits cannot be set arbitrarily low, as this would create violators of the majority of drivers and would not command the respect of the public. Artificially low speed limits can lead to poor compliance as well as large variations in speed within the traffic stream. Increased speed variance can also create more conflicts and passing maneuvers.

<sup>00a</sup> The most effective way to reduce speeds is through a combination of strategies using traffic control devices related to speed management, roadway design and engineering solutions, traffic calming techniques and measures, public education,

and enforcement efforts. Effectively managing road user speed relies on numerous factors, which include enforcement, roadway characteristics, surrounding environment, adjacent land use, and traffic control devices. Many studies find that engineering changes, such as change a road's infrastructure, are one of the most important factors in reducing vehicle operating speeds. Engineering changes are also one of the most effective interventions at reducing pedestrian injury and fatality rates. Potential street engineering changes, such as curb extensions, median islands, raised crosswalks, roundabouts, and speed bumps or speed humps, naturally result in lower speeds. It is realized that these engineering changes can be costly and time-consuming to implement.

#### Standard:

of Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering and traffic survey (E&TS) study that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.

<sup>02</sup> The Speed Limit (R2-1) sign (see Figure 2B-3) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits displayed shall be in multiples of 5 mph.

<sup>03</sup> Speed Limit (R2-1) signs, indicating speed limits for which posting is required by law, shall be located at the points of change from one speed limit to another.

<sup>04</sup> At the downstream end of the section to which a speed limit applies, a Speed Limit sign showing the next speed limit shall be installed. Additional Speed Limit signs shall be installed beyond major intersections and at other locations where it is necessary to remind road users of the speed limit that is applicable.

os Speed Limit signs indicating the statutory speed limits shall be installed at entrances to the State and, where appropriate, at jurisdictional boundaries in urban areas.

Support:

06 In general, the maximum speed limits applicable to rural and urban roads are established:

- A. Statutorily a maximum speed limit applicable to a particular class of road, such as freeways or city streets, that is established by State law; or
- B. As altered speed zones based on engineering studies.

<sup>07</sup> State statutory limits might restrict the maximum speed limit that can be established on a particular road, notwithstanding what an engineering study might indicate. Option:

<sup>08</sup> If a jurisdiction has a policy of installing Speed Limit signs in accordance with statutory requirements only on the streets that enter a city, neighborhood, or residential area to indicate the speed limit that is applicable to the entire city, neighborhood, or residential area unless otherwise posted, a CITYWIDE (R2-5aP), NEIGHBORHOOD (R2-5bP), or RESIDENTIAL (R2-5cP) plaque may be mounted above the Speed Limit sign and an UNLESS OTHERWISE POSTED (R2-5P) plaque may be mounted below the Speed Limit sign (see Figure 2B-3). Guidance:

<sup>09</sup> A Reduced Speed Limit Ahead (W3-5 or W3-5a) sign (see Section 2C.38) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates the need for advance notice to comply with the posted speed limit ahead.

<sup>10</sup> States and local agencies should conduct engineering studies at least once every 5, 7 or 14 years, in compliance with CVC Section 40802 to reevaluate non-statutory speed limits on segments of their roadways that have undergone significant changes since the last review, such as the addition or elimination of parking or driveways, changes in the number of travel lanes, changes in the configuration of bicycle lanes, changes in traffic control signal coordination, or significant changes in traffic volumes.

11 No more than three speed limits should be displayed on any one Speed Limit sign or assembly.

12 When a speed limit within a speed zone is posted, it should be within 5 mph of the 85<sup>th</sup>-percentile speed of free-flowing traffic.

<u>CVC Section 22358.6 – 85<sup>th</sup>-Percentile, Rounding, 5 mph Increment, 5 mph speed reduction and Maximum Speed</u> <u>Reduction</u>

Standard:

<sup>12a</sup> 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 (CVC Section 22358.6(a)), except as shown in the two Options below for rounding down and using 5 mph speed reduction (CVC Section 22358.6(b)), or rounding up (CVC Section 22358.6(c)), or if using

additional 5 mph speed reduction on local agency roadways for safety corridor designation (CVC Section 22358.7(a)(1)) or adjacent to land or facility generating high concentrations of bicyclists and pedestrians (CVC Section 22358.7(a)(2)).

Option:

- For cases in which the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed would require a rounding down, 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. CVC Sections 22353, 22353.2, 22353.3, 22353.4, and 22353.5, may also be considered, if applicable. See Standard below for documentation requirements. Refer to CVC Section 22358.6(b).
- 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). Refer to CVC Section 22358.6(c).

#### Standard:

<sup>12b</sup> 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. Refer to Section 22358.6(b).

<sup>12c</sup> The total reduction in the speed limit using the nearest 5 mph increment (CVC Section 22358.6(a)), rounding up (CVC Section 22358.6(c)), rounding down and using 5 mph speed reduction (CVC Section 22358.6(b)), additional 5 mph speed reduction for safety corridor designation (CVC Section 22358.7(a)(1)) or adjacent to land or facility generating high concentrations of bicyclists and pedestrians (CVC Section 22358.7(a)(2)), this speed reduction shall not exceed 12.4 mph from the 85<sup>th</sup>-percentile speed. Refer to CVC Section 22358.6(e). Support:

<sup>12d</sup> Refer to Tables 2B-103(CA) and 2B-104(CA), which provides examples of 85<sup>th</sup>-percentile speed values and the application of the speed limit policies and criteria applicable per CVC 22358.6 and 22358.7.

<sup>12e</sup> Any existing E&TS that was performed before January 1, 2022 in accordance with previous traffic control device standards is not required to be updated until it is due for reevaluation per the 5, 7 or 14 year criteria.

#### CVC Sections 22358.7, 22358.8 and 22358.9 – Applicability on State Highway System & Local Agency Roadways

#### Standard:

12f CVC Sections 22358.7, 22358.8 and 22358.9 and their related policies shall not be applicable to roadways on the State Highway System.

Support:

<sup>12g</sup> CVC Sections 22358.7, 22358.8 and 22358.9 and their related policies are applicable on local agency roadways. <sup>12h</sup> CVC Sections 22358.7, 22358.8 and 22358.9 and their related policies are also applicable on any privately owned and maintained roads or commercial establishments, if the private road or private property has been subjected to the CVC application by the private property owner or a particular city or county enacts an ordinance or resolution to this effect. Refer to CVC Sections 21100, 21100.1, 21107, 21107.5, 21107.6, and 21107.7.

Standard: <sup>12i</sup> The additional 5 mph speed reduction allowed by CVC Section 22358.7 on designated safety corridors or on portions of highway adjacent to any land or facility that generates high concentrations of bicyclists or pedestrians, shall not be applicable on any roadway segment that is on the State Highway System

<sup>12]</sup> The option allowed by CVC Section 22358.8 to retain the currently adopted speed limit or restore the immediately prior adopted speed limit, shall not be applicable on any roadway segment that is on the State Highway System.

12k Declaring prima facie speed limits of 25 mph or 20 mph on a highway contiguous to a business activity district allowed by CVC Section 22358.9 shall not be applicable on any roadway segment that is on the State Highway System. <u>CVC Section 22358.7 – Safety corridor and Land or Facilities Generating High Concentrations of Bicyclists and</u>

#### Pedestrians

Standard:

121 Additional lowering of the speed limits from those calculated using rounding (up or down) per CVC Section 22358.6(b) and 22358.6(c) and 5 mph speed reduction using CVC Section 22358.6(b), as included in paragraph 12a,

and Options #1 and #2 processes, is prohibited, except for the local agency roadway segments designated as "safety corridor" or "land or facilities that generate high concentrations of bicyclists and pedestrians" in compliance with CVC Sections 22358.6(d) and 22358.7.

Option:

<sup>12m</sup> Local agencies may additionally lower the speed limits by 5 mph from those calculated using rounding (up or down) per CVC Section 22358.6(b) and 22358.6(c) and 5 mph speed reduction using CVC Section 22358.6(b) if, after completing an E&TS, find that the speed limit is still more than is reasonable or safe, for either of the following reasons:

- 1. The portion of a highway has been designated as a safety corridor.
- 2. The portion of highway is adjacent to any land or facility that generates high concentrations of bicyclists or pedestrians, especially those from vulnerable groups such as children, seniors, persons with disabilities, and the unhoused.

#### CVC Section 22358.7(a)(1) - "Safety Corridor" Definition

#### Standard:

<sup>12n</sup> A safety corridor shall be defined as a roadway segment within an overall roadway network where the highest number of serious injury and fatality crashes occur.

<sup>120</sup> One or more of the required crash weighting factors listed in the Table 2B-105(CA) shall be used to prioritize the locations of fatal and serious injury crashes in developing the "Safety Corridor". Option:

<sup>12p</sup> Data used to determine a safety corridor may be from the most recent Engineering and Traffic Survey (E&TS) performed. The crash data source may include, but is not limited to, California Highway Patrol's (CHP) Statewide Integrated Traffic Records System (SWITRS).

#### Standard:

12q The prioritized subset of safety corridors shall:

- 1. Identify specific locations with high crash occurrences.
- 2. Identify corridor-level segments with a pattern of crash reoccurrence.
- 3. Be able to be stratified by mode.

<sup>12r</sup> Safety corridors shall represent a prioritized subset of the overall roadway network within an authority's responsibilities and shall not exceed one-fifth of the overall roadway network. *Guidance:* 

12s A jurisdiction should use three to five years of the most recent crash data to determine a safety corridor based on Fatal and Serious Injury data.

#### Option:

<sup>12t</sup> For crash coverage, safety corridors may identify the subset of the overall roadway network where a minimum of 25% of the Fatal + Serious Injury (F+SI) crashes occur.

<sup>12u</sup> To identify logical termini, the geographic extent of a safety corridor may be determined by non-engineering staff. Standard:

<sup>12v</sup> A licensed professional engineer shall sign off on logical termini identified for a safety corridor using existing E&TS.

#### Option:

<sup>12w</sup> Crash/Volume rate may be used to provide additional locations to be included in the safety corridor. Local agencies may use proactive measures as indicators.

<u>CVC Section 22358.7(a)(2) – "Land or facility that generates high concentrations of bicyclists or pedestrians" definition</u> Standard:

<sup>12x</sup> Except for the Option in first paragraph below, a land or facility that generates high concentrations of bicyclists or pedestrians shall be defined as the portion of the highway where one or more of any of the generators listed in Table 2B-106(CA) are present within a distance of 1320 feet.

Option:

<sup>12y</sup> Crash data that demonstrates a highway segment is within the top twenty percent of pedestrian and/or bicyclist fatalities or serious injuries over a three-to-five-year period may be used in lieu of one of the generators listed in Table 2B-106(CA).

#### Standard:

<sup>12z</sup> A highway segment shall be defined as the portion of the highway where a location that meets the aforementioned criteria is present within a distance of 1320 feet. Option:

<sup>12aa</sup> A highway segment may be longer than 1320 feet provided that a minimum of one location within the top twenty percent of fatal and serious injury pedestrian and/or bicyclist crashes within a three-to-five-year period is present for every 1320 feet. Standard:

<sup>12ab</sup> The top twenty percent of pedestrian and/or bicyclist fatalities or serious injury crashes within a three to five year period shall be based on the geographic area within the jurisdiction of the Engineer performing the E&TS. Option:

<sub>12ac</sub> A high concentration of pedestrians and bicyclists may be longer than 1320 feet provided that a minimum of one generator is present for every 1320 feet.

<sup>12ad</sup> Data used to determine high concentration locations may be obtained from the most recently performed Engineering and Traffic Survey (E&TS).

#### Standard:

<sup>12ae</sup> The provisions of CVC Section 22358.7 to additionally lower the speed limit (by designating safety corridor or on portion of highway is adjacent to any land or facility that generates high concentrations of bicyclists or pedestrians), shall not be applicable until actions required per CVC Section 22358.7 by Department of Transportation and Judicial Council are completed or June 30, 2024, whichever is sooner.

CVC Section 22358.8 (Retain currently adopted or restore immediately prior speed limit)

#### Option:

12af Local agency may retain the currently adopted speed limit without further reduction or restore the immediately prior adopted speed limit without further reduction as provided in CVC Section 22358.8. Standard:

<sup>12ag</sup> Currently adopted speed limit or immediately prior adopted speed limit shall only be retained, by ordinance, if after completing an E&TS, local agency finds that the speed limit is still more than reasonable or safe, and that speed limit was established with an E&TS and if a registered engineer has evaluated the section of highway and determined that no additional general purpose lanes have been added to the roadway since completion of the traffic survey that established the prior speed limit.

12ah If local agency decides to use lower speed limit based on CVC Section 22358.8, after completing an E&TS and finding that the speed limit is still more than is reasonable or safe, it shall not be reduced by any more than 5 mph from the currently adopted speed limit nor below the immediately prior speed limit. Refer to CVC Section 22358.8(b). CVC Section 22358.9 – Business Activity District

#### Option:

<sup>12ai</sup> A local authority may, by ordinance, determine and declare a 25 or 20 mph prima facie speed limit on a highway contiguous to a business activity district when posted with a sign that indicates a speed limit of 25 or 20 mph if the highway segment meets all of the following conditions:

- 1. A maximum of four traffic lanes.
- 2. A maximum posted 30 mph prima facie speed limit immediately prior to and after the business activity district, if establishing a 25 mph speed limit.
- 3. A maximum posted 25 mph prima facie speed limit immediately prior to and after the business activity district, if establishing a 20 mph speed limit.

<sup>12aj</sup> A "business activity district" is that portion of a highway and the property contiguous thereto that includes central or neighborhood downtowns, urban villages, or zoning designations that prioritize commercial land uses at the downtown or neighborhood scale and meets a least three of the following four requirements:

- 4. No less than 50 percent of the contiguous property fronting the highway consists of retail or dining commercial uses, including outdoor dining, that open directly onto sidewalks adjacent to the highway.
- 5. Parking, including parallel, diagonal, or perpendicular spaces located alongside the highway.

(FHWA's MUTCD 2009 Edition, including Revisions 1,2, &3, as amended for use in California)

- 6. Traffic control signals or stop signs regulating traffic flow on the highway, located at intervals of no more than 600 feet.
- 7. Marked crosswalks not controlled by a traffic control device.

#### Standard:

<sup>12ak</sup> A local authority shall not declare a prima facie speed limit on a portion of a highway where the local authority has already lowered the speed limit as permitted for designated safety corridors (CV Section 22358.7) or using the land or facility adjacent to high concentration of pedestrians and bicyclists (CVC Section 22358.7) or retained the currently adopted speed limit (CVC Section 22358.8) or have restored the immediately prior adopted speed limit (CVC Section 22358.8). Refer to CVC Section 22358.9(c).

13 Speed studies for signalized intersection approaches should be taken outside the influence area of the traffic control signal, which is generally considered to be approximately 1/2 mile, to avoid obtaining skewed results for the 85th-percentile speed.

Support:

<sup>14</sup> Advance warning signs and other traffic control devices to attract the motorist's attention to a signalized intersection are usually more effective than a reduced speed limit zone.

Guidance:

15 An advisory speed plaque (see Section 2C.08) mounted below a warning sign should be used to warn road users of an advisory speed for a roadway condition. A Speed Limit sign should not be used for this situation. Option:

16 Other factors that may be considered when establishing or reevaluating speed limits are the following:

A. Road characteristics, shoulder condition, grade, alignment, and sight distance;

B. The pace;

C. Roadside development and environment;

- D. Parking practices and pedestrian activity; and
- E. Reported crash experience for at least a 12-month period.

<sup>17</sup> Two types of Speed Limit signs may be used: one to designate passenger car speeds, including any nighttime information or minimum speed limit that might apply; and the other to show any special speed limits for trucks and other vehicles.

<sup>18</sup> A changeable message sign that changes the speed limit for traffic and ambient conditions may be installed provided that the appropriate speed limit is displayed at the proper times.

<sup>19</sup> A changeable message sign that displays to approaching drivers the speed at which they are traveling may be installed in conjunction with a Speed Limit sign.

#### Guidance:

<sup>20</sup> If a changeable message sign displaying approach speeds is installed, the legend YOUR SPEED XX MPH or such similar legend should be displayed. The color of the changeable message legend should be a yellow legend on a black background or the reverse of these colors. Support:

<sup>21</sup> Advisory Speed signs and plaques are discussed in Sections 2C.08 and 2C.14. Temporary Traffic Control Zone Speed signs are discussed in Part 6. The WORK ZONE (G20-5aP) plaque intended for installation above a Speed Limit sign is discussed in Section 6F.12. School Speed Limit signs are discussed in Section 7B.15.

<sup>22</sup> Speed limits in California are governed by the California Vehicle Code (CVC), Sections 22348 through 22413; also, pertinent sections are found in Sections 627 and 40802 and others referenced in this section. See Section 1A.11 for information regarding this publication.

<sup>23</sup> Refer to Part 6, Section 6C.01 for speed limit signs in temporary traffic control zones. Refer to Part 7 for speed limit signs in school areas.

Engineering and Traffic Survey (E&TS)

Support:

24 CVC Section 627 defines the term "Engineering and traffic survey" and lists its requirements.

Standard:

<sup>25</sup> An engineering and traffic survey (E&TS) shall include, among other requirements deemed necessary by Caltrans, consideration of all of the following:

- A. Prevailing speeds as determined by traffic engineering measurements.
- B. Collision records.

#### C. Highway, traffic, and roadside conditions not readily apparent to the driver.

#### Guidance:

<sup>26</sup> The E&TS should contain sufficient information to document that the required three items of CVC Section 627 are provided and that other conditions not readily apparent to a driver are properly identified.

<sup>27</sup> Prevailing speeds are determined by a speed zone survey. A speed zone survey should include:

- A. The intent of the speed measurements is to determine the actual speed of unimpeded traffic. The speed of traffic should not be altered by concentrated law enforcement, or other means, just prior to, or while taking the speed measurements.
- *B.* Only one person is required for the field work. Speeds should be read directly from a radar or other electronic speed measuring devices; or,
- *C.* Devices, other than radar, capable of accurately distinguishing and measuring the unimpeded speed of free flowing vehicles may be used.
- D. A location should be selected where prevailing speeds are representative of the entire speed zone section. If speeds vary on a given route, more than one speed zone section may be required, with separate measurements for each section. Locations for measurements should be chosen so as to minimize the effects of traffic signals or stop signs.
- E. Speed measurements should be taken during off-peak hours between peak traffic periods on weekdays. If there is difficulty in obtaining the desired quantity, speed measurements may be taken during any period with free flowing traffic.
- F. The weather should be fair (dry pavement) with no unusual conditions prevailing.
- *G.* The surveyor and equipment should not affect the traffic speeds. For this reason, an unmarked car is recommended, and the radar speed meter located as inconspicuously as possible.
- *H.* In order for the sample to be representative of the actual traffic flow, the minimum sample should be 100 vehicles in each survey. In no case should the sample contain less than 50 vehicles.
- I. Short speed zones of less than 0.5 miles should be avoided, except in transition areas.
- J. Speed zone changes should be coordinated with changes in roadway conditions or roadside development.
- K. Speed zoning should be in 10 mph increments except in urban areas where 5 mph increments are preferable.
- L. Speed zoning should be coordinated with adjacent jurisdictions.

#### Support:

<sup>28</sup> Physical conditions such as width, curvature, grade and surface conditions, or any other condition readily apparent to the driver, in the absence of other factors, would not require special downward speed zoning. Refer to CVC 22358.5. Option:

29 When qualifying an appropriate speed limit, local authorities may also consider all of the following findings:

- A. Residential density, if any of the following conditions exist on the particular portion of highway and the property contiguous thereto, other than a business district:
  - 1. Upon one side of the highway, within 0.25 miles, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures.
  - 2. Upon both sides of the highway, collectively, within a distance of 0.25 miles the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures.
  - 3. The portion of highway is larger than 0.25 miles but has the ratio of separate dwelling houses or business structures to the length of the highway described in either subparagraph 1 or 2 above.
- B. Safety of bicyclists and pedestrians, with increased consideration for vulnerable pedestrian groups including children, seniors, persons with disabilities, users of personal assistive mobility devices, and the unhoused.
- $_{\ensuremath{\scriptscriptstyle 30}}$  The following two methods of conducting E&TS may be used to establish speed limits:
- 1. State Highways The E&TS for State highways is made under the direction of the Caltrans District Traffic Engineer. The data includes:
  - a. One copy of the Example of Speed Zone Survey Sheet (See Figure 2B-101(CA)) showing:
    - A north arrow
    - Engineer's station or post mileage
    - Limits of the proposed zones

(FHWA's MUTCD 2009 Edition, including Revisions 1,2, &3, as amended for use in California)

- Appropriate notations showing type of roadside development, such as "scattered business," "solid residential," etc. Schools adjacent to the highway are shown, but other buildings need not be plotted unless they are a factor in the speed recommendation or the point of termination of a speed zone.
- Collision rates for the zones involved
- Average daily traffic volume
- Location of traffic signals, signs and markings
- If the highway is divided, the limits of zones for each direction of travel
- Plotted 85<sup>th</sup> percentile and pace speeds at location taken showing speed profile
- b. A report to the District Director that includes:
  - The reason for the initiation of speed zone survey.
  - Recommendations and supporting reasons.
  - The enforcement jurisdictions involved and the recommendations and opinions of those officials.
  - The stationing or reference post in mileage at the beginning and ending of each proposed zone and any intermediate equations. Location ties must be given to readily identifiable physical features.
- 2. City and County Through Highways, Arterials, Collector Roads and Local Streets.
  - a. The short method of speed zoning is based on the premise that a reasonable speed limit is one that conforms to the actual behavior of the majority of motorists, and that by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Other factors that need to be considered include but are not limited to: the most recent two-year collision record, roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile conditions, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.
  - b. Determination of Existing Speed Limits Figures 2B-103(CA) & 2B-104(CA) show examples of data sheets which may be used to record speed observations. Specific types of vehicles may be tallied by use of letter symbols in appropriate squares.

<sup>31</sup> In most situations, the short form for local streets and roads will be adequate; however, the procedure used on State highways may be used at the option of the local agency.

<sup>32</sup> Any agency may lower the speed limit below the prima facie speed limit after performing, and based on the results of an E&TS.

#### Guidance:

<sup>33</sup> The establishment of a speed limit of more than 5 mph below the 85<sup>th</sup> percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85<sup>th</sup> percentile generally results in an increase in collision rates; in addition, this may make violators of a disproportionate number of the reasonable majority of drivers. Support:

34 Generally, the most decisive evidence of conditions not readily apparent to the driver surfaces in collision histories.

<sup>35</sup> Speed limits are established at or near the 85<sup>th</sup> percentile speed, which is defined as that speed at or below which 85<sup>th</sup> percent of the traffic is moving. The 85<sup>th</sup> percentile speed is often referred to as the critical speed. Pace speed is defined as the 10 mph increment of speed containing the largest number of vehicles (See Figure 2B-102(CA)). The lower limit of the pace is plotted on the Speed Zone Survey Sheets as an aid in determining the proper zone limits. Speed limits higher than the 85<sup>th</sup> percentile are not generally considered reasonable and prudent. Speed limits below the 85<sup>th</sup> percentile do not ordinarily facilitate the orderly movement of traffic and require constant enforcement to maintain compliance. Speed limits established on the basis of the 85<sup>th</sup> percentile conform to the consensus of those who drive highways as to what speed is reasonable and prudent, and are not dependent on the judgment of one or a few individuals.

<sup>36</sup> The majority of drivers comply with the basic speed law. Speed limits set at or near the 85<sup>th</sup> percentile speed provide law enforcement officers with a limit to cite drivers who will not conform to what the majority considers reasonable and prudent. Further studies show that establishing a speed limit at less than the 85<sup>th</sup> percentile (Critical Speed) generally results in an increase in collision rates.

#### Option:

<sup>37</sup> When roadside development results in traffic conflicts and unusual conditions which are not readily apparent to drivers, as indicated in collision records, speed limits somewhat below the 85<sup>th</sup> percentile may be justified. Concurrence and support of enforcement officials are necessary for the successful operation of a restricted speed zone.

Guidance:

38 Speed zones of less than 0.5 miles and short transition zones should be avoided.

<u>Signs</u>

Standard:

<sup>39</sup> The Speed Limit (R2-1) sign shall be used to give notice of a prima facie or maximum speed limit except as provided under Prima Facie Speed Limits in CVC 22352.

<sup>40</sup> When used, the TRUCKS, 3 AXLES OR MORE 55 MAXIMUM (R6-3(CA)) sign shall be installed approximately 750 feet following each R2-1 sign.

<sup>41</sup> The ALL VEHICLES WHEN TOWING 55 MAXIMUM (R6-4(CA)) sign shall be installed approximately 750 feet following the R6-3(CA) sign.

Guidance:

<sup>42</sup> The R6-3(CA) and R6-4(CA) signs should be placed on highway segments where speeds in excess of 55 mph are permitted.

Option:

<sup>43</sup> The existing AUTOS WITH TRAILERS, TRUCKS 55 MAXIMUM (R6-1(CA)) sign may remain in place until it is knocked down, damaged, stolen, vandalized, or otherwise reaches the end of its useful life.

<sup>44</sup> The local California Highway Patrol office may be consulted to identify highway segments where enforcement is an issue. On these segments early replacement of existing R6-1(CA) signs may be necessary.

Support:

<sup>45</sup> Refer to CVC Section 22406 for types of vehicles subject to the 55 mph maximum speed limit.

Option:

<sup>46</sup> The Speed Zone Ahead (R2-4(CA)) sign (see Figure 2B-3(CA)) may be used to inform the motorist of a reduced speed zone.

Standard:

<sup>47</sup> The R2-4(CA) sign shall always be followed by a Speed Limit (R2-1) sign installed at the beginning of the zone where the reduced speed limit applies.

<sup>48</sup> The End Speed Limit (R3(CA)) sign shall only be used to mark the end of a speed zone.

<sup>49</sup> The R3(CA) sign shall not be used at a transition into a change in speed limits within a reduced zone.

#### Option:

<sup>50</sup> The R3(CA) sign (see Figure 2B-3(CA)) may be used with the TRUCK (M4-4) plaque to mark the end of truck speed zones on descending grades.

#### Standard:

51 Speed limit signs shall be placed at the beginning of all restricted speed zones.

Option:

<sup>52</sup> Where speed zones are longer than 1 mile, intermediate signs may be placed at approximate 1 mile intervals. For three or more lanes in each direction, dual installation may be used.

#### Standard:

<sup>53</sup> The Speed Limit (R2-1) and End Speed Limit (R3(CA)) signs, as appropriate shall be placed at the end of all restricted speed zones.

<sup>54</sup> Freeways with 65 mph and those segments where a speed limit of 70 mph has been approved by Caltrans, with approval by the California Highway Patrol, shall be posted as follows:

- At the segment entrance, R2-1 signs shall be installed right of traffic off of the right shoulder.
- R2-1 signs shall also be installed off of the right shoulder only, throughout the segment, at a maximum of 25 mile intervals.



City of REDLANDS

Incorporated 1888 Municipal Utilities & Engineering Department

#### MEMORANDUM

TO:	Traffic and Parking Commission
FROM:	Johana Silva, Associate Engineer
DATE:	January 13, 2025
SUBJECT:	RRFB Installation at Existing Crosswalks Staff Memo

The City has acquired ten (10) Rectangular Rapid Flashing Beacons (RRFBs) for installation at five (5) existing crosswalk locations using unused funds from the 2023-2024 TPC budget. The City has created an inventory of midblock crosswalks across the city. There are a total of forty-four (44) midblock crosswalks that currently have no enhancements beyond striping and signage.

Staff was directed to provide vehicle/pedestrian collision history during the September 26, 2024 commission meeting. Attached is a map providing the locations of these crosswalks for the Commission's review along with a collision report provide by the police department. We kindly ask you to review the locations and provide your recommendations for prioritization.

#### **Community Requests:**

The following locations have been specifically requested for safety enhancements by residents and businesses in the community:

- Eureka Street (adjacent to Redlands Bowl), between Olive Avenue and Vine Street
- Citrus Avenue at 9th Street (adjacent to YMCA)
- Center Street at Michigan Street

We ask that the Commission consider these locations when reviewing potential sites for the installation of RRFBs.

Thank you,

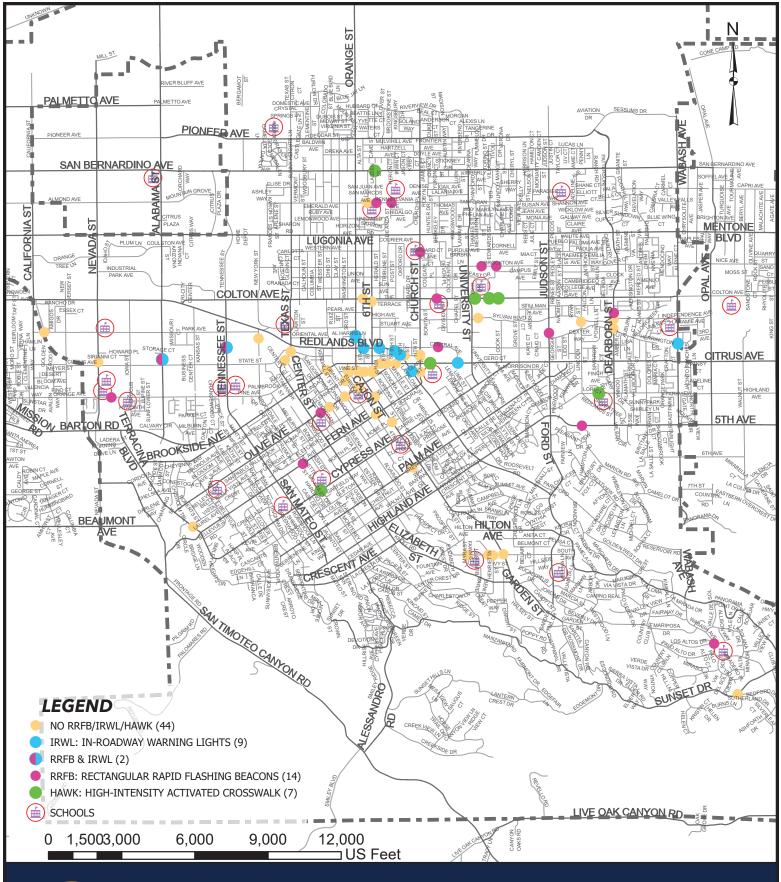
Johana Silva Associate Engineer jsilva@cityofredlands.org (909) 798-7584 x7



Attachments: Map of Midblock Crosswalk Inventory Vehicle vs. Ped/Bike Accident Report

·







MIDBLOCK CROSSWALKS LOCATION MAP

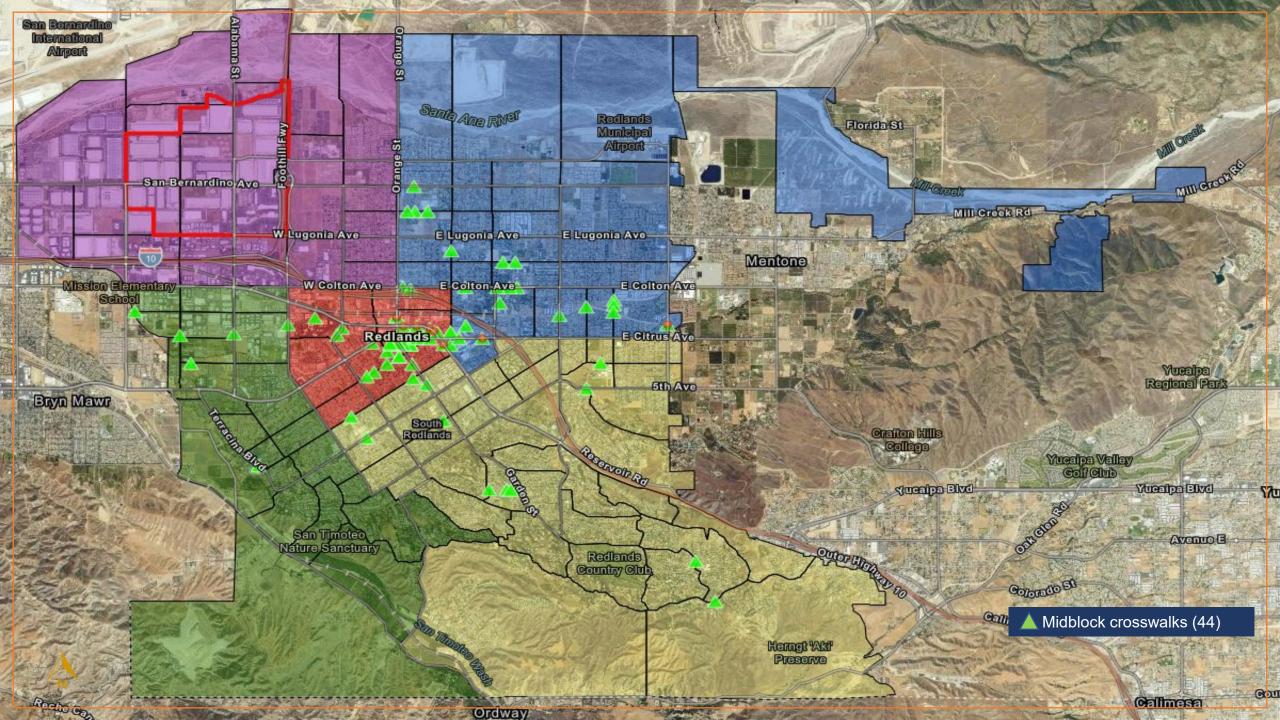
# Vehicle vs. Ped/Bike

## Midblock Crosswalks(non controlled locations) Calls For Service Data 01/01/2020 to 09/30/2024



This data contains calls for service pertaining to accidents within midblock crosswalks focusing on vehicle versus pedestrian and bicycles. This study will also focus on active areas that have the potential to generate a call for service pertaining to vehicle versus pedestrian.

Produced by Crime Analyst: A. Colerick 10/22/2024



## High-Risk Accident Locations (near midblock crosswalks)

## N Center St/Texas St and W State St



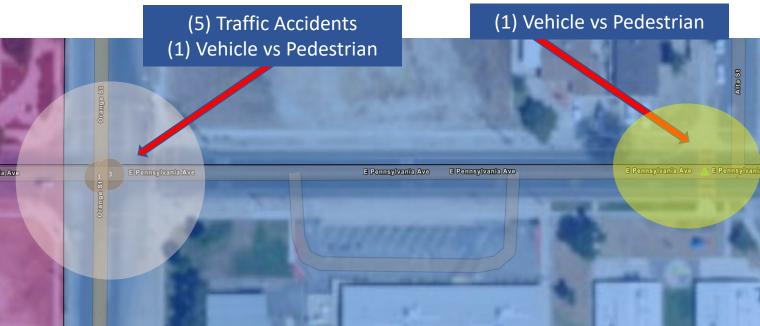
## High-Risk Accident Locations (near midblock crosswalks)



## E Pennsylvania Ave and Alta St

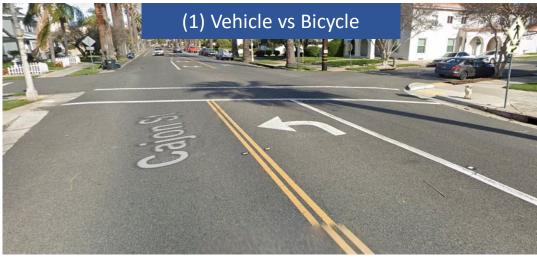


Nearest high-risk intersection: Orange St and E Pennsylvania Ave



## Potential Locations (near midblock crosswalks)

## Cajon St & E Clark St



## E Citrus Ave & Seventh St



## E Citrus Ave & Eighth St



## E Citrus Ave & Ninth St

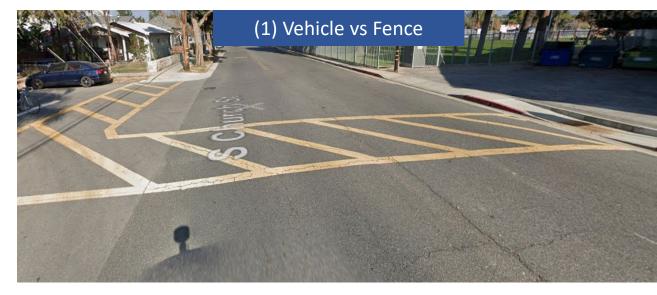


## Potential Locations (near midblock crosswalks)

## Church St & E Citrus Ave



## S Church St & E Clark St



## Summary

N Center St/Texas St and W State St: Vehicle vs Bicycle, (4) Vehicle vs. Vehicle

- E Pennsylvania Ave and Alta St: Vehicle vs. Pedestrian
- Cajon St & E Clark St: (1) Vehicle vs Bicycle
- E Citrus Ave & Seventh St: (0) T/Cs
- E Citrus Ave & Eighth St: (2) Vehicle vs Vehicle
- E Citrus Ave & Ninth St: (3) Vehicle vs Vehicle
- Church St & E Citrus Ave: (2) Vehicle vs Vehicle
- S Church St & E Clark St: (1) Vehicle vs Fence





Incorporated 1888 Municipal Utilities & Engineering Department

#### MEMORANDUM

TO:	Traffic and Parking Commission Chair
FROM:	Johana Silva, Associate Engineer
DATE:	January 13, 2025
SUBJECT:	Traffic Improvement Requests

#### **Background:**

The City of Redlands has received multiple traffic control requests from residents aimed at enhancing traffic safety and flow in the various areas in Redlands. These requests include the installation of stop signs, reprogramming signal timings, lane modifications, and other traffic control measures. This report evaluates each request, outlines actions taken or recommendations made, and provides a basis for decision-making.

#### **Traffic Control Requests Evaluation**

Request 1: Starbucks (625 East Redlands Boulevard) by Redlands High School. Driveway entrance is difficult to negotiate without hitting the median.



#### **Evaluation**:

The portion of the median within the Redlands Boulevard right-of-way (ROW) is challenging to navigate as it follows the surface grade, which slopes towards the street at the driveway. This configuration makes the median difficult for drivers to see and negotiate effectively.

#### Recommendation:

Removal of this portion of the median within the City's ROW can be incorporated into a future project.



#### Request 2: Packinghouse District, northbound on Eureka, left turn pocket



Evaluation:

Vehicle tracking analysis demonstrates that vehicles can navigate the left turn pocket into the Packinghouse District entrance on northbound Eureka Street. The narrow lane design restricts truck traffic, ensuring the pocket is used only by smaller vehicles. Collision history analysis shows no incidents related to turning movements or lane changes, indicating no significant safety concerns.

Recommendation:

Based on the low collision history and the functionality of the current configuration, no changes are recommended at this time.

#### Request 3: Eastbound Redlands Boulevard, left turn pocket to Walmart



Evaluation:

Vehicle tracking analysis confirms that vehicles can safely navigate the left turn pocket into the Walmart shopping center entrance on northbound Eureka Street. The narrow lane design effectively prevents truck traffic, restricting the pocket to passenger vehicles. Collision history analysis reveals no incidents related to turning movements or lane changes, demonstrating that the existing configuration operates safely.

Recommendation:

No changes are recommended due to the effectiveness and safety of the current lane configuration.



## Request 4: Eastbound Ford Street, south of Redlands Boulevard, entrance to office complex, left turn pocket too narrow



as the current configuration is effective and safe.

#### **Evaluation**:

Vehicle tracking analysis indicates that vehicles can navigate the left turn pocket into the office complex. The narrow lane design also prevents truck traffic, maintaining the pocket's intended use for passenger vehicles. Collision history shows no incidents associated with turning movements or lane changes, suggesting no significant safety issues.

#### Recommendation: No changes are recommended at this time

Request 5: Curb on east side of 4th Street at Vine Street. Red curb on east side of street should be reduced in length and a bump-out should be extended northbound, in lieu of the white posts.



#### **Evaluation**:

California Assembly Bill 413 (AB 413) prohibits parking within 20 feet of a marked or unmarked crosswalk at intersections controlled by stop signs or traffic signals, or 15 feet where a curb extension is present. This regulation aims to enhance pedestrian safety by improving intersection visibility and reducing accident risks. Implementing a bump-out in lieu of the white posts and reducing

the red curb length would impact parking availability and create compliance issues with ADA parking requirements. Additional analysis is needed to assess the full implications of these modifications.

Recommendation:

No changes are recommended at this time. Further analysis is required to determine the feasibility of the proposed modifications.



## Request 6: Install "Stop Ahead" and Flashing "Stop" Signs at Judson Street and Brockton Avenue

#### Action Taken:

The "Stop Ahead" signs have been installed at Judson Street and Brockton Avenue to enhance visibility and provide early warnings to drivers approaching the stop signs at this intersection.

#### Reason for Action:

The installation aims to improve driver awareness and safety, particularly for those unfamiliar with the area or during low visibility conditions.

#### Request 7: Make Judson Street and Padua Avenue a 3-Way Stop

Evaluation:

A warrant study was conducted for the intersection of Judson Street and Padua Avenue. The analysis indicated that the intersection does not meet the necessary warrants for the installation of additional stop signs. Additionally, there are no sight distance obstructions that would impede visibility at this intersection.

#### Key Considerations:

Proximity to Controlled Intersections: The intersection is approximately 550 feet from the nearest controlled intersections at Judson Street/Brockton Avenue (4-way stop) and approximately 700 feet from Judson Street/Lugonia Avenue (traffic signal).

Traffic Volume: Padua Avenue is primarily a residential street with minimal traffic, which does not justify the need for additional stop signs at this time.

Traffic Diversion: Given that Padua Avenue has minimal traffic, installing a 3-way stop could inadvertently divert traffic from surrounding streets, potentially increasing congestion in residential areas. Traffic diversion can result in higher speeds and more safety concerns in the residential area.

#### Recommendation:

Based on the warrant study results and lack of significant safety concerns, no further action is recommended for this intersection.

#### **Request 8: Reprogram Signal Timing at University Street and Brockton Avenue**

Evaluation and Action Taken:



Staff evaluated the signal timing at the intersection of University Street and Brockton Avenue. The timing was adjusted to increase the phasing for northbound-southbound traffic, aiming to improve traffic flow and reduce delays during peak hours.

#### Outcome:

The timing adjustments have been implemented. Staff will continue to monitor the intersection for any further necessary adjustments.

## **Request 9: Make Texas Street and Brockton Avenue a 4-Way Stop Evaluation:**

The intersection of Texas Street and Brockton Avenue meets the criteria for a 4-way stop installation. Additionally, an apartment building is currently under construction nearby, which is expected to increase traffic volumes once completed.

Key Considerations:

Proximity to Other Controlled Intersections: The intersection is approximately 1,300 feet from the nearest controlled intersections at Texas Street/Lugonia Avenue (traffic signal).

Anticipated Traffic Increase: The new apartment complex is expected to raise both vehicular and pedestrian traffic, potentially justifying enhanced traffic control in the future.

Reasons Not to Install a 4-Way Stop:

Existing Traffic Flow: Installing a 4-way stop could potentially slow down traffic along Texas Street, especially during peak hours, causing unnecessary delays for through traffic. While the stop may enhance safety, it could create inefficiencies for drivers who are currently able to pass through the intersection without much delay.

Nearby Controlled Intersections: Installing a 4-way stop close to existing controlled intersections could lead to traffic congestion and increased delays along Texas Street, especially for through traffic.

Traffic Signal as an Alternative: If traffic significantly increases, a traffic signal might be more appropriate than a 4-way stop for managing higher traffic volumes efficiently when funding is available.

Recommendation:

While the intersection meets the technical criteria for a 4-way stop, it is recommended to monitor traffic conditions following the completion of the apartment building. A 4-way stop can be considered if traffic increases substantially, but immediate installation is not necessary based on current conditions and proximity to other controls.



## Request 10: Make the Number Two (2) Eastbound Lane at Orange Street and Lugonia Avenue a Right Turn Lane

#### Jurisdiction:

This intersection involves both Caltrans and the City of Redlands. Coordination between both agencies is required for any changes.

#### Evaluation:

The eastbound lane currently transitions to a right-turn-only lane after the intersection. Collision history analysis shows minimal incidents related to turning movements or lane changes, indicating that the current configuration does not pose significant safety concerns.

#### Recommendation:

Based on the low collision history and the effectiveness of the existing lane configuration, no changes are recommended at this time.

## Request 11: Make the Number Two (2) Westbound Lane at Texas Street and Lugonia Avenue a Right-Only Lane

#### Evaluation:

The westbound lane at Texas Street and Lugonia Avenue transitions to a merge left after passing the intersection. This configuration was implemented in 2022 based on the Commission's recommendations.

#### Collision History:

Collision data indicates minimal incidents involving turning or lane changes, suggesting that the current configuration is operating safely.

#### Recommendation:

No changes are recommended at this time, given the recent adjustment and the absence of safety concerns.

## Request 12: Make the Number Two (2) Eastbound Lane at New York Street and Colton Avenue a Right-Only Lane

#### Evaluation:

The eastbound lane transitions to a merge left after the intersection. Collision history analysis shows minimal incidents related to turning or lane changes.

#### Recommendation:

No changes are recommended at this time, as the current lane setup effectively manages traffic without significant safety issues.



#### Requests 13-15: Two Lanes for Lugonia Avenue (Orange to Wabash), "No Right Turn on Red" Signs at Northbound Eureka Street/Pearl Avenue, and Protected Left Turns at Orange Street/Pearl Avenue and Eureka Street/Pearl Avenue

Jurisdiction:

These requests fall under Caltrans' jurisdiction.

#### **Evaluation**:

The requests have been forwarded to Caltrans for further evaluation. The City awaits their feedback on the feasibility of implementing these traffic control measures.

#### Recommendation:

No further action is required by the City at this time, pending Caltrans' review and recommendations.

#### Conclusion

The City of Redlands has addressed several traffic control requests by implementing immediate actions where necessary, such as installing "Stop Ahead" signs and adjusting signal timings. For other requests, thorough evaluations based on warrant studies and collision history have led to recommendations against making changes at this time. Requests falling under Caltrans' jurisdiction have been appropriately forwarded for their assessment. Continued monitoring and collaboration with Caltrans will ensure that traffic management measures remain effective and responsive to future needs.

Thank you,

Johana Silva Associate Engineer jsilva@cityofredlands.org (909) 798-7584 x7

Attachments:

- A Request Letters
- B Warrant Study for Judson Street and Padua Avenue
- C Warrant Study for Texas Street and Brockton Avenue
- D-Collision History Reports for Evaluated Intersections





#### City of Redlands Traffic and Parking Commission Request for Agenda Item

#### PLEASE PRINT OR TYPE

Richard R. He	ernandez
---------------	----------

Name			
Phone Number	E-mail	Date	
		Date	

#### REQUEST

1 - Install "Stop Ahead" and Flashing "Stop" signs at Judson / Brockton

2 - Make Judson / Padua a 3-way stop.

3 - Reprogram Signal Timing at University / Brockton

4 - Make Texas / Brockton a 4-way stop.

REQUEST

5 - Make the No. 2 EB lane at Orange / Lugonia right only.

6 - Make the No. 2 WB lane at Texas / Lugonia right only.

7. Make the No. 2 EB Lane at New York / Colton right only.

(Continued on next sheet)

#### **REASON FOR REQUEST**

1 - Due to visibility or some other reason, driviers are not stopping at this location.

2. Traffic SB on Judson is speeding. WB Padua Traffic cannot find gaps to move onto Judson.

3. NB-SB traffic is getting priority. EB-WB traffic can be backed up but the traffic on University is still getting the green.

Please use additional sheets of paper if necessary. You may also attach any diagrams, sketches, petitions, or other items you feel may be helpful to the Traffic and Parking Commission in making a recommendation to the City Council on your request.

SIGNATURE OF APPLICANT:

RETURN TO: 🤇

City of Redlands Municipal Utilities and Engineering Department (Traffic and Parking Commission) P.O. Box 3005 Redlands, CA 92373

Note: The Traffic and Parking Commission meets the fourth Thursday of each odd numbered month at 6:00 p.m. in Redlands City Council Chambers, Civic Center, 35 Cajon Street, Redlands, CA. • Requests:

1

8. Push Caltrans to make Lugonia Avenue, from Orange to Wabash, two lanes in each direction with two way left turn median.

9. Install "NO RIGHT TURN ON RED" signs at NB Eureka / Pearl

10. Require Caltrans to put in protected left turns (arrows and timing) at the signals at Orange / Pearl and Eureka / Pearl.

Reason for requests:

4. Safety, Visibility - NB traffic on Texas is not visible from WB Brockton due to landscaping. WB Brockton traffic must pull into Texas travel way to see oncoming traffic.

5-74. Safety - All of these are followed by reductions in the lanes and the drivers are careless when merging.

8. Safety - Reduce the merging and unmerging by drivers required when driving in that stretch.

9. Safety - The speed of the traffic exiting the I-10 and the visibility due to the overpass and vegetation makes it hard to judge if you have room to make the right turn on red at this location.

10.Safety, Visibility – The visibility is limited, making it hard to determine when it is safe to make left turns.

1. Starbucks, east Rdls Blvd, by High School. Driveway entrance difficult to negotiate without hitting the median

2. Packinghouse Dist., northbound on Eureka, left turn pocket too narrow

3. Rdls Blvd eastbound, abeam Walmart, left turn pocket too narrow

4. Ford Street, eastbound, at entrance to office complex, left turn pocket too narrow

5. Curb on east side of 4<sup>th</sup> St. at Vine, red curb on east side of street should be reduced in length, and a bump-out should be extended northbound, in lieu of the white posts.

6. \_\_\_\_\_

#### Multi-Way Stop Engineering Study CA MUTCD 2014 Edition. Section 2B.07

Location:Judson Street & Padua AvenueDateSeptember 6, 2024

Posted Speed Limit = 35 MPH

	Major: Tex	as Street (vel/h	8-Hour Traffic		-	dua Avenue (	veh/hr)	Combined
Hour	North	South	Totals	– Rank	East	West	Totals	Totals
1 (midnight)	18	19	37		1	2	3	40
<u>2</u>	16	9	25		2	1	3	28
	8	4	12		2	0	2	14
1	8	11	19		2	5	7	26
5	21	25	46		1	3	4	50
5	32	46	78		3	6	9	87
7	71	87	158		1	20	21	179
3	219	252	471	4	16	38	54	525
9	234	238	472	7	11	33	44	516
10	159	156	315		14	17	31	346
11	140	146	286		14	11	25	311
12	174	132	306		8	17	25	331
13	183	136	319	8	14	28	42	361
14	181	150	331		13	14	27	358
15	241	237	478	6	21	23	44	522
16	278	244	522	3	25	29	54	576
17	223	207	430	1	47	35	82	512
18	215	176	391	2	31	28	59	450
19	227	214	441	5	24	25	49	490
20	214	179	393		21	17	38	431
21	183	149	332		12	16	28	360
22	139	133	272		14	8	22	294
23	108	76	184		7	5	12	196
24	54	63	117		3	0	3	120
<sup>-</sup> otal daily traf Criteria A:	Interim m	ulti-way stop p	7123 rior to installation	vehicles / c				
Critorio P.	N/A	womented excel	aaa in a 10 manth	noviad that w		atabla by inc	tolling o mul	ti wax atam
Criteria B:		ttached traffic co	nes in a 12-month	period that h	nay be corre	ectable by ins	stalling a mui	ti-way stop
Criteria C1:			on the major stree	t average at l	east 300 ve	hicles/hour fo	or any 8 hour	s?
	Yes			C C			-	
Criteria C2:			llar, bicycle, and p same 8 hours? *		lumes on th	e minor stree	et average at	least
	No							
Criteria C3:			ercentile speed of on the major stree	•		• •	or any 8 hour	s?
	N/A							
	Does vehi	icular volume o	on the minor stree	et average at l	east 140 ve	hicles/hour f	or any 8 hour	rs?
	N/A							
Criteria D:			criteria is satisfied C.2 all satisfied to		iinimum val	ues?		
	No							

#### Multi-Way Stop Engineering Study CA MUTCD 2014 Edition. Section 2B.07

Location:	Brockton Avenue and Texas Street
Date	September 6, 2024

Posted Speed Limit = 35 MPH

	Major: To	kas Street (vel/h	8-Hour Traffic			ockton Avenu	a (veh/br)	Combined
Hour	North	South	Totals	Rank	West	East		Totals
1 (midnight)	16	19	35		5	16	Totals 21	56
1 (midnight) 2	7	11	18		3	8	11	29
3	9	10	19		7	0	7	26
4	20	10	37		5	16	21	58
5	13	17	30		6	5	11	41
6	43	78	121		27	12	39	160
7	43	151	228		52	12	64	292
3	230	407	637	8	103	65	168	805
9	285	343	628	6	100	78	178	806
10	213	266	479	0	70	42	112	591
11	239	249	488		76	82	158	646
12	249	229	478		64	80	144	622
13	269	240	509	7	77	93	170	679
10	280	293	573	1	82	58	140	713
15	344	323	667	3	95	132	227	894
16	374	382	756	2	98	139	237	993
17	356	366	722	1	73	172	245	993
18	316	304	620	4	78	149	243	847
19	278	233	511	5	66	123	189	700
20	238	194	432	5	59	59	118	550
21	173	155	328		35	56	91	419
22	129	93	222		40	53	93	315
23	87	89	176		21	43	64	240
<u>2</u> 4	57	52	109		20	29	49	158
Fotal daily traf Criteria A:		ulti-way stop p	11607 rior to installation	vehicles / c				
	N/A							
Criteria B:	5 or more	e reported crash	nes in a 12-month	period that n	nay be corre	ectable by in	stalling a mu	lti-way stop
		ttached traffic co	,					
Criteria C1:		icular volume c	on the major stree	t average at l	least 300 ve	hicles/hour f	for any 8 hour	rs?
Criteria C2:	Yes	mbined vehicu	lar, bicycle, and p	adaptrian vo	lumoo on th	a minar atra	ot ovorogo ot	logat
Citteria C2.			same 8 hours? *		iumes on m		el average al	least
	Yes							
Criteria C3:			ercentile speed of on the major stree	•			ior any 8 hour	rs?
	N/A							
	Does veh	icular volume c	on the minor stree	et average at	least 140 ve	hicles/hour f	for any 8 houi	rs?
	N/A							
Criteria D:			riteria is satisfied 2.2 all satisfied to		ninimum val	ues?		
	N/A							

#### TRAFFIC COLLISION HISTORY (2019-2024)

	BROCKTON AVENUE & JUDSON STREET											
No.	Date	TIME	LOCATION	COLLISSION TYPE	CAUSE	ROAD SURFACE	SEVERITY	DAMAGE	NUMBER INJURED	NUMBER KILLED	WEATHER CONDITION	COLLISSION WITH
1	6/2/2024	2002	E BROCKTON AVE & JUDSON ST	BROADSIDE	NONE	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
2	11/24/2023	1339	E BROCKTON AVE & JUDSON ST	BROADSIDE	NONE	DRY	PROPERTY DAMAGE	0	0	0	CLOUDY	OTHER MOTOR VEHICLE
3	10/6/2023	744	E BROCKTON AVE & JUDSON ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
4	6/9/2023	1200	JUDSON ST & E BROCKTON AVE	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
5	5/15/2023	621	E BROCKTON AVE & JUDSON ST	HIT OBJECT	IMPROPER TURN OR U-TURN	DRY	INJURY	0	1	0	CLOUDY	FIXED OBJECT
6	12/11/2022	510	E BROCKTON AVE & JUDSON ST	OVERTURNED	OVER SPEED LIMIT	WET	INJURY	0	1	0	RAINING	NON COLLISION
7	7/3/2022	330	E BROCKTON AVE & JUDSON ST	REAR END	IMPROPER TURN OR U-TURN	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	PARKED MOTOR VEHICLE
8	10/4/2021	440	E BROCKTON AVE & JUDSON ST	REAR END	OVER SPEED LIMIT	DRY	<null></null>	0	0	0	CLEAR	PARKED MOTOR VEHICLE
9	3/17/2021	2159	JUDSON ST & E BROCKTON AVE	HEAD ON	IMPROPER TURN OR U-TURN	DRY	INJURY	0	1	0	CLEAR	FIXED OBJECT
10	6/9/2020	721	E BROCKTON AVE & JUDSON ST	BROADSIDE	NONE	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
11	12/7/2019	23	E BROCKTON AVE & JUDSON ST	REAR END	DUI	WET	PROPERTY DAMAGE	0	0	0	CLOUDY	PARKED MOTOR VEHICLE
12	2/11/2019	725	JUDSON ST & E BROCKTON AVE	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
13	2/11/2019	725	JUDSON ST & E BROCKTON AVE	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
14	1/28/2019	2208	E BROCKTON AVE & JUDSON ST	BROADSIDE	OTHER	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
14	1/20/2015	2200	E BROCKTON ALE & JOBSON ST	BITO/IDSIDE	Officia	DIT	THOI EITH DATA GE		Ŭ	Ū	CLEVIN	
					LUGONIA	AVENUE	& ORANGE STREET					
No.	Date	TIME	LOCATION	COLLISSION	CAUSE	ROAD	SEVERITY	DAMAGE	NUMBER	NUMBER	WEATHER	COLLISSION WITH
				TYPE		SURFACE	JEVENIT		INJURED	KILLED	CONDITION	
1	5/23/2024	639	E LUGONIA AVE & ORANGE ST	REAR END	OVER SPEED LIMIT	WET	INJURY	0	1	0	RAINING	OTHER MOTOR VEHICLE
2	12/18/2023	1930	ORANGE ST & E LUGONIA AVE	HIT OBJECT	NONE	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
3	10/11/2023	1851	ORANGE ST & W LUGONIA AVE	OTHER	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	NON COLLISION
4	10/3/2023	1237	ORANGE ST & E LUGONIA AVE	REAR END	FOLLOWING TOO CLOSELY	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
5	8/22/2023	2146	E LUGONIA AVE & ORANGE ST	BROADSIDE	IMPROPER TURN OR U-TURN	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
6	8/16/2023	524	E LUGONIA AVE & ORANGE ST	BROADSIDE	IMPROPER TURN OR U-TURN	DRY	<null></null>	0	0	0	CLEAR	OTHER MOTOR VEHICLE
7	6/25/2023	347	E LUGONIA AVE & ORANGE ST	REAR END	DUI	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
8	5/24/2023	1811	ORANGE ST & E LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	3	0	CLEAR	OTHER MOTOR VEHICLE
9	5/6/2023	52	ORANGE ST & E LUGONIA AVE	HEAD ON	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
10	5/3/2023	849	ORANGE ST & E LUGONIA AVE	BROADSIDE	OTHER	DRY	INJURY	0	1	0	CLEAR	BICYCLE
11	4/20/2023	1024	ORANGE ST & E LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
12	4/8/2023	2215	ORANGE ST & E LUGONIA AVE	REAR END	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
13	4/6/2023	1217	E LUGONIA AVE & ORANGE ST	REAR END	OVER SPEED LIMIT	DRY	<null></null>	0	0	0	CLEAR	OTHER MOTOR VEHICLE
14	1/21/2023	212	ORANGE ST & E LUGONIA AVE	HEAD ON	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER OBJECT
15	1/21/2023	1015	ORANGE ST & E LUGONIA AVE	HIT OBJECT	OTHER	DRY	INJURY	0	1	0	CLEAR	FIXED OBJECT
16	12/18/2022	28	E LUGONIA AVE & ORANGE ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	3	0	CLEAR	OTHER MOTOR VEHICLE
17	10/15/2022	509	ORANGE ST & E LUGONIA AVE	HIT OBJECT	IMPROPER LANE CHANGE OR USAGE	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER OBJECT
18	6/22/2022	2359	E LUGONIA AVE & ORANGE ST	REAR END	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
19	6/8/2022	1422	ORANGE ST & E LUGONIA AVE	SIDE SWIPE	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
20	6/7/2022	2258	E LUGONIA AVE & ORANGE ST	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
20	6/4/2022	135	ORANGE ST & E LUGONIA AVE	HIT OBJECT	IMPROPER LANE CHANGE OR USAGE	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
22	5/20/2022	2237	ORANGE ST & E LUGONIA AVE	HEAD ON	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
23	5/13/2022	2123	ORANGE ST & E LUGONIA AVE	HIT OBJECT	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
23	5/8/2022	1524	ORANGE ST & E LUGONIA AVE	HIT OBJECT	IMPROPER TURN OR U-TURN	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
24	4/29/2022	750	E LUGONIA AVE & ORANGE ST	SIDE SWIPE	IMPROPER LANE CHANGE OR USAGE	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
25	4/29/2022	1525	ORANGE ST & E LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
20	4/20/2022	1525	ORANGE ST & E LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
27	4/20/2022	746	W LUGONIA AVE & ORANGE ST	HICLE/PEDESTRI	PEDESTRIAN VIOLATION	DRY	INJURY	0	2	0	CLEAR	PEDESTRIAN
28 29	4/7/2022 4/5/2022	1124		REAR END	OVER SPEED LIMIT	DRY	INJURY	0	2	0	CLEAR	
			W LUGONIA AVE & ORANGE ST					0		-		OTHER MOTOR VEHICLE
30	2/11/2022	1828	ORANGE ST & E LUGONIA AVE	HIT OBJECT	OVER SPEED LIMIT	DRY	INJURY	•	1	0	CLEAR	FIXED OBJECT
31	11/23/2021	2228	E LUGONIA AVE & ORANGE ST	REAR END	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
32	11/13/2021	348	ORANGE ST & E LUGONIA AVE	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE

#### TRAFFIC COLLISION HISTORY (2019-2024)

33	10/25/2021	1412	ORANGE ST & E LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
34	10/23/2021	325	W LUGONIA AVE & ORANGE ST	SIDE SWIPE	IMPROPER PASSING	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
35	7/3/2021	1816	E LUGONIA AVE & ORANGE ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
35	11/6/2020	1816	E LUGONIA AVE & ORANGE ST	HEAD ON	PEDESTRIAN VIOLATION	DRY	INJURY	0	1	0	CLEAR	BICYCLE
37	10/10/2020	1729	ORANGE ST & E LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
								0	-	-		
38	6/18/2020	1722	E LUGONIA AVE & ORANGE ST	REAR END	OVER SPEED LIMIT	DRY	<null></null>		1	0	CLEAR	MOTOR VEHICLE ON OTHER ROADWAY
39	6/12/2020	916	ORANGE ST & E LUGONIA AVE	HIT OBJECT	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	FIXED OBJECT
40	6/2/2020	1107	E LUGONIA AVE & ORANGE ST	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
41	4/2/2020	759	ORANGE ST & E LUGONIA AVE	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
42	2/19/2020	1705	ORANGE ST & E LUGONIA AVE	REAR END	IMPROPER TURN OR U-TURN	DRY	INJURY		2	0	CLEAR	OTHER MOTOR VEHICLE
43	2/7/2020	1228	ORANGE ST & E LUGONIA AVE	REAR END	FOLLOWING TOO CLOSELY	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
44	12/31/2019	2125	ORANGE ST & E LUGONIA AVE	HIT OBJECT	OTHER	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
45	12/20/2019	1600	E LUGONIA AVE & ORANGE ST	REAR END	FOLLOWING TOO CLOSELY	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
46	8/17/2019	1213	E LUGONIA AVE & ORANGE ST	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
47	6/3/2019	1853	W LUGONIA AVE & ORANGE ST	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
48	5/5/2019	2019	ORANGE ST & E LUGONIA AVE	HICLE/PEDESTRI	FAILED TO YIELD RIGHT OF WAY	DRY	INJURY	0	1	0	CLEAR	PEDESTRIAN
49	4/24/2019	1538	ORANGE ST & E LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
50	3/5/2019	2052	E LUGONIA AVE & ORANGE ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
					LUGONIA	A AVENU	E & TEXAS STREET					
No.	Date	TIME	LOCATION	COLLISSION	CAUSE	ROAD		DAMAGE	NUMBER	NUMBER	WEATHER	COLLISSION WITH
	Date		2007/1011	TYPE	0,002	SURFACE	SEVERITY	57.117.102	INJURED	KILLED	CONDITION	
1	4/2/2024	1733	W LUGONIA AVE & TEXAS ST	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
2	11/20/2023	1855	TEXAS ST & W LUGONIA AVE	BROADSIDE	DUI	DRY	INJURY	0	3	0	CLEAR	OTHER MOTOR VEHICLE
3	8/21/2023	1859	TEXAS ST & W LUGONIA AVE	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	PARKED MOTOR VEHICLE
4	6/8/2023	1720	TEXAS ST & W LUGONIA AVE	SIDE SWIPE	IMPROPER PASSING	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
5	10/13/2022	1804	TEXAS ST & W LUGONIA AVE	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
6	3/3/2022	2135	LUGONIA & TEXAS	SIDE SWIPE	IMPROPER LANE CHANGE OR USAGE	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
7	2/16/2022	711	W LUGONIA AVE & TEXAS ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
8	11/4/2021	1030	TEXAS ST & W LUGONIA AVE	BROADSIDE	OTHER	DRY	INJURY	0	1	0	CLEAR	BICYCLE
9	7/17/2021	2036	W LUGONIA AVE & TEXAS ST	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	PARKED MOTOR VEHICLE
10	7/3/2021	109	W LUGONIA AVE & TEXAS ST	REAR END	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	PARKED MOTOR VEHICLE
11	6/23/2021	1411	W LUGONIA AVE & TEXAS ST	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
12	9/3/2020	1618	TEXAS ST & W LUGONIA AVE	OTHER	FAILED TO YIELD RIGHT OF WAY	DRY	INJURY	0	1	0	CLEAR	BICYCLE
12	8/29/2020	318	TEXAS ST & W LUGONIA AVE	OVERTURNED	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
13	6/25/2020	1317	W LUGONIA AVE & TEXAS ST	REAR END	OVER SPEED LIMIT	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
14	2/26/2020	1005	TEXAS ST & W LUGONIA AVE	BROADSIDE	IMPROPER TURN OR U-TURN	DRY	INJURY	0	0	0	CLEAR	MOTOR VEHICLE ON OTHER ROADWAY
15	8/19/2019	1856	W LUGONIA AVE & TEXAS ST	SIDE SWIPE	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	PARKED MOTOR VEHICLE
10	8/19/2019	1850	W LOGONIA AVE & TEXAS ST	SIDE SWIFE				-	0	0	CLLAN	PARKED MOTOR VEHICLE
					COLION A	VENUE &	NEW YORK STREET	I				
No.	Date	TIME	LOCATION	COLLISSION	CAUSE	ROAD	SEVERITY	DAMAGE	NUMBER	NUMBER	WEATHER	COLLISSION WITH
				TYPE		SURFACE			INJURED	KILLED	CONDITION	
1	1/27/2024	101	W COLTON AVE & NEW YORK ST	HIT OBJECT	IMPROPER TURN OR U-TURN	DRY	<null></null>	0	0	0	CLEAR	FIXED OBJECT
2	7/18/2023	1923	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER OBJECT
3	7/3/2023	1033	W COLTON AVE & NEW YORK ST	SIDE SWIPE	IMPROPER TURN OR U-TURN	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
4	3/13/2023	819	NEW YORK ST & W COLTON AVE	HIT OBJECT	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
5	2/15/2023	1906	W COLTON AVE & NEW YORK ST	SIDE SWIPE	IMPROPER LANE CHANGE OR USAGE	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
6	1/4/2023	1444	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
7	10/27/2022	1137	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
8	10/19/2022	1509	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
9	9/23/2022	2127	W COLTON AVE & NEW YORK ST	SIDE SWIPE	DUI	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	MOTOR VEHICLE ON OTHER ROADWAY
	8/24/2022	1022	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
10		1324	W COLTON AVE & NEW YORK ST	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
10 11	6/20/2022	1524		THE THE ETTE								
	6/20/2022 6/10/2022	1609	NEW YORK ST & W COLTON AVE	HIT OBJECT	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	FIXED OBJECT
11						DRY DRY	PROPERTY DAMAGE PROPERTY DAMAGE	0	0	0	CLEAR CLEAR	FIXED OBJECT FIXED OBJECT

#### TRAFFIC COLLISION HISTORY (2019-2024)

15	4/8/2022	1706	NEW YORK ST & W COLTON AVE	BROADSIDE	FAILED TO YIELD RIGHT OF WAY	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
16	9/4/2021	837	NEW YORK ST & W COLTON AVE	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
17	8/12/2021	1316	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
18	5/3/2021	1705	W COLTON AVE & NEW YORK ST	SIDE SWIPE	IMPROPER LANE CHANGE OR USAGE	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
19	3/9/2020	1541	W COLTON AVE & NEW YORK ST	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE
20	9/11/2019	1055	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	DRY	INJURY	0	1	0	CLEAR	OTHER MOTOR VEHICLE
21	4/21/2019	1730	W COLTON AVE & NEW YORK ST	REAR END	IMPROPER TURN OR U-TURN	DRY	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
22	4/9/2019	1408	W COLTON AVE & NEW YORK ST	BROADSIDE	FAILED TO HEED SIGN OR SIGNAL	WET	INJURY	0	2	0	CLEAR	OTHER MOTOR VEHICLE
23	1/7/2019	1549	W COLTON AVE & NEW YORK ST	REAR END	OVER SPEED LIMIT	DRY	PROPERTY DAMAGE	0	0	0	CLEAR	OTHER MOTOR VEHICLE

#### Work Order Status as of January 13, 2025

#### Traffic and Parking Commission Approved Items Work Order Status

ltem	Traffic and Parking Commission Meeting	Description of Request	Recommended for City Council?	•	Approved by City Council?	Work Order Issued	Work Order Status		
	None								

#### Status of Work Orders Approved by Staff

Item	Description of Request	Work Order Issued	Work Status
1	Install red curb adjacent to intersection at Wabash Avenue and		
1	Montecito Lane.	11/5/2024	Complete
2	Install Dead End signs at the Sierra Vista Drive and Canyon Road		
Z	intersection.	12/16/2024	Complete