2024 Engineering & Traffic Survey

City of Redlands, California
December 19, 2024

rkengineer.com

RK ENGINEERING GROUP INC.

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

Table of Contents Page

List of Attachments

Exhibits

Tables

Appendices

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 85th-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 85th-percentile speed, in compliance with CVC Sections 627 and 22358.3.
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."

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 85th 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.

22358 (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.

22358.8. (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:

Average Speed

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.

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.

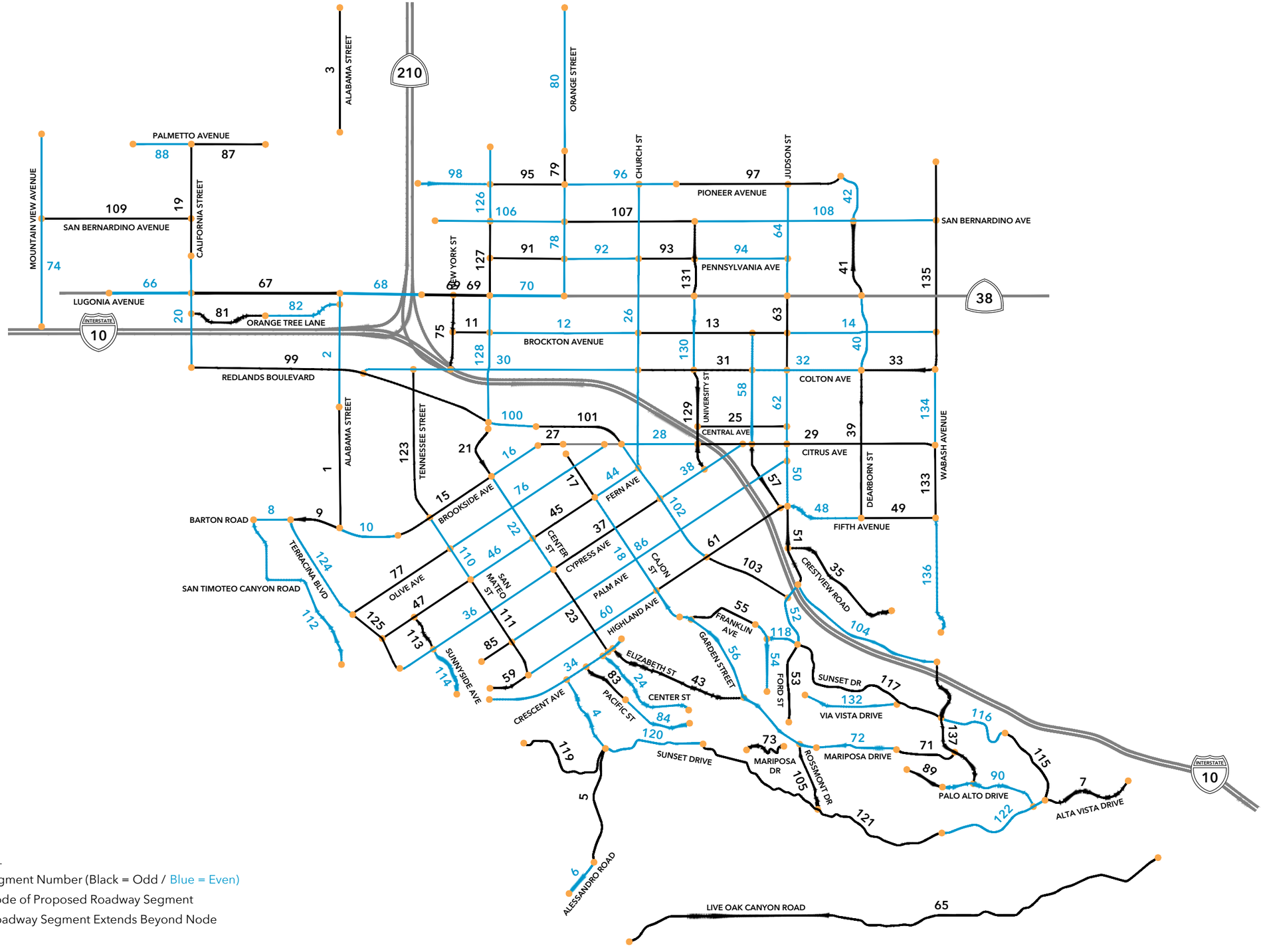
CVC 22358.6(b) and 22358.6(c) now authorize local agencies to lower speed limits by an additional 5 mph if, after completing an E&TS, it is found that the speed is still more than is reasonable or safe, for either of the following reasons:

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



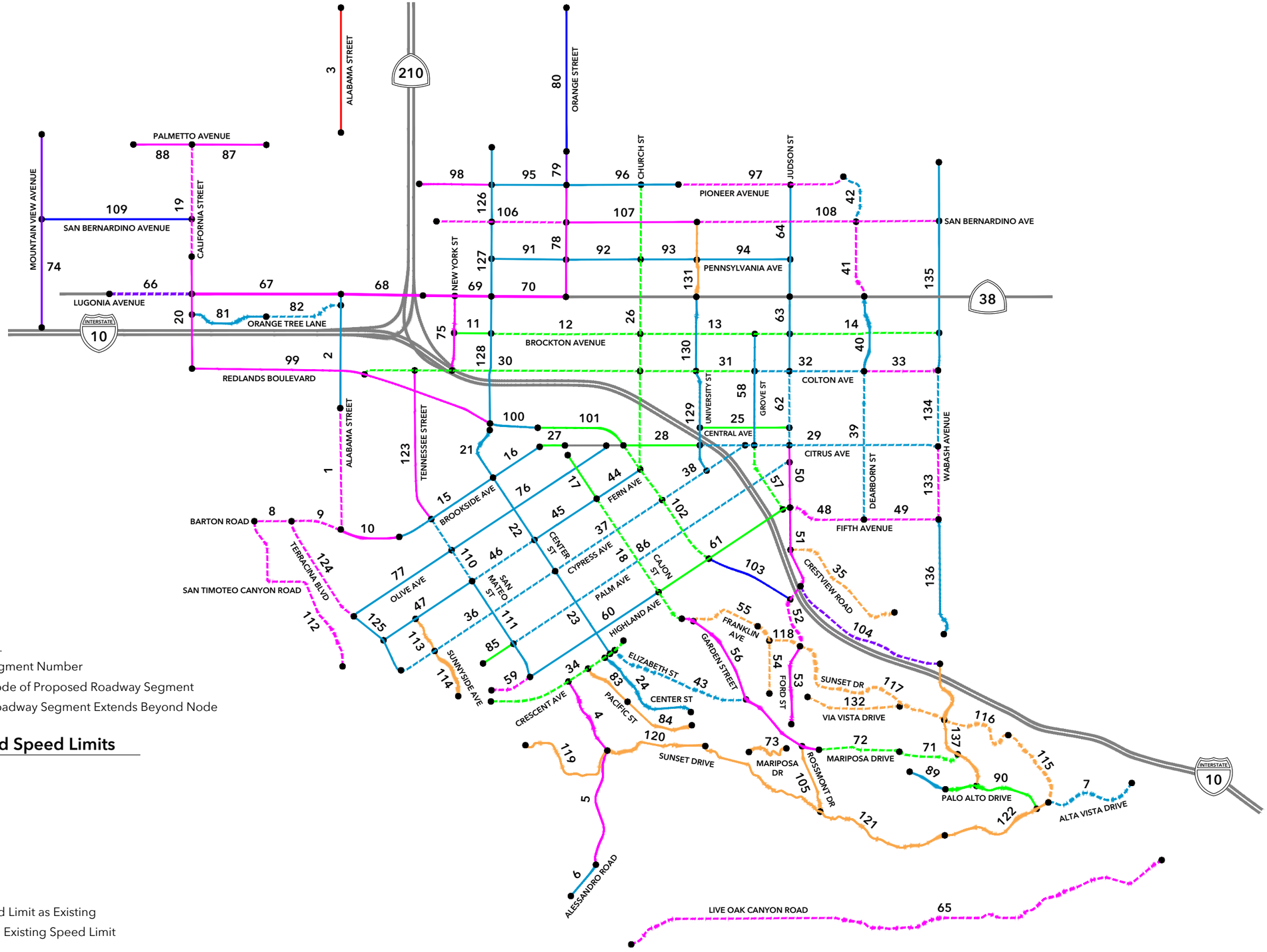
Legend

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

N

Exhibit A

Study Area Roadway Segments



Legend

1 = Roadway Segment Number

● = Start/End Node of Proposed Roadway Segment

●– = Proposed Roadway Segment Extends Beyond Node

Recommended Speed Limits

- = 25 MPH
- = 30 MPH
- = 35 MPH
- = 40 MPH
- = 45 MPH
- = 50 MPH
- = 55 MPH
- = Same Speed Limit as Existing
- = Decrease in Existing Speed Limit

N

Exhibit B

Recommended Speed Limits

Tables

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

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph)[1,2]	85th Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed[3]
1.	**Alabama Street** Barton Road to Park Avenue	45	**40**	46	38 - 47	83%	1 & 7
2.	**Alabama Street** 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.	**Alessandro Road** Crescent Avenue to Sunset Drive	40	40	44	35 - 44	79%	1,3, & 4
5.	**Alessandro Road** Sunset Drive to Creekside Drive	40	40	44	36 - 45	79%	1 & 3
6.	**Alessandro Road** 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** Lakeside 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	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	30	30	35	27 - 36	84%	2, 5, & 6
29.	**Citrus Avenue** University Street to Wabash Avenue	40	**35**	43	34 - 43	80%	1, 4, 7, 11e, 11h, 11i, & 11j
30.	**Colton Avenue** Redlands Boulevard to Church Street	40	**30**	41	31 - 40	76%	2, 3, 5, 6, 7, 11a, 11b, 11h, & 11i
31.	**Colton Avenue** Church Street to Grove Street	35	**30**	40	31 - 40	76%	2, 5, 6, 7, 11c, 11e, 11h, & 11i
32.	**Colton Avenue** Grove Street to Dearborn Street	40	**35**	44	34 - 43	74%	1, 4, 5, 6, 11h, & 11i
33.	**Colton Avenue** Dearborn Street to Wabash 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)[1,2]	85th Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed[3]
35.	**Crestview Road** Ford Street to Buckingham Drive	30	**25**	32	23 - 32	87%	2 & 8
36.	**Cypress Avenue** Terracina Boulevard to Center Street	40	**35**	41	34 - 43	75%	2, 5, 6, & 7
37.	**Cypress Avenue** Center Street to Redlands Boulevard	40	**35**	43	35 - 44	78%	1, 4, 5, 6, 7, 11c, 11h, 11i, & 11j
38.	**Cypress Avenue** 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)[1,2]	85th Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed[3]
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.	**Orange Tree Lane** 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

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

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph)[1,2]	85th Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed[3]
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.	**Redlands Boulevard** 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** Brookside Avenue 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 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** Alessandro Drive to Ridge Street	25	25	32	22 - 31	76%	2, 3, 5, & 7
121.	**Sunset Drive S** Ridge Street to Helen Drive	25	25	25	15 - 24	67%	N/A
122.	**Sunset Drive S** Helen Drive to Alta Vista Drive	25	25	30	21 - 30	76%	2, 3, 5, & 7
123.	**Tennessee Street & San Mateo Street** Colton Avenue to Brookside Avenue	40	40	44	35 - 44	83%	1, 4, 5, 6, & 7
124.	**Terracina Boulevard** Barton Road to Olive Avenue	45	**40**	49	38 - 47	68%	1, 5, 6, 11d, 11h, 11i, & 11j
125.	**Terracina Boulevard** Olive Avenue to Cypress Avenue	35	35	41	31 - 40	71%	2, 5, & 6
126.	**Texas Street** Redlands Boulevard to Lugonia Avenue	35	35	40	31 - 40	78%	2, 5, 6, & 7
127.	**Texas Street** Lugonia Avenue to San Bernardino Avenue	35	35	43	35 - 44	77%	1, 4, 5, 6, 11b, & 11i
128.	**Texas Street** San Bernardino Avenue to Domestic Avenue	35	35	42	31 - 40	70%	2 & 5
129.	**University Street** Cypress Avenue to Colton Avenue	35	35	39	31 - 40	92%	1, 5, 6, & 7
130.	**University Street** Colton Avenue to Lugonia Avenue	35	35	38	30 - 39	88%	1, 4, 5, & 6
131.	**University Street** Lugonia Avenue to San Bernardino Avenue	25	25	34	24 - 33	73%	1, 4, 5, & 11i
132.	**Via Vista Drive** Country Club Drive to Helena Lane	30	**25**	31	23 - 32	69%	2, 3, 5, & 8

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

	Roadway Segment	Posted Speed Limit (mph)	Recommended Speed Limit (mph)[1,2]	85th Percentile Speed (mph)	10 mph Pace Speed (mph)	Percent in Pace (%)	Reasoning for Adjustment from 85th Percentile Speed[3]
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.	**Wabash Avenue** 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

[1] 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)

[2] 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).

[3] 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
8. Prima Facie speed limit established per CVC 22352 (b)(1)
9. Business Activity District
10. Retain current speed limit or immediately prior speed limit per CVC 22358.8
11. Land or facility that generates high concentrations of bicyclists or pedestrians such as:
    a. Presence of Retail
    b. Parks, Multi-use Trails, & Recreational Destinations
    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

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[1]	Collision Rate[2]	Caltrans Base Rate[3]	Exceeds Base Rate?
1.	**Alabama Street** Barton Road to Park Avenue	21	46	0.82	14,254	1.42	0.94	Yes
2.	**Alabama Street** 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	26	46	1.00	2,482	8.10	1.68	Yes
13.	**Brockton Avenue** Church Street to Judson Street	10	46	1.00	4,693	1.65	1.68	No
14.	**Brockton Avenue** Judson Street to Wabash Avenue	9	46	1.00	2,394	2.91	1.68	Yes
15.	**Brookside Avenue** Lakeside Avenue to Center Street	23	46	0.75	12,487	1.95	1.68	Yes
16.	**Brookside Avenue** Center Street to Eureka Street	9	46	0.37	11,337	1.93	1.68	Yes
17.	**Cajon Street** Vine Street to Fern Avenue	4	46	0.35	10,456	1.00	1.68	No
18.	**Cajon Street** Fern Avenue to Garden Street	20	46	0.98	5,876	2.69	1.68	Yes
19.	**California Street** Palmetto Avenue to Almond Avenue (southbound)	0	46	0.75	5,889	0.00	0.94	No
20.	**California Street** Almond Avenue to Redlands Boulevard	55	46	0.75	20,906	2.79	1.23	Yes
21.	**Center Street** State Street to Brookside Avenue	3	46	0.38	8,917	0.79	1.68	No
22.	**Center Street** Brookside Avenue to Cypress Avenue	6	46	0.75	6,070	1.05	1.68	No
23.	**Center Street** Cypress Avenue to Crescent Avenue	7	46	0.66	6,077	1.41	1.68	No
24.	**Center Street** Crescent Avenue to Ridge Street	1	46	0.75	823	1.29	1.68	No
25.	**Central Avenue** University Street to Judson Street	10	46	0.60	2,634	5.18	1.68	Yes
26.	**Church Street** Pioneer Avenue to Redlands Boulevard	43	46	1.90	7,875	2.14	1.68	Yes
27.	**Citrus Avenue** Eureka Street to Orange Street	3	46	0.17	10,552	2.16	0.94	Yes
28.	**Citrus Avenue** Redlands Boulevard to University Street	9	46	0.51	9,858	1.50	1.68	No
29.	**Citrus Avenue** University Street to Wabash Avenue	21	46	1.60	9,332	1.06	0.96	Yes
30.	**Colton Avenue** 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[1]	Collision Rate[2]	Caltrans Base Rate[3]	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** Dearborn Street to Wabash Avenue	1	46	0.49	7,009	0.25	1.24	No
34.	**Crescent Avenue** Ramona Drive to Serpentine Drive	7	46	1.00	7,380	0.73	1.68	No
35.	**Crestview Road** Ford Street to Buckingham Drive	0	46	0.92	503	0.00	1.68	No
36.	**Cypress Avenue** Terracina Boulevard to Center Street	18	46	1.23	5,939	1.88	0.96	Yes
37.	**Cypress Avenue** Center Street to Redlands Boulevard	14	46	0.87	7,120	1.77	0.96	Yes
38.	**Cypress Avenue** Redlands Boulevard to Citrus Avenue	14	46	0.66	8,343	2.05	1.68	Yes
39.	**Dearborn Street** 5th Avenue to Colton Avenue	3	46	0.99	2,853	0.82	1.68	No
40.	**Dearborn Street** Colton Avenue to Lugonia Avenue	2	46	0.52	3,196	1.01	1.68	No
41.	**Dearborn Street** Lugonia Avenue to San Bernardino Avenue	0	46	0.51	1,872	0.00	1.24	No
42.	**Dearborn Street** San Bernardino Avenue to Sessums Drive	0	46	0.36	1,772	0.00	1.68	No
43.	**Elizabeth Street** Garden Street to Crescent Avenue	5	46	0.97	1,403	2.85	1.24	Yes
44.	**Fern Avenue** Redlands Boulevard to Cajon Street	1	46	0.35	4,601	0.57	1.68	No
45.	**Fern Avenue** Cajon Street to Center Street	2	46	0.50	4,165	0.81	1.68	No
46.	**Fern Avenue** Center Street to San Mateo Street	6	46	0.50	4,159	2.43	1.68	Yes
47.	**Fern Avenue** San Mateo Street to Terracina Boulevard	5	46	0.71	3,638	1.55	1.68	No
48.	**Fifth Avenue** 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.	**Grove Street** 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** 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[1]	Collision Rate[2]	Caltrans Base Rate[3]	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** Citrus Avenue to Colton Avenue	5	46	0.49	7,355	1.17	1.68	No
63.	**Judson Street** Colton Avenue to Lugonia Avenue	4	46	0.49	5,887	1.17	1.68	No
64.	**Judson Street** Lugonia Avenue to Pioneer Avenue	1	46	0.75	4,757	0.22	1.68	No
65.	**Live Oak Canyon Road** San Timoteo Canyon Road to Easterly Boundary	7	46	3.68	5,379	0.26	1.24	No
66.	**Lugonia Avenue** 1500' w/o Research Avenue to California Street	0	46	0.58	3,996	0.00	0.94	No
67.	**Lugonia Avenue** 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** I-10 Freeway to Central Avenue (northbound)	9	46	1.29	12,347	0.43	0.94	No
75.	**New York Street** Colton Avenue to Lugonia Avenue	5	46	0.51	6,984	1.18	1.68	No
76.	**Olive Avenue** Citrus Avenue to San Mateo Street	10	46	1.26	4,729	1.28	1.68	No
77.	**Olive Avenue** San Mateo Street to Terracina Boulevard	6	46	0.79	2,793	2.15	1.68	Yes
78.	**Orange Street** Lugonia Avenue to Pioneer Avenue	29	46	0.75	10,803	2.85	1.68	Yes
79.	**Orange Street** 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.	**Orange Tree Lane** 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** Serpentine Drive to San Mateo Street	0	46	0.24	1,321	0.00	1.68	No
86.	**Palm Avenue** San Mateo Street to Ford Street	13	46	2.21	4,466	0.97	1.68	No
87.	**Palmetto Avenue** Nevada Street to California Street (westbound)	0	46	0.50	2,690	0.00	1.68	No
88.	**Palmetto Avenue** California Street to Marigold Avenue	1	46	0.39	1,714	1.33	0.94	Yes
89.	**Palo Alto Drive** Country Club Drive to Mirasol Drive	0	46	0.27	1,350	0.00	1.68	No
90.	**Palo Alto Drive** 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[1]	Collision Rate[2]	Caltrans Base Rate[3]	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 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.	**San Timoteo Canyon Road** 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.	**Sunset Drive N** 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[1]	Collision Rate[2]	Caltrans Base Rate[3]	Exceeds Base Rate?
121. **Sunset Drive S** Ridge Street to Helen Drive	4	46	1.92	972	1.60	1.68	No
122. **Sunset Drive S** 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. **Via Vista Drive** 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. **Wabash Avenue** Reservoir Road to Palo Alto Drive	2	46	0.98	2,420	0.65	1.68	No

[1] ADT = Average Daily Traffic
[2] Collisions per million vehicle miles traveled
[3] Source: Caltrans Crash Data on California State Highways (Road Miles, Travel, Crashes, Crash Rates) (2022)

Table 3
City of Redlands 2024 Engineering & Traffic Survey
Total Collisions by Year[1]

	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.	**Alessandro Road** Creekside Drive to San Timoteo Canyon Road	1	2	1	0
7.	**Alta Vista Drive** Florida Street to Sunset Drive	1	0	1	1
8.	**Barton Road** West City Limit to Terracina Boulevard	8	4	2	3
9.	**Barton Road** 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.	**Cajon Street** Vine Street to Fern Avenue	2	4	1	1
18.	**Cajon Street** Fern Avenue to Garden Street	5	8	11	1
19.	**California Street** Palmetto Avenue to Almond Avenue (southbound)	1	1	2	1
20.	**California Street** Almond Avenue to Redlands Boulevard	13	17	17	15
21.	**Center Street** State Street to Brookside Avenue	2	3	3	0
22.	**Center Street** Brookside Avenue to Cypress Avenue	2	6	2	2
23.	**Center Street** Cypress Avenue to Crescent Avenue	0	0	4	3

Table 3
City of Redlands 2024 Engineering & Traffic Survey
Total Collisions by Year[1]

	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.	**Citrus Avenue** Eureka Street to Orange Street	2	6	4	1
28.	**Citrus Avenue** 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.	**Colton Avenue** Grove Street to Dearborn Street	2	1	6	1
33.	**Colton Avenue** Dearborn Street to Wabash Avenue	1	2	1	1
34.	**Crescent Avenue** Ramona Drive to Serpentine Drive	0	2	1	4
35.	**Crestview Road** Ford Street to Buckingham Drive	0	0	0	0
36.	**Cypress Avenue** Terracina Boulevard to Center Street	9	3	4	4
37.	**Cypress Avenue** Center Street to Redlands Boulevard	4	3	5	6
38.	**Cypress Avenue** 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.	**Dearborn Street** Lugonia Avenue to San Bernardino Avenue	0	0	0	0
42.	**Dearborn Street** 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

Table 3
City of Redlands 2024 Engineering & Traffic Survey
Total Collisions by Year[1]

	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.	**Ford Street** 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	1	2	0	1
55.	**Franklin Avenue** Oak Street to Garden Street	0	0	0	0
56.	**Garden Street** Mariposa Drive to Cajon Street	0	1	3	2
57.	**Grove Street** Highland Avenue to Citrus Avenue	0	0	0	0
58.	**Grove Street** Citrus Avenue to Brockton Avenue	4	0	2	2
59.	**Highland Avenue** Ford Street to Cajon Street	3	1	5	2
60.	**Highland Avenue** Cajon Street to San Mateo Street	4	0	5	2
61.	**Highland Avenue** San Mateo Street to Serpentine Drive	0	2	0	0
62.	**Judson Street** Citrus Avenue to Colton Avenue	0	2	2	2
63.	**Judson Street** Colton Avenue to Lugonia Avenue	1	1	3	1
64.	**Judson Street** Lugonia Avenue to Pioneer Avenue	1	1	1	0
65.	**Live Oak Canyon Road** San Timoteo Canyon Road to Easterly Boundary	3	0	3	3
66.	**Lugonia Avenue** 1500' w/o Research Avenue to California Street	0	2	0	0
67.	**Lugonia Avenue** California Street to Alabama Street (eastbound)	0	2	2	3
68.	**Lugonia Avenue** Alabama Street to Tennessee Street (eastbound)	7	2	7	8
69.	**Lugonia Avenue** Tennessee Street to Texas Street	10	10	4	4

Table 3
City of Redlands 2024 Engineering & Traffic Survey
Total Collisions by Year[1]

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.	**Mariposa Drive** 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	2	2	7	1
77.	**Olive Avenue** San Mateo Street to Terracina Boulevard	2	0	4	0
78.	**Orange Street** Lugonia Avenue to Pioneer Avenue	7	13	19	6
79.	**Orange Street** Pioneer Avenue to Hubbard Court	6	0	5	1
80.	**Orange Street** Hubbard Court to City Limits	3	3	8	3
81.	**Orange Tree Lane** California Street to Nevada Street	0	3	3	2
82.	**Orange Tree Lane** Nevada Street to Alabama Street	1	0	3	0
83.	**Pacific Street** Crescent Avenue to Carob Street	0	0	0	0
84.	**Pacific Street** Carob Street to Ridge Street	0	1	0	0
85.	**Palm Avenue** 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	1	0	0	0
89.	**Palo Alto Drive** Country Club Drive to Mirasol Drive	0	0	0	0
90.	**Palo Alto Drive** Mirasol Drive to Sunset Drive	0	0	0	0
91.	**Pennsylvania Avenue** Texas Street to Orange Street	2	1	2	1
92.	**Pennsylvania Avenue** Orange Street to Church Street	2	1	0	0

Table 3
City of Redlands 2024 Engineering & Traffic Survey
Total Collisions by Year[1]

	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.	**Pioneer Avenue** 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	3	0	3	2
99.	**Redlands Boulevard** California Street to Texas Street	12	18	18	23
100.	**Redlands Boulevard** Texas Street to Eureka Street	2	6	5	0
101.	**Redlands Boulevard** Eureka Street to Citrus Avenue	4	7	6	11
102.	**Redlands Boulevard** Citrus Avenue to Highland Avenue	10	9	10	7
103.	**Redlands Boulevard** Highland Avenue to Ford Street	4	2	6	1
104.	**Reservoir Road** Ford Street to Wabash Avenue	1	1	0	1
105.	**Rossmont Drive** Garden Street to Sunset Drive	0	0	0	0
106.	**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.	**San Mateo Street** Brookside Avenue to Fern Avenue	1	0	1	2
111.	**San Mateo Street** 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	0	0	0	0
115.	**Sunset Drive N** Alta Vista Drive to Panorama Point	0	0	1	0

Table 3
City of Redlands 2024 Engineering & Traffic Survey
Total Collisions by Year[1]

	Roadway Segment	2021	2022	2023	2024
116.	**Sunset Drive N** Panorama Point to Wabash Avenue	3	5	1	1
117.	**Sunset Drive N** Wabash Avenue to Ford Street	0	0	0	0
118.	**Sunset Drive N** Ford Street to Franklin Avenue	0	0	0	0
119.	**Sunset Drive S** 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	9	13	20	5
124.	**Terracina Boulevard** Barton Road to Olive Avenue	2	0	2	0
125.	**Terracina Boulevard** Olive Avenue to Cypress Avenue	2	0	0	0
126.	**Texas Street** Redlands Boulevard to Lugonia Avenue	5	8	6	7
127.	**Texas Street** Lugonia Avenue to San Bernardino Avenue	1	1	2	2
128.	**Texas Street** San Bernardino Avenue to Domestic Avenue	2	2	1	8
129.	**University Street** Cypress Avenue to Colton Avenue	10	9	14	0
130.	**University Street** Colton Avenue to Lugonia Avenue	4	1	6	2
131.	**University Street** Lugonia Avenue to San Bernardino Avenue	6	1	4	1
132.	**Via Vista Drive** Country Club Drive to Helena Lane	0	0	0	0
133.	**Wabash Avenue** Fifth Avenue to Citrus Avenue	0	1	0	0
134.	**Wabash Avenue** Citrus Avenue to Colton Avenue	0	0	2	1
135.	**Wabash Avenue** Colton Avenue to Sessums Drive	8	2	4	0
136.	**Wabash Avenue** Fifth Avenue to Panorama Drive	0	1	0	0
137.	**Wabash Avenue** Reservoir Road to Palo Alto Drive	2	0	0	0
	Total Collisions	***414***	***399***	***523***	***289***

[1] 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[1]

	Roadway Segment	Total S+F Collisions	Severe Collisions	Fatal Collisions	Mode
30.	**Colton Avenue** Redlands Boulevard to Church Street	5	2	0	Vehicle / Other Motor Vehicle
			1	1	Vehicle / Object
			1	0	Vehicle / Pedestrian
80.	**Orange Street** Hubbard Court to City Limits	4	1	0	Vehicle / Object
			0	2	Vehicle / Pedestrian
			1	0	Vehicle / Other Motor Vehicle
2.	**Alabama Street** Park Avenue to Lugonia Avenue	2	1	0	Vehicle / Other Motor Vehicle
			0	1	Vehicle / Train
29.	**Citrus Avenue** University Street to Wabash Avenue	2	1	0	Vehicle / Pedestrian
			1	0	Vehicle / Other Motor Vehicle
37.	**Cypress Avenue** Center Street to Redlands Boulevard	2	1	0	Vehicle / Other Motor Vehicle
			0	1	Vehicle / Pedestrian
38.	**Cypress Avenue** Redlands Boulevard to Citrus Avenue	2	1	0	Vehicle / Other Motor Vehicle
			0	1	Vehicle / Other Parked Motor Vehicle
51.	**Ford Street** Fifth Avenue to Reservoir Road	2	1	0	Vehicle / Other Motor Vehicle
			1	0	Vehicle / Object
69.	**Lugonia Avenue** Tennessee Street to Texas Street	2	1	0	Vehicle / Bicycle
			1	0	Vehicle / Pedestrian
70.	**Lugonia Avenue** Texas Street to Orange Street	2	2	0	Vehicle / Other Motor Vehicle
74.	**Mountain View Avenue** I-10 Freeway to Central Avenue (northbound)	2	0	1	Vehicle / Pedestrian
			1	0	Vehicle / Other Motor Vehicle
79.	**Orange Street** Pioneer Avenue to Hubbard Court	2	1	0	Vehicle / Other Motor Vehicle
			1	0	Vehicle / Object
109.	**San Bernardino Avenue** Mountain View Avenue to California Street	2	0	2	Vehicle / Pedestrian
116.	**Sunset Drive N** Panorama Point to Wabash Avenue	2	1	0	Vehicle / Other Parked Motor Vehicle
			1	0	Vehicle / Bicycle
126.	**Texas Street** Redlands Boulevard to Lugonia Avenue	2	1	1	Vehicle / Pedestrian
4.	**Alessandro Road** Crescent Avenue to Sunset Drive	1	1	0	Vehicle / Bicylce
18.	**Cajon Street** Fern Avenue to Garden Street	1	1	0	Vehicle / Other Motor Vehicle
26.	**Church Street** Pioneer Avenue to Redlands Boulevard	1	1	0	Vehicle / Pedestrian
27.	**Citrus Avenue** 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.	**Colton Avenue** 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.	**Orange Street** 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.	**Sunset Drive S** Ridge Street to Helen Drive	1	1	0	Vehicle / Bicycle
122.	**Sunset Drive S** 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[1]

	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** Colton Avenue to Lugonia Avenue	1	1	0	Vehicle / Pedestrian
131.	**University Street** Lugonia Avenue to San Bernardino Avenue	1	0	1	Vehicle / Other Motor Vehicle
135.	**Wabash Avenue** Colton Avenue to Sessums Drive	1	1	0	Vehicle / Other Motor Vehicle

[1] Severe and fatal collisions reported from 2021 to 2024.

Appendices

Appendix A
CA MUTCD Section 2B.13

Standard:

03 **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.**

05 **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:

06 *If an island (see Chapter 3I) is available, the In-Street Pedestrian Crossing sign, if used, should be placed on the island.*

Option:

07 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:

08 **The In-Street Pedestrian Crossing sign and the Overhead Pedestrian Crossing sign shall not be used at ~~signalized locations~~** controlled approaches**.**

09 **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.**

10 **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:

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

Standard:

13 **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:

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

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

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

Support:

00 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.

00a 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:

01 **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.**

02 **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.**

03 **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.**

04 **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.**

05 **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.

07 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:

08 ~~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:

09 *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.*

10 *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 85th percentile speed of free-flowing traffic.*~~

CVC Section 22358.6 – 85th-Percentile, Rounding, 5 mph Increment, 5 mph speed reduction and Maximum Speed Reduction

Standard:

12a 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:

1. 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, 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:

12b 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).

12c 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 Section22358.6(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 85th-percentile speed. Refer to CVC Section 22358.6(e).

Support:

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

12e 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:

12g CVC Sections 22358.7, 22358.8 and 22358.9 and their related policies are applicable on local agency roadways.

12h 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:

12i 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

12j 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.

CVC Section 22358.7 – Safety corridor and Land or Facilities Generating High Concentrations of Bicyclists and Pedestrians

Standard:

12l 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:

12m 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:

12n 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.

12o 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:

12p 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.

12r 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:

12t 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.

12u To identify logical termini, the geographic extent of a safety corridor may be determined by non-engineering staff.

Standard:

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

Option:

12w 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.

CVC Section 22358.7(a)(2) – "Land or facility that generates high concentrations of bicyclists or pedestrians" definition

Standard:

12x 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:

12y 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:

12z 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:

12aa 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:

12ab 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:

12ac 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.

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

Standard:

12ae 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:

12ag 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:

12ai 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.

12aj 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.

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:

12ak 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:

14 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.

17 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.

18 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.

19 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:

20 *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:

21 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.

22 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.

23 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:

25 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:

26 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.

27 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:

28 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.

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

- 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 85th 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.

31 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.

32 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:

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

Support:

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

35 Speed limits are established at or near the 85th percentile speed, which is defined as that speed at or below which 85th percent of the traffic is moving. The 85th 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 85th percentile are not generally considered reasonable and prudent. Speed limits below the 85th 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 85th 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.

36 The majority of drivers comply with the basic speed law. Speed limits set at or near the 85th 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 85th percentile (Critical Speed) generally results in an increase in collision rates.

Option:

37 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 85th 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.*

Signs

Standard:

39 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.

40 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.

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

Guidance:

42 *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:

43 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.

44 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:

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

Option:

46 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:

47 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.

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

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

Option:

50 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:

52 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:

53 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.

54 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.