ATTACHMENT 4

# ENGINEERING AND TRAFFIC SURVEY FOR SPEED LIMITS

**Final Report**

**May 2, 2023**

## City of Manteca
## Engineering Department



**ATTACHMENT 4**

## CERTIFICATION

I, Beshoy R Demyan, do hereby certify that this Engineering and Traffic Survey for the City of Manteca was performed under my supervision. I certify that I am experienced in performing surveys of this type and duly registered in the State of California as a professional Civil Engineer.

4/24/23

Beshoy Demyan
RCE# 83233
Exp. 03/31/2025

# TABLE OF CONTENTS

**Table of Contents** ..... i

**1.0 Introduction** ..... 1
1.1 Regulations and Guidelines. ..... 1
1.2 Requirements and Methodology of an Engineering and Traffic Study ..... 4

**2.0 Speed Survey Evaluation** ..... 5
2.1 Field Review ..... 8
2.2 Statistical Analysis Factors ..... 9
2.3 California MUTCD and CVC Guidance ..... 10
2.4 Collision History. ..... 11

**3.0 Results And Recommendations** ..... 12

# List of Tables

**Table 1: Survey Locations and Limits** ..... 5
**Table 2: 2020 California State Highways Collision Rates** ..... 11
**Table 3: Speed Survey Recommendations** ..... 12

# 1.0 INTRODUCTION

This Engineering and Traffic Survey is intended to serve as the basis for the establishment and enforcement of speed limits for selected streets within the City of Manteca. This survey was developed and calculated by the City and independently collected by the private consulting firm National Data & Surveying Services.

Engineering and traffic surveys for speed limits are regularly conducted once every five (5) years by governing municipalities for the purpose of complying with Section 40802(a) of the *California Vehicle Code (CVC)* and the national *Uniform Vehicle Code*. Engineering and traffic surveys may be extended to every seven (7) years if the arresting officer has successfully completed the training requirements, and the radar device used to measure the speed has been calibrated as specified in Section 40802(c) of the CVC, or every fourteen (14) years if a registered engineer evaluates the section of the highway and determines that no significant changes in roadway or traffic conditions have occurred as specified in Section 40802(c) of the *California Vehicle Code (CVC*). In addition, an engineering and traffic survey should be conducted on newly constructed roadways or roadways where the roadway conditions have significantly changed.

## 1.1 Regulations and Guidelines

Division 11, Chapter 7, of the 2023 California Vehicle Code defines the California Speed Laws. Section 22352 of the CVC indicates that prima facie speed limits are 15 miles per hour (mph) at unprotected railroad grade crossings, highway intersections with site restrictions, and on any alley. In addition, the prima facie speed limit is 25 mph in residential and business districts, when approaching or passing a school building or grounds thereof or when passing a senior center or other facility primarily used by senior citizens. Division 1 of the CVC defines a business district and residence district in Section 235 and 515, respectively.

> "A "business district" is that portion of a highway and the property contiguous thereto (a) upon one side of which highway, for a distance of 600 feet, 50 percent or more of the contiguous property fronting thereon is occupied by buildings in use for business, or (b) upon both sides of which highway, collectively, for a distance of 300 feet, 50 percent or more of the contiguous property fronting thereon is so occupied. A business district may be longer than the distances specified in this section if the above ratio of buildings in use for business to the length of the highway exists."[1]
>
> "A "residence district" is that portion of a highway and the property contiguous thereto, other than a business district, (a) upon one side of which highway, within

[1] California Department of Motor Vehicles, California Vehicle Code, Division 1, Section 235, 2023.

> a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures, or (b) upon both sides of which highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures. A residence district may be longer than one-quarter of a mile if the above ratio of separate dwelling houses or business structures to the length of the highway exists."[2]

Section 22357(a) permits the establishment of speed limits greater than 25 mph based on the following text:

> "Whenever a local authority determines upon the basis of an engineering and traffic survey that a speed greater than 25 miles per hour would facilitate the orderly movement of vehicular traffic and would be reasonable and safe upon any street other than a state highway otherwise subject to a prima facie limit of 25 miles per hour, the local authority may by ordinance determine and declare a prima facie speed limit of 30, 35, 40, 45, 50, 55, or 60 miles per hour or a maximum speed limit of 65 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe."[3]

Therefore, the CVC allows local authorities to increase or decrease the prima facie limits by ordinance or resolution to appropriate limits as determined by an engineering and traffic survey. Posted speed limits not defined in the CVC must be justified by an Engineering and Traffic Survey for Speed Limits by ordinance. The CVC requires that speed surveys must be performed with the use of radar or other electronic devices at locations where speed limits are to be enforced with the use of radar. The current survey must be completed within five years as specified in Section 40802(a); seven years as specified in Section 40802(c), or fourteen years as specified in Section 40802(c), of the date of the preceding survey. A survey allowed to expire passed the valid duration of the previous survey would constitute a speed trap as defined in Sections 40802(a) and 40802(b) of the CVC:

> (a) A "speed trap" is either of the following:
> "(1) A particular section of a highway measured as to distance and with boundaries marked, designated, or otherwise determined in order that the speed of a vehicle may be calculated by securing the time it takes the vehicle to travel the known distance.

[2] California Department of Motor Vehicles, California Vehicle Code, Division 1, Section 515, 2023.
[3] California Department of Motor Vehicles, California Vehicle Code, Division 11. Chapter 7, Section 22357(a), 2023.

(2) A particular section of a highway with a prima facie speed limit that is provided by this code or by local ordinance under paragraph (1) of subdivision (b) of Section 22352, or established under Section 22354, 22357, 22358, or 22358.3, if that prima facie speed limit is not justified by an engineering and traffic survey conducted within five years prior to the date of the alleged violation, and enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects. This paragraph does not apply to a local street, road, school zone, senior zone, business activity district, or speed limit adopted under Section 22358.7 or 22358.8

(b) (1) For purposes of this section, a local street or road is one that is functionally classified as "local" on the "California Road System Maps," that are approved by the Federal Highway Administration and maintained by the Department of Transportation. It may also be defined as a "local street or road" if it primarily provides access to abutting residential property and meets the following three conditions:

(A) Roadway width of not more than 40 feet.
(B) Not more than one-half of a mile of uninterrupted length. Interruptions shall include official traffic control signals as defined in Section 445.
(C) Not more than one traffic lane in each direction.

(2) For purposes of this section "school zone" means that area approaching or passing a school building or the grounds thereof that is contiguous to a highway and on which is posted a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. "School zone" also includes the area approaching or passing any school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children if that highway is posted with a standard "SCHOOL" warning sign."[4]

[4] California Department of Motor Vehicles, California Vehicle Code, Division 17. Chapter 2, Section 40802, 2023.

## 1.2 Requirements and Methodology of an Engineering and Traffic Study

Speed zones are primarily established to protect the public from the unreasonable behavior of reckless, unreliable, or otherwise dangerous drivers. Speed limits are generally established at or near the 85$^{th}$ percentile speed, which is defined as the speed at or below which 85 percent of traffic is moving. Speed limits established on this basis conform to the consensus of those who drive on the roadways as to what speed is reasonable and safe, and are not dependent on the judgment of one or a few individuals.

The Engineering and Traffic Survey, as defined in Section 627 of the CVC, must consider the prevailing speeds, collision records, pedestrian and bicycle activity, roadway traffic and roadside conditions not readily apparent to the driver. Speed zones are also established to advise motorists of road conditions or hazards, which may not be readily apparent to a reasonable driver. For this reason, a field review of related road/traffic variables is conducted which is considered in combination with the statistical data and collision history of a particular roadway segment to determine a safe and reasonable speed limit. The specific procedures used in the performance of an Engineering and Traffic Study are outlined in the *California Manual on Uniform Traffic Control Devices (MUTCD) 2014 Edition Revision 6*. The statistical factors used to analyze the collected speed survey data and additional factors as noted in the *California MUTCD 2014 Edition Revision 6* to consider are defined in section 2.3 of this report.

# 2.0 SPEED SURVEY EVALUATION

One hundred and six (106) locations were evaluated by City of Manteca and included in this report. These roadway sections and limits of the sections are listed in Table 1.

**Table 1: Survey Locations and Limits**

| NO | STREET | LIMIT 1 | LIMIT 2 |
|---|---|---|---|
| 1 | Airport Way | Roth Rd | Daisywood Dr |
| 2 | Airport Way | Daisywood Dr | Union Pacific Railroad (UPRR) |
| 3 | Airport Way | Union Pacific Railroad (UPRR) | Crom St |
| 4 | Airport Way | Crom St | Daniels St |
| 5 | Airport Way | Daniels St | Woodward Ave |
| 6 | Alameda Street | Powers Ave | N Main St |
| 7 | Alameda Street | N Main St | N Union Rd |
| 8 | Atherton Drive | 3550 ft. south of Woodward Ave | Woodward Ave |
| 9 | Atherton Drive | Woodward Ave | Van Ryn Ave |
| 10 | Atherton Drive | Van Ryn Ave | Main St |
| 11 | Atherton Drive | Main St | Union Rd |
| 12 | Atherton Drive | Union Rd | Airport Way |
| 13 | Atherton Drive | Airport Way | 575 ft west of Hearthsong Dr |
| 14 | Austin Road | 1,500 ft. north of Yosemite Ave | 1,350 ft. south of Louise Ave |
| 15 | Austin Road | Yosemite Ave | 2,000 ft. north of Graves Rd |
| 16 | Austin Road | Moffat Blvd | 1650 ft. south of Sedan Ave |
| 17 | Buena Vista Drive | Woodward Ave | 400 ft. south of Mono St |
| 18 | Button Avenue | Yosemite Ave | Cottage Ave |
| 19 | Center Street | Fremont Ave | Main St |
| 20 | Center Street | Main St | Union Rd |
| 21 | Center Street | Union Rd | 335 ft. west of Trevino Ave |
| 22 | Commerce Avenue | Yosemite Ave | Phoenix Dr |
| 23 | Cottage Avenue | Louise Ave | State Route 99 |
| 24 | Cottage Avenue | State Route 99 | Yosemite Ave |
| 25 | Crestwood Avenue | Lathrop Rd | Northgate Dr |
| 26 | Crom Street | Union Rd | Airport Way |
| 27 | Daisywood Drive | River Berry Dr | Airport Way |
| 28 | Daniels Street | Union Rd | Airport Way |
| 29 | Daniels Street | Airport Way | McKinley Ave |
| 30 | Edison Street | Powers Ave | Main St |
| 31 | Elm Avenue | Louise Ave | Alameda St |
| 32 | Elm Avenue | Alameda St | Center St |
| 33 | Fishback Road | Yosemite Ave | Wawona St |
| 34 | Fishback Road | Wawona St | Daniels St |
| 35 | Fremont Avenue | Alameda St | Yosemite Ave |
| 36 | Grafton Street | Tesoro Dr | Buena Vista Dr |

| NO | STREET | LIMIT 1 | LIMIT 2 |
|---|---|---|---|
| 37 | Hacienda Street/Walnut Avenue | Louise Ave | Yosemite Ave |
| 38 | Heartland Drive | Atherton Dr | Buena Vista Dr |
| 39 | Highway 99 East Frontage Road | 1250′ north of Southland Rd | Southland Rd |
| 40 | Hoyt Lane | King Richard Way | Northgate Dr |
| 41 | Industrial Park Drive | Moffat Blvd | Main St |
| 42 | Lancaster Drive | Springtime Ave | Main St |
| 43 | Lathrop Road | Main St | Union Rd |
| 44 | Lathrop Road | Union Rd | 1340 ft. west of Airport Way |
| 45 | Locust Avenue | Yosemite Ave | Mission Ridge Dr |
| 46 | London Avenue | Lathrop Rd | Nicol Way |
| 47 | Louise Avenue | 1350 ft. east of Pestana Ave | Cottage Ave |
| 48 | Louise Avenue | Cottage Ave | Main St |
| 49 | Louise Avenue | Main St | Union Rd |
| 50 | Louise Avenue | Union Rd | 2550 ft. west of Airport Way |
| 51 | Main Street | Louise Ave | Lathrop Rd |
| 52 | Main Street | Louise Ave | Alameda St |
| 53 | Main Street | Alameda St | Wetmore St |
| 54 | Main Street | Wetmore St | Atherton Dr |
| 55 | Main Street | Woodward Ave | Sedan Ave |
| 56 | Mission Ridge Drive | Main St | Union Rd |
| 57 | Moffat Boulevard | Austin Rd | Powers Ave |
| 58 | Moffat Boulevard | Powers Ave | Main St |
| 59 | Mono Street | Pillsbury Rd | Springfield Dr |
| 60 | Nehemiah Drive | 1275 ft. east of Pestana Ave | Button Ave |
| 61 | North Street | Lovell Way | Cottage Ave |
| 62 | North Street | Cottage Ave | Main St |
| 63 | North Street | Main St | Elm Ave |
| 64 | Northgate Drive | Main St | Union Rd |
| 65 | Northgate Drive | Union Rd | Airport Way |
| 66 | Northwoods Avenue | Lovell Way | Yosemite Ave |
| 67 | Oleander Avenue | 775 ft. south of Sephos St | Red Pheasant Ln |
| 68 | Peach Avenue | 530 ft. west of Macedo St | 135 ft. east of Al Fonseca Ln |
| 69 | Pestana Avenue | 120 ft. north of Pin Oak Ct | Louise Ave |
| 70 | Pestana Avenue | Louise Ave | Yosemite Ave |
| 71 | Phoenix Drive | Commerce Ct | Spreckels Ave |
| 72 | Pillsbury Road | Woodward Ave | 375 ft. south of Mono St |
| 73 | Powers Avenue | North St | Moffat Blvd |
| 74 | Primavera Avenue | Northgate Dr | Nicol Way |
| 75 | Roth Road | Intermodal Way | Airport Way |
| 76 | Southland Road | Mitchell Rd | Highway 99 E Frontage Rd |
| 77 | Spreckels Avenue | Yosemite Ave | Moffat Blvd |

| NO | STREET | LIMIT 1 | LIMIT 2 |
|---|---|---|---|
| 78 | Tannehill Drive | Main St | Atherton Dr |
| 79 | Tesoro Drive/Sereno Drive | Atherton Dr | Atherton Dr |
| 80 | Thomas Street | Winters Dr | Fishback Rd |
| 81 | Trailwood Avenue | Northgate Dr | Louise Ave |
| 82 | Union Road | Shady Pines St | Lathrop Rd |
| 83 | Union Road | Lathrop Rd | Louise Ave |
| 84 | Union Road | Louise Ave | Center St |
| 85 | Union Road | Center St | Wawona St |
| 86 | Union Road | Wawona St | 400 ft. south of Sephos St |
| 87 | Van Ryn Avenue | Industrial Park Dr | Woodward Ave |
| 88 | Vasconcellos Avenue | Louise Ave | 545 ft. south of Serene Way |
| 89 | Wawona Street | Main St | Union Rd |
| 90 | Wawona Street | Union Rd | Airport Way |
| 91 | Wellington Avenue | Atherton Dr | Woodward Ave |
| 92 | Wetmore Street | Main St | Mellon Ave |
| 93 | Winters Drive | Yosemite Ave | Wawona St |
| 94 | Winters Drive | Wawona St | Daniels St |
| 95 | Woodward Avenue | Moffat Blvd | Main St |
| 96 | Woodward Avenue | Main St | Union Rd |
| 97 | Woodward Avenue | Union Rd | Airport Way |
| 98 | Woodward Avenue | Airport Way | McKinley Ave |
| 99 | Woodward Avenue | McKinley Ave | South Woodward Ave |
| 100 | South Woodward Avenue | Woodward Ave | Williamson Rd |
| 101 | Yosemite Avenue | State Route 99 | Powers Ave |
| 102 | Yosemite Avenue | Powers Ave | Main St |
| 103 | Yosemite Avenue | Main St | El Portal Ave |
| 104 | Yosemite Avenue | El Portal Ave | Winters Dr |
| 105 | Yosemite Avenue | Winters Dr | Union Pacific Railroad (UPRR) |
| 106 | Main Street | E Atherton Dr | E Woodward Ave |

## 2.1 Field Review

Speed data was collected using manual radar surveys performed by a sub-consultant to City of Manteca, NDS – National Data & Surveying Services and City staff. Each of the radar speed checks were made from an inconspicuously parked, unmarked vehicle. An effort was made to ensure that the presence of the vehicle in no way affected the speed of the traffic being surveyed. Field information from these speed surveys and other roadway characteristics were recorded on field data forms and later coded into engineering software for analysis purposes. Chapter 2B of the California MUTCD 2014 Edition Revision 6 indicates that it is desirable to have a minimum sample of 100 vehicles for a speed zone survey for an arterial street. This may result in excessive survey periods for low volume roadways, but a survey should not contain less than 50 vehicles. In addition, average daily traffic volumes (ADT) were collected at all the locations.

Examples of the field data collected for the purposes of analyzing related roadway characteristics as they pertain to the determination of appropriate speed limits are listed below:

1. Segment length and width;
2. Traffic flow characteristics;
3. Number of lanes and other channelization/striping factors;
4. Frequency of intersections, driveways, on-street parking, bike lanes;
5. Locations of stop signs, traffic signals, and other regulatory traffic control devices;
6. Obstructions to driver/pedestrian visibility;
7. Land use and proximity of schools, parks/recreation areas and senior centers; and,
8. Any other unusual conditions or hazards not readily apparent to the driver.

The results of the field review for related roadway and traffic variables are summarized in the Engineering and Traffic Survey forms included in the Appendix.

## 2.2 Statistical Analysis Factors

Significant factors used to analyze the collected survey data are summarized below:

1. **85th Percentile Speed**. The Critical Speed, or the 85th percentile speed, is defined as that speed at or below which 85 percent of the traffic is moving. This factor is the primary guide in determining what speeds the majority of safe and reasonable drivers are traveling. Therefore, the practice is to set the speed limit to the nearest 5 mph increment from the critical speed unless other factors require a lower limit. Speed limits set on this basis provide law enforcement officials with a means of controlling reckless or unreliable drivers who will not conform to what the majority finds reasonable.

2. **The 10-mph Pace.** The 10-mph Pace is the 10-mph increment range, which contains the largest number of recorded vehicles. The pace is a measure of the dispersion of speeds within the sample surveyed. Speed limits should normally be set to fall within the 10-mph pace. However, conditions not readily apparent to the driver or adhering to State mandated limits such as in Residence Districts may require setting speed limits below the 10-mph pace.

3. **50th Percentile Speed**. The Median Speed, or 50th Percentile Speed, represents the mid-point value within the range of recorded speeds for a particular roadway location. In other words, 50 percent of the vehicles travel faster than and 50 percent travel slower than, the median speed. This value is another measure of the central tendency of the vehicle speed distribution. Typically speed limits should not be set below the 50th Percentile Speed, since it would result in greater than 50-percent of the drivers exceeding the speed limit.

4. **Percent of Vehicles in Pace Speed.** The percent of vehicles in the 10-mph pace speed is an indication of the grouping of vehicular speeds. Ideally, if all vehicles were traveling at or about the same speed, there would be a reduced likelihood of vehicular collisions. In speed limit analysis, the higher the percent of vehicles within the pace speed, the more favorable the speed distribution. The percent of the 10-mph pace is often between 60 and 90 percent.

## 2.3 California MUTCD and CVC Guidance

Based on the California MUTCD 2014 Edition Revision 6 and CVC sections 22357 and 22358.6, speed limits "shall be established at the nearest 5 mph increment of the 85$^{th}$-percentile speed of free-flowing traffic."[5] In matching existing conditions with the traffic safety needs of the community, engineering judgment may reduce the posted speed limit by 5 mph due to specific factors such as road characteristics, the pace speed, roadside development and environment, pedestrian activity, and collision history. Alternatively, the California MUTCD 2014 Edition Revision 6 states that "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."[5]

[5] California Department of Transportation, 2014 California MUTCD, Chapter 2B, page 134, 7 November 2014.

## 2.4 Collision History

The Engineering and Traffic Survey forms summarize the available collision information for each of the street segments. The collision information was obtained from the UC Berkeley Traffic Injury Mapping System from January 1, 2018 to December 31, 2020. For this analysis, only collisions during the 3-year period between January 1, 2018 to December 31, 2020 were considered. Based on the number of total collisions studied over the 3-year period and ADT counts, a collision rate per million vehicle miles was calculated for each segment. To provide a general comparison of the collision rates on the segments to expected collisions rates for similar types of local roadways, the collision rates for each segment were compared to the statewide average rate listed in the 2020 Crash Data on California State Highways (road miles, travel, crashes, crash rates) as listed in Table 2.

**Table 2: 2020 California State Highways Collision Rates**

| Lane Type | Total Collision Rate Per Million Vehicle Miles (3-year rates for 2018, 2019, and 2020) |
|---|---|
| 2&3 Lanes | 1.18 |
| 4 lanes (undivided highway) | 1.46 |
| 4 lanes (divided highway) | 1.10 |

# 3.0 RESULTS AND RECOMMENDATIONS

The recommendations contained in this report are intended to establish posted speed limits. Prima facie posted speed limits attempt to advise the motorist and enforcement of the reasonable speed for a particular section of roadway for the prevailing conditions.

The Engineering and Traffic Survey forms, presented in the **Appendix**, illustrate the results of a thorough evaluation of the available data and indicate a recommended speed limit for each of the street segments surveyed. A summary of the data analysis, along with recommended speed limits can be found in **Table 3**.

**Table 3: Speed Survey Recommendations**

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 1 | **Airport Way** between Roth Rd and Daisywood Dr | 45 | 45 | 51 | 47 | 44-53 | 76% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district and the lack of continuous bike lanes and Sidewalks. |
| 2 | **Airport Way** between Daisywood Dr and UPRR | 45 | 40 | 41 | 37 | 32- 41 | 82% | 85th-percentile speed |
| 3 | **Airport Way** between UPRR and Crom St | 45 | 40 | 45 | 40 | 37-46 | 65% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, and consistency with adjacent segments. |
| 4 | **Airport Way** between Crom St and Daniels St | 40 | 40 | 45 | 41 | 38-47 | 77% | A 5-mph reduction from the 85th-percentile speed due to fronting residential |
| 5 | **Airport Way** between Daniels St and Woodward Ave | 40 | 40 | 41 | 36 | 31-40 | 70% | 85th-percentile speed |
| 6 | **Alameda Street** between Powers Ave and N Main St | 25 | 25 | 33 | 29 | 23-32 | 82% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 7 | **Alameda Street** between N Main St and N Union Rd | 25 | 25 | 29 | 26 | 21-30 | 93% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 8 | **Atherton Drive** between 3550 ft. south of Woodward Ave and Woodward Ave | 45 | 45 | 49 | 44 | 41-50 | 77% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 9 | **Atherton Drive** between Woodward Ave and Van Ryn Ave | 45 | 45 | 52 | 46 | 41-50 | 71% | A 5-mph reduction from the 85th-percentile speed due to proximity to apartment buildings and the lack of bike lanes. |
| 10 | **Atherton Drive** between Van Ryn Ave and Main St | 45 | 45 | 51 | 46 | 42-51 | 71% | A 5-mph reduction from the 85th-percentile speed due to proximity to apartment buildings and the lack of continuous bike lanes. |
| 11 | **Atherton Drive** between Main St and Union Rd | 45 | 45 | 50 | 45 | 42-51 | 68% | A 5-mph reduction from the 85th-percentile speed due to proximity to school and park, and the lack of a bike lane. |
| 12 | **Atherton Drive** between Union Rd and Airport Way | 35 WB / 45 – 35 EB | 45 | 50 | 45 | 40-49 | 70% | A 5-mph reduction from the 85th-percentile speed due to the pace speed, collision rate exceeding State average collision rate, and proximity to park. |
| 13 | **Atherton Drive** between Airport Way and 575 ft west of Hearthsong Dr | 45 | 45 | 49 | 44 | 40-49 | 68% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 14 | **AUSTIN ROAD** between 1,500 ft. north of Yosemite Ave to 1,350 ft. south of Louise Ave | 45 | 45 | 52 | 47 | 43-52 | 73% | A 5-mph reduction from the 85th-percentile speed due to the fronting residential. |
| 15 | **Austin Road** between Yosemite Ave and 2,000 ft. north of Graves Rd | 40 | 40 | 47 | 44 | 38-47 | 81% | A 5-mph reduction from the 85th-percentile speed due to the fronting residential district. |
| 16 | **Austin Road** between Moffat Blvd and 1650 ft. south of Sedan Ave | 55 | 55 | 60 | 54 | 49-58 | 59% | A 5-mph reduction from the 85th-percentile speed due to the fronting residential district and pace speed |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 17 | **Buena Vista Drive** between Woodward Ave and to 400 ft. south of Mono St | 25 | 25 | 36 | 33 | 27-36 | 89% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 18 | **Button Avenue** between Yosemite Ave and Cottage Ave | 40 | 40 | 47 | 42 | 38-47 | 74% | A 5-mph reduction from the 85th-percentile speed due to proximity to school and the lack of continuous bike lanes. |
| 19 | **Center Street** between Fremont Ave and Main St | 30 | 30 | 36 | 31 | 26-35 | 75% | A 5-mph reduction from the 85th-percentile speed due to the collision rate exceeding State average, fronting residential district, and school crossing. |
| 20 | **Center Street** between Main St and Union Rd | 30 | 30 | 37 | 33 | 28-37 | 78% | A 5-mph reduction from the 85th-percentile speed due to the collision rate exceeding State average, fronting residential district, and school crossing. |
| 21 | **Center Street** between Union Rd and to 335 ft. west of Trevino Ave | 25 | 25 | 32 | 28 | 23-32 | 83% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 22 | **Commerce Avenue** between Yosemite Ave and Phoenix Dr | 30 | 30 | 32 | 27 | 22-31 | 73% | 85th-percentile speed |
| 23 | **Cottage Avenue** between Louise Ave and State Route 99 | 40 | 40 | 45 | 40 | 36-45 | 79% | A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk, the collision rate exceeding the expected rate, and the lack of bike lanes. |
| 24 | **Cottage Avenue** between State Route 99 and Yosemite Ave | 30 | 30 | 37 | 32 | 28-37 | 82% | A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk, the fronting residential district, and the lack of bike lanes. |
| 25 | **Crestwood Avenue** between Lathrop Rd and Northgate Dr | 30 | 30 | 37 | 34 | 29-38 | 82% | A 5-mph reduction from the 85th-percentile speed due to the fronting residential district and proximity to park. |
| 26 | **Crom Street** between Union Rd and Airport Way | 35 | 35 | 35 | 32 | 28-37 | 83% | 85th-percentile speed |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 27 | **Daisywood Drive** between River Berry Dr and Airport Way | 30 | 30 | 32 | 28 | 23-32 | 88% | 85th-percentile speed |
| 28 | **Daniels Street** between Union Rd and Airport Way | 30 | 30 | 37 | 34 | 29-38 | 84% | A 5-mph reduction from the 85th-percentile speed due to the fronting residential district and proximity to school. |
| 29 | **Daniels Street** between Airport Way and McKinley Ave | 35 | 35 | 42 | 36 | 32-41 | 65% | A 5-mph reduction from the 85th-percentile speed due to the lack of continuous bike lanes. |
| 30 | **Edison Street** between Powers Ave and Main St | 25 | 25 | 32 | 28 | 24-33 | 87% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 31 | **Elm Avenue** between Louise Ave and Alameda St | 25 | 25 | 31 | 28 | 23-32 | 87% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 32 | **Elm Avenue** between Alameda St and Center St | 25 | 25 | 32 | 29 | 23-32 | 90% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 33 | **Fishback Road** between Yosemite Ave and Wawona St | 35 | 35 | 42 | 37 | 32-41 | 66% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, existing school crossing, proximity to school, and the lack of bike lanes. |
| 34 | **Fishback Road** between Wawona St and Daniels St | 30 | 30 | 35 | 31 | 26-35 | 82% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |
| 35 | **Fremont Avenue** between Alameda St and Yosemite Ave | 25 | 25 | 32 | 28 | 23-32 | 84% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and proximity to school. |
| 36 | **Grafton Street** between Tesoro Dr and Buena Vista Dr | 25 | 25 | 32 | 26 | 21-30 | 72% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 37 | **Hacienda Street/Walnut Avenue** between Louise Ave and Yosemite Ave | 25 | 25 | 35 | 30 | 24-33 | 76% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 38 | **Heartland Drive** between Atherton Dr and Buena Vista Dr | 25 | 25 | 33 | 29 | 25-34 | 77% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 39 | **Highway 99 East Frontage Road** between 1250' north of Southland and Southland Rd | 40 | 40 | 42 | 35 | 32-41 | 57% | 85th-percentile speed |
| 40 | **Hoyt Lane** between King Richard Way and Northgate Dr | 25 | 25 | 32 | 28 | 23-32 | 70% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and proximity to school. |
| 41 | **Industrial Park Drive** between Moffat Blvd and Main St | 35 | 35 | 42 | 38 | 33-42 | 84% | A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk and the lack of continuous bike lanes and sidewalks. |
| 42 | **Lancaster Drive** between Springtime Ave and Main St | 25 | 25 | 33 | 28 | 24-33 | 72% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 43 | **Lathrop Road** between Main St and Union Rd | 45 | 45 | 47 | 42 | 37-46 | 69% | 85th-percentile speed |
| 44 | **Lathrop Road** between Union Rd and 1340 ft. west of Airport Way | 45 | 45 | 47 | 42 | 38-47 | 68% | 85th-percentile speed |
| 45 | **Locust Avenue** between Yosemite Ave and Mission Ridge Dr | 25 | 25 | 35 | 30 | 27-36 | 81% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 46 | **London Avenue** between Lathrop Rd and Nicol Way | 25 | 25 | 35 | 30 | 26-35 | 79% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 47 | **Louise Avenue** between 1350 ft. east of Pestana Ave and Cottage Ave | 40 | 40 | 47 | 42 | 38-47 | 78% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |
| 48 | **Louise Avenue** between Cottage Ave and Main St | 40 | 40 | 47 | 43 | 38-47 | 82% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district and the lack of continuous bike lanes and sidewalks. |
| 49 | **Louise Avenue** between Main St and Union Rd | 40 | 40 | 44 | 40 | 36-45 | 86% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 50 | **Louise Avenue** between Union Rd and 2550 ft. west of Airport Way | 40 | 40 | 46 | 40 | 35-44 | 71% | A 5-mph reduction from the 85th-percentile speed due to pace speed. |
| 51 | **Main Street** between Louise Ave and Lathrop Rd | 40 | 40 | 44 | 41 | 36-45 | 85% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 52 | **Main Street** between Louise Ave and Alameda St | 40 | 40 | 41 | 37 | 31-40 | 75% | 85th-percentile speed |
| 53 | **Main Street** between Alameda St and Wetmore St | 30 | 30 | 35 | 30 | 27-36 | 86% | A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk, and the lack of continuous bike lanes north of Yosemite Ave.. |
| 54 | **Main Street** between Wetmore St to Atherton Dr | 35 | 35 | 42 | 38 | 33-42 | 83% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |
| 55 | **Main Street** between Woodward Ave and Sedan Ave | SB 40 NB 40-45 | 40 | 46 | 41 | 35-44 | 67% | A 5-mph reduction from the 85th-percentile speed due to pace speed and fronting residential district. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 56 | **Mission Ridge Drive** between Main St and Union Rd | 30 | 30 | 37 | 33 | 29-38 | 85% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district and proximity to park. |
| 57 | **Moffat Boulevard** between Austin Rd and Powers Ave | 45 | 45 | 49 | 44 | 38-47 | 79% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 58 | **Moffat Boulevard** between Powers Ave and Main St | 40 | 40 | 46 | 41 | 35-44 | 67% | A 5-mph reduction from the 85th-percentile speed due to pace speed, uncontrolled crosswalk, and pedestrians crossing the road to access transit center. |
| 59 | **Mono Street** between Pillsbury Rd and Springfield Dr | None | 25 | 34 | 28 | 24-33 | 62% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 60 | **Nehemiah Drive** between 1275 ft. east of Pestana Ave and Button Ave | 25 | 25 | 33 | 28 | 25-34 | 77% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 61 | **North Street** between Lovell Way and Cottage Ave | 25 | 25 | 30 | 27 | 21-30 | 83% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and the collision rate exceeding expected collisions rate. |
| 62 | **North Street** between Cottage Ave and Main St | 30 | 30 | 35 | 32 | 27-36 | 90% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and lack of continuous bike lane. |
| 63 | **North Street** between Main St and Elm Ave | 30 | 30 | 35 | 32 | 27-36 | 88% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district and lack of a bike lane. |
| 64 | **Northgate Drive** between Main St and Union Rd | 35 | 35 | 42 | 38 | 34-43 | 82% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, existing school crossing, proximity to school, and the lack of a bike lane. |
| 65 | **Northgate Drive** between Union Rd and Airport Way | 25 | 25 | 33 | 29 | 24-33 | 80% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 66 | **Northwoods Avenue** between Lovell Way and Yosemite Ave | 25 | 25 | 30 | 26 | 22-31 | 86% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district north of Mcnary Cir and lack of a bike lane. |
| 67 | **Oleander Avenue** between 775 ft. south of Sephos St and Red Pheasant Ln | None | 25 | 36 | 30 | 25-34 | 59% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 68 | **Peach Avenue** between 530 ft. west of Macedo St and 135 ft. east of Al Fonseca Ln | 35 | 35 | 38 | 34 | 29-38 | 61% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 69 | **Pestana Avenue** between 120 ft. north of Pin Oak Ct and Louise Ave | 25 | 25 | 36 | 31 | 27-36 | 78% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 70 | **Pestana Avenue** between Louise Ave and Yosemite Ave | 30 | 30 | 37 | 34 | 28-37 | 79% | A 5-mph reduction from the 85th-percentile speed due to the fronting residential district. |
| 71 | **Phoenix Drive** between Commerce Ct and Spreckels Ave | 30 | 30 | 34 | 30 | 26-35 | 74% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 72 | **Pillsbury Road** between Woodward Ave and 375 ft. south of Mono St | 25 | 25 | 38 | 33 | 28-37 | 72% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 73 | **Powers Avenue** between North St and Moffat Blvd | 25 | 25 | 29 | 25 | 20-29 | 87% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 74 | **Primavera Avenue** between Northgate Dr and Nicol Way | 25 | 25 | 36 | 31 | 26-35 | 66% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 75 | **Roth Road** between Intermodal Way and Airport Way | 45 | 45 | 45 | 37 | 30-39 | 57% | 85th-percentile speed |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 76 | **Southland Road** between Mitchell Rd and Highway 99 E Frontage Rd | 45 | 45 | 50 | 44 | 40-49 | 67% | A 5-mph reduction from the 85th-percentile speed due to pace speed and fronting residential district. |
| 77 | **Spreckels Avenue** between Yosemite Ave and Moffat Blvd | 40 | 40 | 41 | 35 | 29-38 | 61% | 85th-percentile speed |
| 78 | **Tannehill Drive** between Main St and Atherton Dr | 25 | 25 | 38 | 32 | 25-34 | 65% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 79 | **Tesoro Drive/Sereno Drive** between Atherton Dr and Atherton Dr | 25 | 25 | 35 | 31 | 26-35 | 81% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 80 | **Thomas Street** between Winters Dr and Fishback Rd | 30 | 30 | 32 | 28 | 23-32 | 78% | 85th-percentile speed |
| 81 | **Trailwood Avenue** between Northgate Dr and Louise Ave | 25 | 25 | 35 | 30 | 24-33 | 75% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 82 | **Union Road** between Shady Pines St and Lathrop Rd | 45 | 45 | 49 | 44 | 36-45 | 66% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 83 | **Union Road** between Lathrop Rd and Louise Ave | 40 | 40 | 44 | 40 | 35-44 | 75% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 84 | **Union Road** between Louise Ave and Center St | 40 | 40 | 41 | 37 | 32-41 | 70% | 85th-percentile speed |
| 85 | **Union Road** between Center St and Wawona St | 35 | 35 | 42 | 39 | 34-43 | 88% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 86 | **Union Road** between Wawona St and 400 ft. south of Sephos St | NB 35-40 SB 40 | 35 | 41 | 36 | 32-41 | 75% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district and the existing uncontrolled crosswalks. |
| 87 | **Van Ryn Avenue** between Industrial Park Dr and Woodward Ave | 35 | 35 | 41 | 36 | 32-41 | 78% | A 5-mph reduction from the 85th-percentile speed due to lack of bike lanes. |
| 88 | **Vasconcellos Avenue** between Louise Ave and 545 ft. south of Serene Way | 25 | 25 | 39 | 35 | 30-39 | 76% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 89 | **Wawona Street** between Main St and Union Rd | 25 | 25 | 36 | 33 | 27-36 | 80% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 90 | **Wawona Street** between Union Rd and Airport Way | 25 | 25 | 38 | 32 | 27-36 | 74% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 91 | **Wellington Avenue** between Atherton Dr and Woodward Ave | 25 | 25 | 37 | 32 | 28-37 | 70% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 92 | **Wetmore Street** between Main St and Mellon Ave | 30 | 35 | 39 | 32 | 28-37 | 65% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 93 | **Winters Drive** between Yosemite Ave and Wawona St | 35 | 35 | 36 | 32 | 27-36 | 75% | 85th-percentile speed |
| 94 | **Winters Drive** between Wawona St and Daniels St | 25 | 25 | 37 | 32 | 27-36 | 77% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 95 | **Woodward Avenue** between Moffat Blvd and Main St | 45 | 45 | 48 | 43 | 39-48 | 69% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 96 | **Woodward Avenue** between Main St and Union Rd | 45 | 45 | 50 | 45 | 41-50 | 75% | A 5-mph reduction from the 85th-percentile speed due to the existing school crossing and the lack of bike lanes. |
| 97 | **Woodward Avenue** between Union Rd and Airport Way | 30 | 30 | 37 | 34 | 30-39 | 86% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |
| 98 | **Woodward Avenue** between Airport Way and McKinley Ave | 35 County None City | 35 | 42 | 39 | 34-43 | 78% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |
| 99 | **Woodward Avenue** between McKinley Ave and South Woodward Ave | None | 45 | 52 | 46 | 41-50 | 63% | A 5-mph reduction from the 85th-percentile speed to be within 10 mph of adjacent segments, and due to the lack of bike lanes. |
| 100 | **South Woodward Avenue** between Woodward Ave and Williamson Rd | 35 | 35 | 41 | 35 | 31-40 | 68% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |
| 101 | **Yosemite Avenue** between State Route 99 and Powers Ave | 35 | 35 | 41 | 37 | 33-42 | 85% | A 5-mph reduction from the 85th-percentile speed due to fronting residential and Commercial district and proximity to school. |
| 102 | **Yosemite Avenue** between Powers Ave and Main St | 25 | 25 | 29 | 26 | 22-31 | 93% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |
| 103 | **Yosemite Avenue** between Main St and El Portal Ave | 25 | 25 | 35 | 31 | 27-36 | 87% | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. |
| 104 | **Yosemite Avenue** between El Portal Ave and Winters Dr | 35 | 35 | 39 | 37 | 33-42 | 94% | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. |

## Table 3, continued: Speed Survey Recommendations

| No. | Street Segment | Existing Speed Limit (mph) | Recom Speed Limit (mph) | 85% Speed (mph) | Median Speed (mph) | 10 mph Pace Range (mph) | % of Veh. In Pace | Justification |
|---|---|---|---|---|---|---|---|---|
| 105 | **Yosemite Avenue** between Winters Dr and Union Pacific Railroad (UPRR) | 45 | 45 | 46 | 41 | 36-45 | 76% | 85th-percentile speed |
| 106 | **Main Street** between E Atherton Dr and E Woodward Ave | 35 | 35 | 42 | 39 | 34-43 | 87% | A 5-mph reduction from the 85th-percentile speed due to fronting residential district. |

# Appendix

# Engineering and Traffic Survey Forms

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

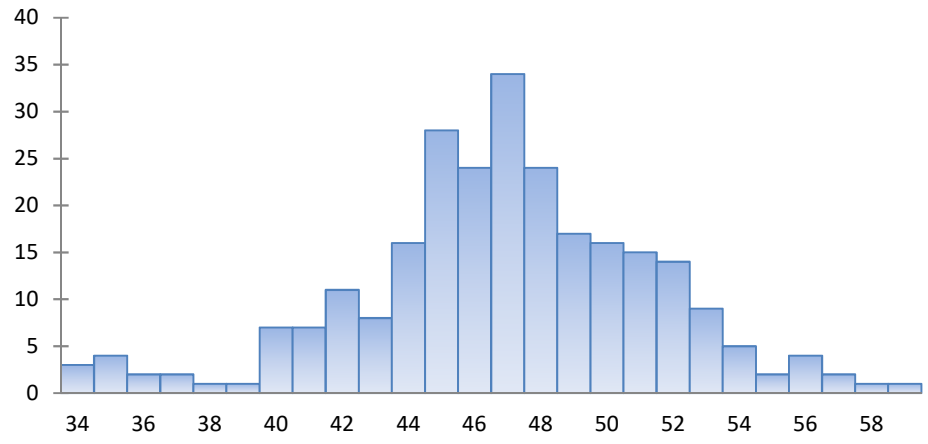
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** AIRPORT WAY - Roth Rd to Daisywood Dr
**Posted Speed Limit:** 45 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 6/28/2022
**Weather:** Clear/Dry
**Begin Time:** 10:10 AM
**End Time:** 10:50 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district and the lack of continuous bike lanes and Sidewalks.

### Summary Statistics

| | |
|---|---|
| Total Observed | 258 |
| Speed Range | 34 - 59 MPH |
| 50th percentile speed | 47 MPH |
| 85th percentile speed | 51 MPH |
| 10 mph pace speed | 44 - 53 MPH |
| % in pace speed | 76% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 25 | 0 | 45 | 28 |
| 26 | 0 | 46 | 24 |
| 27 | 0 | 47 | 34 |
| 28 | 0 | 48 | 24 |
| 29 | 0 | 49 | 17 |
| 30 | 0 | 50 | 16 |
| 31 | 0 | 51 | 15 |
| 32 | 0 | 52 | 14 |
| 33 | 0 | 53 | 9 |
| 34 | 3 | 54 | 5 |
| 35 | 4 | 55 | 2 |
| 36 | 2 | 56 | 4 |
| 37 | 2 | 57 | 2 |
| 38 | 1 | 58 | 1 |
| 39 | 1 | 59 | 1 |
| 40 | 7 | 60 | 0 |
| 41 | 7 | 61 | 0 |
| 42 | 11 | 62 | 0 |
| 43 | 8 | 63 | 0 |
| 44 | 16 | 64 | 0 |
| TOTAL | | | 258 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.63
**ADT:** 8,470
**Count Date:** 11/17/22
**Number of Collisions:** 11
**Time Period:** 3 years
**Calc. Collision Rate =** 0.73 collisions per million vehicle-miles
**State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 26 - 85
**Driveway** Yes
**Terrain:** Flat
**Parking Conditions:** None
**Sidewalk:** Varies
**Bike Lanes:** Varies
**Number of Lanes:** NB 1 SB 1-2
**Adjacent Land Use:** Low/Med/High Density Residential/Commercial/ Industrial/Business Industrial Park
**Divided Median:** Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 51 mph indicates a 50 mph speed limit. However, due to fronting residential district and the lack of continuous bike lanes and Sidewalks, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 44 mph to 53 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 45 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 01 - FIGURE A - AIRPORT WAY BETWEEN ROTH RD AND DAISYWOOD DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:41:13 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 01 - FIGURE B - AIRPORT WAY BETWEEN ROTH RD AND DAISYWOOD DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:41:28 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

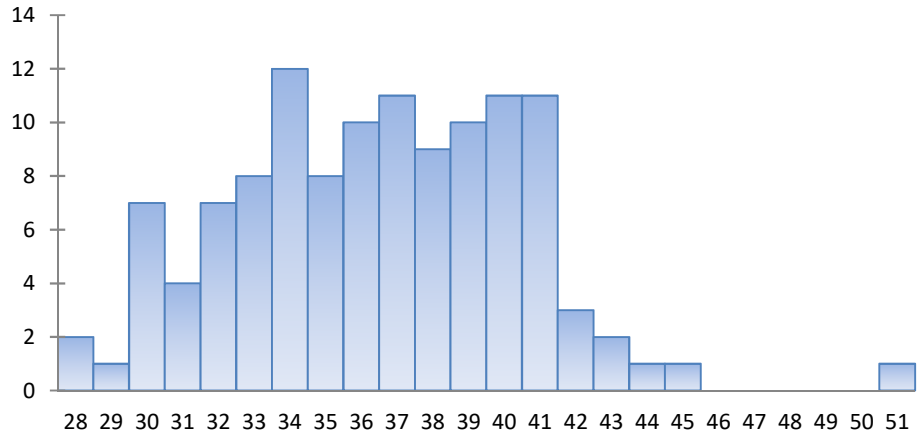
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

| | | | |
|---|---|---|---|
| **Location:** | AIRPORT WAY - Daisywood Dr to UPRR | | |
| **Posted Speed Limit:** | 45 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 6/28/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 10:15 AM | **End Time:** | 11:25 AM |
| **Speed Limit Change:** | Yes | | |
| **Speed Justification:** | 85th-percentile speed | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 119 |
| **Speed Range** | 28 - 51 MPH |
| **50th percentile speed** | 37 MPH |
| **85th percentile speed** | 41 MPH |
| **10 mph pace speed** | 32 - 41 MPH |
| **% in pace speed** | 82% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 23 | 0 | 43 | 2 |
| 24 | 0 | 44 | 1 |
| 25 | 0 | 45 | 1 |
| 26 | 0 | 46 | 0 |
| 27 | 0 | 47 | 0 |
| 28 | 2 | 48 | 0 |
| 29 | 1 | 49 | 0 |
| 30 | 7 | 50 | 0 |
| 31 | 4 | 51 | 1 |
| 32 | 7 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| 34 | 12 | 54 | 0 |
| 35 | 8 | 55 | 0 |
| 36 | 10 | 56 | 0 |
| 37 | 11 | 57 | 0 |
| 38 | 9 | 58 | 0 |
| 39 | 10 | 59 | 0 |
| 40 | 11 | 60 | 0 |
| 41 | 11 | 61 | 0 |
| 42 | 3 | 62 | 0 |
| TOTAL | | | 119 |

## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 1.06 | **ADT:** | 8,945 | **Count Date:** | 11/17/22 |
| **Number of Collisions:** | 12 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 1.16 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 30 - 90 | **Driveway** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | None | **Sidewalk:** | Varies | **Bike Lanes:** | None |
| **Number of Lanes:** | NB 1-2 SB 1-2 | | | **Adjacent Land Use:** | Low/High Density Residential/Commercial/ Industrial/Business Industrial Park |
| **Divided Median:** | TWLTL/No Median/Concrete Median | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be decreased to 40 mph.

ATTACHMENT 4



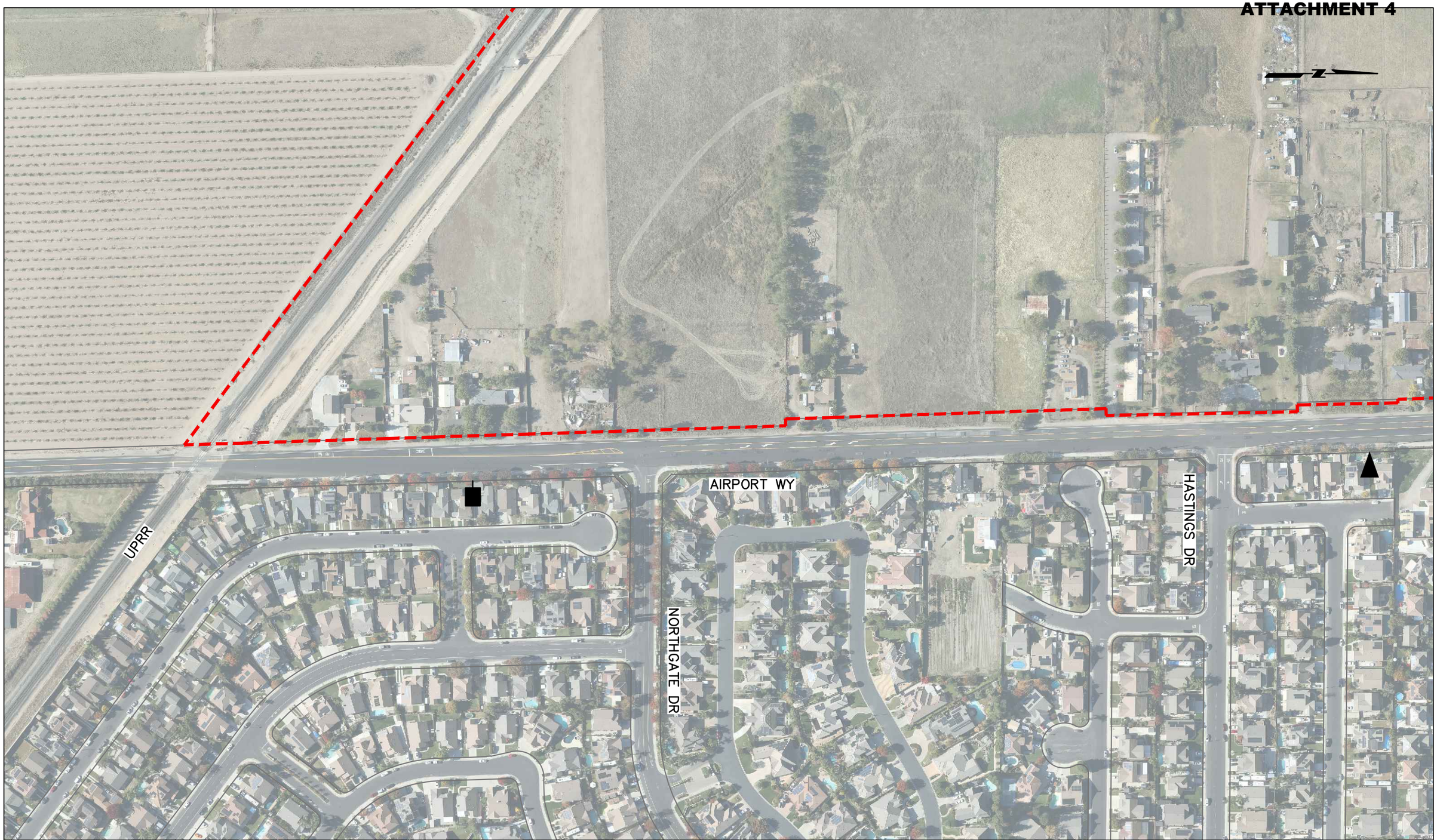

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 02 - FIGURE A - AIRPORT WAY BETWEEN DAISYWOOD DR AND UPRR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:41:48 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 02 - FIGURE B - AIRPORT WAY BETWEEN DAISYWOOD DR AND UPRR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:42:08 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

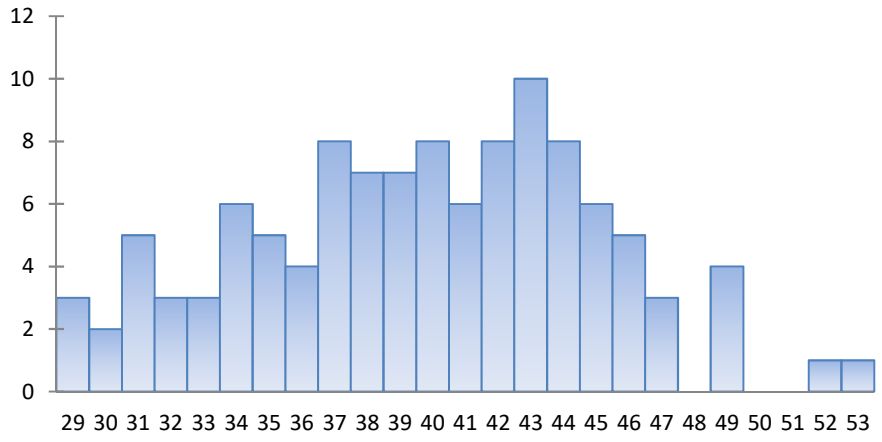
**RECOMMENDED SPEED LIMIT**

**40 MPH**

| | | | |
|---|---|---|---|
| **Location:** | AIRPORT WAY - UPRR to Crom St | | |
| **Posted Speed Limit:** | 45 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date** | 7/5/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 2:20 PM | **End Time:** | 3:55 PM |
| **Speed Limit Change** | Yes | | |
| **Speed Justification:** | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, and consistency with adjacent segments. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 113 |
| **Speed Range** | 29 - 53 MPH |
| **50th percentile speed** | 40 MPH |
| **85th percentile speed** | 45 MPH |
| **10 mph pace speed** | 37 - 46 MPH |
| **% in pace speed** | 65% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 23 | 0 | 43 | 10 |
| 24 | 0 | 44 | 8 |
| 25 | 0 | 45 | 6 |
| 26 | 0 | 46 | 5 |
| 27 | 0 | 47 | 3 |
| 28 | 0 | 48 | 0 |
| 29 | 3 | 49 | 4 |
| 30 | 2 | 50 | 0 |
| 31 | 5 | 51 | 0 |
| 32 | 3 | 52 | 1 |
| 33 | 3 | 53 | 1 |
| 34 | 6 | 54 | 0 |
| 35 | 5 | 55 | 0 |
| 36 | 4 | 56 | 0 |
| 37 | 8 | 57 | 0 |
| 38 | 7 | 58 | 0 |
| 39 | 7 | 59 | 0 |
| 40 | 8 | 60 | 0 |
| 41 | 6 | 61 | 0 |
| 42 | 8 | 62 | 0 |
| TOTAL | | | 113 |

## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.83 | **ADT:** | 9,729 | **Count Date:** | 11/17/22 |
| **Number of Collisions:** | 10 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 1.13 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 26 - 67 | **Driveway** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | None | **Sidewalk:** | Varies | **Bike Lanes:** | Varies |
| **Number of Lanes:** | NB 1 SB 1 | | | **Adjacent Land Use:** | Low Density Residential/Commercial/Commercial Mixed Use/ Public/Quasi Public |
| **Divided Median:** | TWLTL/No Median | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 45 mph indicates a 45 mph speed limit. However, due to fronting residential district, and consistency with adjacent segments, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 37 mph to 46 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit be decreased to 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 03 - AIRPORT WAY BETWEEN UPRR AND CROM ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

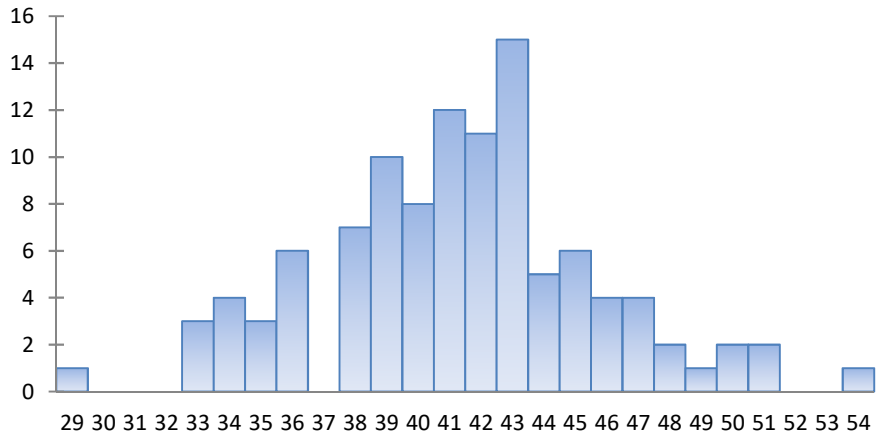
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** AIRPORT WAY - Crom St to Daniels St
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:10 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 107 |
| Speed Range | 29 - 54 MPH |
| 50th percentile speed | 41 MPH |
| 85th percentile speed | 45 MPH |
| 10 mph pace speed | 38 - 47 MPH |
| % in pace speed | 77% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 23 | 0 | 43 | 15 |
| 24 | 0 | 44 | 5 |
| 25 | 0 | 45 | 6 |
| 26 | 0 | 46 | 4 |
| 27 | 0 | 47 | 4 |
| 28 | 0 | 48 | 2 |
| 29 | 1 | 49 | 1 |
| 30 | 0 | 50 | 2 |
| 31 | 0 | 51 | 2 |
| 32 | 0 | 52 | 0 |
| 33 | 3 | 53 | 0 |
| 34 | 4 | 54 | 1 |
| 35 | 3 | 55 | 0 |
| 36 | 6 | 56 | 0 |
| 37 | 0 | 57 | 0 |
| 38 | 7 | 58 | 0 |
| 39 | 10 | 59 | 0 |
| 40 | 8 | 60 | 0 |
| 41 | 12 | 61 | 0 |
| 42 | 11 | 62 | 0 |
| TOTAL | | | 107 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.25 **ADT:** 15,384 **Count Date:** 11/17/22
**Number of Collisions:** 24 **Time Period:** 3 years
**Calc. Collision Rate =** 1.14 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 26 - 115 **Driveway** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** NB 1-2 SB 1 **Adjacent Land Use:** Low/Medium/High Density Residential/Commercial/Commercial Mixed Use
**Devided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 45 mph indicates a 45 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 38 mph to 47 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 04 - FIGURE A - AIRPORT WAY BETWEEN CROM ST AND DANIELS ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 04 - FIGURE B - AIRPORT WAY BETWEEN CROM ST AND DANIELS ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

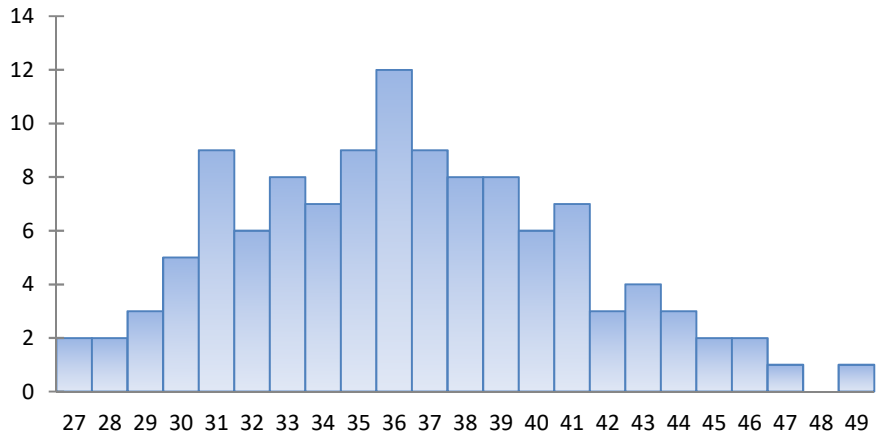
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

Location: AIRPORT WAY - Daniels St to Woodward Ave
Posted Speed Limit: 40 mph
Direction: Both
Recorder: ATD
Date: 6/29/2022
Weather: Clear/Dry
Begin Time: 10:00 AM
End Time: 10:45 AM
Speed Limit Change: No
Speed Justification: 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 117 |
| Speed Range | 27 - 49 MPH |
| 50th percentile speed | 36 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 31 - 40 MPH |
| % in pace speed | 70% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 23 | 0 | 43 | 4 |
| 24 | 0 | 44 | 3 |
| 25 | 0 | 45 | 2 |
| 26 | 0 | 46 | 2 |
| 27 | 2 | 47 | 1 |
| 28 | 2 | 48 | 0 |
| 29 | 3 | 49 | 1 |
| 30 | 5 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| 34 | 7 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| 36 | 12 | 56 | 0 |
| 37 | 9 | 57 | 0 |
| 38 | 8 | 58 | 0 |
| 39 | 8 | 59 | 0 |
| 40 | 6 | 60 | 0 |
| 41 | 7 | 61 | 0 |
| 42 | 3 | 62 | 0 |
| TOTAL | | | 117 |

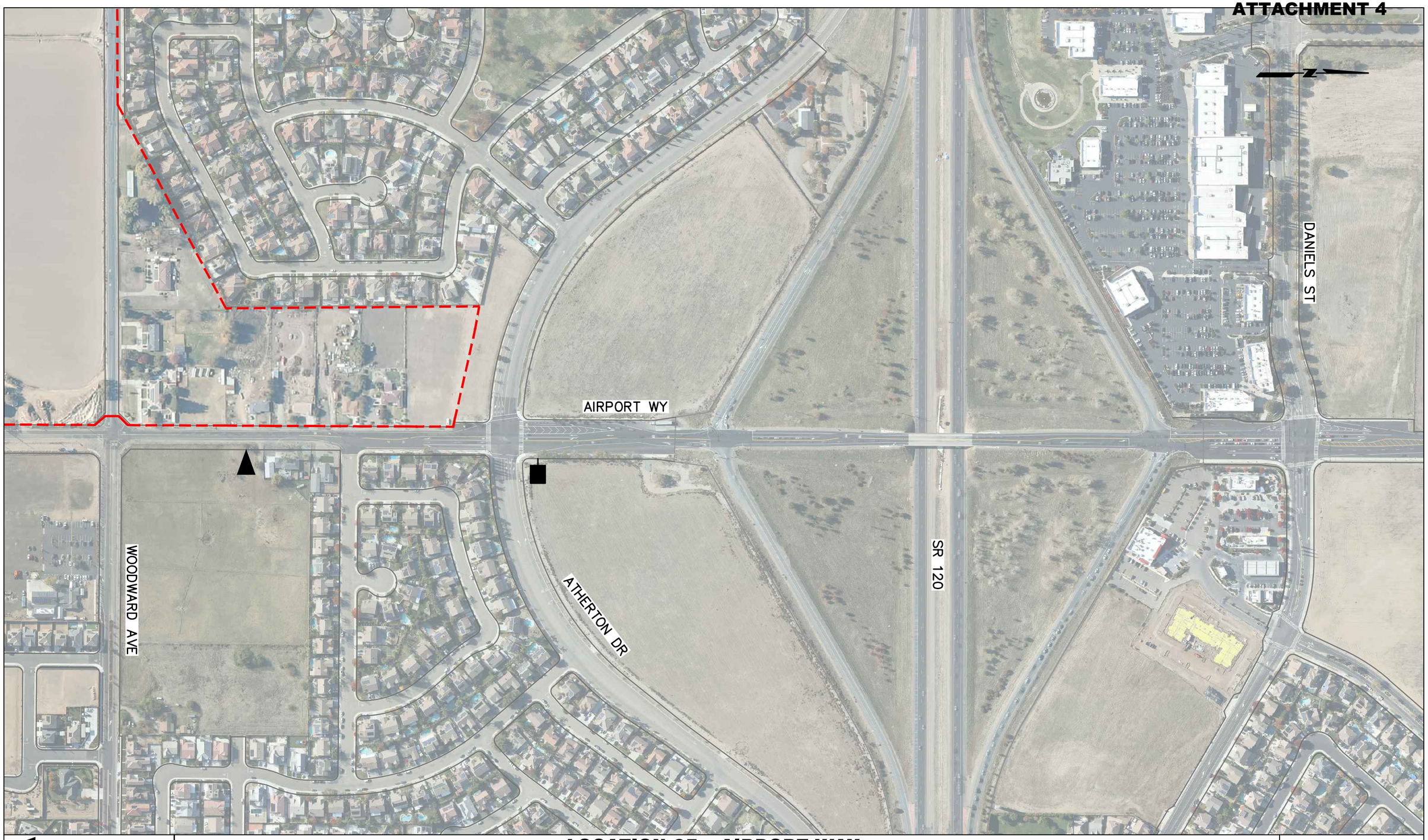
## ANALYSIS INFORMATION

Segment Length(mi): 0.75
ADT: 21,170
Count Date: 11/17/22
Number of Collisions: 11
Time Period: 3 years
Calc. Collision Rate = 0.63 collisions per million vehicle-miles
Expected Collisions Rate: 1.18 c/mvm
Street Width (ft): 30 - 90
Driveway: Yes
Terrain: Flat
Parking Conditions: None
Sidewalk: Varies
Bike Lanes: None
Number of Lanes: NB 1-2 SB 1
Adjacent Land Use: Low/High Density Residential/Commercial/ Business Professional
Divided Median: No
Uncontrolled Crosswalks: No

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 05 - AIRPORT WAY
# BETWEEN DANIELS ST AND WOODWARD AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**

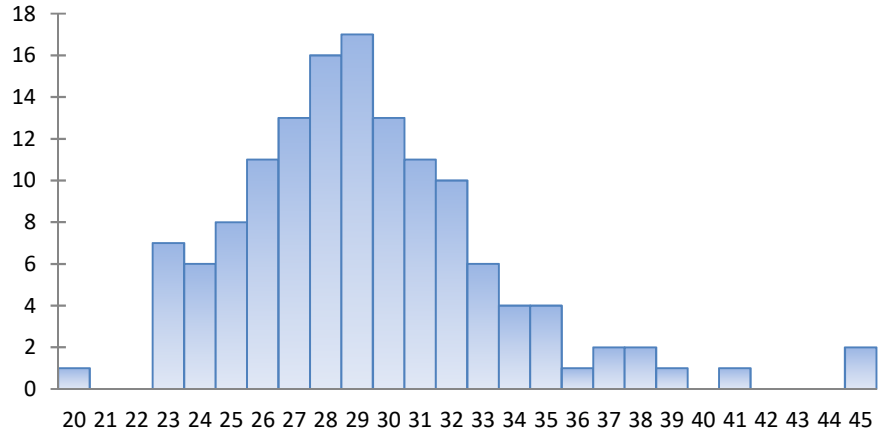
**25 MPH**

| | | | |
|---|---|---|---|
| **Location:** | ALAMEDA STREET - Powers Ave to N Main St | | |
| **Posted Speed Limit:** | 25 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 7/5/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 10:00 AM | **End Time:** | 12:00 PM |
| **Speed Limit Change:** | No | | |

**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 136 |
| **Speed Range** | 20 - 45 MPH |
| **50th percentile speed** | 29 MPH |
| **85th percentile speed** | 33 MPH |
| **10 mph pace speed** | 23 - 32 MPH |
| **% in pace speed** | 82% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 2 |
| 19 | 0 | 39 | 1 |
| 20 | 1 | 40 | 0 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 0 |
| 23 | 7 | 43 | 0 |
| 24 | 6 | 44 | 0 |
| 25 | 8 | 45 | 2 |
| 26 | 11 | 46 | 0 |
| 27 | 13 | 47 | 0 |
| 28 | 16 | 48 | 0 |
| 29 | 17 | 49 | 0 |
| 30 | 13 | 50 | 0 |
| 31 | 11 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 6 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 4 | 55 | 0 |
| 36 | 1 | 56 | 0 |
| 37 | 2 | 57 | 0 |
| TOTAL | | | 136 |

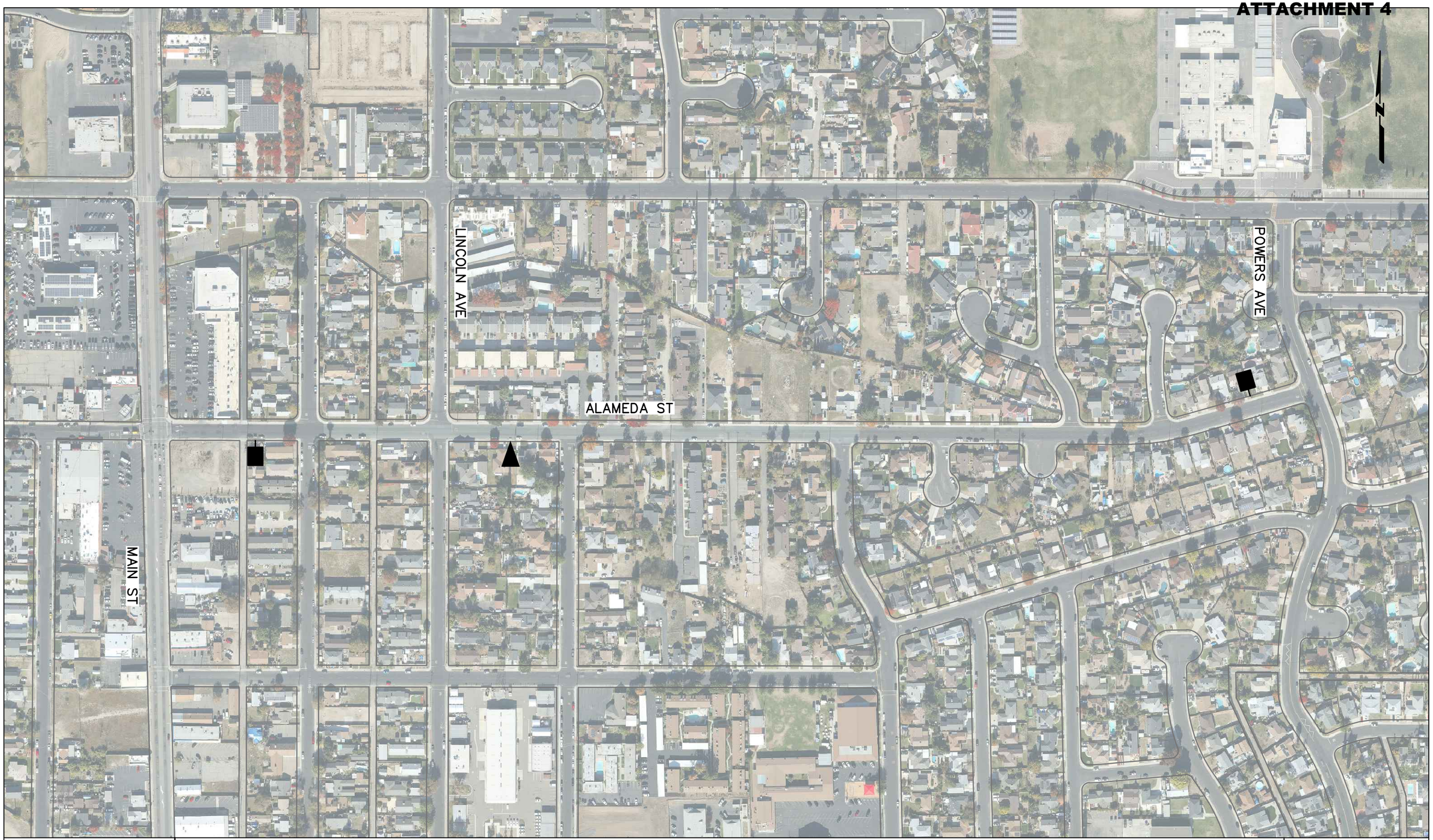
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.62 | **ADT:** | 3,131 | **Count Date:** | 8/10/22 |
| **Number of Collisions:** | 3 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 1.41 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 40 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Both Sides | **Sidewalk:** | Both Sides | **Bike Lanes:** | None |
| **Number of Lanes:** | EB 1 WB 1 | | | **Adjacent Land Use:** | Low/Medium/High Density Residential/Downtown/Commercial |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 33 mph indicates a 35 mph speed limit. The collision rate is above the expected rate. Since the roadway meets the requirements of Section 515 " Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 06 - ALAMEDA ST
# BETWEEN POWERS AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

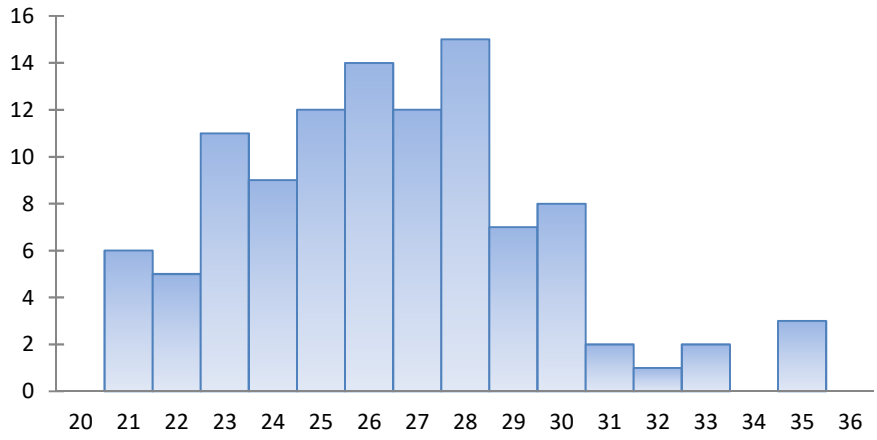
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

| | | | |
|---|---|---|---|
| **Location:** | ALAMEDA STREET - N Main St to N Union Rd | | |
| **Posted Speed Limit:** | 25 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 7/5/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 9:00 AM | **End Time:** | 10:00 AM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | Per California Vehicle Code Section 22358.6(c), speed limit is being rounded down to the nearest 5mph increment. No further reduction is allowed. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 107 |
| **Speed Range** | 21 - 35 MPH |
| **50th percentile speed** | 26 MPH |
| **85th percentile speed** | 29 MPH |
| **10 mph pace speed** | 21 - 30 MPH |
| **% in pace speed** | 93% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 0 |
| 21 | 6 | 41 | 0 |
| 22 | 5 | 42 | 0 |
| 23 | 11 | 43 | 0 |
| 24 | 9 | 44 | 0 |
| 25 | 12 | 45 | 0 |
| 26 | 14 | 46 | 0 |
| 27 | 12 | 47 | 0 |
| 28 | 15 | 48 | 0 |
| 29 | 7 | 49 | 0 |
| 30 | 8 | 50 | 0 |
| 31 | 2 | 51 | 0 |
| 32 | 1 | 52 | 0 |
| 33 | 2 | 53 | 0 |
| 34 | 0 | 54 | 0 |
| 35 | 3 | 55 | 0 |
| 36 | 0 | 56 | 0 |
| 37 | 0 | 57 | 0 |
| 38 | 0 | 58 | 0 |
| 39 | 0 | 0 | 0 |
| TOTAL | | | 107 |

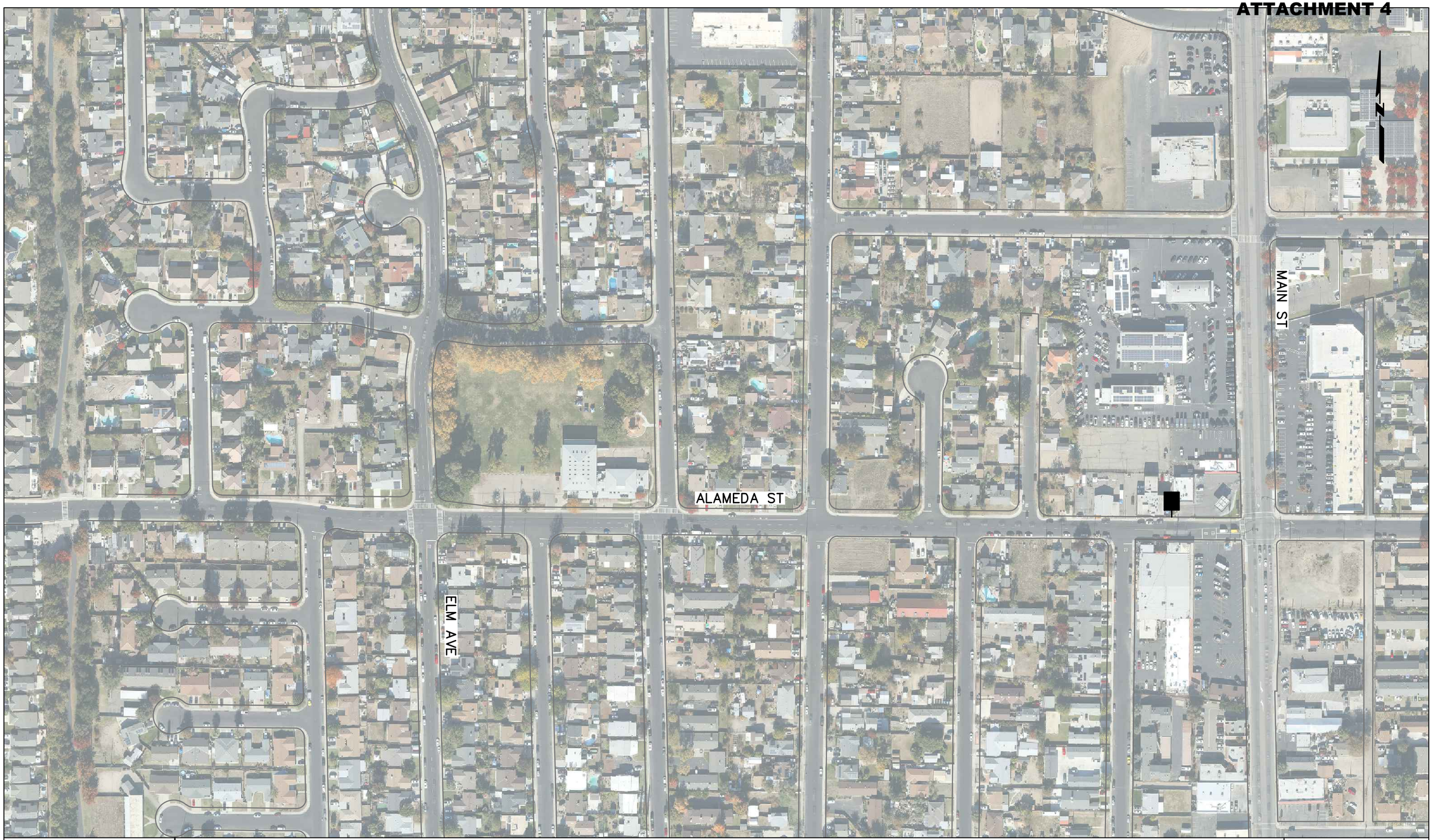
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 1.07 | **ADT:** | 4,306 | **Count Date:** | 7/28/22 |
| **Number of Collisions:** | 5 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.99 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 41 - 46 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Both Sides | **Sidewalk:** | Both Sides | **Bike Lanes:** | Varies |
| **Number of Lanes:** | EB 1 WB 1 | | | **Adjacent Land Use:** | Low/Medium/High Density Residential/Downtown/Park/Commercial |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | Yes | | | | |

**Comments:**

The 85th-percentile speed of 29 mph indicates a 30 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 25 mph. The 10 mph pace ranges from 21 mph to 30 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4

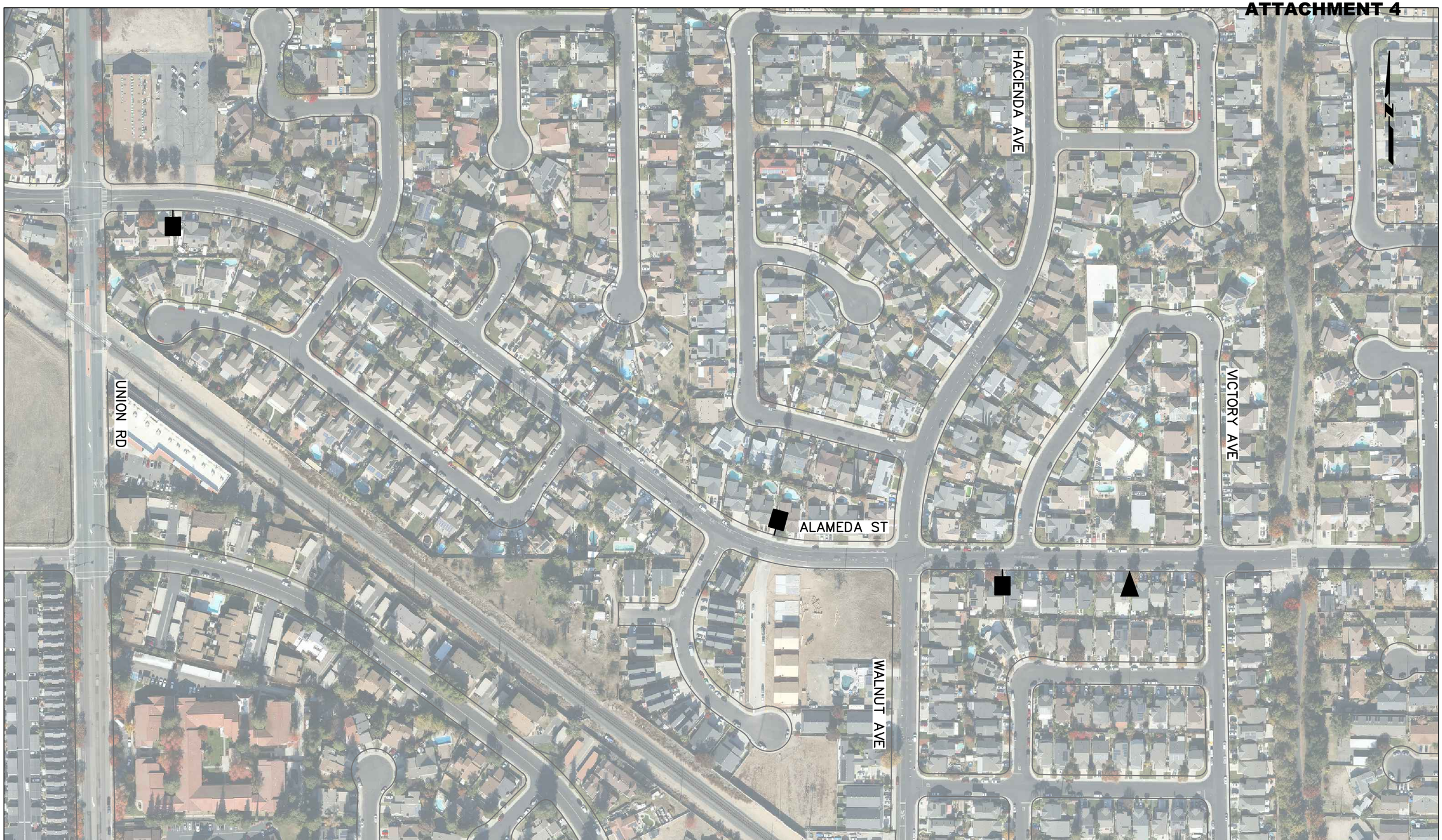



SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 07 - FIGURE A - ALAMEDA ST BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 07 - FIGURE B - ALAMEDA ST BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

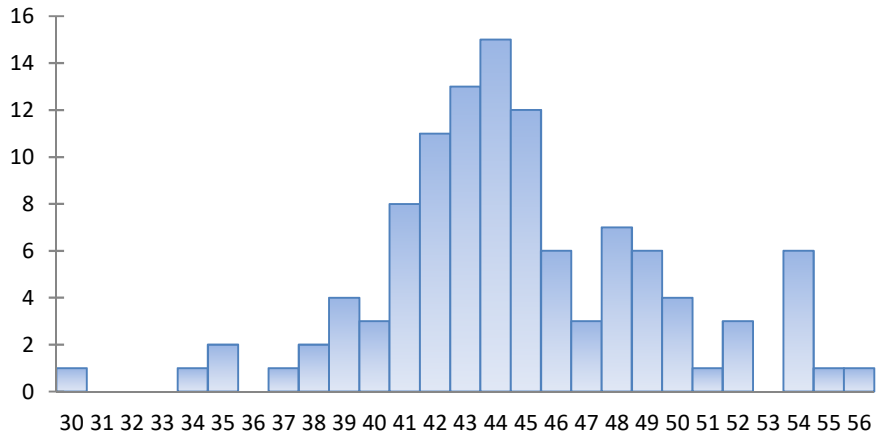
**RECOMMENDED SPEED LIMIT**

**45 MPH**

| | | | |
|---|---|---|---|
| **Location:** | ATHERTON DRIVE - 3550 ft. south of Woodward Ave to Woodward Ave | | |
| **Posted Speed Limit:** | 45 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 6/28/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 12:20 PM | **End Time:** | 2:05 PM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | Per California Vehicle Code Section 22358.6(c), speed limit is being rounded down to the nearest 5mph increment. No further reduction is allowed. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 111 |
| **Speed Range** | 30 - 56 MPH |
| **50th percentile speed** | 44 MPH |
| **85th percentile speed** | 49 MPH |
| **10 mph pace speed** | 41 - 50 MPH |
| **% in pace speed** | 77% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 21 | 0 | 41 | 8 |
| 22 | 0 | 42 | 11 |
| 23 | 0 | 43 | 13 |
| 24 | 0 | 44 | 15 |
| 25 | 0 | 45 | 12 |
| 26 | 0 | 46 | 6 |
| 27 | 0 | 47 | 3 |
| 28 | 0 | 48 | 7 |
| 29 | 0 | 49 | 6 |
| 30 | 1 | 50 | 4 |
| 31 | 0 | 51 | 1 |
| 32 | 0 | 52 | 3 |
| 33 | 0 | 53 | 0 |
| 34 | 1 | 54 | 6 |
| 35 | 2 | 55 | 1 |
| 36 | 0 | 56 | 1 |
| 37 | 1 | 57 | 0 |
| 38 | 2 | 58 | 0 |
| 39 | 4 | 59 | 0 |
| 40 | 3 | 60 | 0 |
| TOTAL | | | 111 |

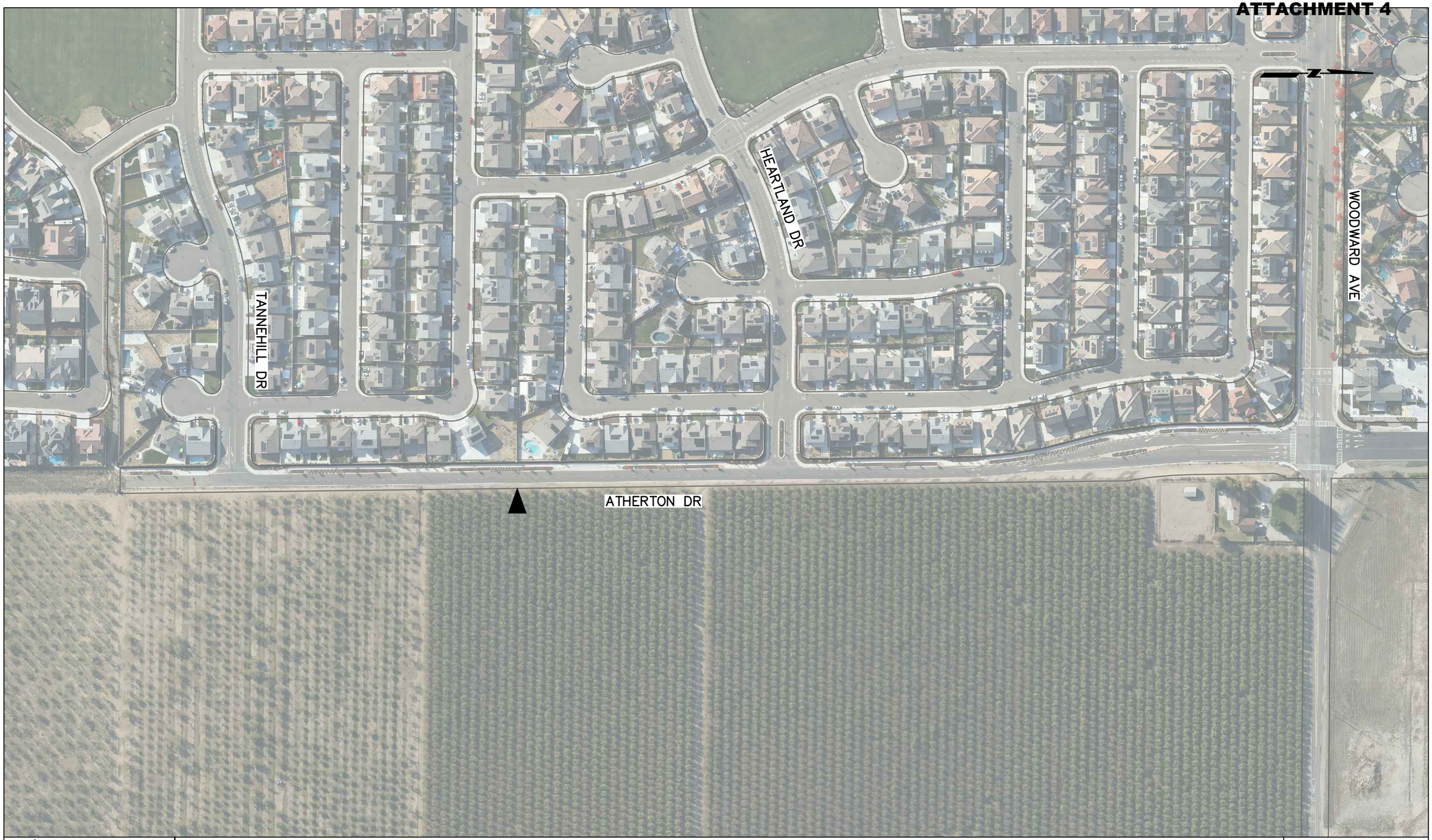
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.45 | **ADT:** | 1,356 | **Count Date:** | 7/12/22 |
| **Number of Collisions:** | 0 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.00 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 26 - 70 | **Driveway** | No | **Terrain:** | Flat |
| **Parking Conditions:** | Varies | **Sidewalk:** | One Side | **Bike Lanes:** | Varies |
| **Number of Lanes:** | NB 1 SB 1 | | | **Adjacent Land Use:** | Low/Medium Density Residential |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 49 mph indicates a 50 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 45 mph. The 10 mph pace ranges from 41 mph to 50 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 08 - ATHERTON DR
# BETWEEN SOUTH END AND WOODWARD AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

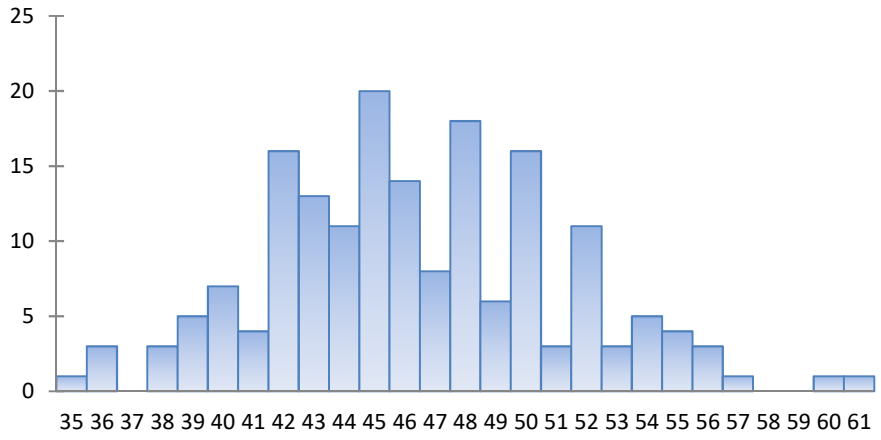
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** ATHERTON DRIVE - Woodward Ave to Van Ryn Ave
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/28/2022 **Weather:** Clear/Dry
**Begin Time:** 14:20 PM **End Time:** 15:20 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to proximity to apartment buildings and the lack of bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 177 |
| Speed Range | 35 - 61 MPH |
| 50th percentile speed | 46 MPH |
| 85th percentile speed | 52 MPH |
| 10 mph pace speed | 41 - 50 MPH |
| % in pace speed | 71% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 23 | 0 | 43 | 13 |
| 24 | 0 | 44 | 11 |
| 25 | 0 | 45 | 20 |
| 26 | 0 | 46 | 14 |
| 27 | 0 | 47 | 8 |
| 28 | 0 | 48 | 18 |
| 29 | 0 | 49 | 6 |
| 30 | 0 | 50 | 16 |
| 31 | 0 | 51 | 3 |
| 32 | 0 | 52 | 11 |
| 33 | 0 | 53 | 3 |
| 34 | 0 | 54 | 5 |
| 35 | 1 | 55 | 4 |
| 36 | 3 | 56 | 3 |
| 37 | 0 | 57 | 1 |
| 38 | 3 | 58 | 0 |
| 39 | 5 | 59 | 0 |
| 40 | 7 | 60 | 1 |
| 41 | 4 | 61 | 1 |
| 42 | 16 | 62 | 0 |
| TOTAL | | | 177 |

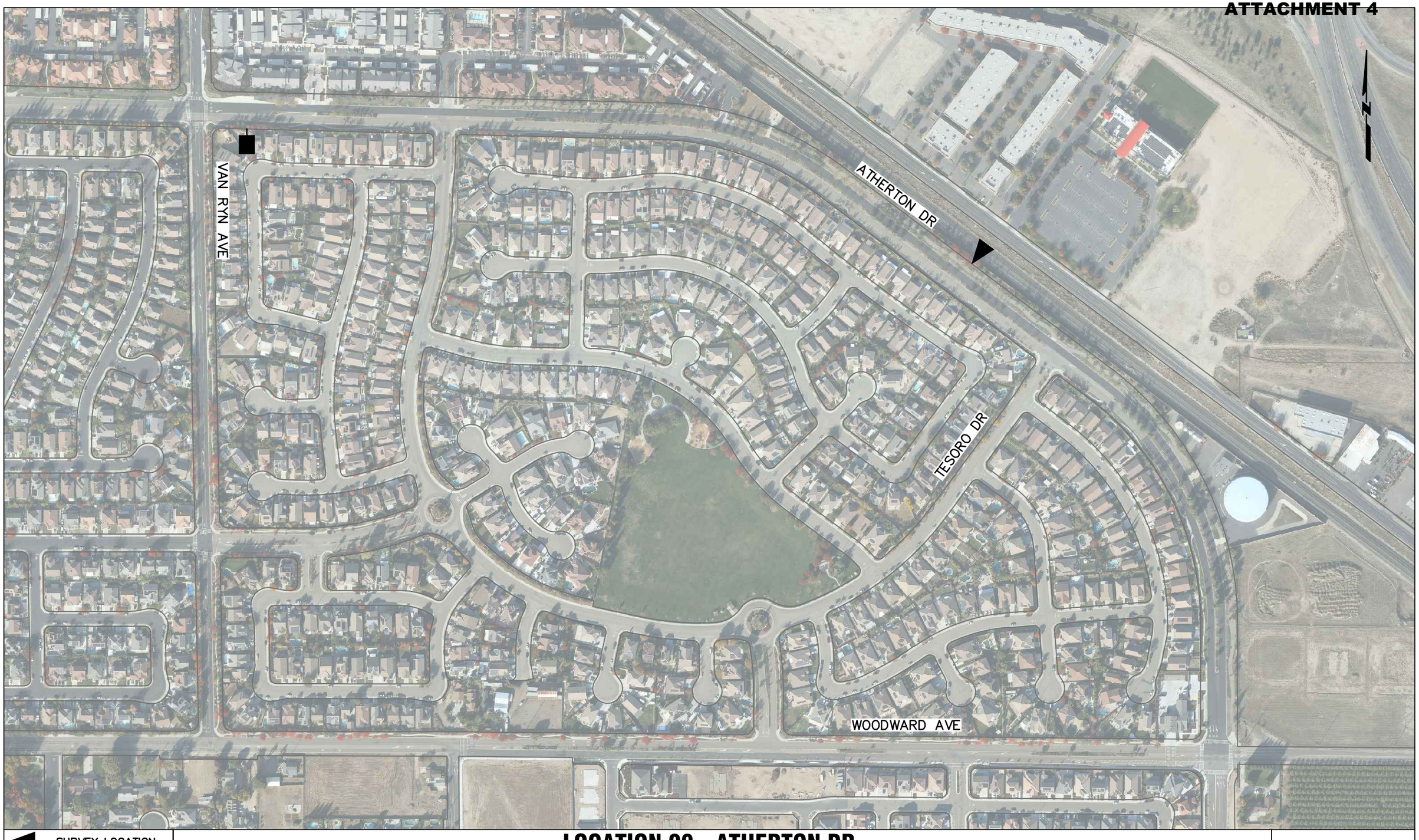
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.88 **ADT:** 2,295 **Count Date:** 8/9/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 0.90 collisions per million vehicle-miles **Expected Collisions Rate:** 1.10 c/mvm
**Street Width (ft):** 65 **Driveway** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 2 WB 2 **Adjacent Land Use:** Low/High Density Residential/Public/Quasi Public/Business Industrial Park
**Divided Median:** Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 52 mph indicates a 50 mph speed limit. However, due to proximity to apartment buildings and the lack of bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 41 mph to 50 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 45 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 09 - ATHERTON DR
# BETWEEN WOODWARD AVE AND VAN RYN AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

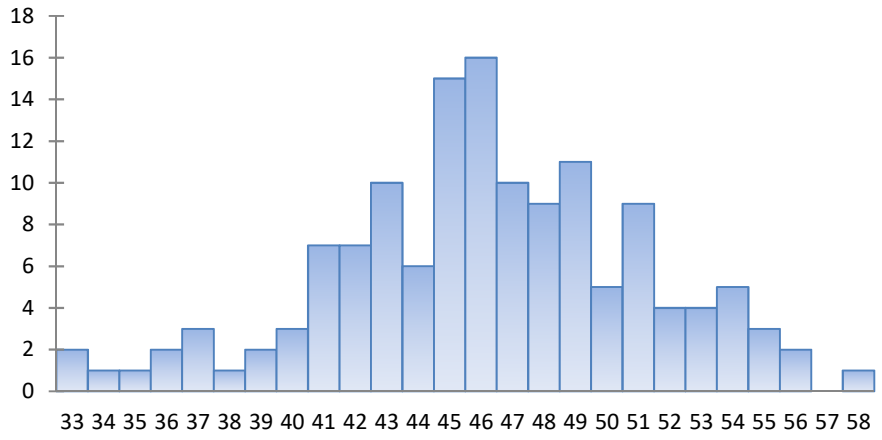
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** ATHERTON DRIVE - Van Ryn Ave to Main St
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Date:** 2/15/2023 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:00 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to proximity to apartment buildings and the lack of continuous bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 139 |
| Speed Range | 33 - 58 MPH |
| 50th percentile speed | 46 MPH |
| 85th percentile speed | 51 MPH |
| 10 mph pace speed | 42 - 51 MPH |
| % in pace speed | 71% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 25 | 0 | 45 | 15 |
| 26 | 0 | 46 | 16 |
| 27 | 0 | 47 | 10 |
| 28 | 0 | 48 | 9 |
| 29 | 0 | 49 | 11 |
| 30 | 0 | 50 | 5 |
| 31 | 0 | 51 | 9 |
| 32 | 0 | 52 | 4 |
| 33 | 2 | 53 | 4 |
| 34 | 1 | 54 | 5 |
| 35 | 1 | 55 | 3 |
| 36 | 2 | 56 | 2 |
| 37 | 3 | 57 | 0 |
| 38 | 1 | 58 | 1 |
| 39 | 2 | 59 | 0 |
| 40 | 3 | 60 | 0 |
| 41 | 7 | 61 | 0 |
| 42 | 7 | 62 | 0 |
| 43 | 10 | 63 | 0 |
| 44 | 6 | 64 | 0 |
| TOTAL | | | 139 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.88 **ADT:** 6,308 **Count Date:** 7/12/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.16 collisions per million vehicle-miles **State Average Rate:** 1.10 c/mvm
**Street Width (ft):** 66 **Driveway** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** EB 2 WB 2 **Adjacent Land Use:** Low/Medium/High Density Residential/Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 51 mph indicates a 50 mph speed limit. However, due to proximity to apartment buildings and the lack of continuous bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 42 mph to 51 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 45 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 10 - ATHERTON DR
# BETWEEN VAN RYN AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

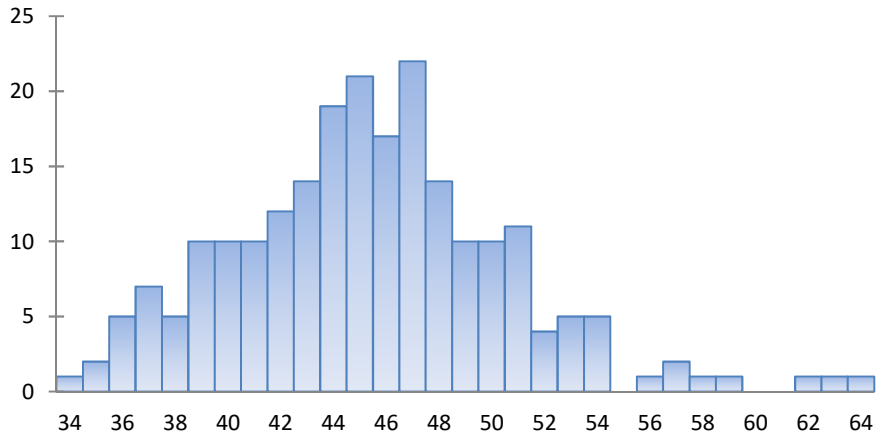
**RECOMMENDED SPEED LIMIT**

**45 MPH**

**Location:** ATHERTON DRIVE - Main St to Union Rd
**Posted Speed Limit:** 45 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 2/15/2023
**Weather:** Clear/Dry
**Begin Time:** 10:10 AM
**End Time:** 11:00 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to proximity to school and park, and the lack of a bike lane.

### Summary Statistics

| | |
|---|---|
| Total Observed | 222 |
| Speed Range | 34 - 64 MPH |
| 50th percentile speed | 45 MPH |
| 85th percentile speed | 50 MPH |
| 10 mph pace speed | 42 - 51 MPH |
| % in pace speed | 68% |



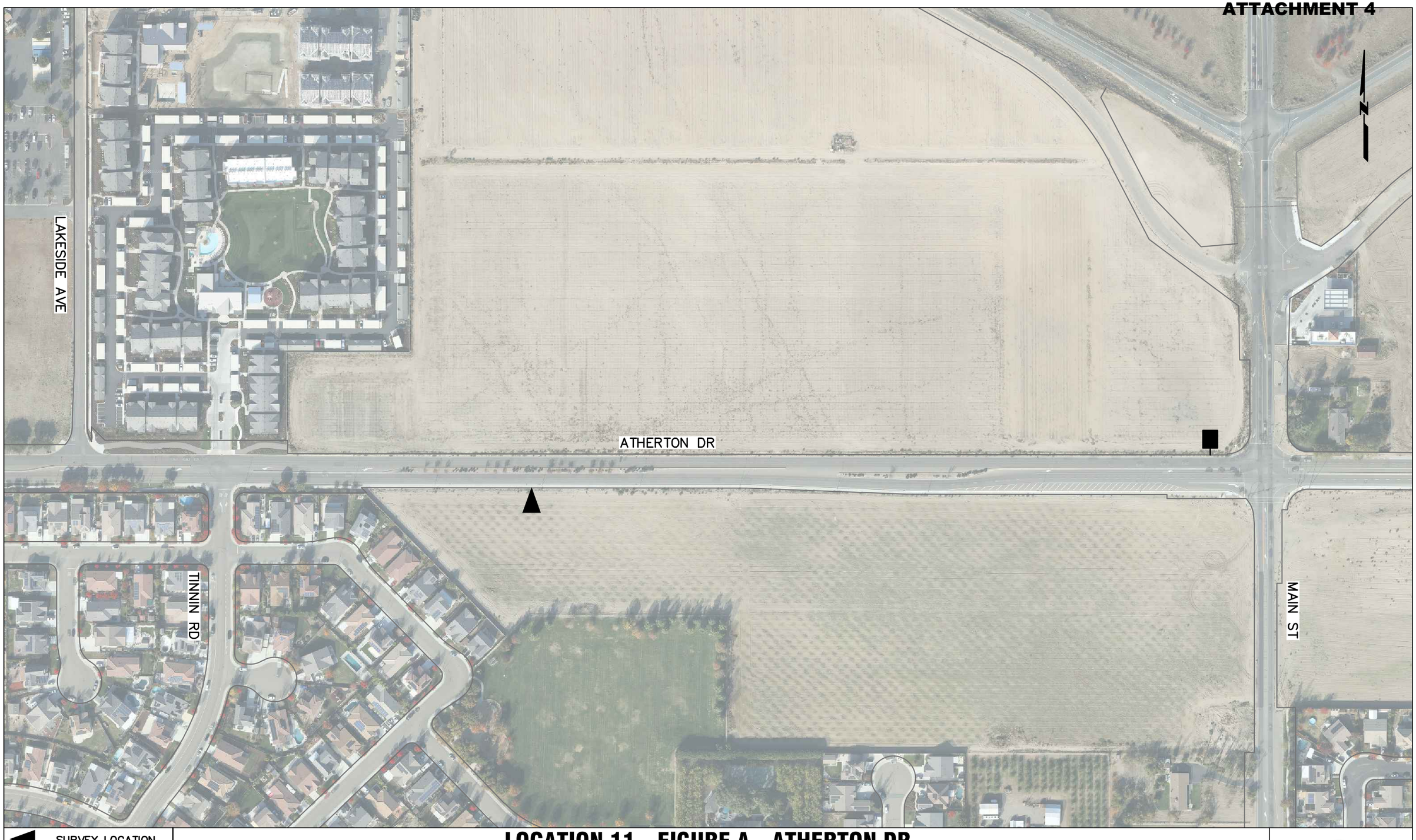

| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 22 |
| 28 | 0 | 48 | 14 |
| 29 | 0 | 49 | 10 |
| 30 | 0 | 50 | 10 |
| 31 | 0 | 51 | 11 |
| 32 | 0 | 52 | 4 |
| 33 | 0 | 53 | 5 |
| 34 | 1 | 54 | 5 |
| 35 | 2 | 55 | 0 |
| 36 | 5 | 56 | 1 |
| 37 | 7 | 57 | 2 |
| 38 | 5 | 58 | 1 |
| 39 | 10 | 59 | 1 |
| 40 | 10 | 60 | 0 |
| 41 | 10 | 61 | 0 |
| 42 | 12 | 62 | 1 |
| 43 | 14 | 63 | 1 |
| 44 | 19 | 64 | 1 |
| 45 | 21 | 65 | 0 |
| 46 | 17 | 66 | 0 |
| TOTAL | | | 222 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00
**ADT:** 7,562
**Count Date:** 7/12/22
**Number of Collisions:** 5
**Time Period:** 3 years
**Calc. Collision Rate =** 0.60 collisions per million vehicle-miles
**State Average Rate:** 1.10 c/mvm
**Street Width (ft):** 65
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** None
**Sidewalk:** Varies
**Bike Lanes:** Varies
**Number of Lanes:** EB 2 WB 2
**Adjacent Land Use:** Low Density Residential/Public/Quasi Public/Commercial/ Commercial Mixed Use
**Devided Median:** Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 50 mph indicates a 50 mph speed limit. However, due to proximity to school and park, and the lack of a bike lane, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 42 mph to 51 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 45 mph.




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 11 - FIGURE A - ATHERTON DR BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 11 - FIGURE B - ATHERTON DR BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

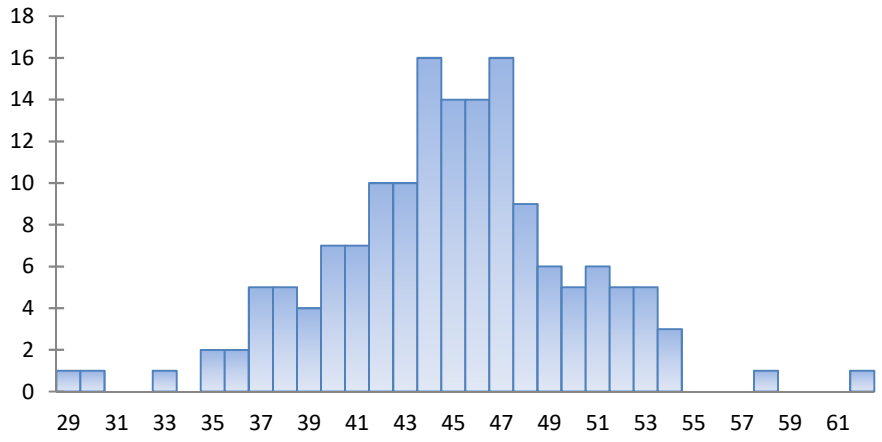
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** ATHERTON DRIVE - Union Rd to Airport Way
**Posted Speed Limit:** 35 mph WB / 45-35 mph EB
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 2:45 PM **End Time:** 3:45 PM
**Speed Limit Change:** Yes
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the pace speed, collision rate exceeding State average collision rate, and proximity to park.

### Summary Statistics

| | |
|---|---|
| Total Observed | 156 |
| Speed Range | 29 - 62 MPH |
| 50th percentile speed | 45 MPH |
| 85th percentile speed | 50 MPH |
| 10 mph pace speed | 40 - 49 MPH |
| % in pace speed | 70% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 16 |
| 28 | 0 | 48 | 9 |
| 29 | 1 | 49 | 6 |
| 30 | 1 | 50 | 5 |
| 31 | 0 | 51 | 6 |
| 32 | 0 | 52 | 5 |
| 33 | 1 | 53 | 5 |
| 34 | 0 | 54 | 3 |
| 35 | 2 | 55 | 0 |
| 36 | 2 | 56 | 0 |
| 37 | 5 | 57 | 0 |
| 38 | 5 | 58 | 1 |
| 39 | 4 | 59 | 0 |
| 40 | 7 | 60 | 0 |
| 41 | 7 | 61 | 0 |
| 42 | 10 | 62 | 1 |
| 43 | 10 | 63 | 0 |
| 44 | 16 | 64 | 0 |
| 45 | 14 | 65 | 0 |
| 46 | 14 | 66 | 0 |
| TOTAL | | | 156 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.20 **ADT:** 2,253 **Count Date:** 7/21/22
**Number of Collisions:** 9 **Time Period:** 3 years
**Calc. Collision Rate =** 3.04 collisions per million vehicle-miles **Expected Collisions Rate:** 1.10 c/mvm
**Street Width (ft):** 51 - 64 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** EB 2 WB 2 **Adjacent Land Use:** Low/Medium Density Residential/Commercial/ Commercial Mixed Use
**Divided Median:** TWLTL/No Median/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 50 mph indicates a 50 mph speed limit. However, due to the pace speed, collision rate exceeding State average collision rate, and proximity to park, a downgrading of the speed limit by 5 mph is justified. It is recommended that the posted speed limit becomes 45 mph. The 10 mph pace ranges from 40 mph to 49 mph and the recommended speed limit falls within this range.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

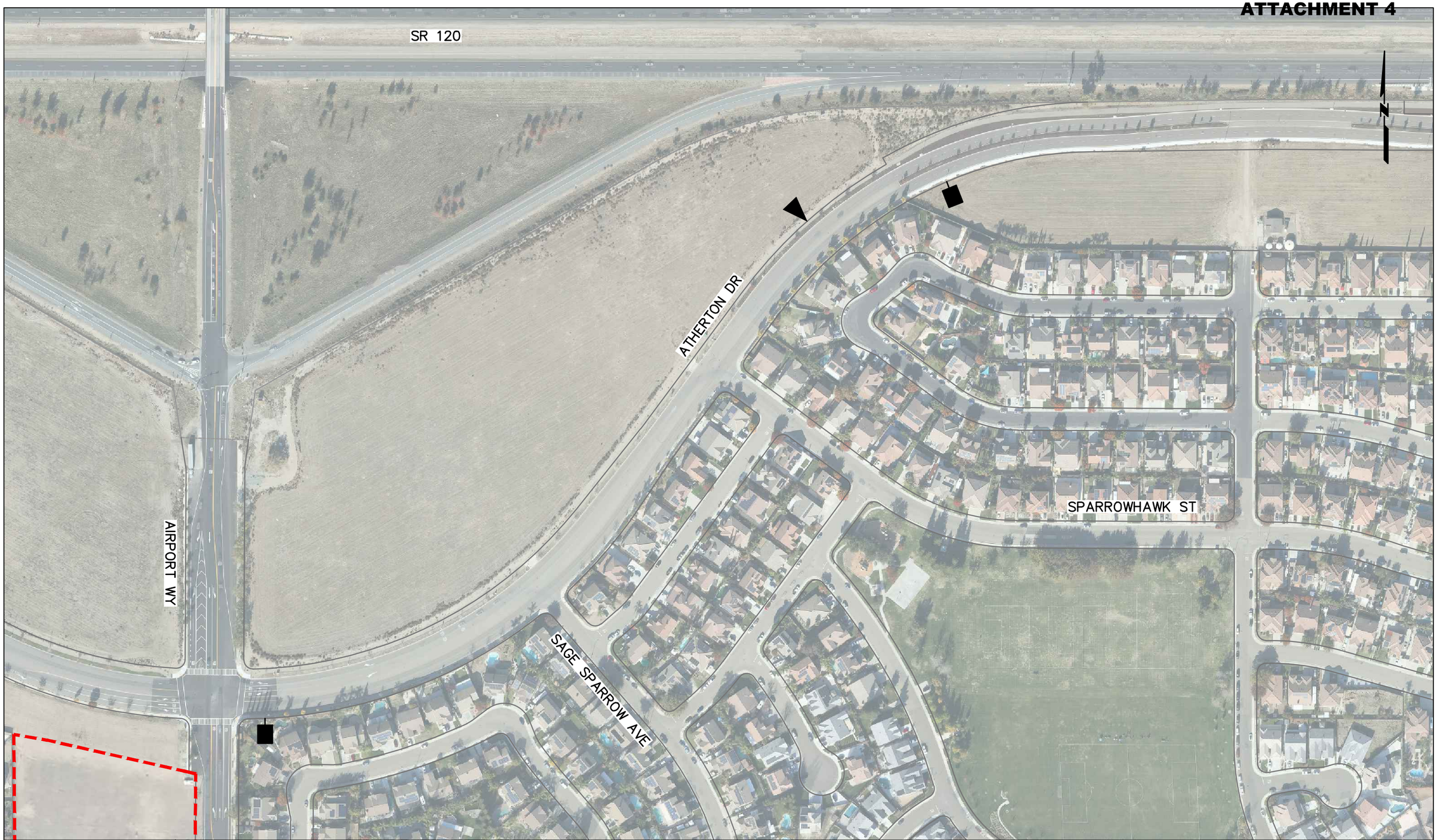
SCALE: NOT TO SCALE

# LOCATION 12 - FIGURE A - ATHERTON DR BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 12 - FIGURE B - ATHERTON DR BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

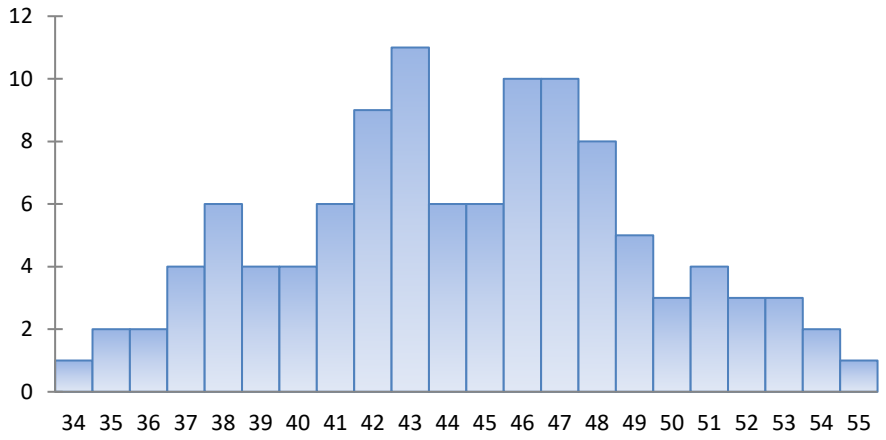
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

| | | | |
|---|---|---|---|
| **Location:** | ATHERTON DRIVE - Airport Way to 575 ft west of Hearthsong Dr | | |
| **Posted Speed Limit:** | 45 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 6/30/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 9:00 AM | **End Time:** | 10:25 AM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 110 |
| **Speed Range** | 34 - 55 MPH |
| **50th percentile speed** | 44 MPH |
| **85th percentile speed** | 49 MPH |
| **10 mph pace speed** | 40 - 49 MPH |
| **% in pace speed** | 68% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 10 |
| 28 | 0 | 48 | 8 |
| 29 | 0 | 49 | 5 |
| 30 | 0 | 50 | 3 |
| 31 | 0 | 51 | 4 |
| 32 | 0 | 52 | 3 |
| 33 | 0 | 53 | 3 |
| 34 | 1 | 54 | 2 |
| 35 | 2 | 55 | 1 |
| 36 | 2 | 56 | 0 |
| 37 | 4 | 57 | 0 |
| 38 | 6 | 58 | 0 |
| 39 | 4 | 59 | 0 |
| 40 | 4 | 60 | 0 |
| 41 | 6 | 61 | 0 |
| 42 | 9 | 62 | 0 |
| 43 | 11 | 63 | 0 |
| 44 | 6 | 64 | 0 |
| 45 | 6 | 65 | 0 |
| 46 | 10 | 66 | 0 |
| TOTAL | | | 110 |

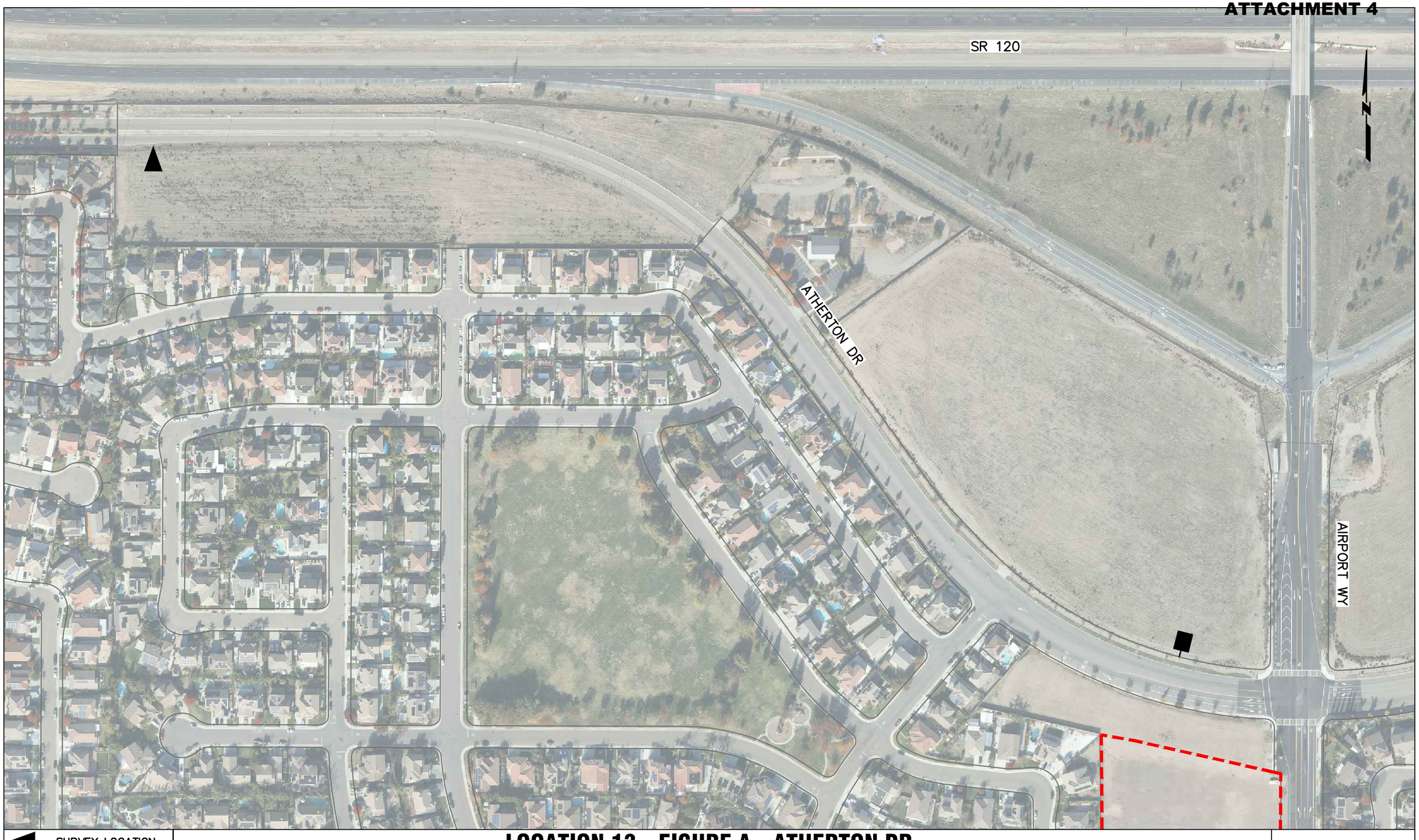
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.82 | **ADT:** | 2,865 | **Count Date:** | 9/1/22 |
| **Number of Collisions:** | 2 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.78 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 60 - 80 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | None | **Sidewalk:** | Varies | **Bike Lanes:** | None |
| **Number of Lanes:** | EB 1-2 WB 2 | | | **Adjacent Land Use:** | Low Density Residential/ Commercial |
| **Divided Median:** | Concrete Median/No Concrete Median | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 49 mph indicates a 50 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 45 mph. The 10 mph pace ranges from 40 mph to 49 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 13 - FIGURE A - ATHERTON DR BETWEEN AIRPORT WAY AND WEST END

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 13 - FIGURE B - ATHERTON DR
# BETWEEN AIRPORT WAY AND WEST END

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:46:48 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

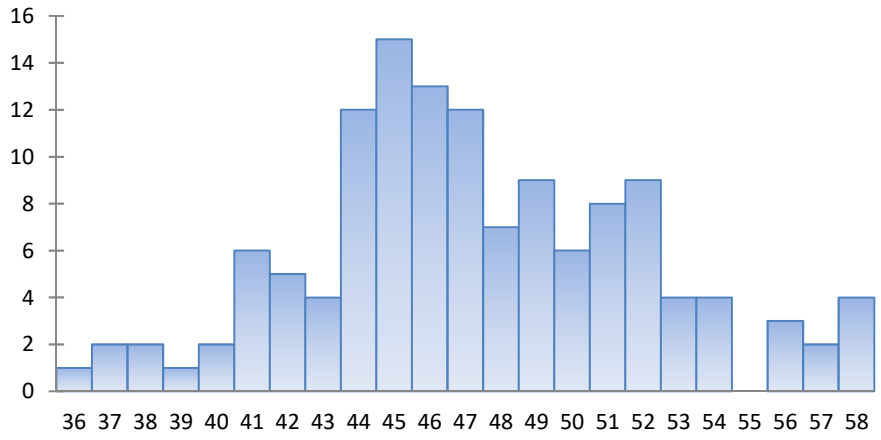
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** AUSTIN ROAD - 1,500 ft. north of Yosemite Ave to 1,350 ft. south of Louise Ave
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 2/15/2023 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:05 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 131 |
| Speed Range | 36 - 58 MPH |
| 50th percentile speed | 47 MPH |
| 85th percentile speed | 52 MPH |
| 10 mph pace speed | 43 - 52 MPH |
| % in pace speed | 73% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 12 |
| 28 | 0 | 48 | 7 |
| 29 | 0 | 49 | 9 |
| 30 | 0 | 50 | 6 |
| 31 | 0 | 51 | 8 |
| 32 | 0 | 52 | 9 |
| 33 | 0 | 53 | 4 |
| 34 | 0 | 54 | 4 |
| 35 | 0 | 55 | 0 |
| 36 | 1 | 56 | 3 |
| 37 | 2 | 57 | 2 |
| 38 | 2 | 58 | 4 |
| 39 | 1 | 59 | 0 |
| 40 | 2 | 60 | 0 |
| 41 | 6 | 61 | 0 |
| 42 | 5 | 62 | 0 |
| 43 | 4 | 63 | 0 |
| 44 | 12 | 64 | 0 |
| 45 | 15 | 65 | 0 |
| 46 | 13 | 66 | 0 |
| TOTAL | | | 131 |

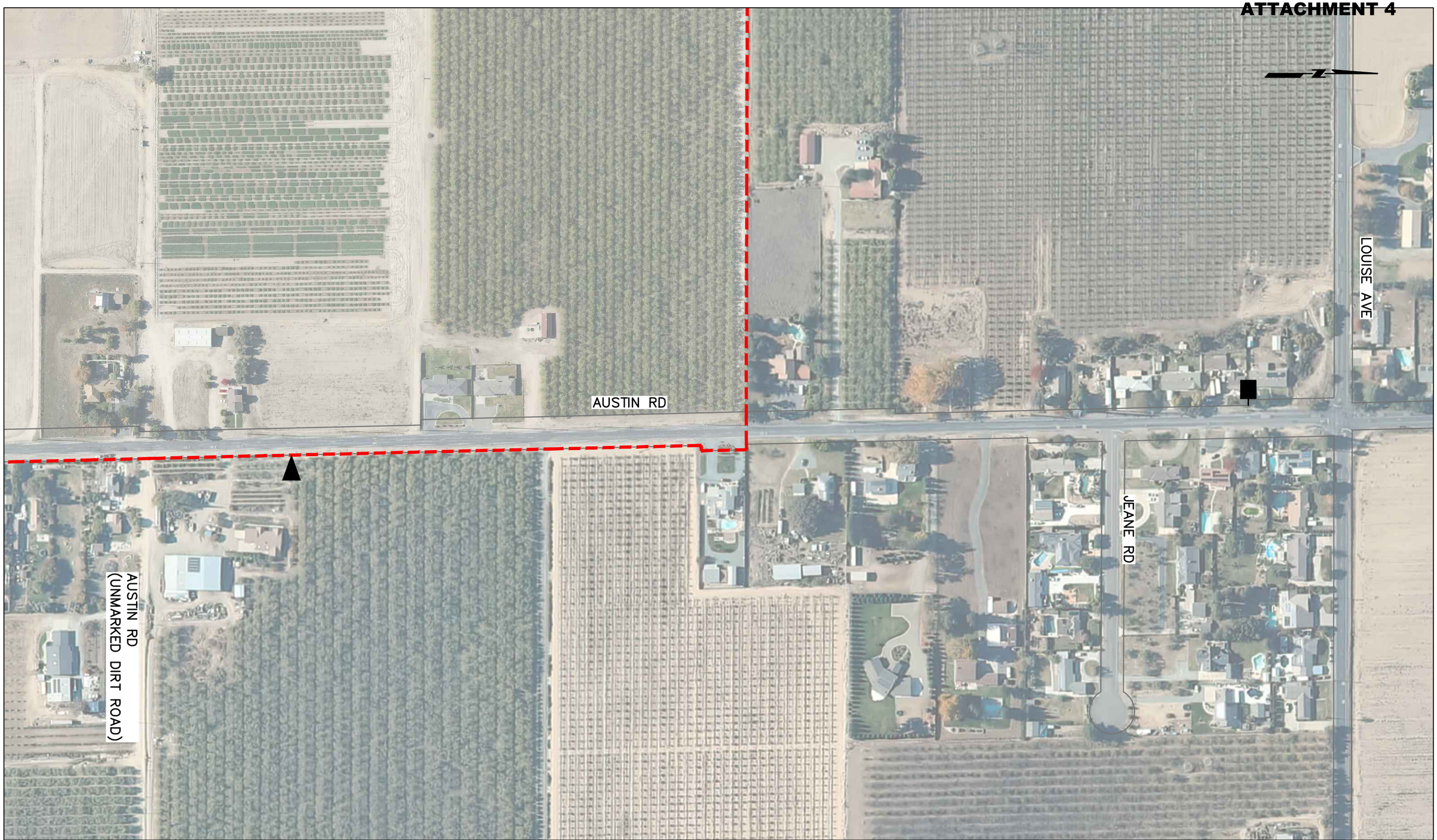
### ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 2,664 **Count Date:** 7/14/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 24 - 38 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** None **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Very Low/Low Density Residential/Commercial
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 52 mph indicates a 50 mph speed limit. However, due to the fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 43 mph to 52 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 45 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 14 - FIGURE A - AUSTIN RD
# BETWEEN LOUISE AVE AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 14 - FIGURE B - AUSTIN RD
# BETWEEN LOUISE AVE AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:47:23 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

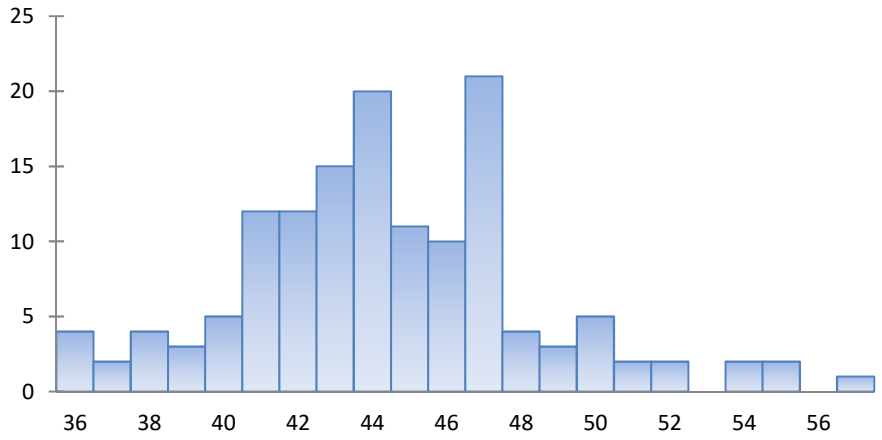
**RECOMMENDED SPEED LIMIT**

**40 MPH**

**Location:** AUSTIN ROAD - Yosemite Ave to 2,000 ft. North of Graves Rd
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 3/20/2023 **Weather:** Clear/Dry
**Begin Time:** 9:10 AM **End Time:** 10:10 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 140 |
| Speed Range | 36 - 57 MPH |
| 50th percentile speed | 44 MPH |
| 85th percentile speed | 47 MPH |
| 10 mph pace speed | 38 - 47 MPH |
| % in pace speed | 81% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 21 |
| 28 | 0 | 48 | 4 |
| 29 | 0 | 49 | 3 |
| 30 | 0 | 50 | 5 |
| 31 | 0 | 51 | 2 |
| 32 | 0 | 52 | 2 |
| 33 | 0 | 53 | 0 |
| 34 | 0 | 54 | 2 |
| 35 | 0 | 55 | 2 |
| 36 | 4 | 56 | 0 |
| 37 | 2 | 57 | 1 |
| 38 | 4 | 58 | 0 |
| 39 | 3 | 59 | 0 |
| 40 | 5 | 60 | 0 |
| 41 | 12 | 61 | 0 |
| 42 | 12 | 62 | 0 |
| 43 | 15 | 63 | 0 |
| 44 | 20 | 64 | 0 |
| 45 | 11 | 65 | 0 |
| 46 | 10 | 66 | 0 |
| TOTAL | | | 140 |

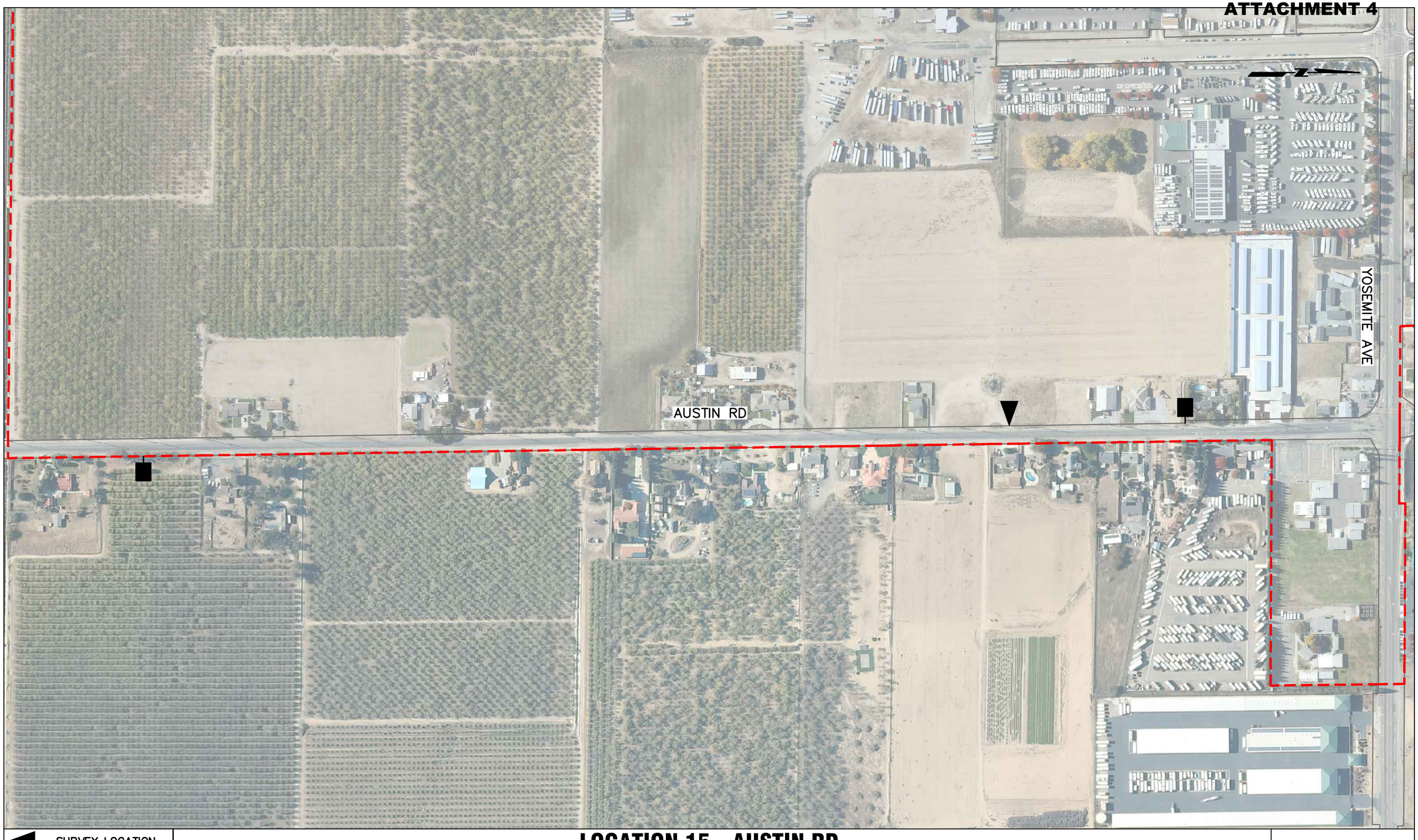
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.88 **ADT:** 3,847 **Count Date:** 7/14/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 24 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** None **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Very Low/Low/Med/High Density Residential/Commercial/ Commercial Mixed Use/Industrial
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 47 mph indicates a 45 mph speed limit. However, due to the fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 38 mph to 47 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 15 - AUSTIN RD
# BETWEEN YOSEMITE AVE AND 2,000 FT NORTH OF GRAVES RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\Utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:47:43 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

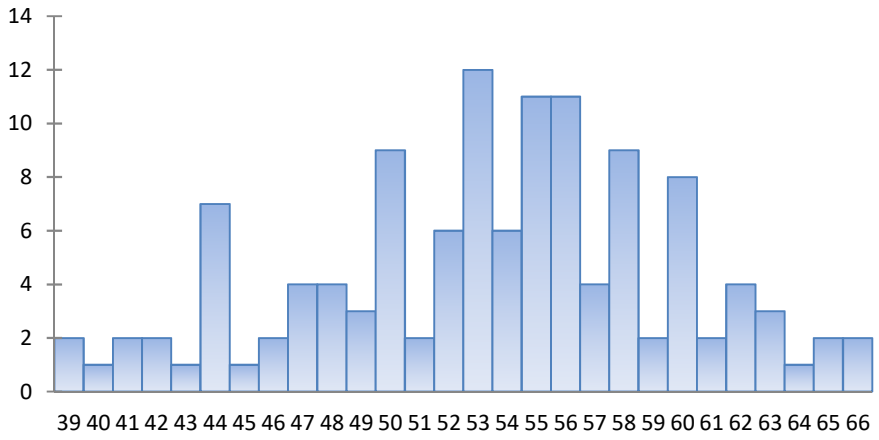
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**55 MPH**

**Location:** AUSTIN ROAD - Moffat Blvd to 1650 ft. south of Sedan Ave
**Posted Speed Limit:** 55 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/28/2022 **Weather:** Clear/Dry
**Begin Time:** 10:15 AM **End Time:** 11:15 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the fronting residential district and pace speed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 123 |
| Speed Range | 39 - 66 MPH |
| 50th percentile speed | 54 MPH |
| 85th percentile speed | 60 MPH |
| 10 mph pace speed | 49 - 58 MPH |
| % in pace speed | 59% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 0 | 50 | 9 |
| 31 | 0 | 51 | 2 |
| 32 | 0 | 52 | 6 |
| 33 | 0 | 53 | 12 |
| 34 | 0 | 54 | 6 |
| 35 | 0 | 55 | 11 |
| 36 | 0 | 56 | 11 |
| 37 | 0 | 57 | 4 |
| 38 | 0 | 58 | 9 |
| 39 | 2 | 59 | 2 |
| 40 | 1 | 60 | 8 |
| 41 | 2 | 61 | 2 |
| 42 | 2 | 62 | 4 |
| 43 | 1 | 63 | 3 |
| 44 | 7 | 64 | 1 |
| 45 | 1 | 65 | 2 |
| 46 | 2 | 66 | 2 |
| 47 | 4 | 67 | 0 |
| 48 | 4 | 68 | 0 |
| 49 | 3 | 69 | 0 |
| TOTAL | | | 123 |

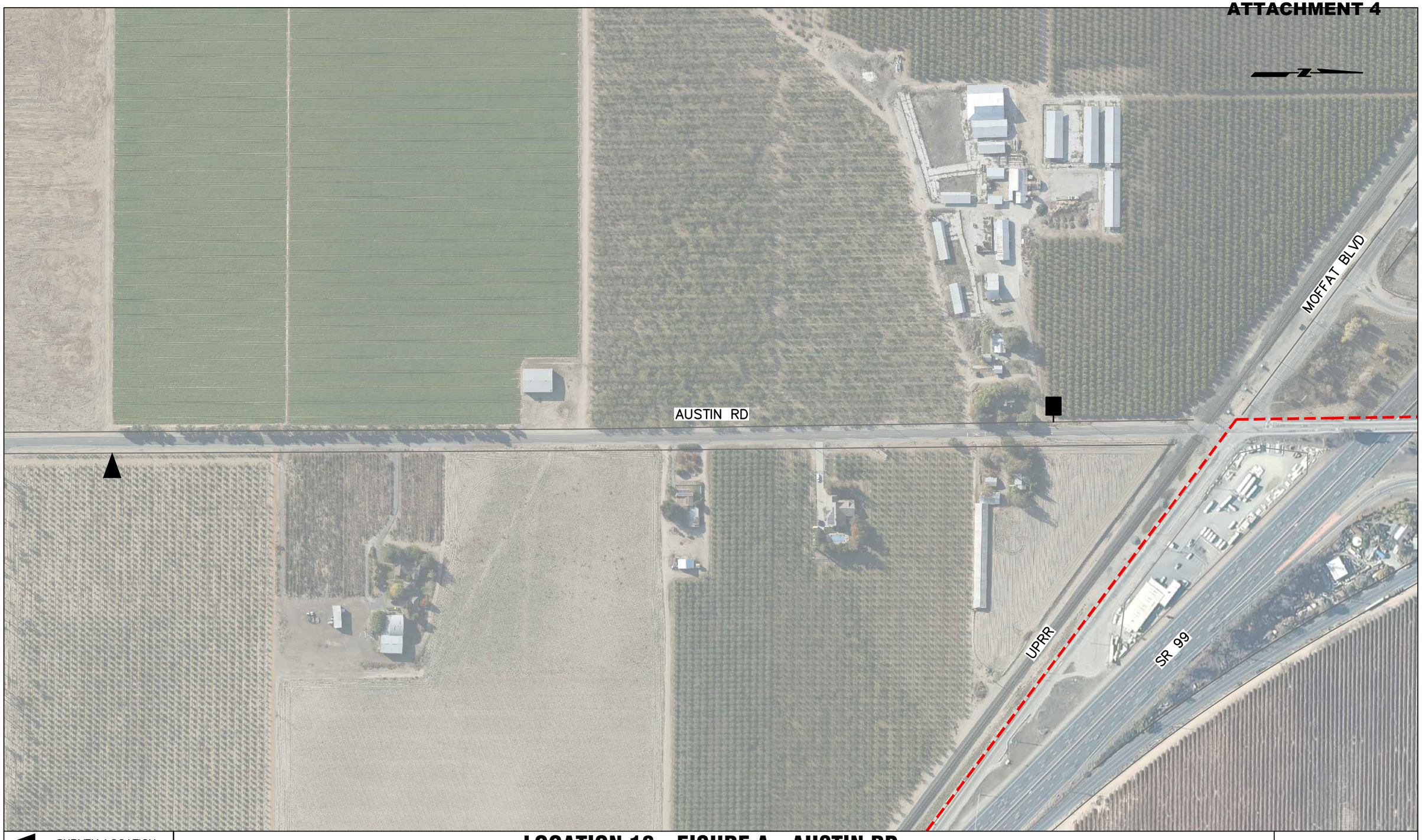
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.15 **ADT:** 3,673 **Count Date:** 8/16/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 0.43 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 24 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** None **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low/Medium/High Density Residential/Commercial/ Commercial Mixed Use/Industrial
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 60 mph indicates a 60 mph speed limit. However, due to the fronting residential district and pace speed, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 49 mph to 58 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 55 mph.

**ATTACHMENT 4**



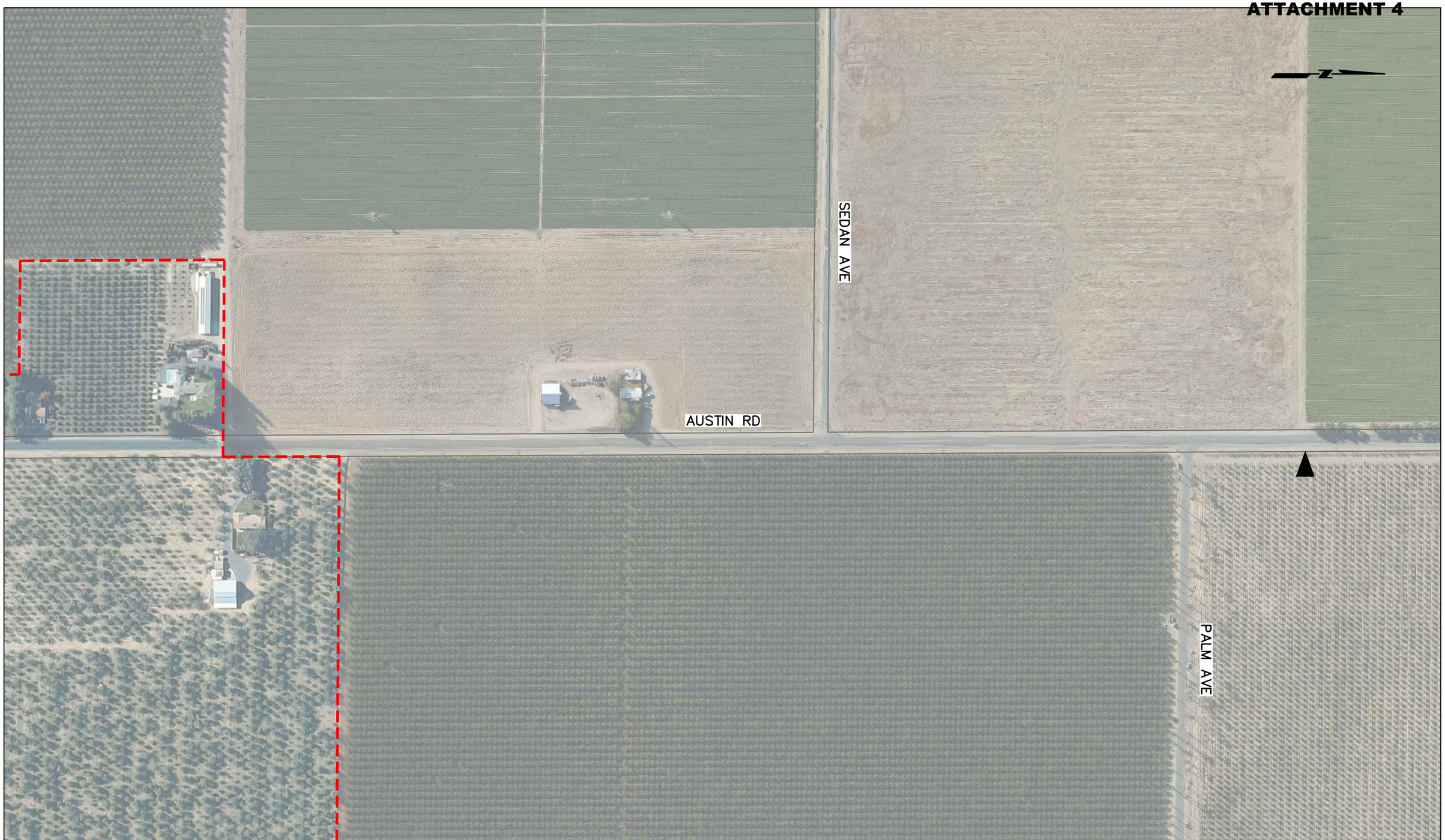

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 16 - FIGURE A - AUSTIN RD
# BETWEEN MOFFAT BLVD AND SOUTH CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:48:03 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 16 - FIGURE B - AUSTIN RD
# BETWEEN MOFFAT BLVD AND SOUTH CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:48:28 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

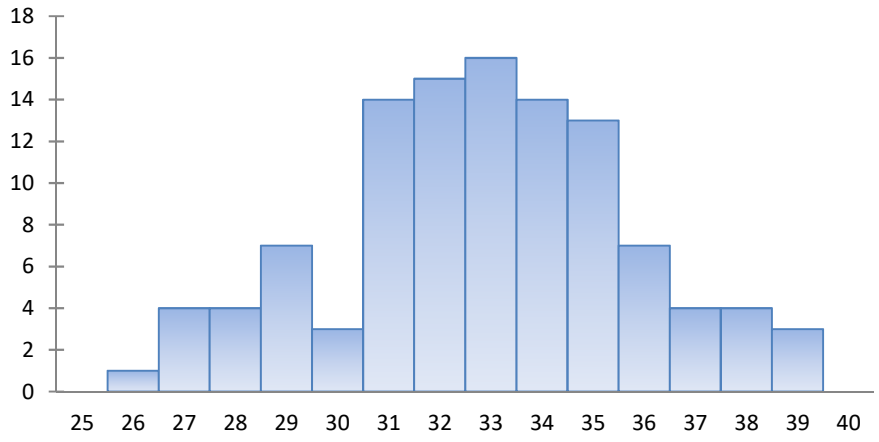
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

| | | | |
|---|---|---|---|
| **Location:** | BUENA VISTA DRIVE - Woodward Ave to 400 ft. south of Mono St | | |
| **Posted Speed Limit:** | 25 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 11/29/2022 | **Weather:** | Clear/Rdy |
| **Begin Time:** | 10:15 AM | **End Time:** | 11:15 AM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 109 |
| **Speed Range** | 26 - 39 MPH |
| **50th percentile speed** | 33 MPH |
| **85th percentile speed** | 36 MPH |
| **10 mph pace speed** | 27 - 36 MPH |
| **% in pace speed** | 89% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 25 | 0 | 45 | 0 |
| 26 | 1 | 46 | 0 |
| 27 | 4 | 47 | 0 |
| 28 | 4 | 48 | 0 |
| 29 | 7 | 49 | 0 |
| 30 | 3 | 50 | 0 |
| 31 | 14 | 51 | 0 |
| 32 | 15 | 52 | 0 |
| 33 | 16 | 53 | 0 |
| 34 | 14 | 54 | 0 |
| 35 | 13 | 55 | 0 |
| 36 | 7 | 56 | 0 |
| 37 | 4 | 57 | 0 |
| 38 | 4 | 58 | 0 |
| 39 | 3 | 59 | 0 |
| 40 | 0 | 60 | 0 |
| 41 | 0 | 61 | 0 |
| 42 | 0 | 62 | 0 |
| 43 | 0 | 63 | 0 |
| 44 | 0 | 64 | 0 |
| TOTAL | | | 109 |

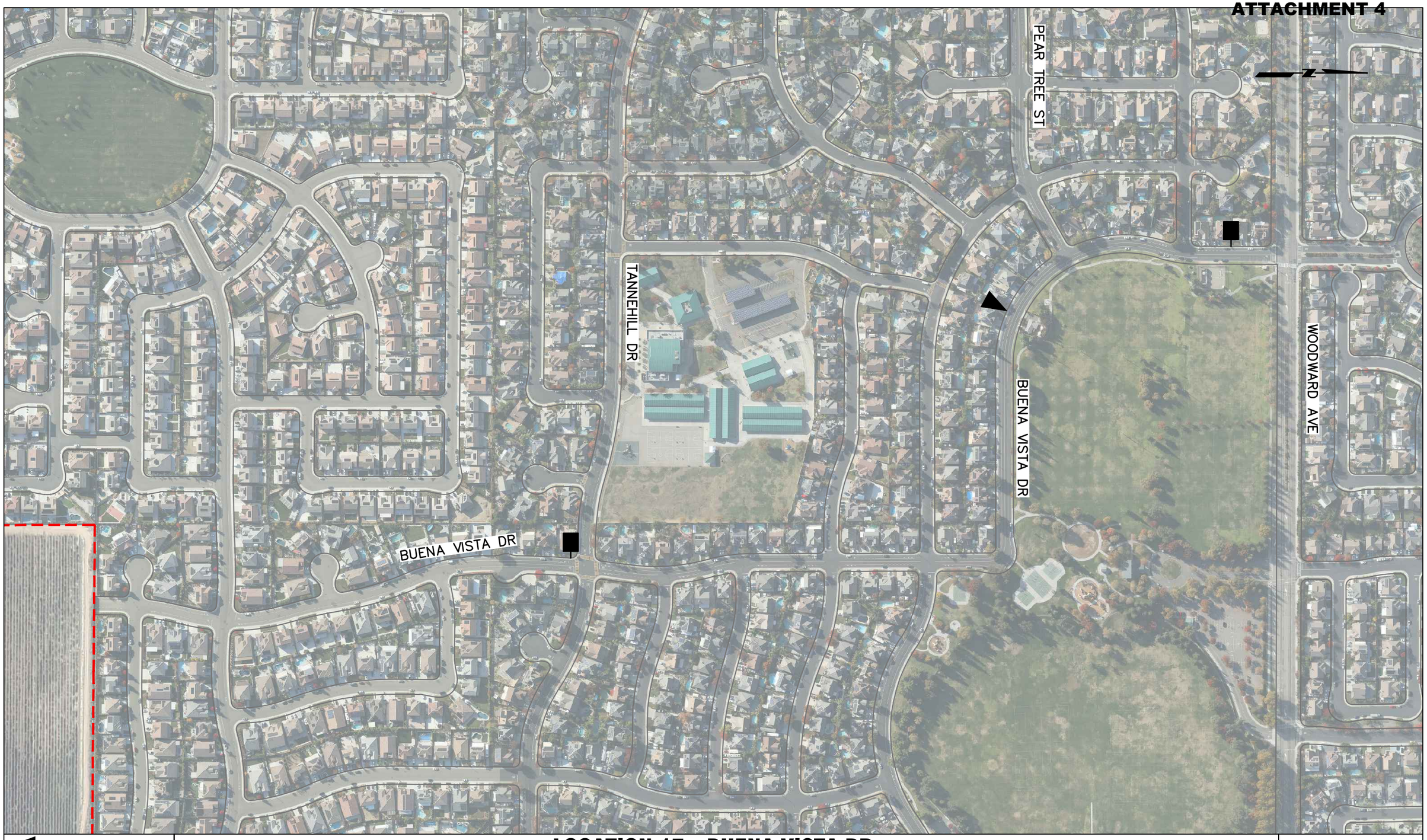
### ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.92 | **ADT:** | 1,341 | **Count Date:** | 8/17/22 |
| **Number of Collisions:** | 1 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.74 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 44 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Both Sides | **Sidewalk:** | Both Sides | **Bike Lanes:** | Both Sides |
| **Number of Lanes:** | NB 1 SB 1 | | | **Adjacent Land Use:** | Low Density Residential/Park |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 36 mph indicates a 35 mph speed limit. The collision rate is below the expected rate. Since the roadway meets the requirements of Section 515 " Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 17 - BUENA VISTA DR
# BETWEEN WOODWARD AVE AND END

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:48:48 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

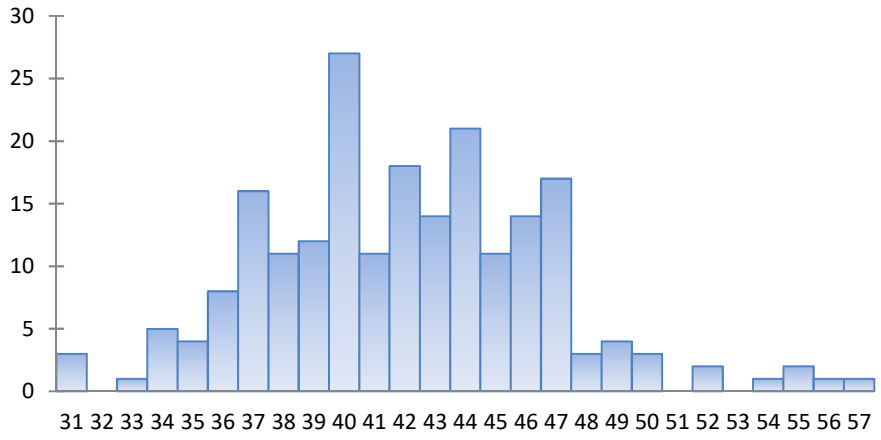
## VEHICLE SPEED DATA

**RECOMMENDED SPEED**
**40 MPH**

**Location:** BUTTON AVENUE - Yosemite Ave to Cottage Ave
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 3/20/2023 **Weather:** Clear/Dry
**Begin Time:** 10:15 AM **End Time:** 11:15 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to proximity to school and the lack of continuous bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 210 |
| Speed Range | 31 - 57 MPH |
| 50th percentile speed | 42 MPH |
| 85th percentile speed | 47 MPH |
| 10 mph pace speed | 38 - 47 MPH |
| % in pace speed | 74% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 17 |
| 28 | 0 | 48 | 3 |
| 29 | 0 | 49 | 4 |
| 30 | 0 | 50 | 3 |
| 31 | 3 | 51 | 0 |
| 32 | 0 | 52 | 2 |
| 33 | 1 | 53 | 0 |
| 34 | 5 | 54 | 1 |
| 35 | 4 | 55 | 2 |
| 36 | 8 | 56 | 1 |
| 37 | 16 | 57 | 1 |
| 38 | 11 | 58 | 0 |
| 39 | 12 | 59 | 0 |
| 40 | 27 | 60 | 0 |
| 41 | 11 | 61 | 0 |
| 42 | 18 | 62 | 0 |
| 43 | 14 | 63 | 0 |
| 44 | 21 | 64 | 0 |
| 45 | 11 | 65 | 0 |
| 46 | 14 | 66 | 0 |
| TOTAL | | | 210 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 3,228 **Count Date:** 7/14/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 0.57 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 26 - 44 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low/High Density Residential/Commercial/ Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 47 mph indicates a 45 mph speed limit. However, due to proximity to school and the lack of continuous bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 38 mph to 47 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 18 - BUTTON AVE
# BETWEEN YOSEMITE AVE AND COTTAGE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

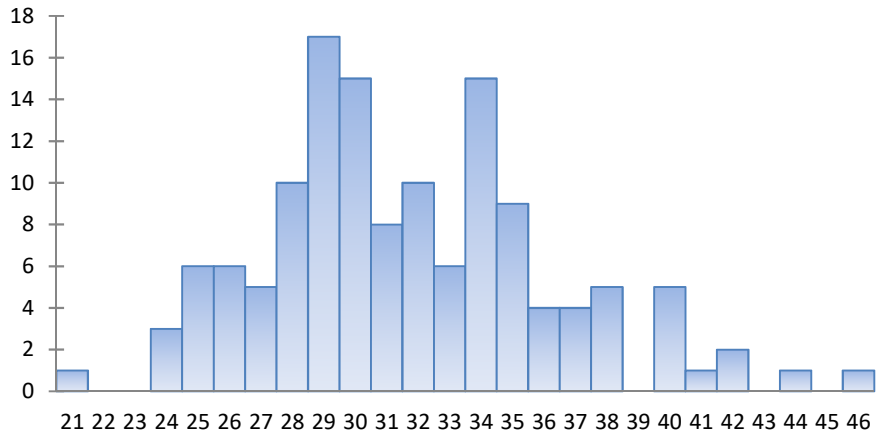
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** CENTER STREET - Fremont Ave to Main St
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/5/2022 **Weather:** Clear/Dry
**Begin Time:** 11:30 AM **End Time:** 12:30 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the collision rate exceeding State average, fronting residential district, and school crossing.

### Summary Statistics

| | |
|---|---|
| Total Observed | 134 |
| Speed Range | 21 - 46 MPH |
| 50th percentile speed | 31 MPH |
| 85th percentile speed | 36 MPH |
| 10 mph pace speed | 26 - 35 MPH |
| % in pace speed | 75% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 5 |
| 21 | 1 | 41 | 1 |
| 22 | 0 | 42 | 2 |
| 23 | 0 | 43 | 0 |
| 24 | 3 | 44 | 1 |
| 25 | 6 | 45 | 0 |
| 26 | 6 | 46 | 1 |
| 27 | 5 | 47 | 0 |
| 28 | 10 | 48 | 0 |
| 29 | 17 | 49 | 0 |
| 30 | 15 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 6 | 53 | 0 |
| 34 | 15 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| 36 | 4 | 56 | 0 |
| 37 | 4 | 57 | 0 |
| 38 | 5 | 58 | 0 |
| 39 | 0 | 59 | 0 |
| TOTAL | | | 134 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.37 **ADT:** 3,807 **Count Date:** 8/4/22
**Number of Collisions:** 5 **Time Period:** 3 years
**Calc. Collision Rate =** 3.24 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 51 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Downtown
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 36 mph indicates a 35 mph speed limit. However, due to fronting residental district and school crossing, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 26 mph to 35 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 19 - CENTER ST
# BETWEEN FREMONT AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/26/2023 8:49:23 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**

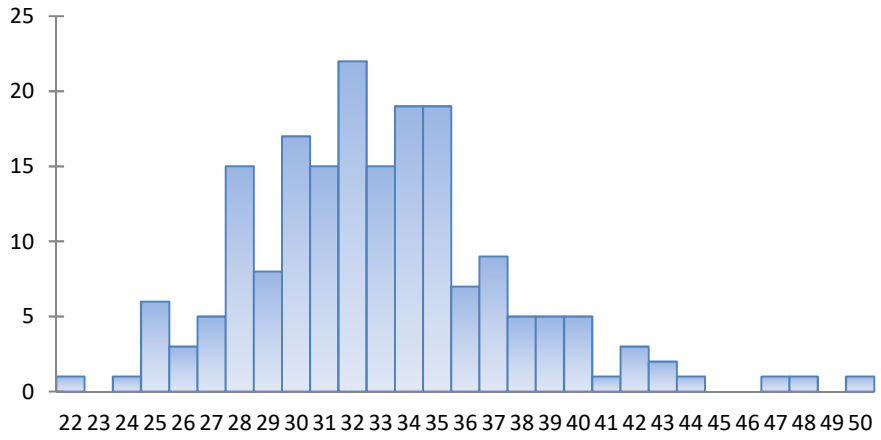
**30 MPH**

| | | | |
|---|---|---|---|
| **Location:** | CENTER STREET - Main St to Union Rd | | |
| **Posted Speed Limit:** | 30 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 7/5/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 10:15 AM | **End Time:** | 11:15 AM |
| **Speed Limit Change:** | No | | |

**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the collision rate exceeding State average, fronting residential district, and school crossing.

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 187 |
| **Speed Range** | 22 - 50 MPH |
| **50th percentile speed** | 33 MPH |
| **85th percentile speed** | 37 MPH |
| **10 mph pace speed** | 28 - 37 MPH |
| **% in pace speed** | 78% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 5 |
| 21 | 0 | 41 | 1 |
| 22 | 1 | 42 | 3 |
| 23 | 0 | 43 | 2 |
| 24 | 1 | 44 | 1 |
| 25 | 6 | 45 | 0 |
| 26 | 3 | 46 | 0 |
| 27 | 5 | 47 | 1 |
| 28 | 15 | 48 | 1 |
| 29 | 8 | 49 | 0 |
| 30 | 17 | 50 | 1 |
| 31 | 15 | 51 | 0 |
| 32 | 22 | 52 | 0 |
| 33 | 15 | 53 | 0 |
| 34 | 19 | 54 | 0 |
| 35 | 19 | 55 | 0 |
| 36 | 7 | 56 | 0 |
| 37 | 9 | 57 | 0 |
| 38 | 5 | 58 | 0 |
| 39 | 5 | 59 | 0 |
| TOTAL | | | 187 |

## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 1.02 | **ADT:** | 6,668 | **Count Date:** | 7/27/22 |
| **Number of Collisions:** | 9 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 1.21 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 48 - 63 | **Driveway** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Both Sides | **Sidewalk:** | Both Sides | **Bike Lanes:** | Varies |
| **Number of Lanes:** | EB 1 WB 1 | | | **Adjacent Land Use:** | Downtown/Low/Med/High Density Res/Commercial/ Public/Quasi Public/ Business Professional/Park |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | Yes | | | | |

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. However, due to fronting residental district and school crossing, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 28 mph to 37 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4



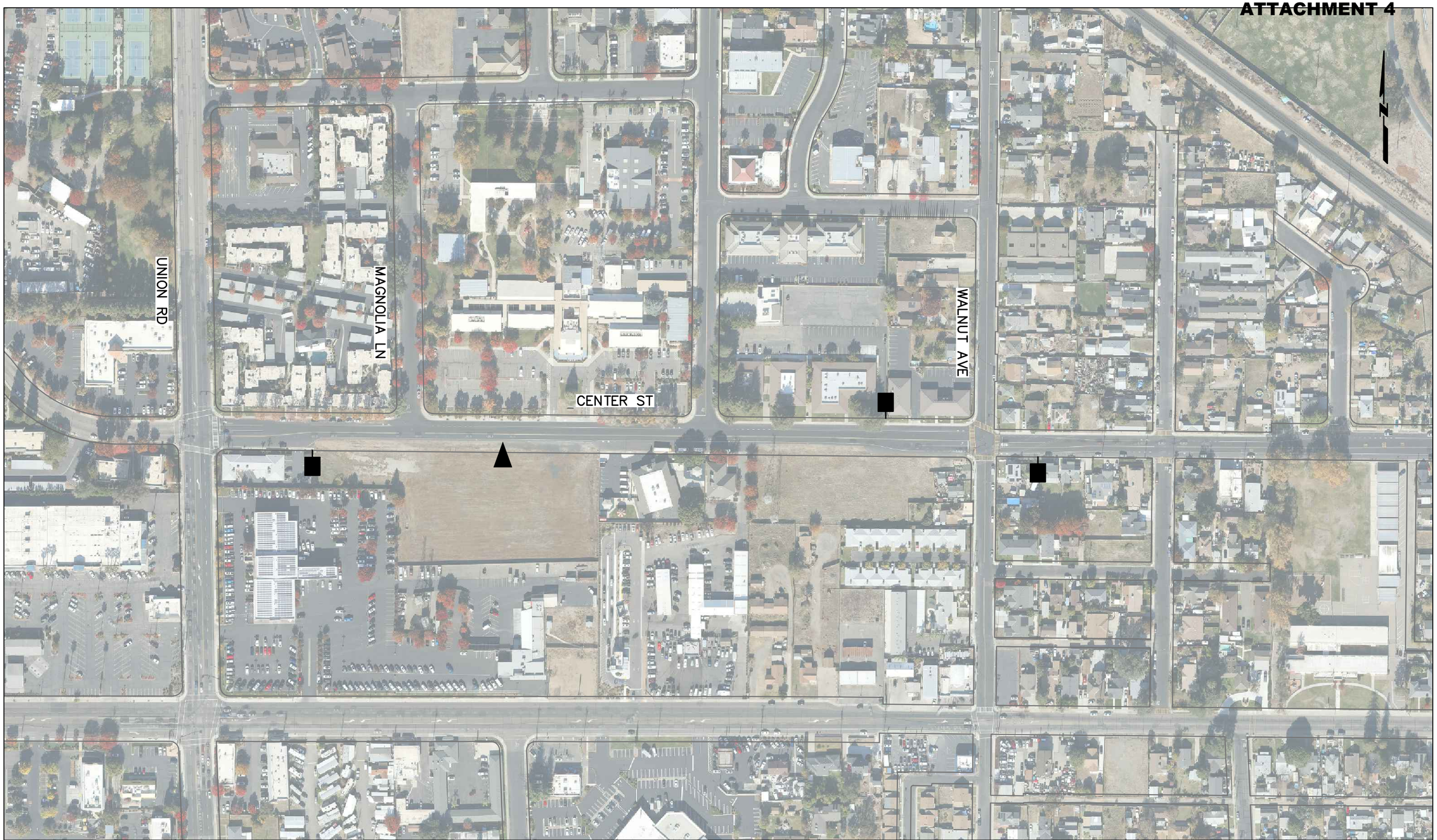

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 20 - FIGURE A - CENTER ST BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:49:38 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 20 - FIGURE B - CENTER ST BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:49:53 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

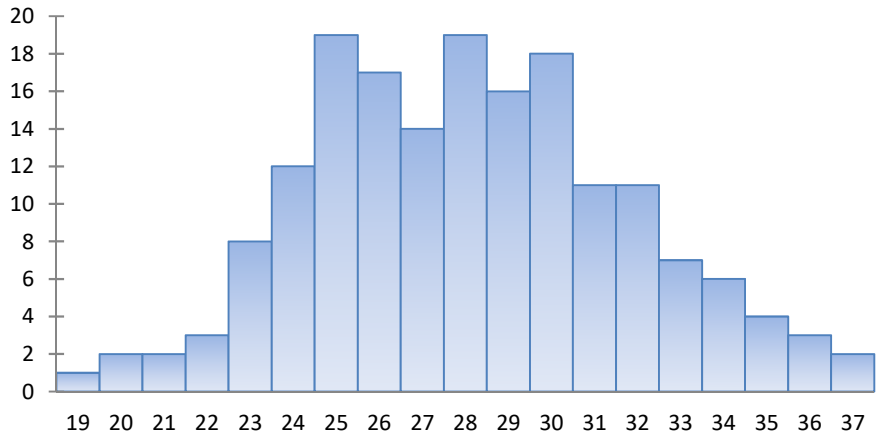
**RECOMMENDED SPEED LIMIT**

**25 MPH**

| | | | |
|---|---|---|---|
| **Location:** | CENTER STREET - Union Rd to 335 ft. west of Trevino Ave | | |
| **Posted Speed Limit:** | 25 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 8/9/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 9:00 AM | **End Time:** | 10:00 AM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 175 |
| **Speed Range** | 19 - 37 MPH |
| **50th percentile speed** | 28 MPH |
| **85th percentile speed** | 32 MPH |
| **10 mph pace speed** | 23 - 32 MPH |
| **% in pace speed** | 83% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 0 |
| 19 | 1 | 39 | 0 |
| 20 | 2 | 40 | 0 |
| 21 | 2 | 41 | 0 |
| 22 | 3 | 42 | 0 |
| 23 | 8 | 43 | 0 |
| 24 | 12 | 44 | 0 |
| 25 | 19 | 45 | 0 |
| 26 | 17 | 46 | 0 |
| 27 | 14 | 47 | 0 |
| 28 | 19 | 48 | 0 |
| 29 | 16 | 49 | 0 |
| 30 | 18 | 50 | 0 |
| 31 | 11 | 51 | 0 |
| 32 | 11 | 52 | 0 |
| 33 | 7 | 53 | 0 |
| 34 | 6 | 54 | 0 |
| 35 | 4 | 55 | 0 |
| 36 | 3 | 56 | 0 |
| 37 | 2 | 57 | 0 |
| TOTAL | | | 175 |

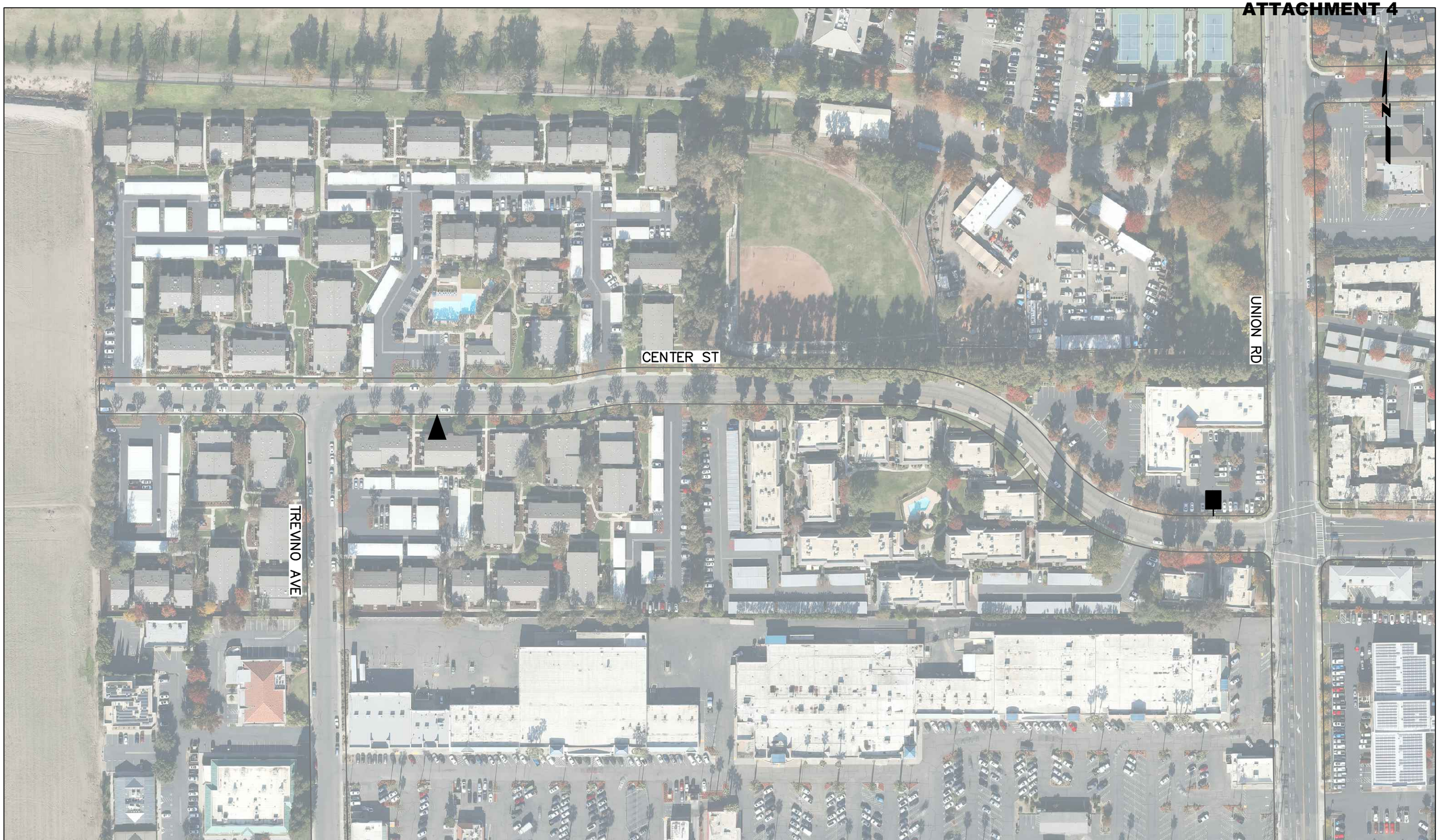
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.39 | **ADT:** | 4,673 | **Count Date:** | 9/1/22 |
| **Number of Collisions:** | 0 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.00 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 41 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Both Sides | **Sidewalk:** | Both Sides | **Bike Lanes:** | None |
| **Number of Lanes:** | EB 1 WB 1 | | | **Adjacent Land Use:** | High Density Residential/ Commercial/ Park |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. Since the roadway meets the requirements of Section 515 " Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 21 - CENTER ST
# BETWEEN UNION RD AND END

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:50:08 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

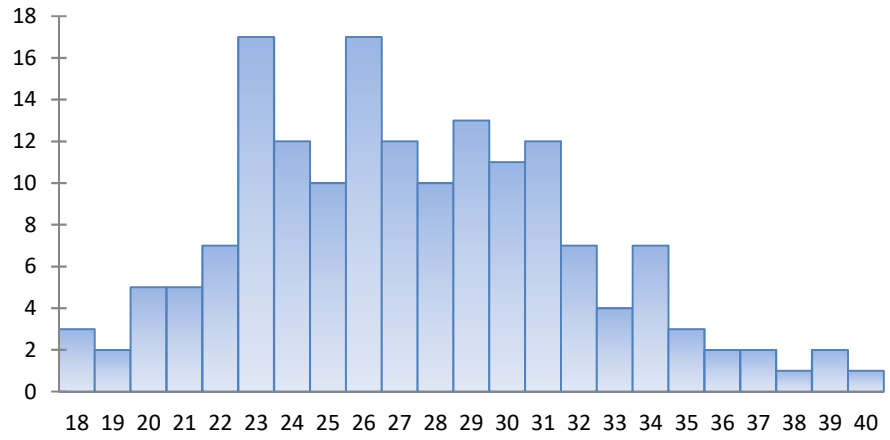
**RECOMMENDED SPEED LIMIT**

**30 MPH**

Location: COMMERCE AVE - Yosemite Ave to Phoenix Dr
Posted Speed Limit: 30 mph
Direction: Both
Recorder: NDS
Survey Date: 6/28/2022
Weather: Clear/Dry
Begin Time: 10:20 AM
End Time: 11:20 AM
Speed Limit Change: No
Speed Justification: 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 165 |
| Speed Range | 18 - 40 MPH |
| 50th percentile speed | 27 MPH |
| 85th percentile speed | 32 MPH |
| 10 mph pace speed | 22 - 31 MPH |
| % in pace speed | 73% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 2 |
| 17 | 0 | 37 | 2 |
| 18 | 3 | 38 | 1 |
| 19 | 2 | 39 | 2 |
| 20 | 5 | 40 | 1 |
| 21 | 5 | 41 | 0 |
| 22 | 7 | 42 | 0 |
| 23 | 17 | 43 | 0 |
| 24 | 12 | 44 | 0 |
| 25 | 10 | 45 | 0 |
| 26 | 17 | 46 | 0 |
| 27 | 12 | 47 | 0 |
| 28 | 10 | 48 | 0 |
| 29 | 13 | 49 | 0 |
| 30 | 11 | 50 | 0 |
| 31 | 12 | 51 | 0 |
| 32 | 7 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| 34 | 7 | 54 | 0 |
| 35 | 3 | 55 | 0 |
| TOTAL | | | 165 |

## ANALYSIS INFORMATION

Segment Length(mi): 0.26
ADT: 6,612
Count Date: 7/14/22
Number of Collisions: 2
Time Period: 3 years
Calc. Collision Rate = 1.06 collisions per million vehicle-miles
Expected Collisions Rate: 1.18 c/mvm
Street Width (ft): 50 - 80
Driveway: Yes
Terrain: Flat
Parking Conditions: None
Sidewalk: Both Sides
Bike Lanes: None
Number of Lanes: NB 1-2 SB 1-2
Adjacent Land Use: Industrial/Commercial
Devided Median: TWLTL
Uncontrolled Crosswalks: No

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 22 mph to 31 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 22 - COMMERCE AVE
# BETWEEN YOSEMITE AVE AND PHOENIX DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:50:24 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

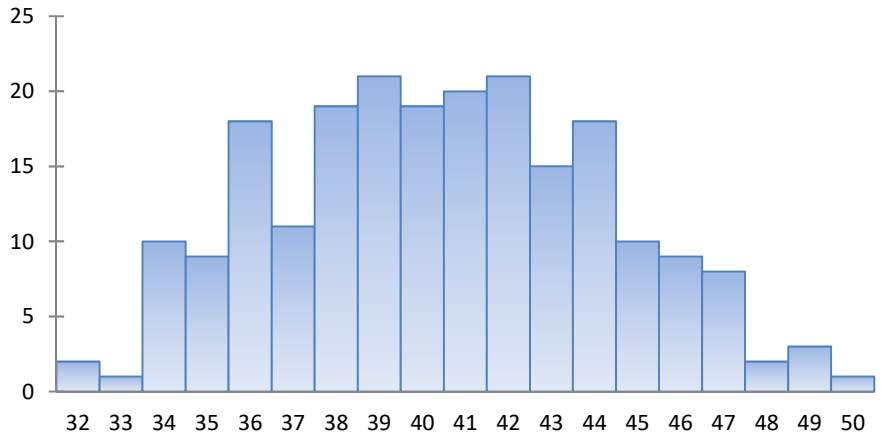
**RECOMMENDED SPEED LIMIT**

**40 MPH**

| | | | |
|---|---|---|---|
| **Location:** | COTTAGE AVE - Louise Ave to State Route 99 | | |
| **Posted Speed Limit:** | 40 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 7/5/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 9:00 AM | **End Time:** | 9:40 AM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk, the collision rate exceeding the expected rate, and the lack of bike lanes. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 217 |
| **Speed Range** | 32 - 50 MPH |
| **50th percentile speed** | 40 MPH |
| **85th percentile speed** | 45 MPH |
| **10 mph pace speed** | 36 - 45 MPH |
| **% in pace speed** | 79% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 18 |
| 17 | 0 | 37 | 11 |
| 18 | 0 | 38 | 19 |
| 19 | 0 | 39 | 21 |
| 20 | 0 | 40 | 19 |
| 21 | 0 | 41 | 20 |
| 22 | 0 | 42 | 21 |
| 23 | 0 | 43 | 15 |
| 24 | 0 | 44 | 18 |
| 25 | 0 | 45 | 10 |
| 26 | 0 | 46 | 9 |
| 27 | 0 | 47 | 8 |
| 28 | 0 | 48 | 2 |
| 29 | 0 | 49 | 3 |
| 30 | 0 | 50 | 1 |
| 31 | 0 | 51 | 0 |
| 32 | 2 | 52 | 0 |
| 33 | 1 | 53 | 0 |
| 34 | 10 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| TOTAL | | | 217 |

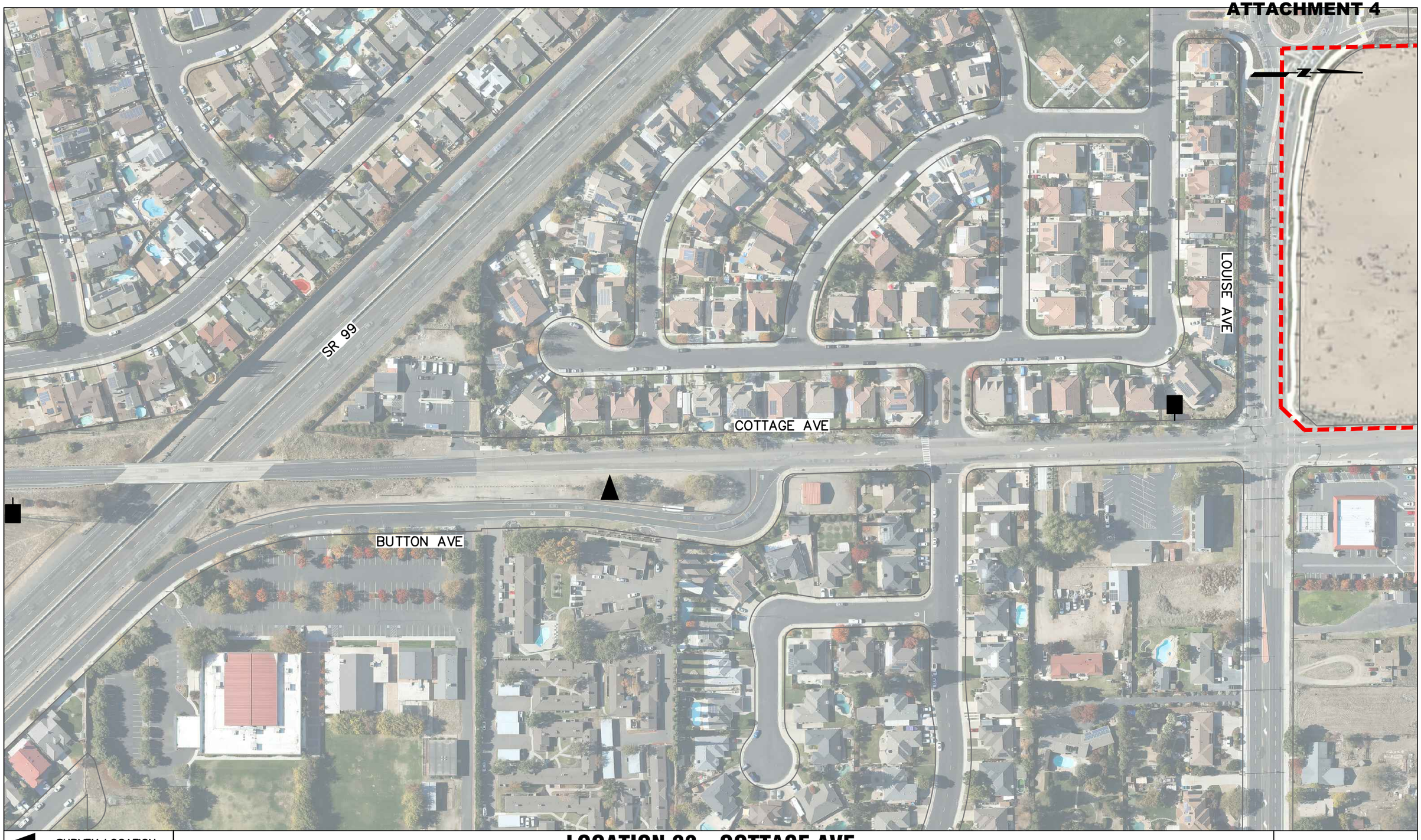
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.34 | **ADT:** | 10,207 | **Count Date:** | 7/14/22 |
| **Number of Collisions:** | 4 | **Time Period:** | 2 years | | |
| **Calc. Collision Rate =** | 1.58 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 30 - 46 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | None | **Sidewalk:** | Varies | **Bike Lanes:** | None |
| **Number of Lanes:** | NB 1 SB 1 | **Adjacent Land Use:** | Low/High Density Residential/Commercial/ Public/Quasi Public | | |
| **Divided Median:** | TWLTL/No Median | | | | |
| **Uncontrolled Crosswalks** | Yes | | | | |

**Comments:**

The 85th-percentile speed of 45 mph indicates a 45 mph speed limit. However, due to uncontrolled crosswalk, the collision rate exceeding the expected rate, and the lack of bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 36 mph to 45 mph and the recommended speed limit falls within this range. Therefore, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION

SPEED LIMIT SIGN

CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 23 - COTTAGE AVE
# BETWEEN LOUISE AVE AND STATE ROUTE 99

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:50:44 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

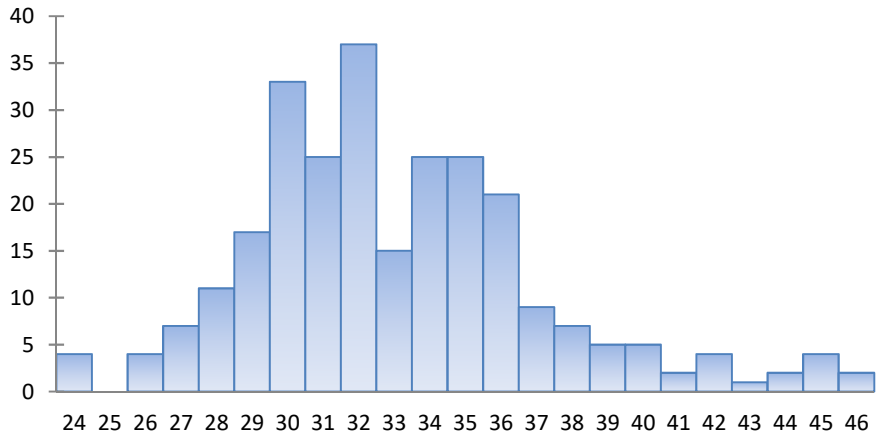
**RECOMMENDED SPEED LIMIT**

**30 MPH**

**Location:** COTTAGE AVE - State Route 99 to Yosemite Ave
**Posted Speed Limit:** 30 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 3/20/2023
**Weather:** Clear/Dry
**Begin Time:** 11:18 AM
**End Time:** 11:35 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk, the fronting residential district, and the lack of bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 265 |
| Speed Range | 24 - 46 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 37 MPH |
| 10 mph pace speed | 28 - 37 MPH |
| % in pace speed | 82% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 21 |
| 17 | 0 | 37 | 9 |
| 18 | 0 | 38 | 7 |
| 19 | 0 | 39 | 5 |
| 20 | 0 | 40 | 5 |
| 21 | 0 | 41 | 2 |
| 22 | 0 | 42 | 4 |
| 23 | 0 | 43 | 1 |
| 24 | 4 | 44 | 2 |
| 25 | 0 | 45 | 4 |
| 26 | 4 | 46 | 2 |
| 27 | 7 | 47 | 0 |
| 28 | 11 | 48 | 0 |
| 29 | 17 | 49 | 0 |
| 30 | 33 | 50 | 0 |
| 31 | 25 | 51 | 0 |
| 32 | 37 | 52 | 0 |
| 33 | 15 | 53 | 0 |
| 34 | 25 | 54 | 0 |
| 35 | 25 | 55 | 0 |
| TOTAL | | | 265 |

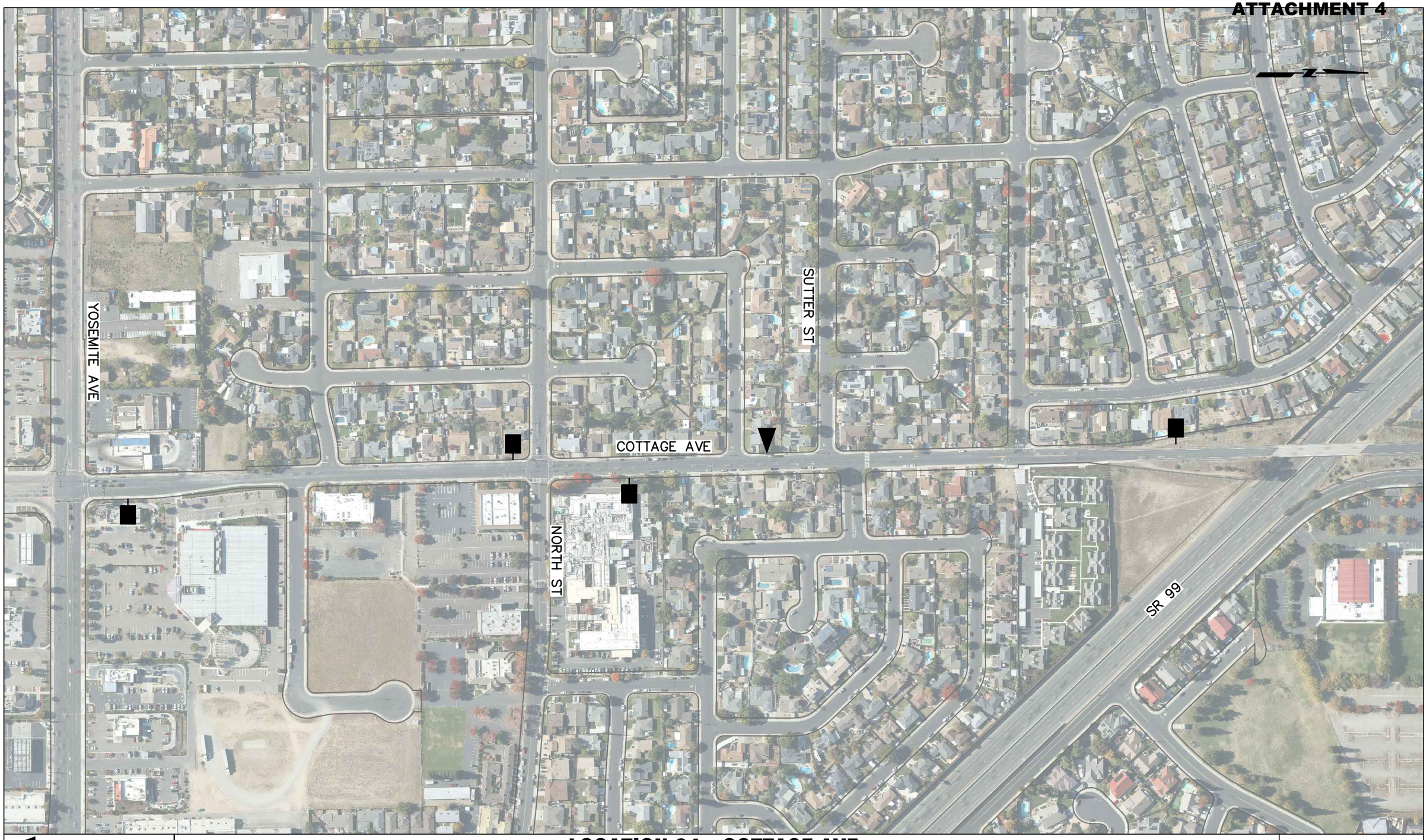
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.65
**ADT:** 10,194
**Count Date:** 7/14/22
**Number of Collisions:** 13
**Time Period:** 3 years
**Calc. Collision Rate =** 1.79 collisions per million vehicle-miles
**State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 24 - 56
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Both Sides
**Sidewalk:** Varies
**Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1
**Adjacent Land Use:** Low/High Density Residential/Commercial/ Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. However, due to uncontrolled crosswalk, the fronting residential district, and the lack of bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 28 mph to 37 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 24 - COTTAGE AVE
# BETWEEN STATE ROUTE 99 AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

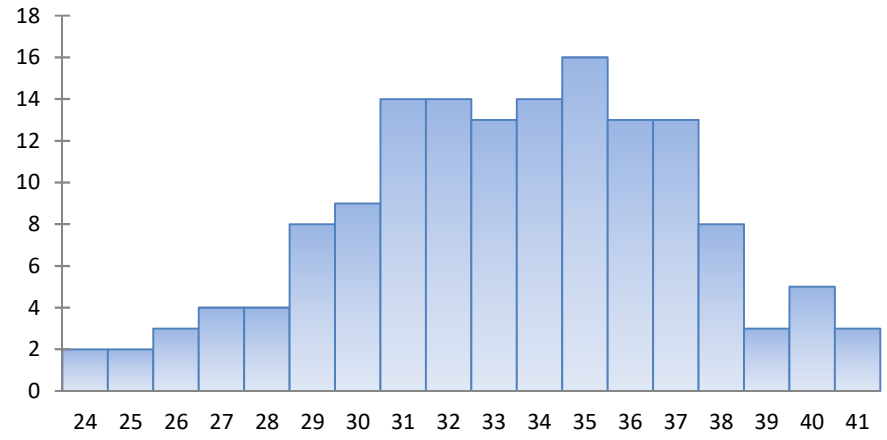
**RECOMMENDED SPEED LIMIT**

**30 MPH**

| | | | |
|---|---|---|---|
| **Location:** | CRESTWOOD AVE - Lathrop Rd to Northgate Dr | | |
| **Posted Speed Limit:** | 30 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 2/16/2023 | **Weather:** | Clear/Dry |
| **Begin Time:** | 11:10 AM | **End Time:** | 12:10 PM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | A 5-mph reduction from the 85th-percentile speed due to the fronting residential district and proximity to park. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 148 |
| **Speed Range** | 24 - 41 MPH |
| **50th percentile speed** | 34 MPH |
| **85th percentile speed** | 37 MPH |
| **10 mph pace speed** | 29 - 38 MPH |
| **% in pace speed** | 82% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 13 |
| 17 | 0 | 37 | 13 |
| 18 | 0 | 38 | 8 |
| 19 | 0 | 39 | 3 |
| 20 | 0 | 40 | 5 |
| 21 | 0 | 41 | 3 |
| 22 | 0 | 42 | 0 |
| 23 | 0 | 43 | 0 |
| 24 | 2 | 44 | 0 |
| 25 | 2 | 45 | 0 |
| 26 | 3 | 46 | 0 |
| 27 | 4 | 47 | 0 |
| 28 | 4 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 9 | 50 | 0 |
| 31 | 14 | 51 | 0 |
| 32 | 14 | 52 | 0 |
| 33 | 13 | 53 | 0 |
| 34 | 14 | 54 | 0 |
| 35 | 16 | 55 | 0 |
| TOTAL | | | 148 |

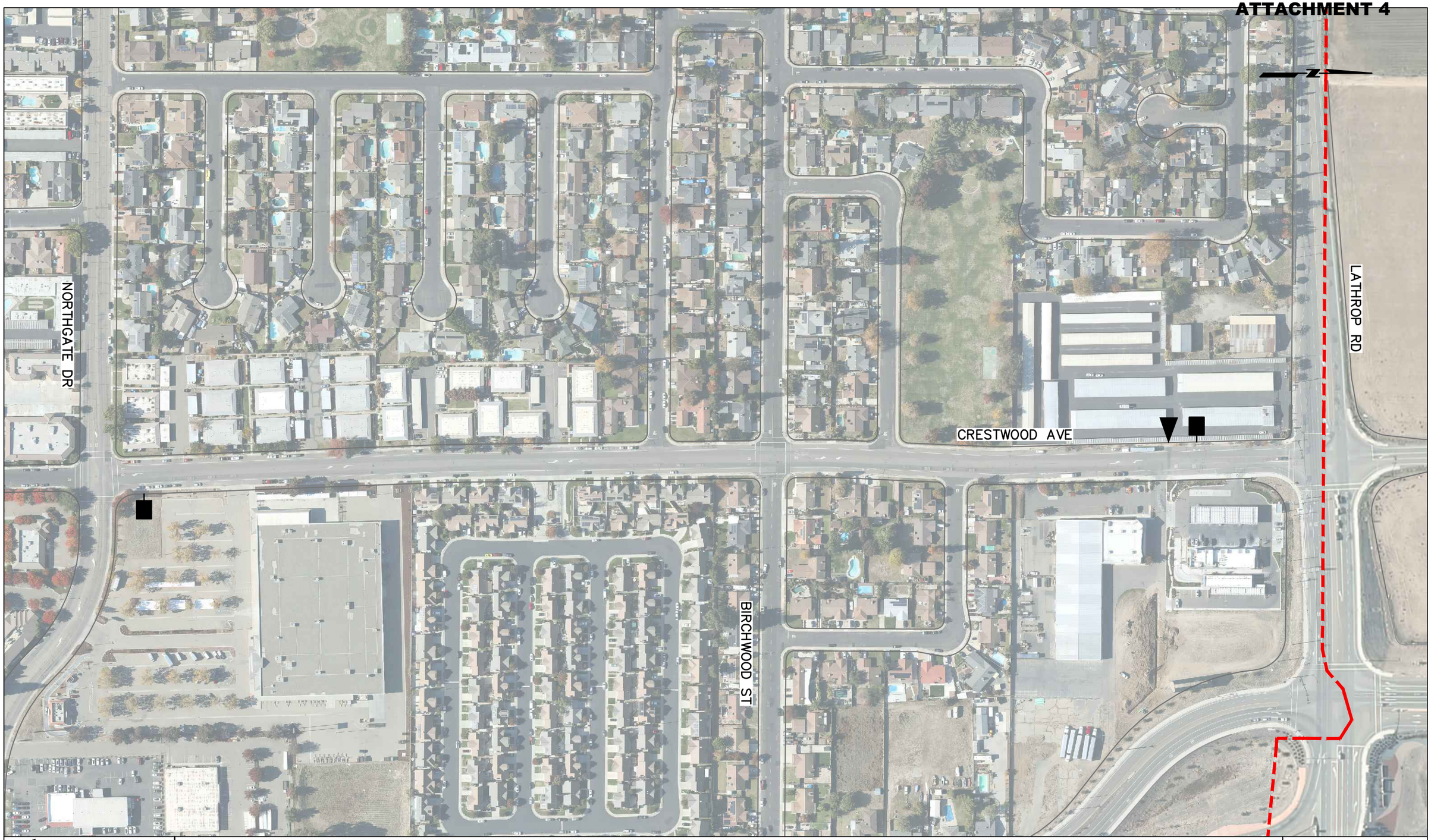
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.51 | **ADT:** | 3,568 | **Count Date:** | 8/3/22 |
| **Number of Collisions:** | 1 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.50 collisions per million vehicle-miles | | | **State Average Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 65 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Both Sides | **Sidewalk:** | Both Sides | **Bike Lanes:** | Both Sides |
| **Number of Lanes:** | NB 1 SB 1 | | | **Adjacent Land Use:** | Low/Medium/High Density Residential/ Park/ Commercial |
| **Divided Median:** | TWLTL | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. However, due to the fronting residential district and proximity to park, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 29 mph to 38 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 25 - CRESTWOOD AVE
# BETWEEN LATHROP RD AND NORTHGATE DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

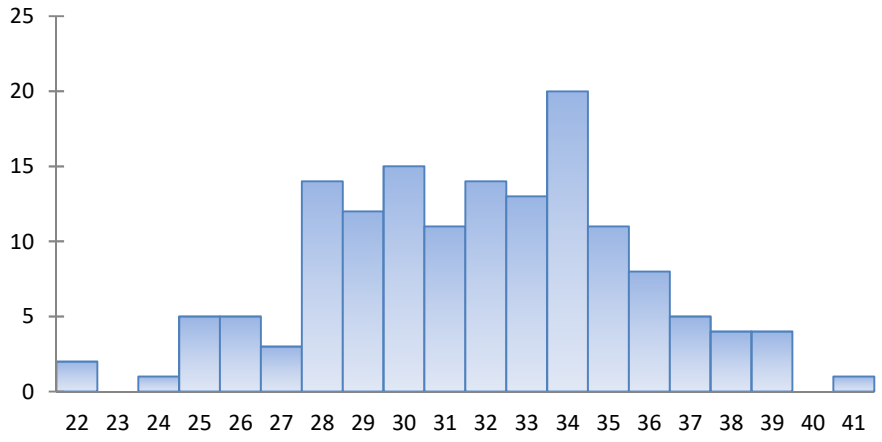
**RECOMMENDED SPEED LIMIT**

**35 MPH**

Location: CROM STREET - Union Rd to Airport Way
Posted Speed Limit: 35 mph
Direction: Both
Recorder: NDS
Survey Date: 7/5/2022
Weather: Clear/Dry
Begin Time: 10:20 AM
End Time: 12:05 PM
Speed Limit Change: No
Speed Justification: 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 148 |
| Speed Range | 22 - 41 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 28 - 37 MPH |
| % in pace speed | 83% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 8 |
| 17 | 0 | 37 | 5 |
| 18 | 0 | 38 | 4 |
| 19 | 0 | 39 | 4 |
| 20 | 0 | 40 | 0 |
| 21 | 0 | 41 | 1 |
| 22 | 2 | 42 | 0 |
| 23 | 0 | 43 | 0 |
| 24 | 1 | 44 | 0 |
| 25 | 5 | 45 | 0 |
| 26 | 5 | 46 | 0 |
| 27 | 3 | 47 | 0 |
| 28 | 14 | 48 | 0 |
| 29 | 12 | 49 | 0 |
| 30 | 15 | 50 | 0 |
| 31 | 11 | 51 | 0 |
| 32 | 14 | 52 | 0 |
| 33 | 13 | 53 | 0 |
| 34 | 20 | 54 | 0 |
| 35 | 11 | 55 | 0 |
| TOTAL | | | 148 |

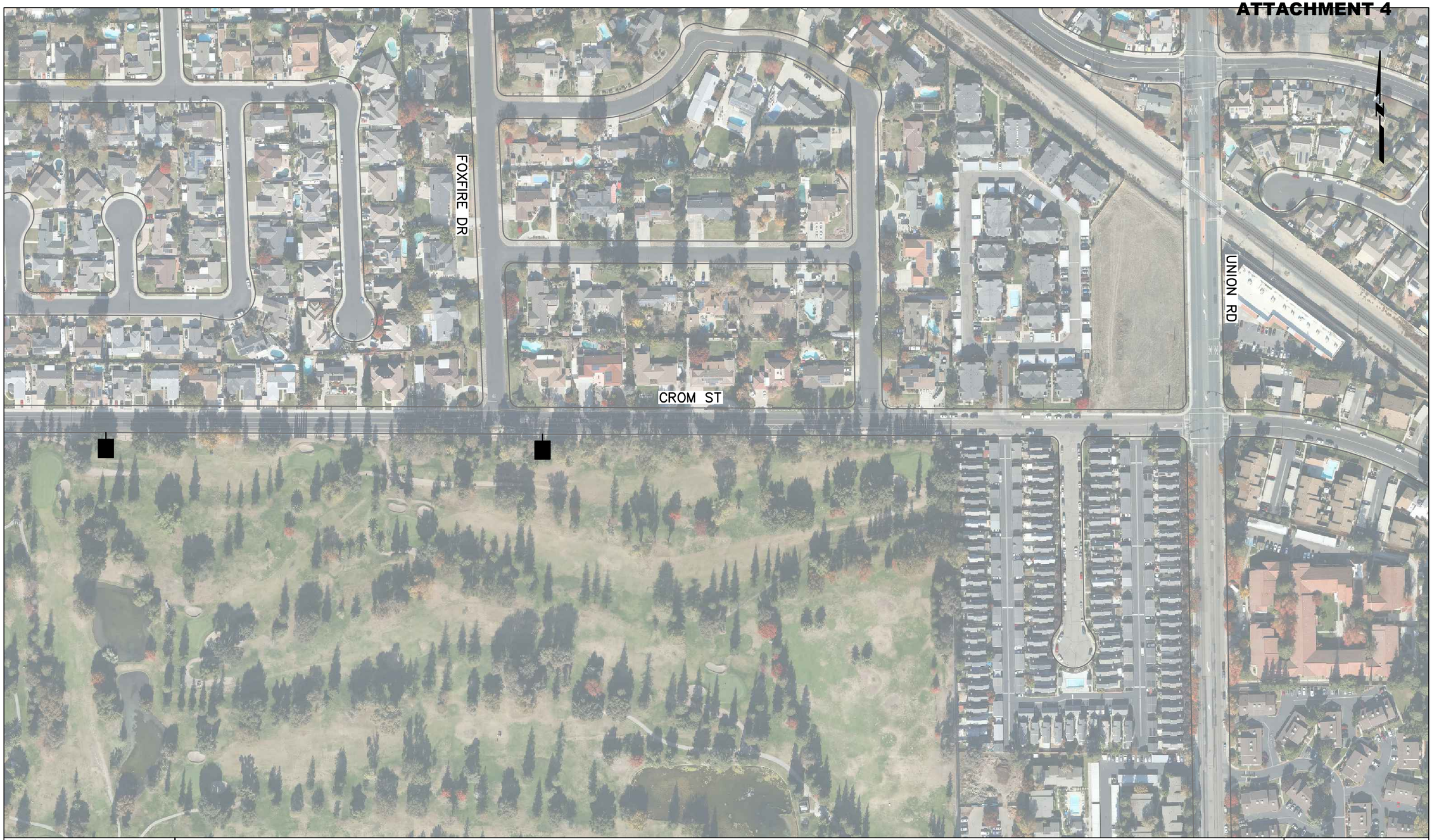
## ANALYSIS INFORMATION

Segment Length(mi): 0.96
ADT: 2,243
Count Date: 9/14/22
Number of Collisions: 2
Time Period: 3 years
Calc. Collision Rate = 0.85 collisions per million vehicle-miles
Expected Collisions Rate: 1.18 c/mvm
Street Width (ft): 45
Driveway: Yes
Terrain: Flat
Parking Conditions: Varies
Sidewalk: Varies
Bike Lanes: Both Sides
Number of Lanes: EB 1 WB 1
Adjacent Land Use: Very Low/Low/ Medium/High Density Residental Park/Public/Quasi Public
Divided Median: No
Uncontrolled Crosswalks No

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 28 mph to 37 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

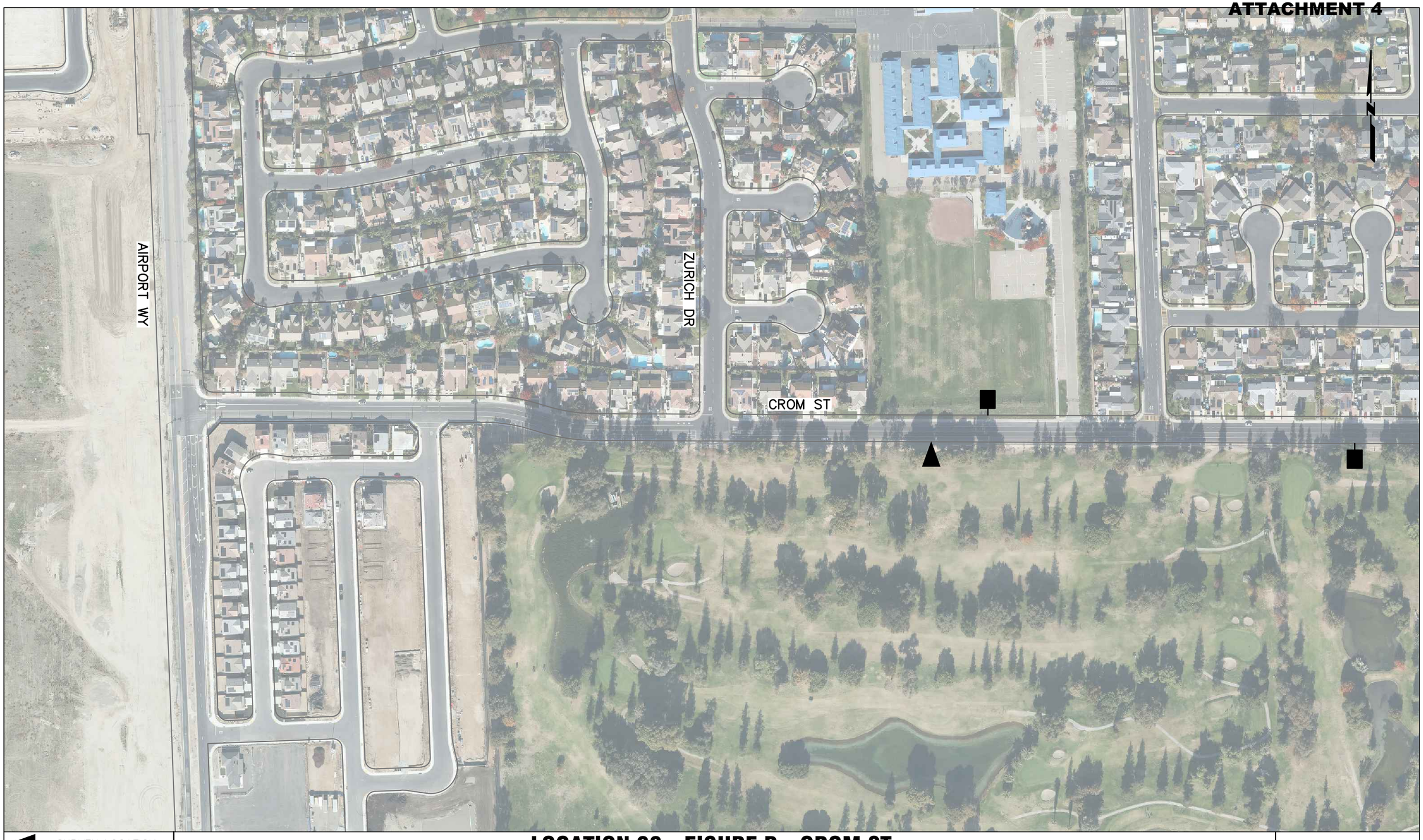
SCALE: NOT TO SCALE

# LOCATION 26 - FIGURE A - CROM ST
# BETWEEN UNION RD AND AIRPORT WY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:51:44 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 26 - FIGURE B - CROM ST
# BETWEEN UNION RD AND AIRPORT WY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:51:59 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

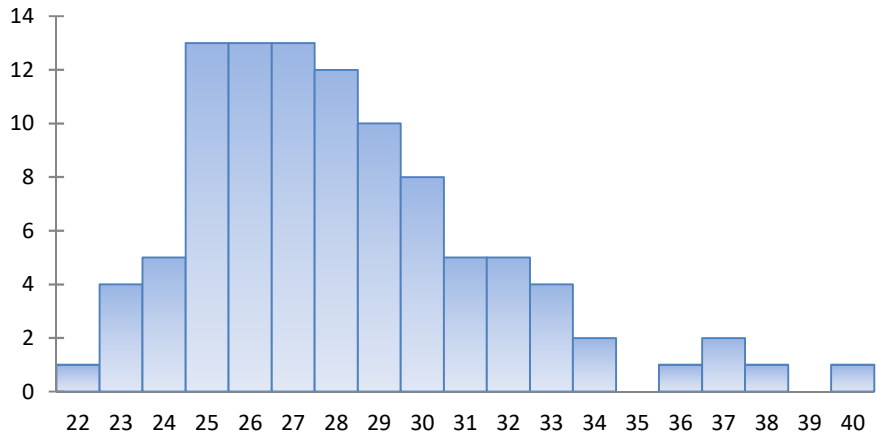
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

Location: DAISYWOOD DR - River Berry Dr to Airport Way
Posted Speed Limit: 30 mph
Direction: Both
Recorder: NDS
Survey Date: 8/9/2022
Weather: Clear/Dry
Begin Time: 10:15 AM
End Time: 11:45 AM
Speed Limit Change: No
Speed Justification: 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 100 |
| Speed Range | 22 - 40 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 32 MPH |
| 10 mph pace speed | 23 - 32 MPH |
| % in pace speed | 88% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 1 |
| 17 | 0 | 37 | 2 |
| 18 | 0 | 38 | 1 |
| 19 | 0 | 39 | 0 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 0 |
| 22 | 1 | 42 | 0 |
| 23 | 4 | 43 | 0 |
| 24 | 5 | 44 | 0 |
| 25 | 13 | 45 | 0 |
| 26 | 13 | 46 | 0 |
| 27 | 13 | 47 | 0 |
| 28 | 12 | 48 | 0 |
| 29 | 10 | 49 | 0 |
| 30 | 8 | 50 | 0 |
| 31 | 5 | 51 | 0 |
| 32 | 5 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| 34 | 2 | 54 | 0 |
| 35 | 0 | 55 | 0 |
| TOTAL | | | 100 |

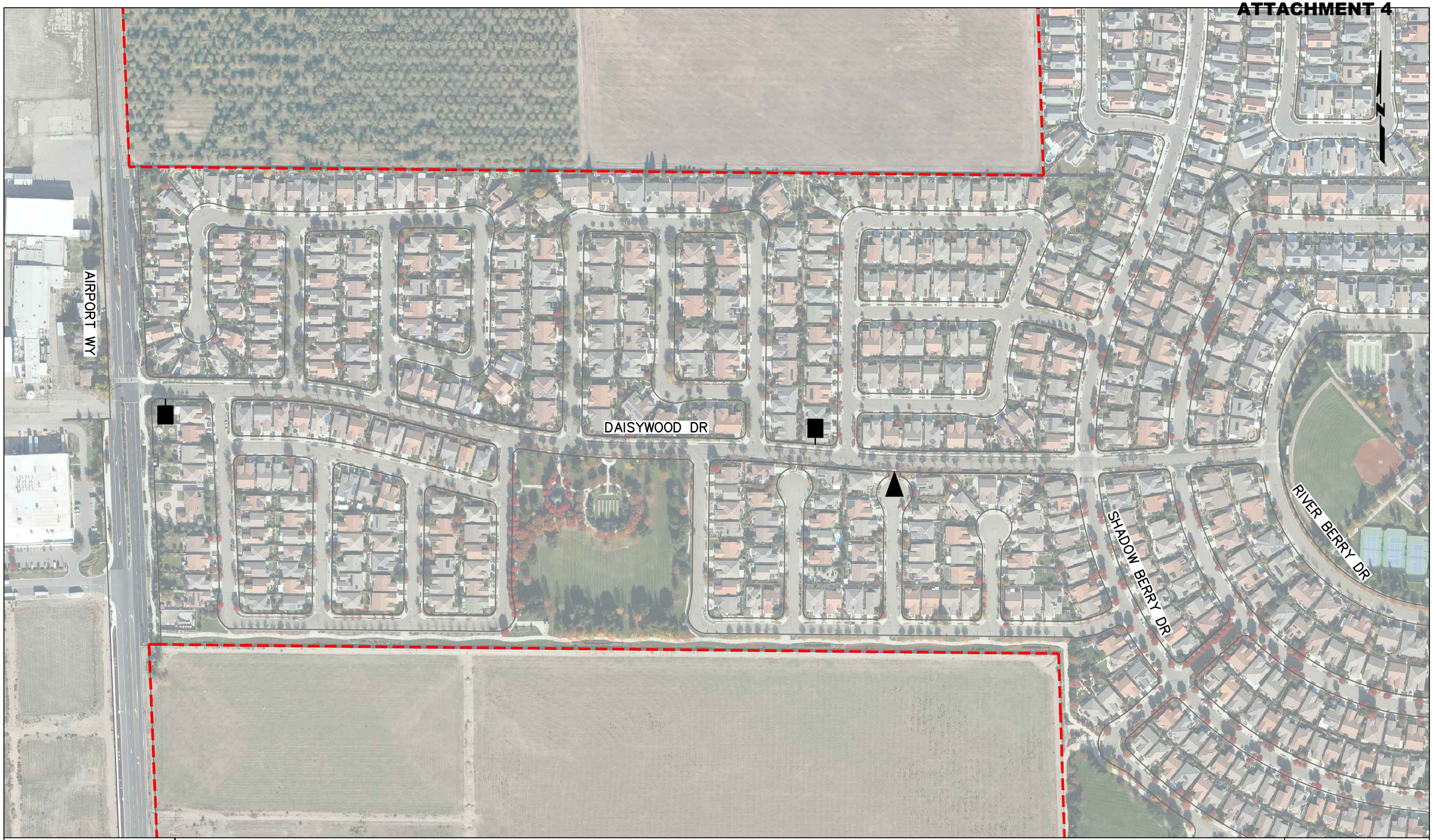
## ANALYSIS INFORMATION

Segment Length(mi): 0.60
ADT: 1,034
Count Date: 7/21/22
Number of Collisions: 2
Time Period: 3 years
Calc. Collision Rate = 2.94 collisions per million vehicle-miles
Expected Collisions Rate: 1.18 c/mvm
Street Width (ft): 31
Driveway: No
Terrain: Flat
Parking Conditions: None
Sidewalk: Both Sides
Bike Lanes: None
Number of Lanes: EB 1 WB 1
Adjacent Land Use: Low Density Residential/Park
Divided Median: No
Uncontrolled Crosswalks No

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 27 - DAISYWOOD DR
# BETWEEN RIVER BERRY DR AND AIRPORT WY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:52:14 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

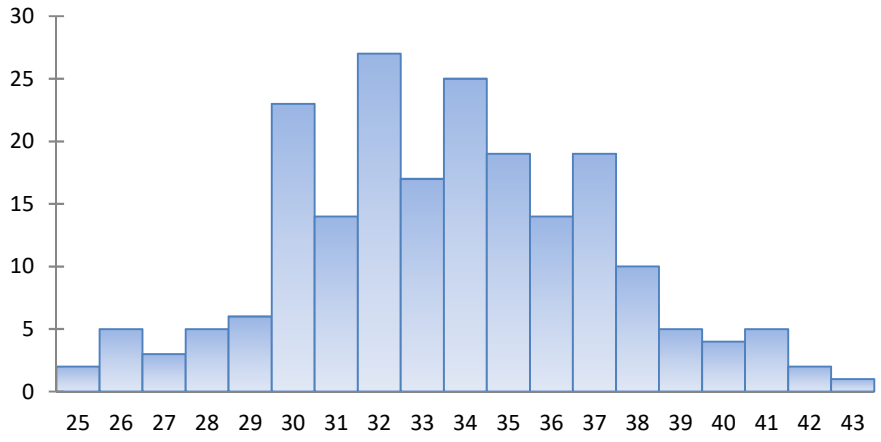
**RECOMMENDED SPEED LIMIT**

**30 MPH**

**Location:** DANIELS STREET - Union Rd to Airport Way
**Posted Speed Limit:** 30 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 3/20/2023
**Weather:** Clear/Dry
**Begin Time:** 11:45 AM
**End Time:** 12:35 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the fronting residential district and proximity to school.

### Summary Statistics

| | |
|---|---|
| Total Observed | 206 |
| Speed Range | 25 - 43 MPH |
| 50th percentile speed | 34 MPH |
| 85th percentile speed | 37 MPH |
| 10 mph pace speed | 29 - 38 MPH |
| % in pace speed | 84% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 14 |
| 17 | 0 | 37 | 19 |
| 18 | 0 | 38 | 10 |
| 19 | 0 | 39 | 5 |
| 20 | 0 | 40 | 4 |
| 21 | 0 | 41 | 5 |
| 22 | 0 | 42 | 2 |
| 23 | 0 | 43 | 1 |
| 24 | 0 | 44 | 0 |
| 25 | 2 | 45 | 0 |
| 26 | 5 | 46 | 0 |
| 27 | 3 | 47 | 0 |
| 28 | 5 | 48 | 0 |
| 29 | 6 | 49 | 0 |
| 30 | 23 | 50 | 0 |
| 31 | 14 | 51 | 0 |
| 32 | 27 | 52 | 0 |
| 33 | 17 | 53 | 0 |
| 34 | 25 | 54 | 0 |
| 35 | 19 | 55 | 0 |
| TOTAL | | | 206 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00
**ADT:** 5,408
**Count Date:** 9/1/22
**Number of Collisions:** 1
**Time Period:** 3 years
**Calc. Collision Rate =** 0.17 collisions per million vehicle-miles
**State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 55
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Both Sides
**Sidewalk:** Both Sides
**Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1
**Adjacent Land Use:** Low/Medium Density Residential/Commercial/ Public/Quasi Public/ Business Professional
**Divided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. However, due to the fronting residential district and proximity to school, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 29 mph to 38 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 28 - FIGURE A - DANIELS ST BETWEEN UNION RD AND AIRPORT WY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:52:29 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 28 - FIGURE B - DANIELS ST BETWEEN UNION RD AND AIRPORT WY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:52:44 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

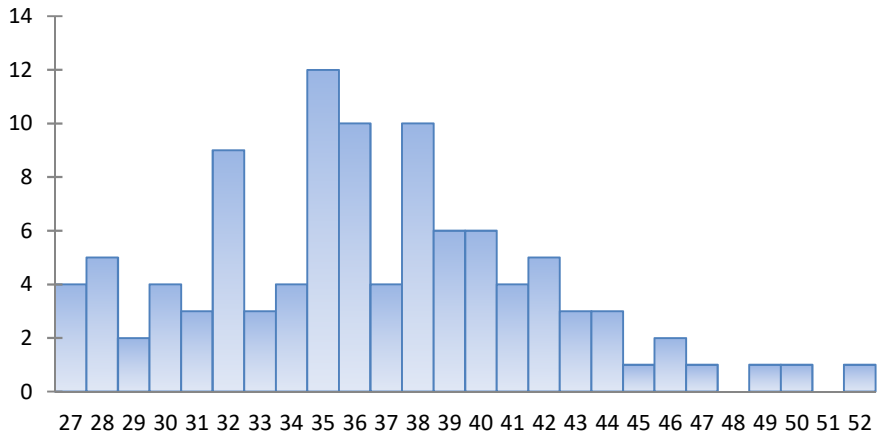
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** DANIELS STREET - Airport Way to McKinley Ave
**Posted Speed Limit:** 35 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 11/16/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:30 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the lack of continuous bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 104 |
| Speed Range | 27 - 52 MPH |
| 50th percentile speed | 36 MPH |
| 85th percentile speed | 42 MPH |
| 10 mph pace speed | 32 - 41 MPH |
| % in pace speed | 65% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 10 |
| 17 | 0 | 37 | 4 |
| 18 | 0 | 38 | 10 |
| 19 | 0 | 39 | 6 |
| 20 | 0 | 40 | 6 |
| 21 | 0 | 41 | 4 |
| 22 | 0 | 42 | 5 |
| 23 | 0 | 43 | 3 |
| 24 | 0 | 44 | 3 |
| 25 | 0 | 45 | 1 |
| 26 | 0 | 46 | 2 |
| 27 | 4 | 47 | 1 |
| 28 | 5 | 48 | 0 |
| 29 | 2 | 49 | 1 |
| 30 | 4 | 50 | 1 |
| 31 | 3 | 51 | 0 |
| 32 | 9 | 52 | 1 |
| 33 | 3 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 12 | 55 | 0 |
| TOTAL | | | 104 |

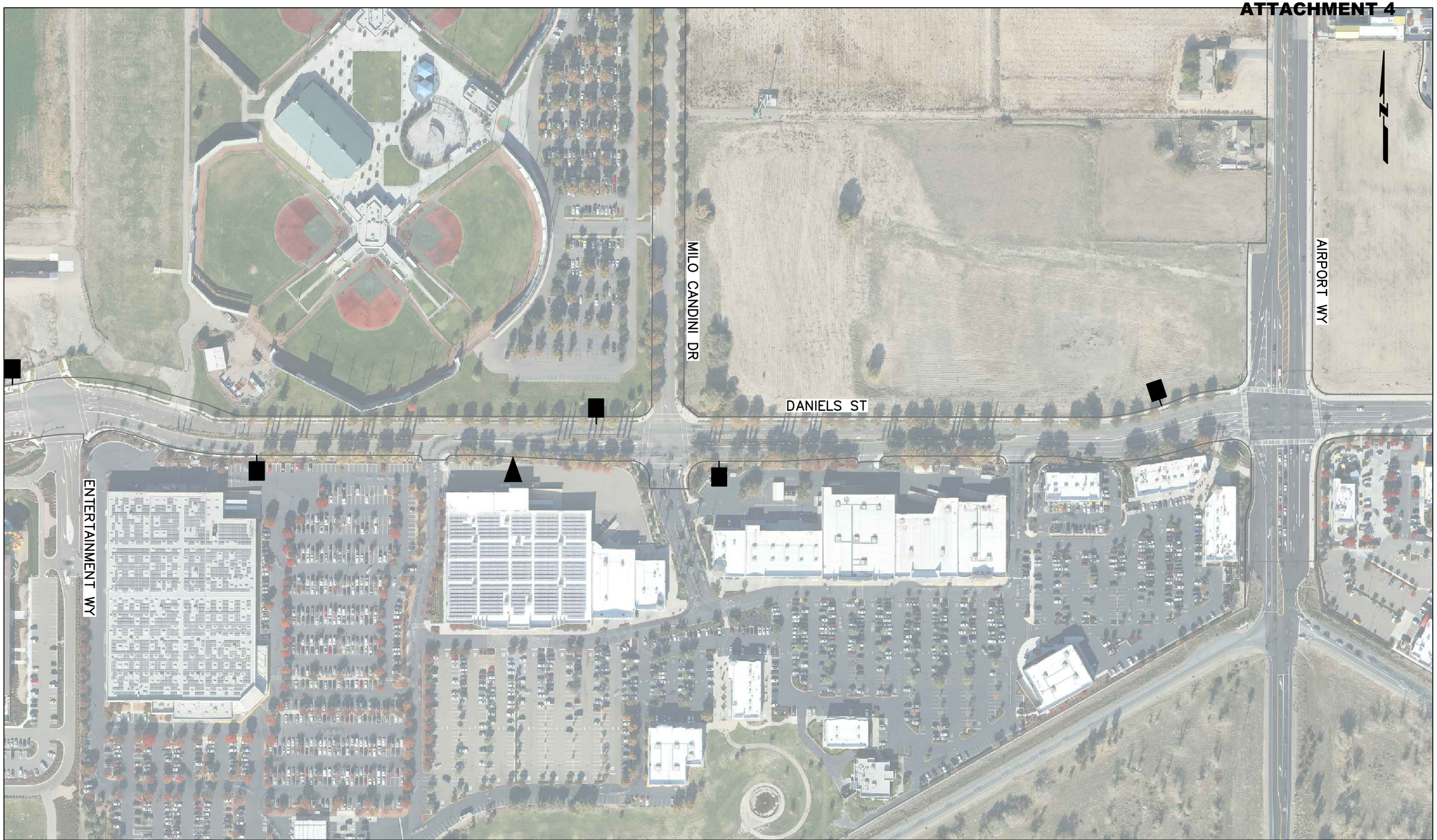
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.05 **ADT:** 4,823 **Count Date:** 8/31/22
**Number of Collisions:** 4 **Time Period:** 3 years
**Calc. Collision Rate =** 0.72 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 65 - 90 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** EB 1-2 WB 2 **Adjacent Land Use:** Commercial/ Public/Quasi Public/ Commercial Mixed Use
**Divided Median:** Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to the lack of continuous bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 32 mph to 41 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4



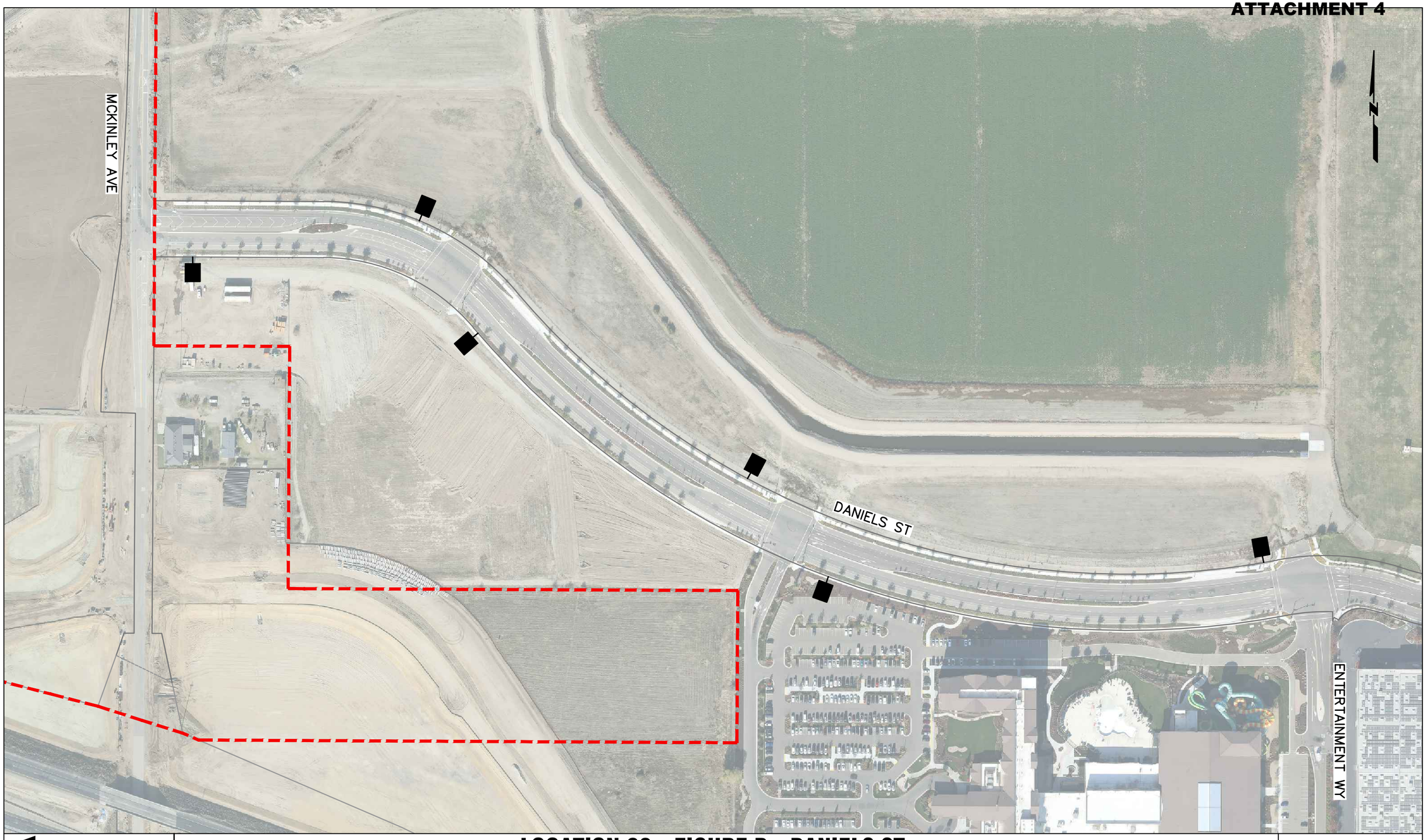

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 29 - FIGURE A - DANIELS ST
# BETWEEN AIRPORT WY AND MCKINLEY AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 29 - FIGURE B - DANIELS ST
# BETWEEN AIRPORT WY AND MCKINLEY AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

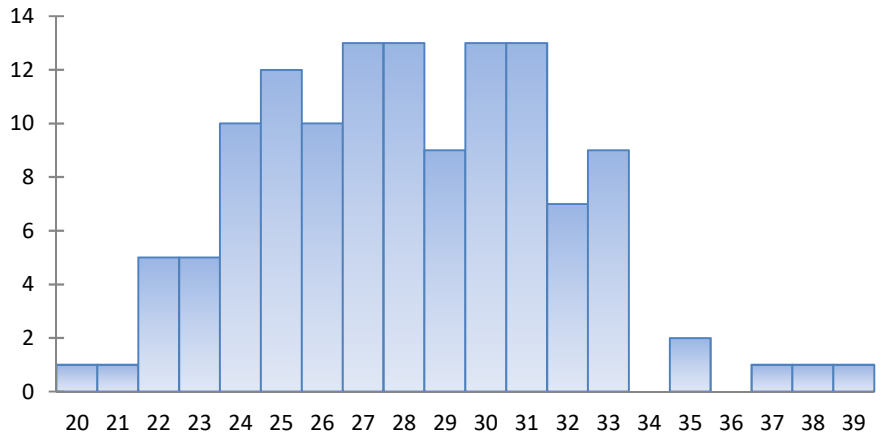
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

| | | | |
|---|---|---|---|
| **Location:** | EDISON STREET - Powers Ave to Main St | | |
| **Posted Speed Limit:** | 25 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 11/29/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 11:45 AM | **End Time:** | 13:45 PM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 126 |
| **Speed Range** | 20 - 39 MPH |
| **50th percentile speed** | 28 MPH |
| **85th percentile speed** | 32 MPH |
| **10 mph pace speed** | 24 - 33 MPH |
| **% in pace speed** | 87% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 1 |
| 19 | 0 | 39 | 1 |
| 20 | 1 | 40 | 0 |
| 21 | 1 | 41 | 0 |
| 22 | 5 | 42 | 0 |
| 23 | 5 | 43 | 0 |
| 24 | 10 | 44 | 0 |
| 25 | 12 | 45 | 0 |
| 26 | 10 | 46 | 0 |
| 27 | 13 | 47 | 0 |
| 28 | 13 | 48 | 0 |
| 29 | 9 | 49 | 0 |
| 30 | 13 | 50 | 0 |
| 31 | 13 | 51 | 0 |
| 32 | 7 | 52 | 0 |
| 33 | 9 | 53 | 0 |
| 34 | 0 | 54 | 0 |
| 35 | 2 | 55 | 0 |
| 36 | 0 | 56 | 0 |
| 37 | 1 | 57 | 0 |
| TOTAL | | | 126 |

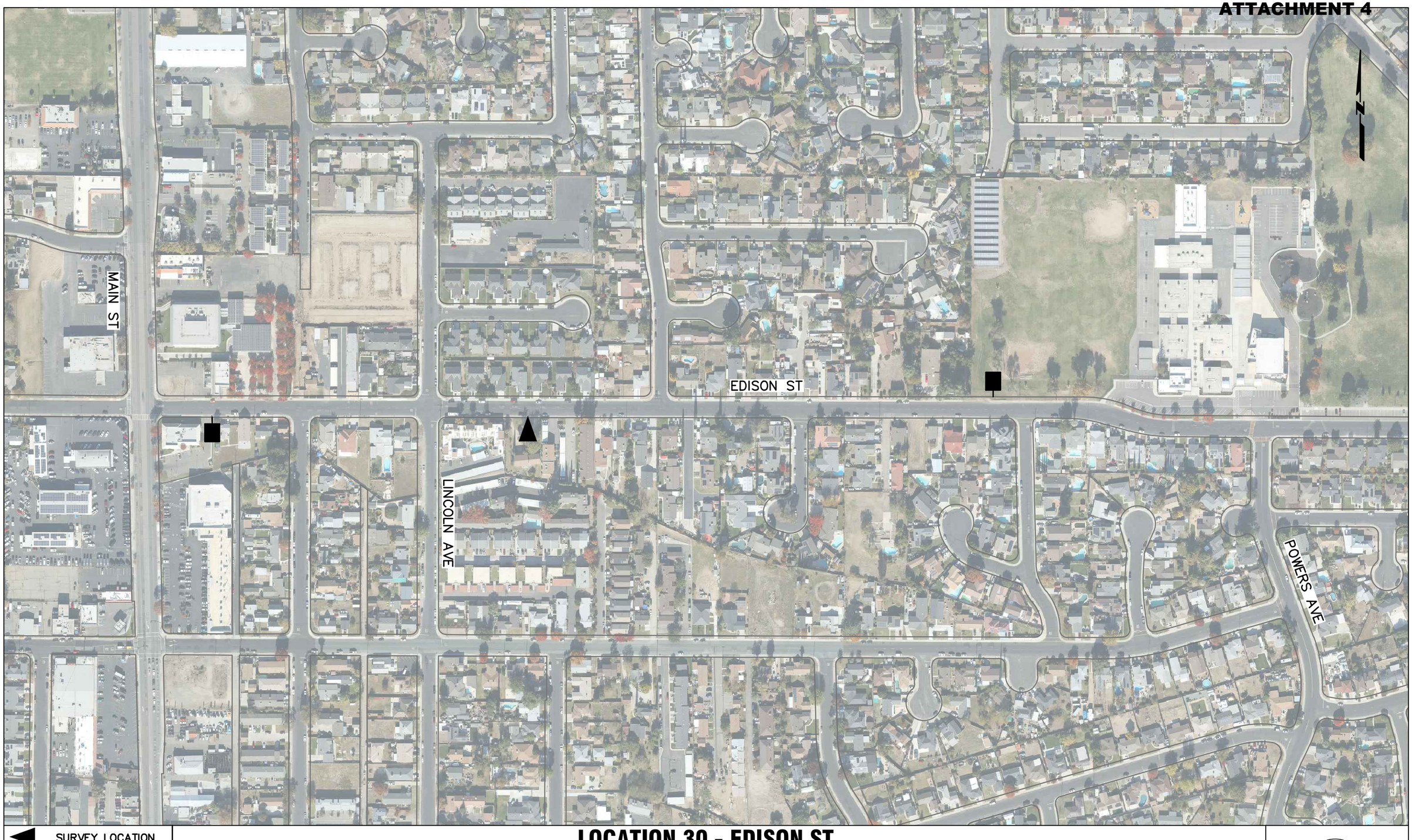
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.60 | **ADT:** | 2,870 | **Count Date:** | 8/4/22 |
| **Number of Collisions:** | 2 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 1.06 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 45 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Both Sides | **Sidewalk:** | Both Sides | **Bike Lanes:** | None |
| **Number of Lanes:** | EB 1 WB 1 | | | **Adjacent Land Use:** | Low/Medium/High Density Residential/ Park/Commercial |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. Since the roadway meets the requirements of Section 515 " Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 24 mph to 33 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 30 - EDISON ST
# BETWEEN POWERS AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

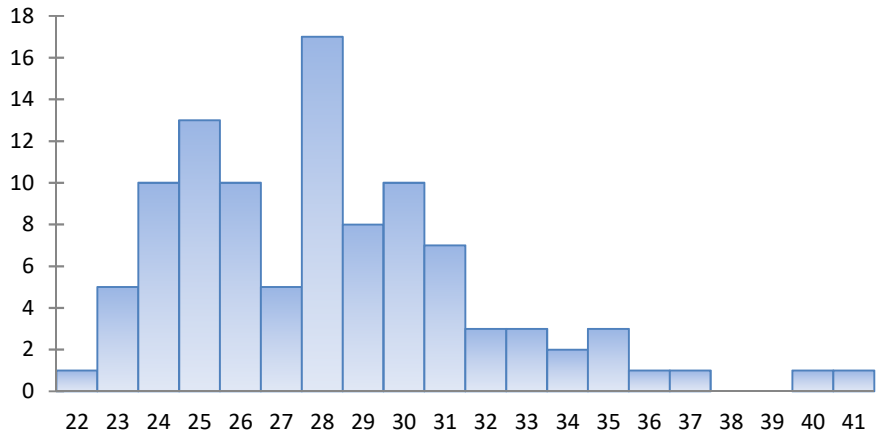
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** ELM AVE - Louise Ave to Alameda St
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/5/2022 **Weather:** Clear/Dry
**Begin Time:** 2:30 PM **End Time:** 3:50 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 101 |
| Speed Range | 22 - 41 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 31 MPH |
| 10 mph pace speed | 23 - 32 MPH |
| % in pace speed | 87% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 0 |
| 19 | 0 | 39 | 0 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 1 |
| 22 | 1 | 42 | 0 |
| 23 | 5 | 43 | 0 |
| 24 | 10 | 44 | 0 |
| 25 | 13 | 45 | 0 |
| 26 | 10 | 46 | 0 |
| 27 | 5 | 47 | 0 |
| 28 | 17 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 10 | 50 | 0 |
| 31 | 7 | 51 | 0 |
| 32 | 3 | 52 | 0 |
| 33 | 3 | 53 | 0 |
| 34 | 2 | 54 | 0 |
| 35 | 3 | 55 | 0 |
| 36 | 1 | 56 | 0 |
| 37 | 1 | 57 | 0 |
| TOTAL | | | 101 |

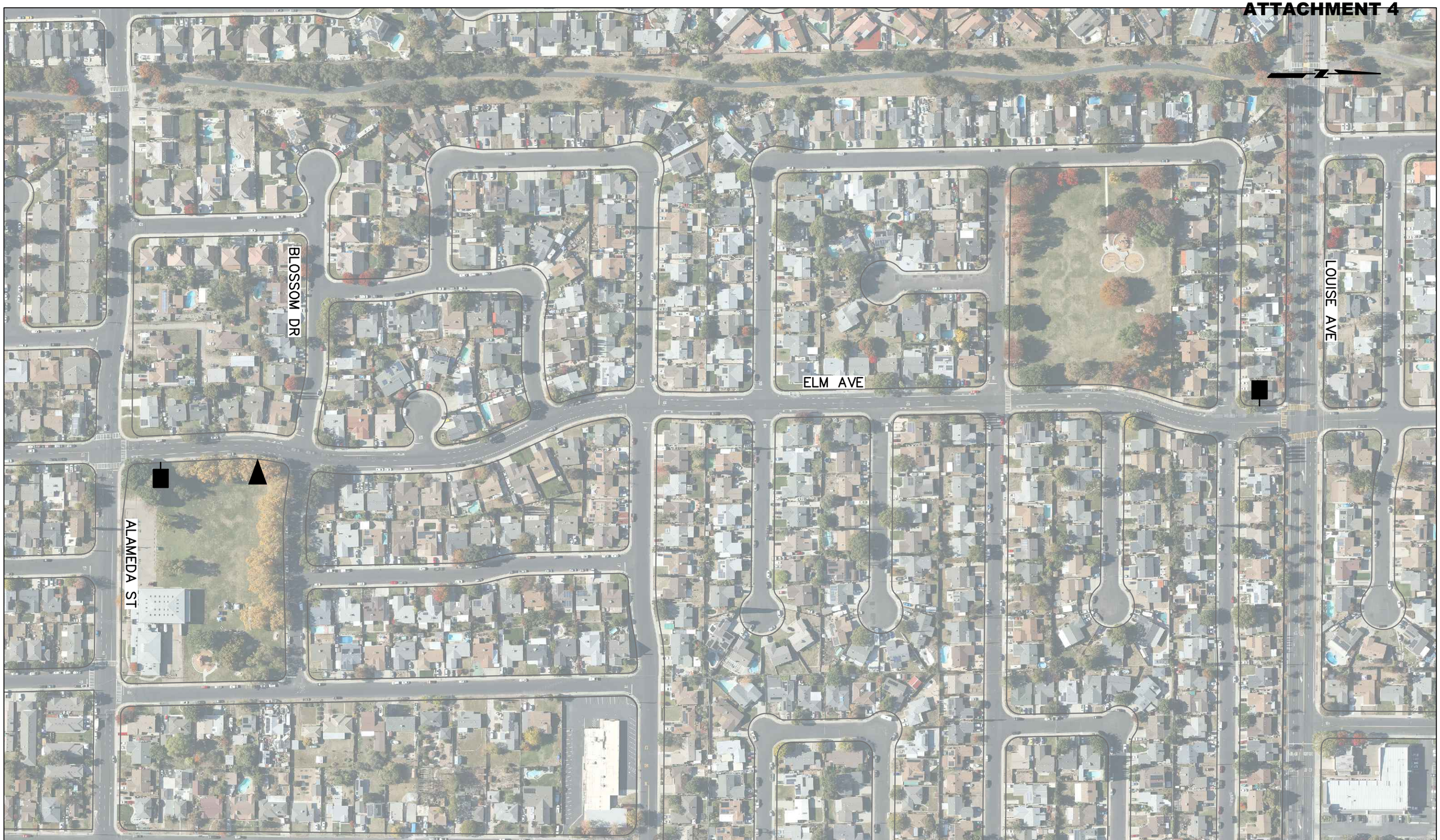
### ANALYSIS INFORMATION

**Segment Length(mi):** 0.50 **ADT:** 1,403 **Count Date:** 7/27/22
**Number of Collisions:** 3 **Time Period:** 3 years
**Calc. Collision Rate =** 3.91 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 36 - 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Park
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 31 mph indicates a 30 mph speed limit. The collision rate is above the expected rate. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 31 - ELM AVE
# BETWEEN LOUISE AVE AND ALAMEDA ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

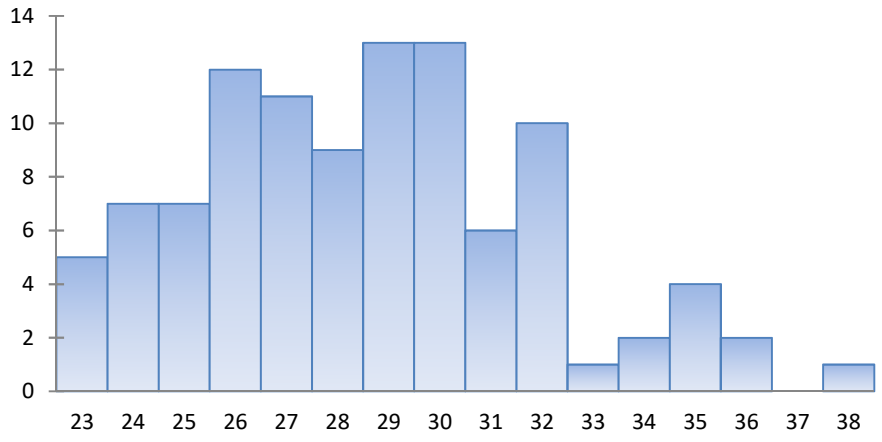
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** ELM AVE - Alameda St to Center St
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/5/2022 **Weather:** Clear/Dry
**Begin Time:** 12:45 PM **End Time:** 2:20 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 103 |
| Speed Range | 23 - 38 MPH |
| 50th percentile speed | 29 MPH |
| 85th percentile speed | 32 MPH |
| 10 mph pace speed | 23 - 32 MPH |
| % in pace speed | 90% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 1 |
| 19 | 0 | 39 | 0 |
| 20 | 0 | 40 | 0 |
| 21 | 0 | 41 | 0 |
| 22 | 0 | 42 | 0 |
| 23 | 5 | 43 | 0 |
| 24 | 7 | 44 | 0 |
| 25 | 7 | 45 | 0 |
| 26 | 12 | 46 | 0 |
| 27 | 11 | 47 | 0 |
| 28 | 9 | 48 | 0 |
| 29 | 13 | 49 | 0 |
| 30 | 13 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 1 | 53 | 0 |
| 34 | 2 | 54 | 0 |
| 35 | 4 | 55 | 0 |
| 36 | 2 | 56 | 0 |
| 37 | 0 | 57 | 0 |
| TOTAL | | | 103 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.40 **ADT:** 1,136 **Count Date:** 7/28/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 2.01 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 36 - 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/ Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. The collision rate is above the expected rate. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 32 - ELM AVE
# BETWEEN ALAMEDA ST AND CENTER ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

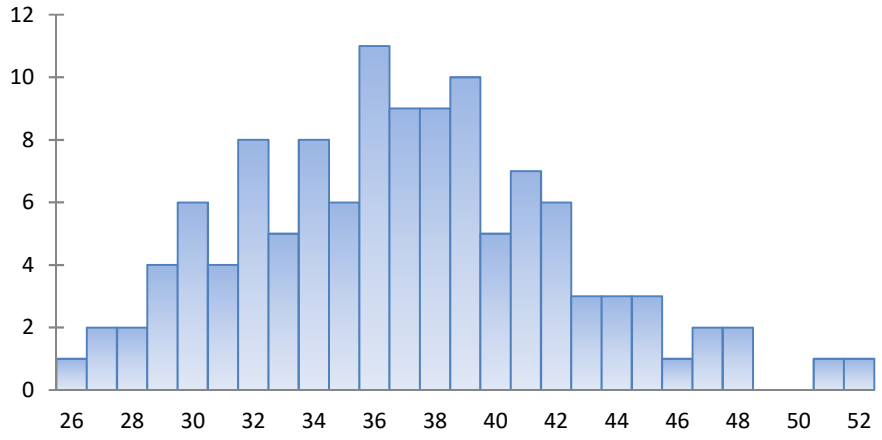
**RECOMMENDED SPEED LIMIT**

**35 MPH**

| | | | |
|---|---|---|---|
| **Location:** | Fishback Road - Yosemite Ave to Wawona St | | |
| **Posted Speed Limit:** | 35 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 6/30/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 1:30 PM | **End Time:** | 2:30 PM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | A 5-mph reduction from the 85th-percentile speed due to fronting residential district, existing school crossing, proximity to school, and the lack of bike lanes. | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 119 |
| **Speed Range** | 26 - 52 MPH |
| **50th percentile speed** | 37 MPH |
| **85th percentile speed** | 42 MPH |
| **10 mph pace speed** | 32 - 41 MPH |
| **% in pace speed** | 66% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 9 |
| 19 | 0 | 39 | 10 |
| 20 | 0 | 40 | 5 |
| 21 | 0 | 41 | 7 |
| 22 | 0 | 42 | 6 |
| 23 | 0 | 43 | 3 |
| 24 | 0 | 44 | 3 |
| 25 | 0 | 45 | 3 |
| 26 | 1 | 46 | 1 |
| 27 | 2 | 47 | 2 |
| 28 | 2 | 48 | 2 |
| 29 | 4 | 49 | 0 |
| 30 | 6 | 50 | 0 |
| 31 | 4 | 51 | 1 |
| 32 | 8 | 52 | 1 |
| 33 | 5 | 53 | 0 |
| 34 | 8 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| 36 | 11 | 56 | 0 |
| 37 | 9 | 57 | 0 |
| TOTAL | | | 119 |

## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.50 | **ADT:** | 3,531 | **Count Date:** | 8/18/22 |
| **Number of Collisions:** | 2 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 1.03 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 24 - 60 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | Varies | **Sidewalk:** | Varies | **Bike Lanes:** | None |
| **Number of Lanes:** | NB 1 SB 1 | **Adjacent Land Use:** | Very Low/Low Density Residential/Commerial/Park/Public/Quasi Public | | |
| **Divided Median:** | TWLTL/No Median | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to fronting residential district, existing school crossing, proximity to school, and the lack of bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 32 mph to 41 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 33 - FISHBACK RD
# BETWEEN YOSEMITE AVE AND WAWONA ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

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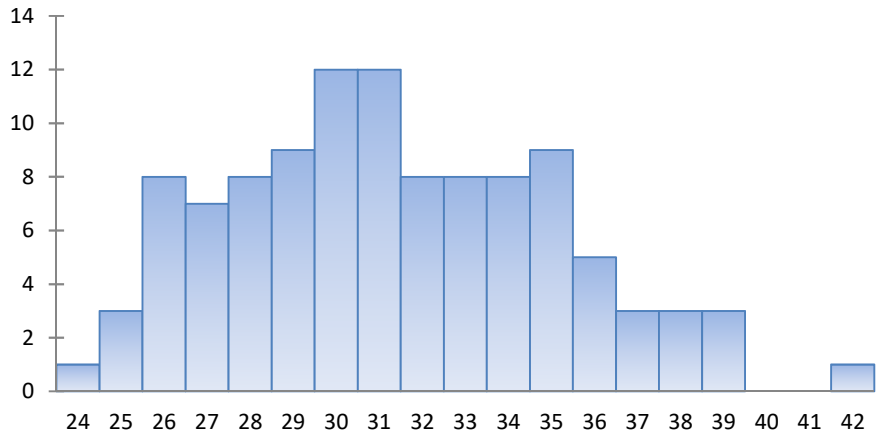
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** Fishback Road - Wawona St to Daniels St
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 11:30 AM **End Time:** 12:45 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 108 |
| Speed Range | 24 - 42 MPH |
| 50th percentile speed | 31 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 26 - 35 MPH |
| % in pace speed | 82% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 3 |
| 19 | 0 | 39 | 3 |
| 20 | 0 | 40 | 0 |
| 21 | 0 | 41 | 0 |
| 22 | 0 | 42 | 1 |
| 23 | 0 | 43 | 0 |
| 24 | 1 | 44 | 0 |
| 25 | 3 | 45 | 0 |
| 26 | 8 | 46 | 0 |
| 27 | 7 | 47 | 0 |
| 28 | 8 | 48 | 0 |
| 29 | 9 | 49 | 0 |
| 30 | 12 | 50 | 0 |
| 31 | 12 | 51 | 0 |
| 32 | 8 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| 34 | 8 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| 36 | 5 | 56 | 0 |
| 37 | 3 | 57 | 0 |
| TOTAL | | | 108 |

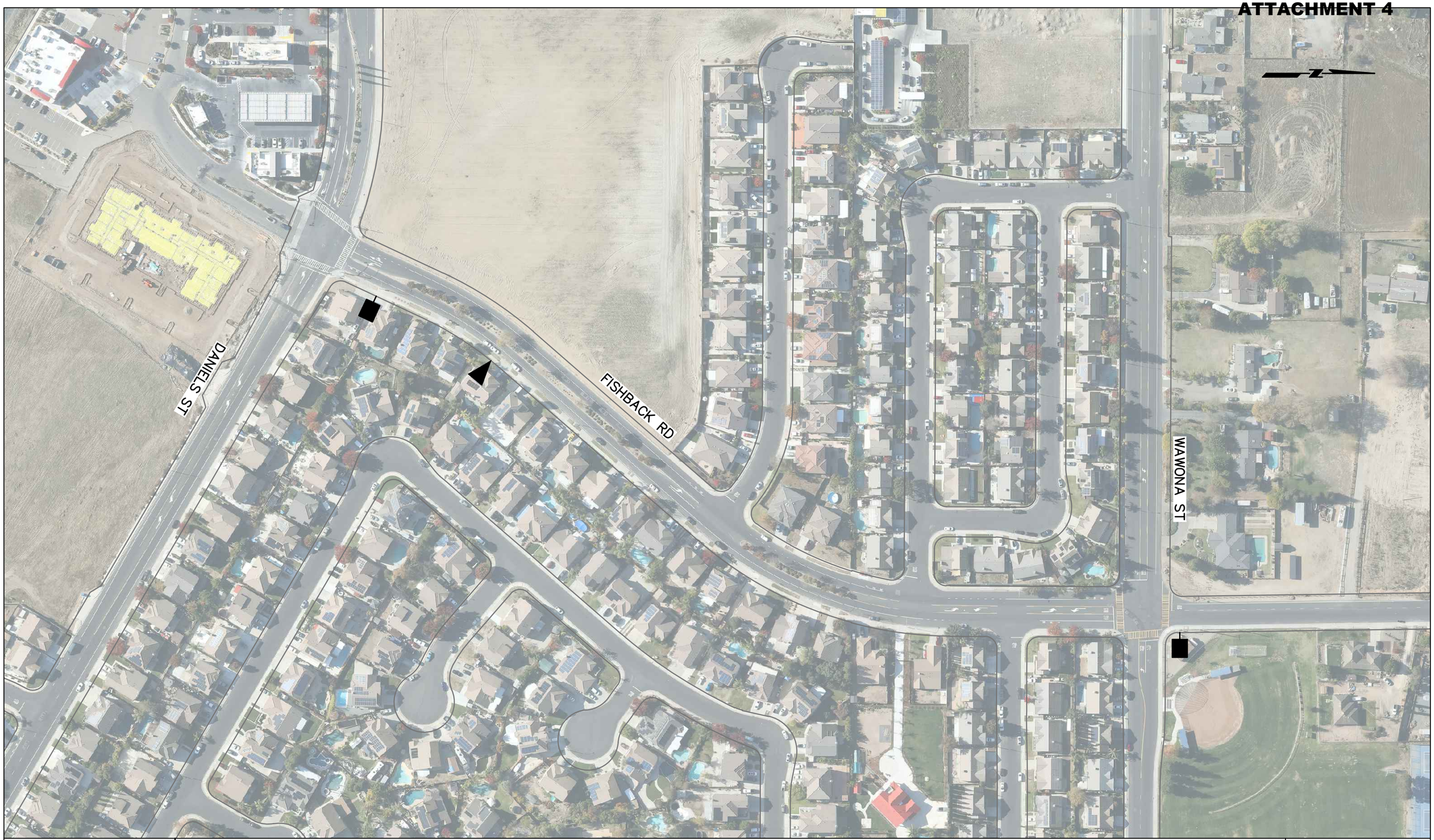
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.28 **ADT:** 3,673 **Count Date:** 8/18/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.89 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 60 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Varies **Bike Lanes:** Both Sides
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Commercial
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 26 mph to 35 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 34 - FISHBACK RD
# BETWEEN WAWONA ST AND DANIELS ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

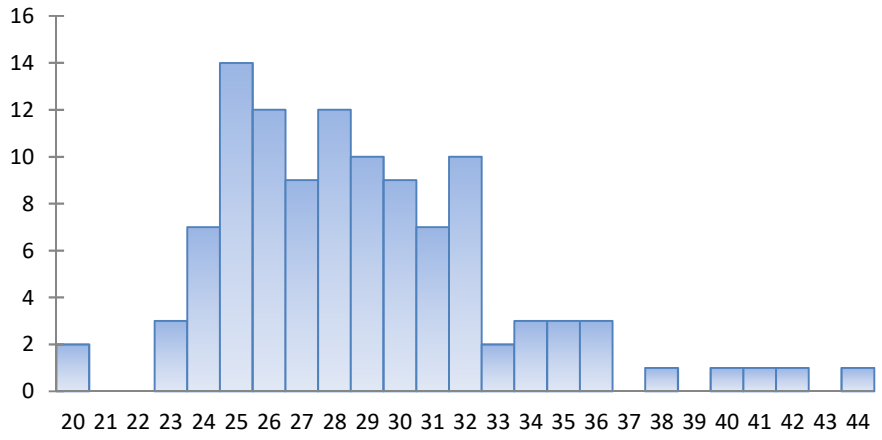
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** FREMONT AVE - Alameda St to Yosemite Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:50 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and proximity to school.

### Summary Statistics

| | |
|---|---|
| Total Observed | 111 |
| Speed Range | 20 - 44 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 32 MPH |
| 10 mph pace speed | 23 - 32 MPH |
| % in pace speed | 84% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 1 |
| 19 | 0 | 39 | 0 |
| 20 | 2 | 40 | 1 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 1 |
| 23 | 3 | 43 | 0 |
| 24 | 7 | 44 | 1 |
| 25 | 14 | 45 | 0 |
| 26 | 12 | 46 | 0 |
| 27 | 9 | 47 | 0 |
| 28 | 12 | 48 | 0 |
| 29 | 10 | 49 | 0 |
| 30 | 9 | 50 | 0 |
| 31 | 7 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 2 | 53 | 0 |
| 34 | 3 | 54 | 0 |
| 35 | 3 | 55 | 0 |
| 36 | 3 | 56 | 0 |
| 37 | 0 | 57 | 0 |
| TOTAL | | | 111 |

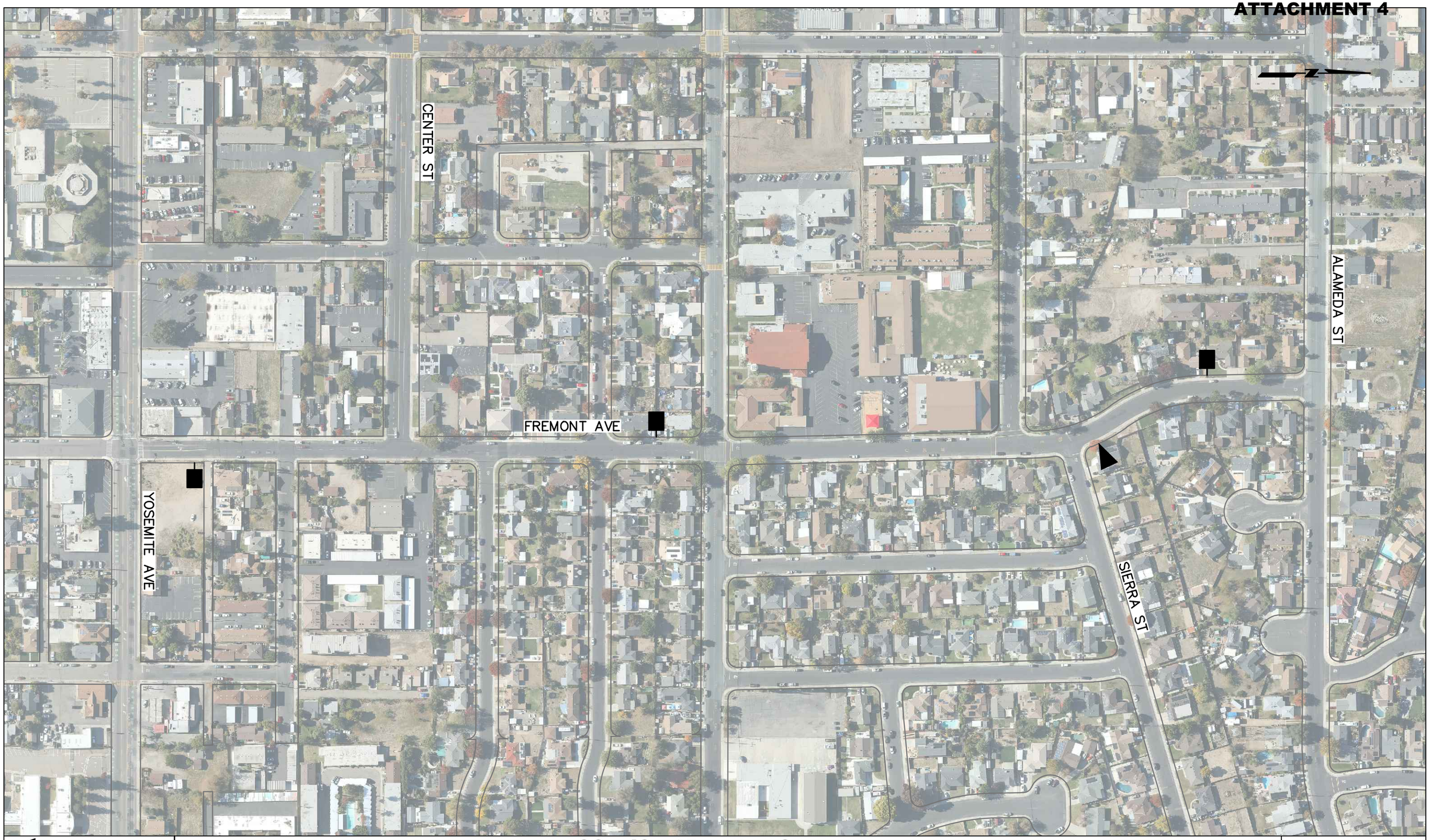
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.50 **ADT:** 1,140 **Count Date:** 8/4/22
**Number of Collisions:** 3 **Time Period:** 3 years
**Calc. Collision Rate =** 4.81 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 36 - 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Downtown/Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. However, due to fronting residential district, uncontrolled crosswalk, and proximity to school, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Therefore, it is recommended that the posted speed limit remains at 25 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 35 - FREMONT AVE
# BETWEEN ALAMEDA ST AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

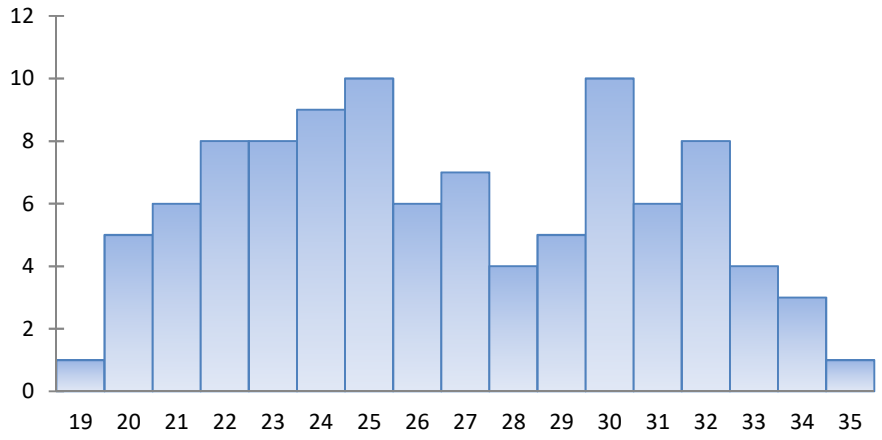
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** GRAFTON STREET - Tesoro Dr to Buena Vista Dr
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 11/30/2022 **Weather:** Clear/Dry
**Begin Time:** 12:05 PM **End Time:** 1:35 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 101 |
| Speed Range | 19 - 35 MPH |
| 50th percentile speed | 26 MPH |
| 85th percentile speed | 32 MPH |
| 10 mph pace speed | 21 - 30 MPH |
| % in pace speed | 72% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 0 |
| 19 | 1 | 39 | 0 |
| 20 | 5 | 40 | 0 |
| 21 | 6 | 41 | 0 |
| 22 | 8 | 42 | 0 |
| 23 | 8 | 43 | 0 |
| 24 | 9 | 44 | 0 |
| 25 | 10 | 45 | 0 |
| 26 | 6 | 46 | 0 |
| 27 | 7 | 47 | 0 |
| 28 | 4 | 48 | 0 |
| 29 | 5 | 49 | 0 |
| 30 | 10 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 8 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| 34 | 3 | 54 | 0 |
| 35 | 1 | 55 | 0 |
| 36 | 0 | 56 | 0 |
| 37 | 0 | 57 | 0 |
| TOTAL | | | 101 |

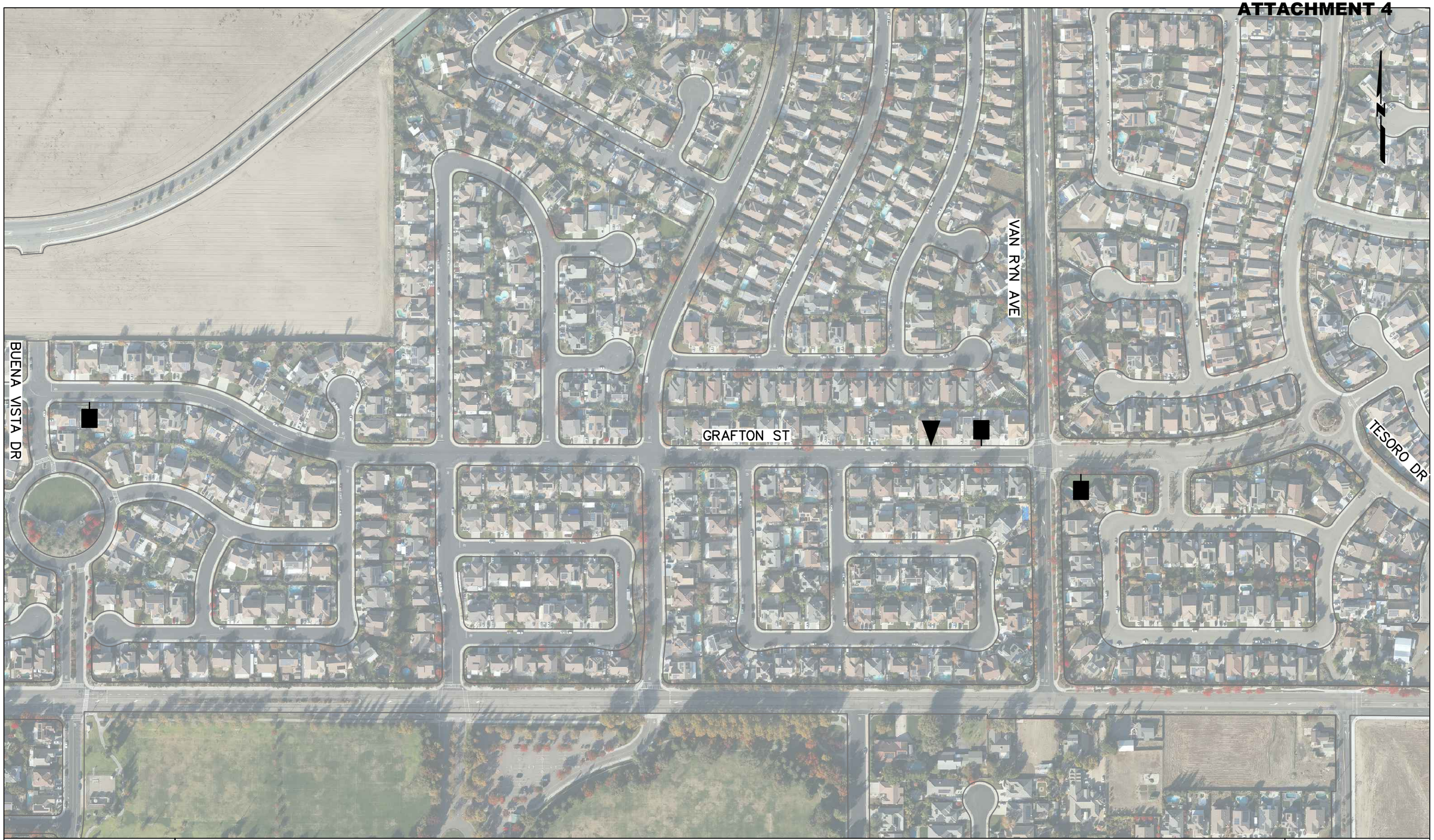
### ANALYSIS INFORMATION

**Segment Length(mi):** 0.68 **ADT:** 649 **Count Date:** 7/12/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 40 - 50 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low Density Residential
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 21 mph to 30 mph and the recommended speed limit falls within this range. The collision rate is blow the expected rate. Therefore, it is recommended that the posted speed limit remains at 25 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 36 - GRAFTON ST
# BETWEEN TESORO DR AND BUENA VISTA DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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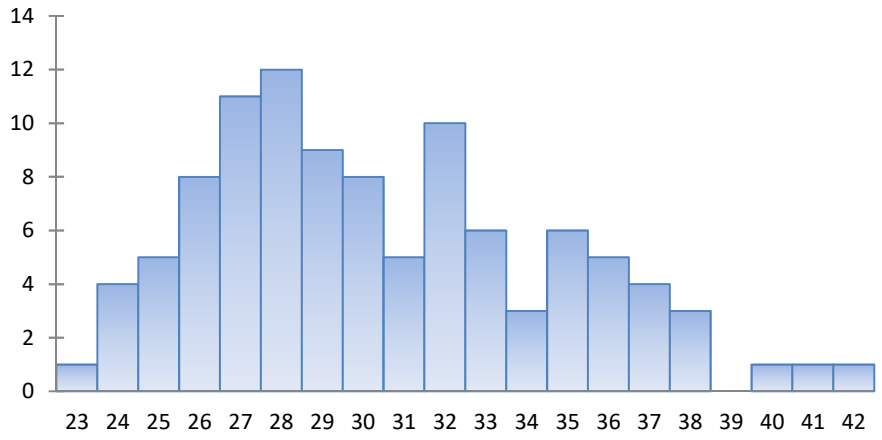
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** HACIENDA STREET/WALNUT AVE - Louise Ave to Yosemite Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 7/5/2022
**Weather:** Clear/Dry
**Begin Time:** 12:15 PM
**End Time:** 2:10 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 103 |
| Speed Range | 23 - 42 MPH |
| 50th percentile speed | 30 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 24 - 33 MPH |
| % in pace speed | 76% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 3 |
| 19 | 0 | 39 | 0 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 1 |
| 23 | 1 | 43 | 0 |
| 24 | 4 | 44 | 0 |
| 25 | 5 | 45 | 0 |
| 26 | 8 | 46 | 0 |
| 27 | 11 | 47 | 0 |
| 28 | 12 | 48 | 0 |
| 29 | 9 | 49 | 0 |
| 30 | 8 | 50 | 0 |
| 31 | 5 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 6 | 53 | 0 |
| 34 | 3 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| 36 | 5 | 56 | 0 |
| 37 | 4 | 57 | 0 |
| TOTAL | | | 103 |

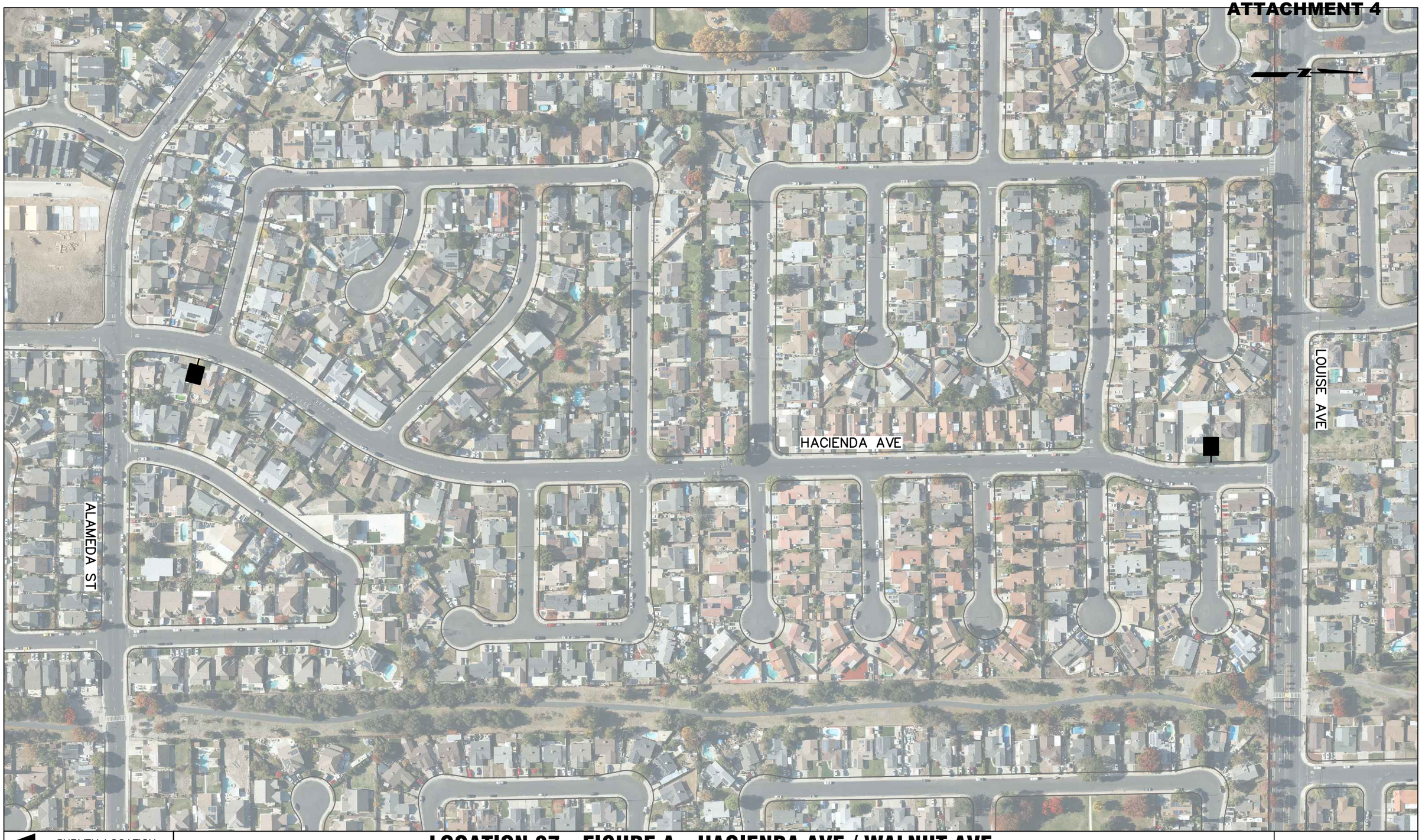
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00
**ADT:** 3,971
**Count Date:** 7/28/22
**Number of Collisions:** 4
**Time Period:** 3 years
**Calc. Collision Rate =** 0.92 collisions per million vehicle-miles
**Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 33 - 40
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Both Sides
**Sidewalk:** Both Sides
**Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1
**Adjacent Land Use:** Low/Medium/High Density Residential/Commercial
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 24 mph to 33 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4



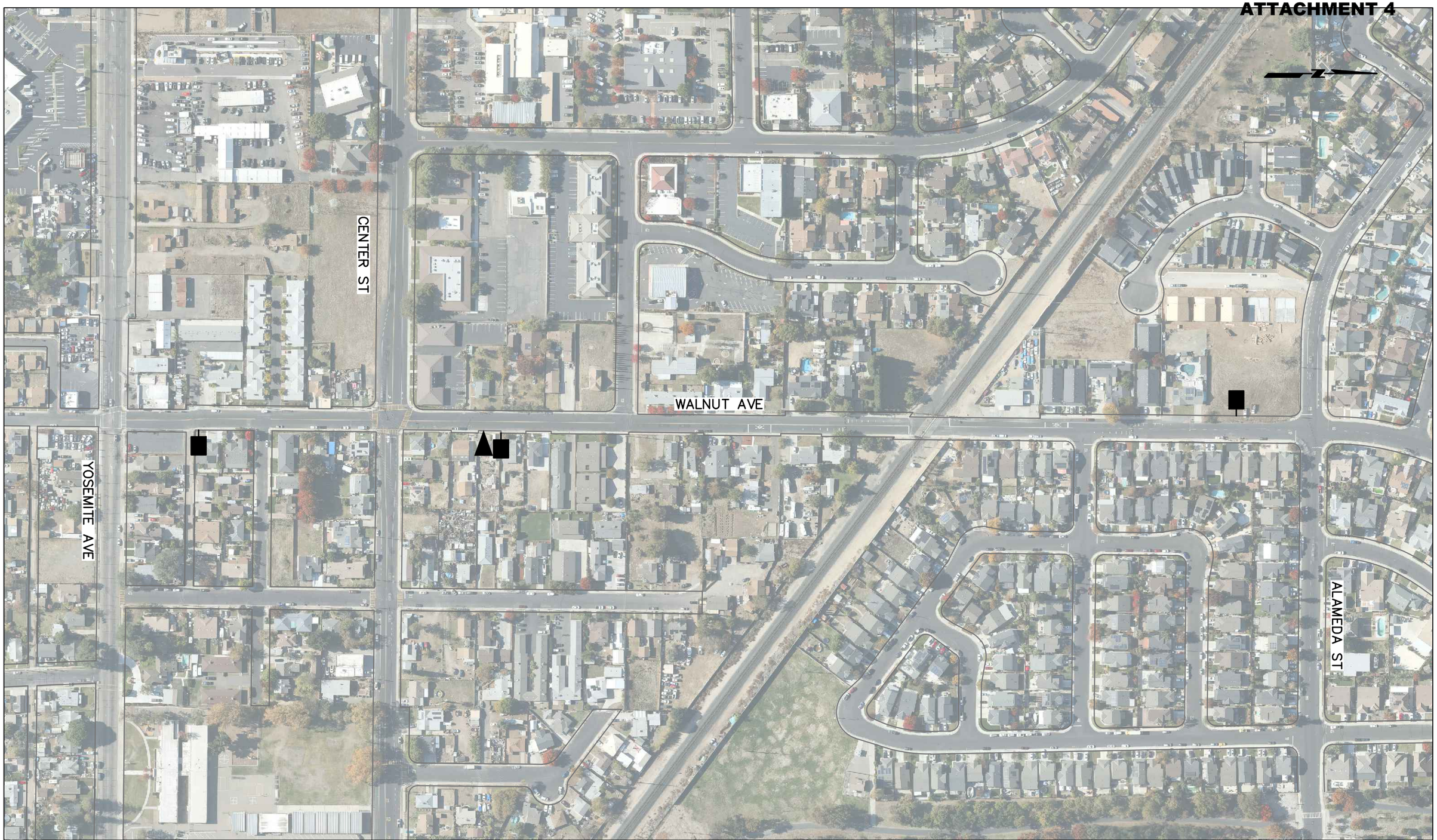

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 37 - FIGURE A - HACIENDA AVE / WALNUT AVE BETWEEN LOUISE AVE AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 37 - FIGURE B - HACIENDA AVE / WALNUT AVE
# BETWEEN LOUISE AVE AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

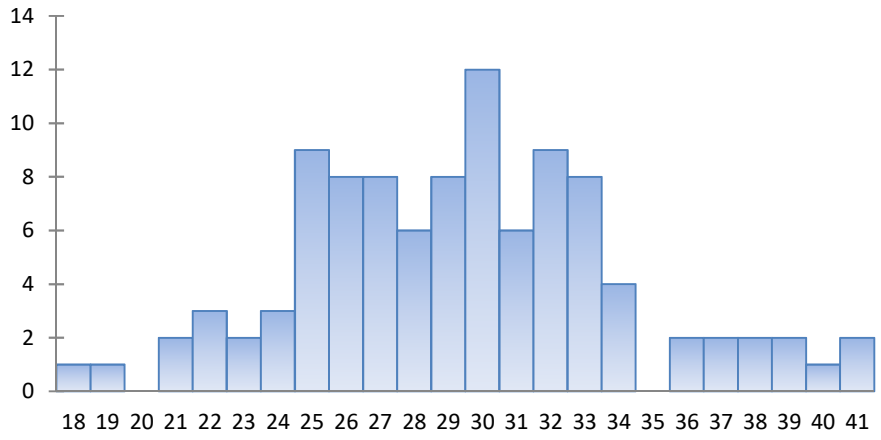
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** HEARTLAND DRIVE - Atherton Dr to Buena Vista Dr
**Posted Speed Limit:** 25 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 11/29/2022
**Weather:** Clear/Dry
**Begin Time:** 1:30 PM
**End Time:** 2:50 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 101 |
| Speed Range | 18 - 41 MPH |
| 50th percentile speed | 29 MPH |
| 85th percentile speed | 33 MPH |
| 10 mph pace speed | 25 - 34 MPH |
| % in pace speed | 77% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 1 | 38 | 2 |
| 19 | 1 | 39 | 2 |
| 20 | 0 | 40 | 1 |
| 21 | 2 | 41 | 2 |
| 22 | 3 | 42 | 0 |
| 23 | 2 | 43 | 0 |
| 24 | 3 | 44 | 0 |
| 25 | 9 | 45 | 0 |
| 26 | 8 | 46 | 0 |
| 27 | 8 | 47 | 0 |
| 28 | 6 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 12 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 9 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 0 | 55 | 0 |
| 36 | 2 | 56 | 0 |
| 37 | 2 | 57 | 0 |
| TOTAL | 101 | | |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.98
**ADT:** 694
**Count Date:** 7/12/22
**Number of Collisions:** 0
**Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles
**Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 40 - 55
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Varies
**Sidewalk:** Both Sides
**Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1
**Adjacent Land Use:** Low Density Residential/Park
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 33 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 25 mph to 34 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 38 - FIGURE A - HEARTLAND DR
# BETWEEN ATHERTON DR AND BUENA VISTA DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 38 - FIGURE B - HEARTLAND DR BETWEEN ATHERTON DR AND BUENA VISTA DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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2023 Engineering and Traffic Survey

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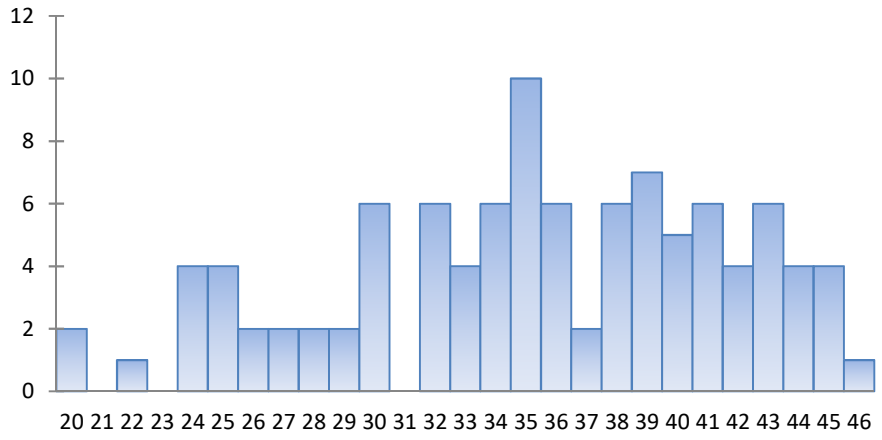
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

| | | | |
|---|---|---|---|
| **Location:** | HIGHWAY 99 EAST FRONTAGE ROAD, 1250' north of Southland to Southland Rd | | |
| **Posted Speed Limit:** | 40 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 6/30/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 2:00 PM | **End Time:** | 4:00 PM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | 85th-percentile speed | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 102 |
| **Speed Range** | 20 - 46 MPH |
| **50th percentile speed** | 35 MPH |
| **85th percentile speed** | 42 MPH |
| **10 mph pace speed** | 32 - 41 MPH |
| **% in pace speed** | 57% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 6 |
| 19 | 0 | 39 | 7 |
| 20 | 2 | 40 | 5 |
| 21 | 0 | 41 | 6 |
| 22 | 1 | 42 | 4 |
| 23 | 0 | 43 | 6 |
| 24 | 4 | 44 | 4 |
| 25 | 4 | 45 | 4 |
| 26 | 2 | 46 | 1 |
| 27 | 2 | 47 | 0 |
| 28 | 2 | 48 | 0 |
| 29 | 2 | 49 | 0 |
| 30 | 6 | 50 | 0 |
| 31 | 0 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| 34 | 6 | 54 | 0 |
| 35 | 10 | 55 | 0 |
| 36 | 6 | 56 | 0 |
| 37 | 2 | 57 | 0 |
| TOTAL | | | 102 |

### ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 0.34 | **ADT:** | 1,086 | **Count Date:** | 8/11/22 |
| **Number of Collisions:** | 0 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.00 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 24 - 30 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | None | **Sidewalk:** | None | **Bike Lanes:** | None |
| **Number of Lanes:** | NB 1 SB 1 | **Adjacent Land Use:** | Commercial/Business Professional/Medium Density Residential | | |
| **Divided Median:** | No | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 39 - HWY 99 EAST FRONTAGE RD
# BETWEEN NORTH CITY LIMIT AND SOUTHLAND RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

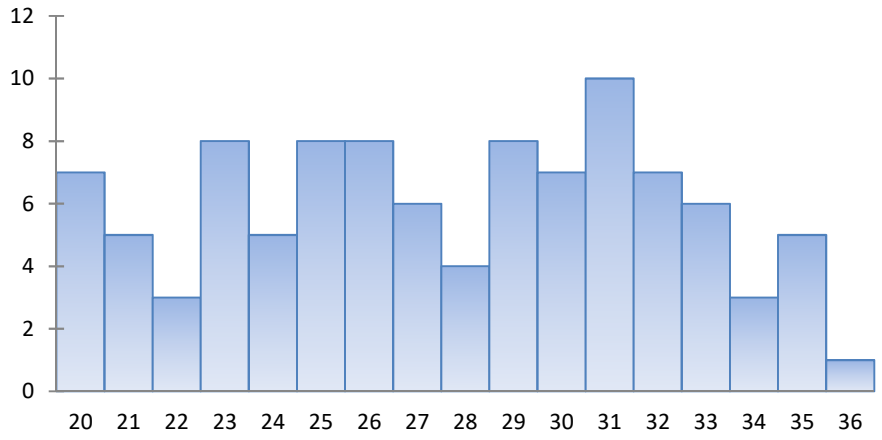
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** HOYT LANE - King Richard Way to Northgate Dr
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/28/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:45 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and proximity to school.

### Summary Statistics

| | |
|---|---|
| Total Observed | 101 |
| Speed Range | 20 - 36 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 32 MPH |
| 10 mph pace speed | 23 - 32 MPH |
| % in pace speed | 70% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 0 |
| 19 | 0 | 39 | 0 |
| 20 | 7 | 40 | 0 |
| 21 | 5 | 41 | 0 |
| 22 | 3 | 42 | 0 |
| 23 | 8 | 43 | 0 |
| 24 | 5 | 44 | 0 |
| 25 | 8 | 45 | 0 |
| 26 | 8 | 46 | 0 |
| 27 | 6 | 47 | 0 |
| 28 | 4 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 7 | 50 | 0 |
| 31 | 10 | 51 | 0 |
| 32 | 7 | 52 | 0 |
| 33 | 6 | 53 | 0 |
| 34 | 3 | 54 | 0 |
| 35 | 5 | 55 | 0 |
| 36 | 1 | 56 | 0 |
| 37 | 0 | 57 | 0 |
| TOTAL | | | 101 |

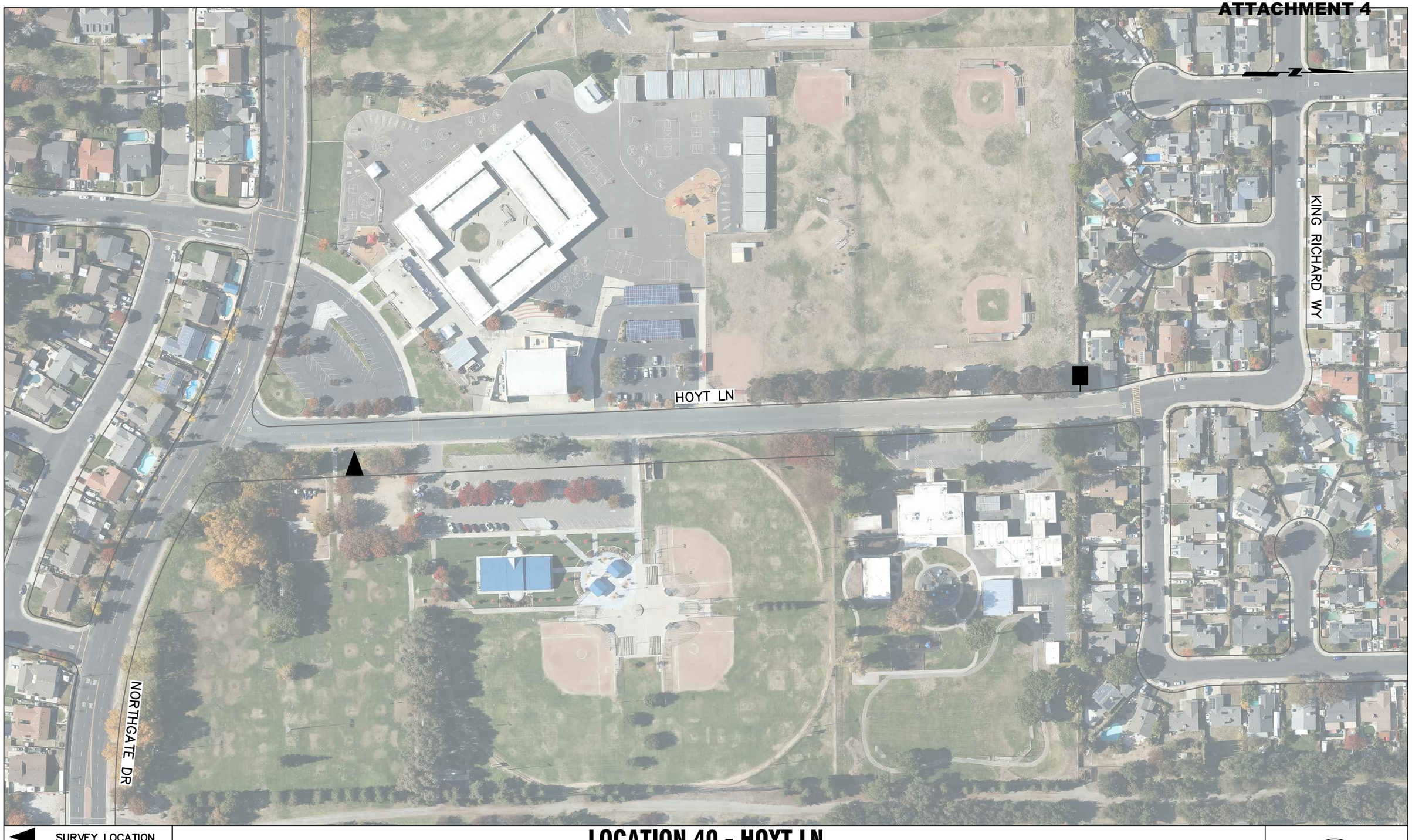
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.35 **ADT:** 2,572 **Count Date:** 9/14/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 1.01 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Park/Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. However, due to fronting residential district, uncontrolled crosswalk, and proximity to school, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range. The collision rate is blow the expected rate. Therefore, it is recommended that the posted speed limit remains at 25 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 40 - HOYT LN
# BETWEEN KING RICHARD WY AND NORTHGATE DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

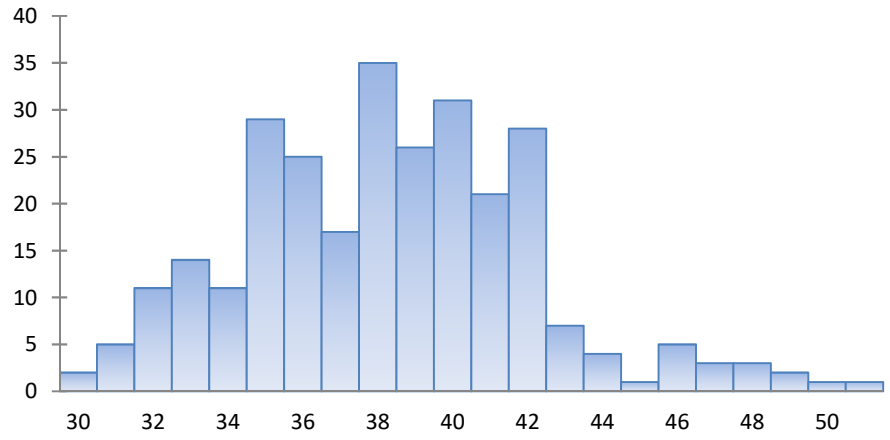
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** INDUSTRIAL PARK DRIVE - Moffat Blvd to Main St
**Posted Speed Limit:** 35 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 3/20/2023
**Weather:** Clear/Dry
**Begin Time:** 1:30 PM
**End Time:** 2:05 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk and the lack of continuous bike lanes and sidewalks.

### Summary Statistics

| | |
|---|---|
| Total Observed | 282 |
| Speed Range | 30 - 51 MPH |
| 50th percentile speed | 38 MPH |
| 85th percentile speed | 42 MPH |
| 10 mph pace speed | 33 - 42 MPH |
| % in pace speed | 84% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 31 |
| 21 | 0 | 41 | 21 |
| 22 | 0 | 42 | 28 |
| 23 | 0 | 43 | 7 |
| 24 | 0 | 44 | 4 |
| 25 | 0 | 45 | 1 |
| 26 | 0 | 46 | 5 |
| 27 | 0 | 47 | 3 |
| 28 | 0 | 48 | 3 |
| 29 | 0 | 49 | 2 |
| 30 | 2 | 50 | 1 |
| 31 | 5 | 51 | 1 |
| 32 | 11 | 52 | 0 |
| 33 | 14 | 53 | 0 |
| 34 | 11 | 54 | 0 |
| 35 | 29 | 55 | 0 |
| 36 | 25 | 56 | 0 |
| 37 | 17 | 57 | 0 |
| 38 | 35 | 58 | 0 |
| 39 | 26 | 59 | 0 |
| TOTAL | | | 282 |

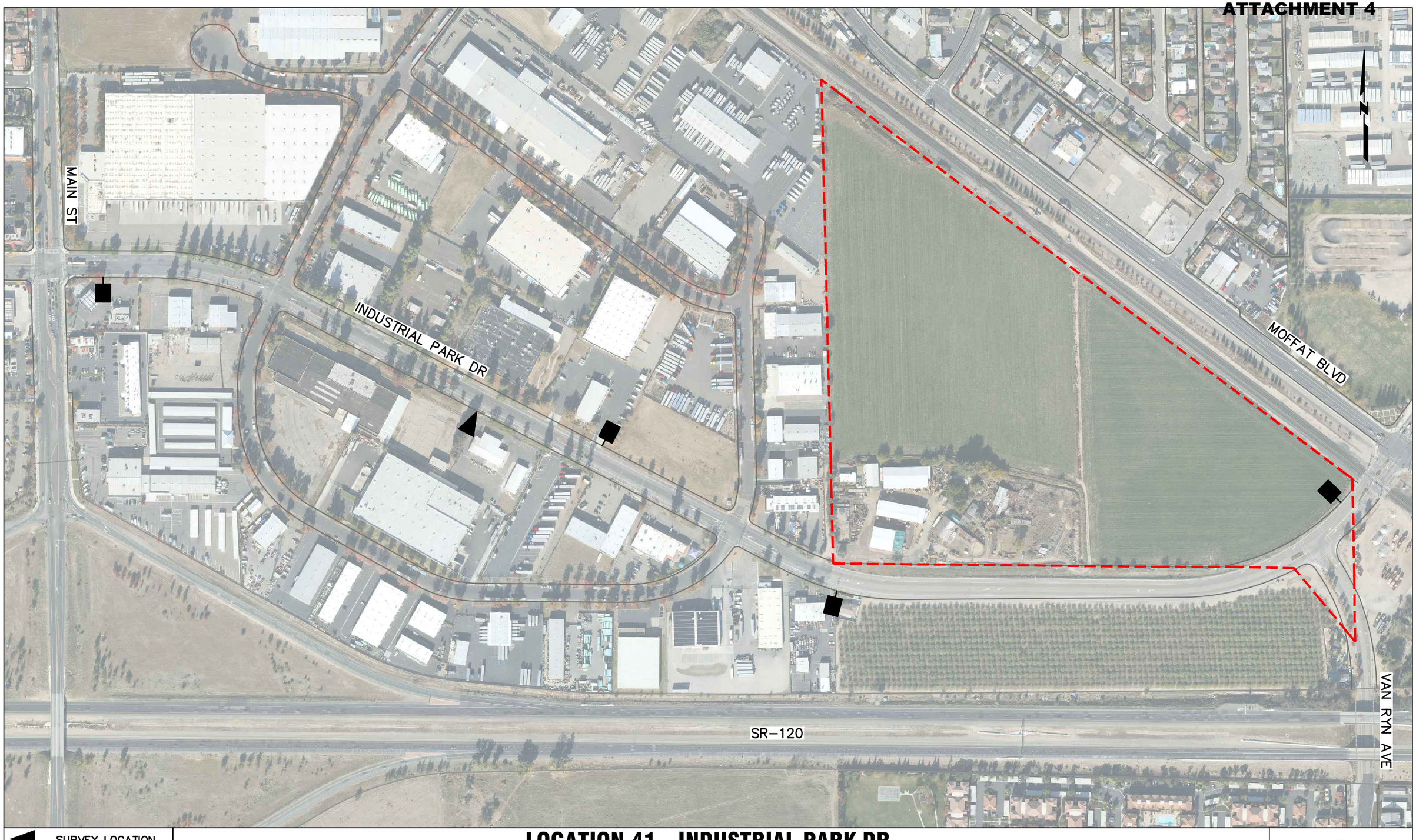
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.94
**ADT:** 10,430
**Count Date:** 9/14/22
**Number of Collisions:** 7
**Time Period:** 3 years
**Calc. Collision Rate =** 0.65 collisions per million vehicle-miles
**State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 71
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Varies
**Sidewalk:** Varies
**Bike Lanes:** Varies
**Number of Lanes:** EB 1-2 WB 1-2
**Adjacent Land Use:** Industrial/Commercial/ Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to uncontrolled crosswalk and the lack of continous bike lanes and sidewalks, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 33 mph to 42 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 41 - INDUSTRIAL PARK DR BETWEEN MOFFAT BLVD AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 8:57:24 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

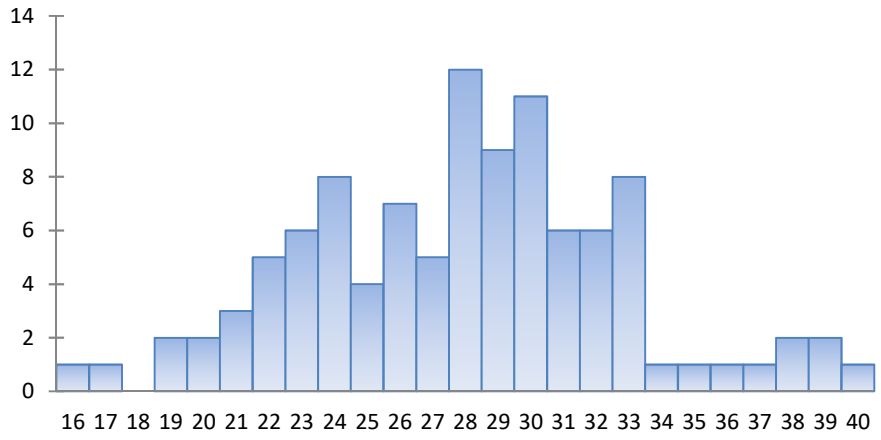
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** LANCASTER DRIVE - Springtime Ave to Main St
**Posted Speed Limit:** 25 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 7/7/2022
**Weather:** Clear/Dry
**Begin Time:** 11:05 AM
**End Time:** 12:05 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 105 |
| Speed Range | 16 - 40 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 33 MPH |
| 10 mph pace speed | 24 - 33 MPH |
| % in pace speed | 72% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 14 | 0 | 34 | 1 |
| 15 | 0 | 35 | 1 |
| 16 | 1 | 36 | 1 |
| 17 | 1 | 37 | 1 |
| 18 | 0 | 38 | 2 |
| 19 | 2 | 39 | 2 |
| 20 | 2 | 40 | 1 |
| 21 | 3 | 41 | 0 |
| 22 | 5 | 42 | 0 |
| 23 | 6 | 43 | 0 |
| 24 | 8 | 44 | 0 |
| 25 | 4 | 45 | 0 |
| 26 | 7 | 46 | 0 |
| 27 | 5 | 47 | 0 |
| 28 | 12 | 48 | 0 |
| 29 | 9 | 49 | 0 |
| 30 | 11 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| TOTAL | | | 105 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.32
**ADT:** 1,235
**Count Date:** 8/31/22
**Number of Collisions:** 0
**Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles
**Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Both Sides
**Sidewalk:** Both Sides
**Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1
**Adjacent Land Use:** Low/High Density Residential/Commercial
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 33 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 24 mph to 33 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 42 - LANCASTER DR
# BETWEEN SPRINGTIME AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

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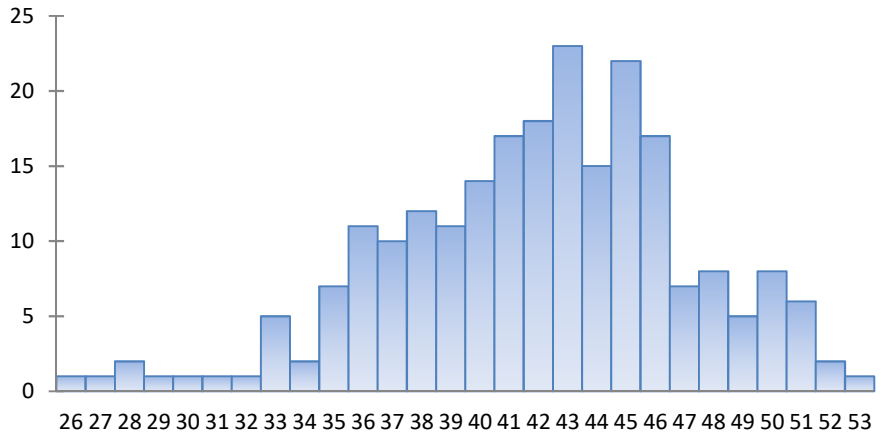
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** LATHROP Rd - Main St to Union Rd
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 9:45 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 229 |
| Speed Range | 26 - 53 MPH |
| 50th percentile speed | 42 MPH |
| 85th percentile speed | 47 MPH |
| 10 mph pace speed | 37 - 46 MPH |
| % in pace speed | 69% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 14 |
| 21 | 0 | 41 | 17 |
| 22 | 0 | 42 | 18 |
| 23 | 0 | 43 | 23 |
| 24 | 0 | 44 | 15 |
| 25 | 0 | 45 | 22 |
| 26 | 1 | 46 | 17 |
| 27 | 1 | 47 | 7 |
| 28 | 2 | 48 | 8 |
| 29 | 1 | 49 | 5 |
| 30 | 1 | 50 | 8 |
| 31 | 1 | 51 | 6 |
| 32 | 1 | 52 | 2 |
| 33 | 5 | 53 | 1 |
| 34 | 2 | 54 | 0 |
| 35 | 7 | 55 | 0 |
| 36 | 11 | 56 | 0 |
| 37 | 10 | 57 | 0 |
| 38 | 12 | 58 | 0 |
| 39 | 11 | 59 | 0 |
| TOTAL | | | 229 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.95 **ADT:** 24,204 **Count Date:** 9/8/22
**Number of Collisions:** 29 **Time Period:** 3 years
**Calc. Collision Rate =** 1.15 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 53 - 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** EB 1-3 WB 1-2 **Adjacent Land Use:** Commercial/Commercial Mixed Use/Low Density Residential
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 47 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

ATTACHMENT 4



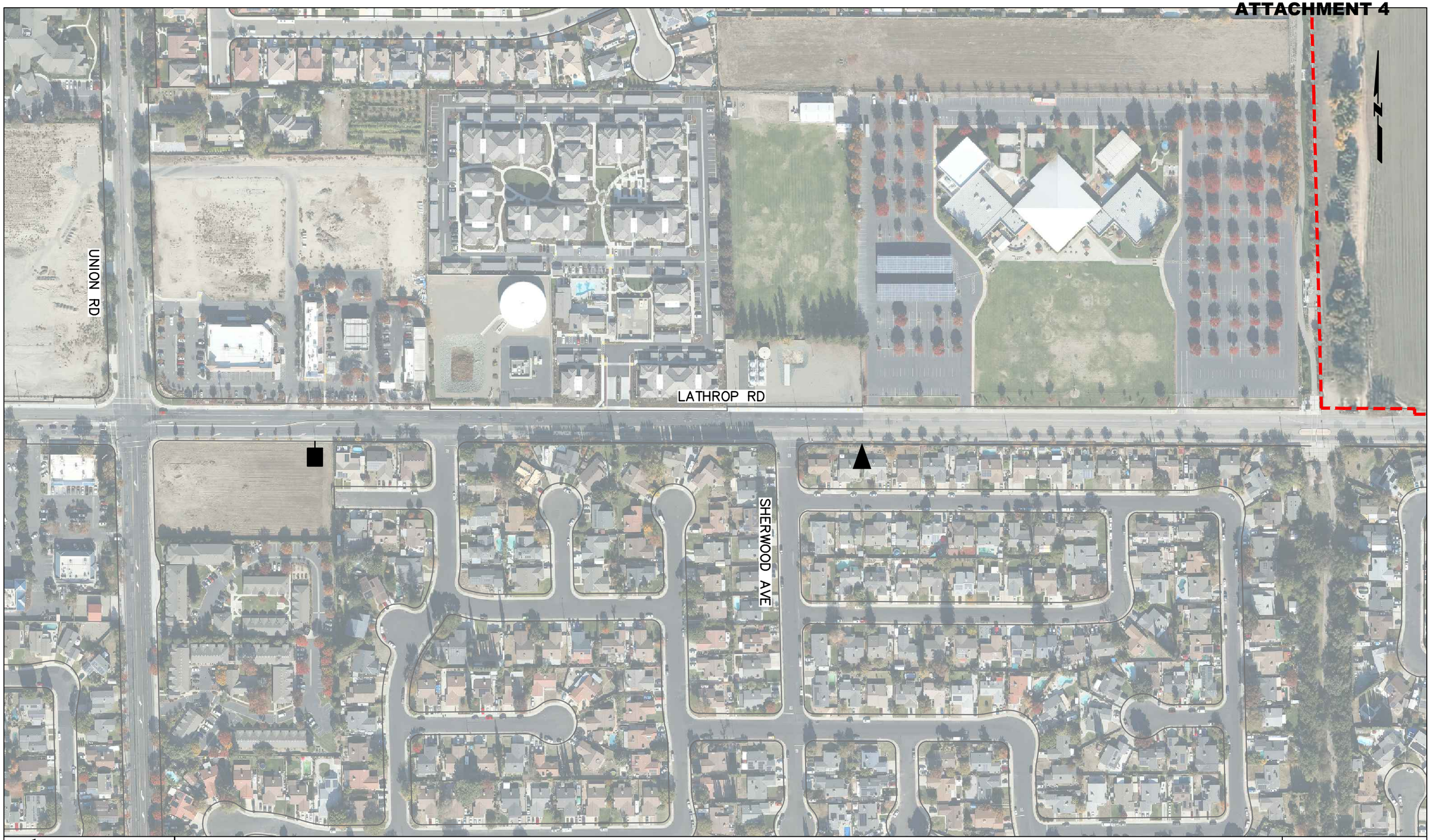

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 43 - FIGURE A - LATHROP RD
# BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 43 - FIGURE B - LATHROP RD
# BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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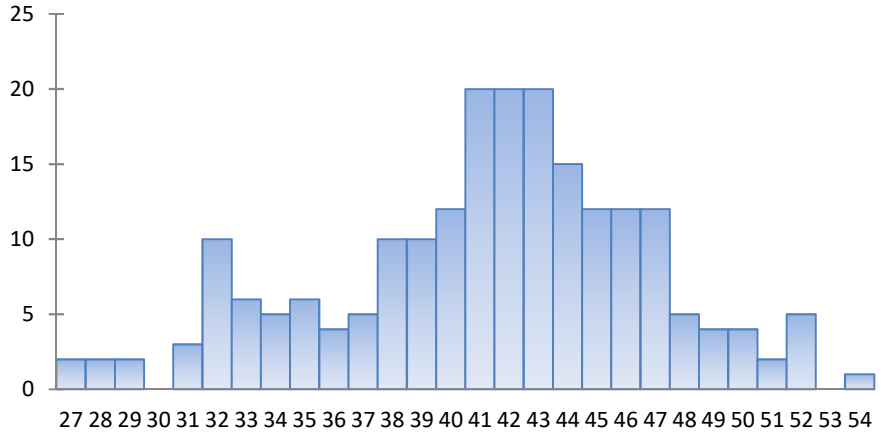
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

| | | | |
|---|---|---|---|
| **Location:** | LATHROP Rd - Union Rd to 1340 ft. west of Airport Way | | |
| **Posted Speed Limit:** | 45 mph | | |
| **Direction:** | Both | **Recorder:** | NDS |
| **Survey Date:** | 6/30/2022 | **Weather:** | Clear/Dry |
| **Begin Time:** | 9:50 AM | **End Time:** | 10:40 AM |
| **Speed Limit Change:** | No | | |
| **Speed Justification:** | 85th-percentile speed | | |

### Summary Statistics

| | |
|---|---|
| **Total Observed** | 209 |
| **Speed Range** | 27 - 54 MPH |
| **50th percentile speed** | 42 MPH |
| **85th percentile speed** | 47 MPH |
| **10 mph pace speed** | 38 - 47 MPH |
| **% in pace speed** | 68% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 12 |
| 21 | 0 | 41 | 20 |
| 22 | 0 | 42 | 20 |
| 23 | 0 | 43 | 20 |
| 24 | 0 | 44 | 15 |
| 25 | 0 | 45 | 12 |
| 26 | 0 | 46 | 12 |
| 27 | 2 | 47 | 12 |
| 28 | 2 | 48 | 5 |
| 29 | 2 | 49 | 4 |
| 30 | 0 | 50 | 4 |
| 31 | 3 | 51 | 2 |
| 32 | 10 | 52 | 5 |
| 33 | 6 | 53 | 0 |
| 34 | 5 | 54 | 1 |
| 35 | 6 | 55 | 0 |
| 36 | 4 | 56 | 0 |
| 37 | 5 | 57 | 0 |
| 38 | 10 | 58 | 0 |
| 39 | 10 | 59 | 0 |
| TOTAL | | | 209 |

## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| **Segment Length(mi):** | 1.23 | **ADT:** | 18,559 | **Count Date:** | 9/8/22 |
| **Number of Collisions:** | 19 | **Time Period:** | 3 years | | |
| **Calc. Collision Rate =** | 0.76 collisions per million vehicle-miles | | | **Expected Collisions Rate:** | 1.18 c/mvm |
| **Street Width (ft):** | 40 - 65 | **Driveway:** | Yes | **Terrain:** | Flat |
| **Parking Conditions:** | None | **Sidewalk:** | Varies | **Bike Lanes:** | None |
| **Number of Lanes:** | EB 1-2 WB 1-2 | | | **Adjacent Land Use:** | Low/Medium Density Residential/Commercial/ Commercial Mixed Use/Public/Quasi Public |
| **Divided Median:** | TWLTL/Concrete Median | | | | |
| **Uncontrolled Crosswalks** | No | | | | |

**Comments:**

The 85th-percentile speed of 47 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 38 mph to 47 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

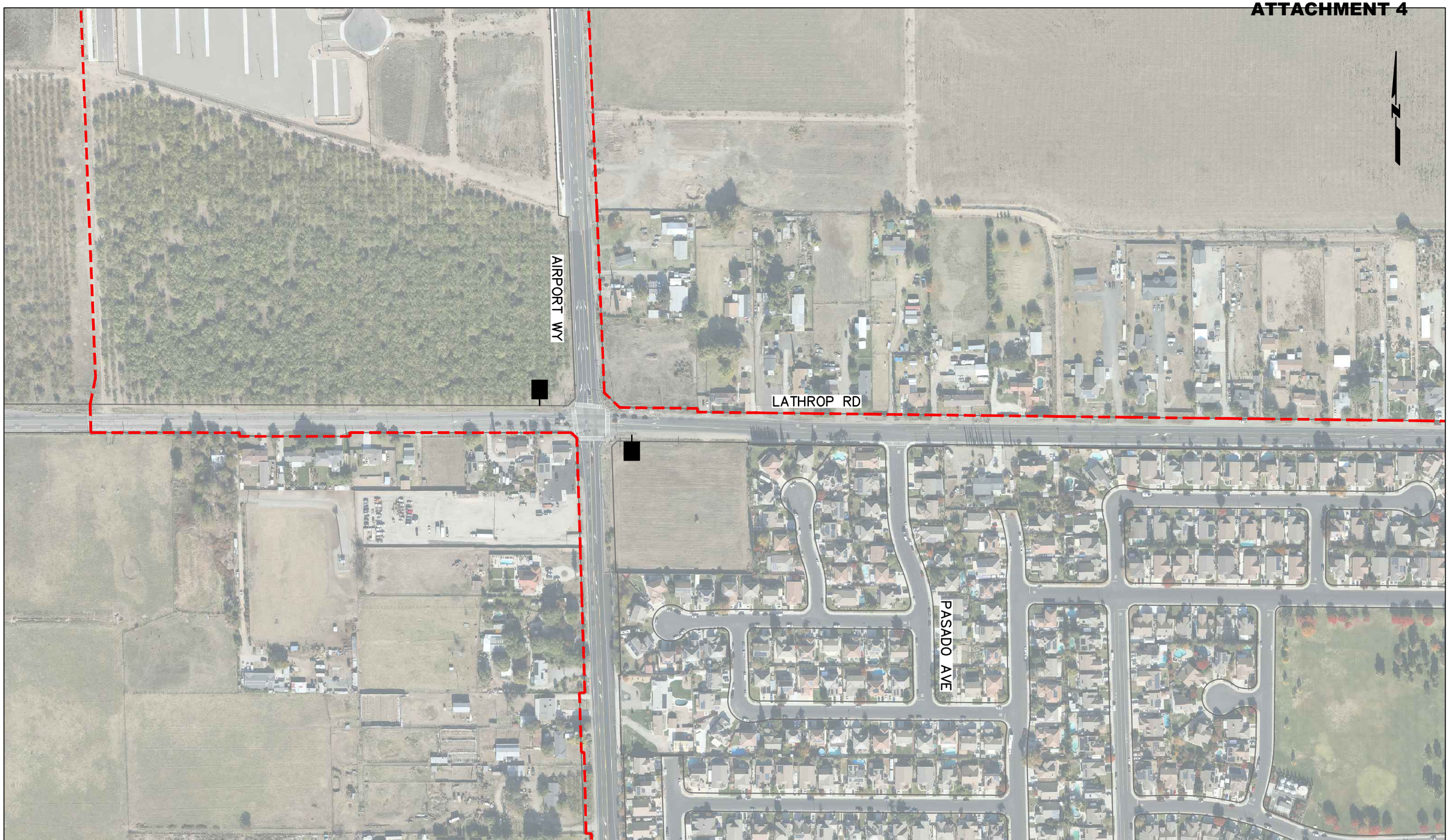
SCALE: NOT TO SCALE

# LOCATION 44 - FIGURE A - LATHROP RD
# BETWEEN UNION RD AND WEST CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 44 - FIGURE B - LATHROP RD
# BETWEEN UNION RD AND WEST CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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2023 Engineering and Traffic Survey

**ATTACHMENT 4**

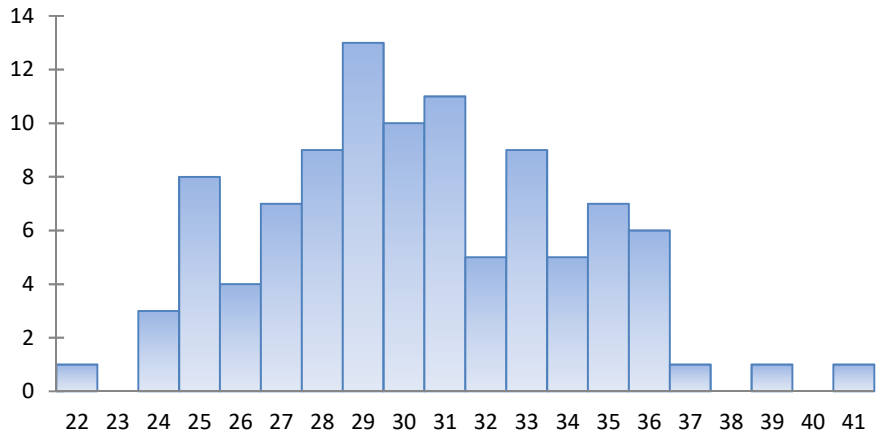
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** LOCUST AVE - Yosemite Ave to Mission Ridge Dr
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 9:50 AM **End Time:** 10:40 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 101 |
| Speed Range | 22 - 41 MPH |
| 50th percentile speed | 30 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 81% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 0 |
| 21 | 0 | 41 | 1 |
| 22 | 1 | 42 | 0 |
| 23 | 0 | 43 | 0 |
| 24 | 3 | 44 | 0 |
| 25 | 8 | 45 | 0 |
| 26 | 4 | 46 | 0 |
| 27 | 7 | 47 | 0 |
| 28 | 9 | 48 | 0 |
| 29 | 13 | 49 | 0 |
| 30 | 10 | 50 | 0 |
| 31 | 11 | 51 | 0 |
| 32 | 5 | 52 | 0 |
| 33 | 9 | 53 | 0 |
| 34 | 5 | 54 | 0 |
| 35 | 7 | 55 | 0 |
| 36 | 6 | 56 | 0 |
| 37 | 1 | 57 | 0 |
| 38 | 0 | 58 | 0 |
| 39 | 1 | 59 | 0 |
| TOTAL | | | 101 |

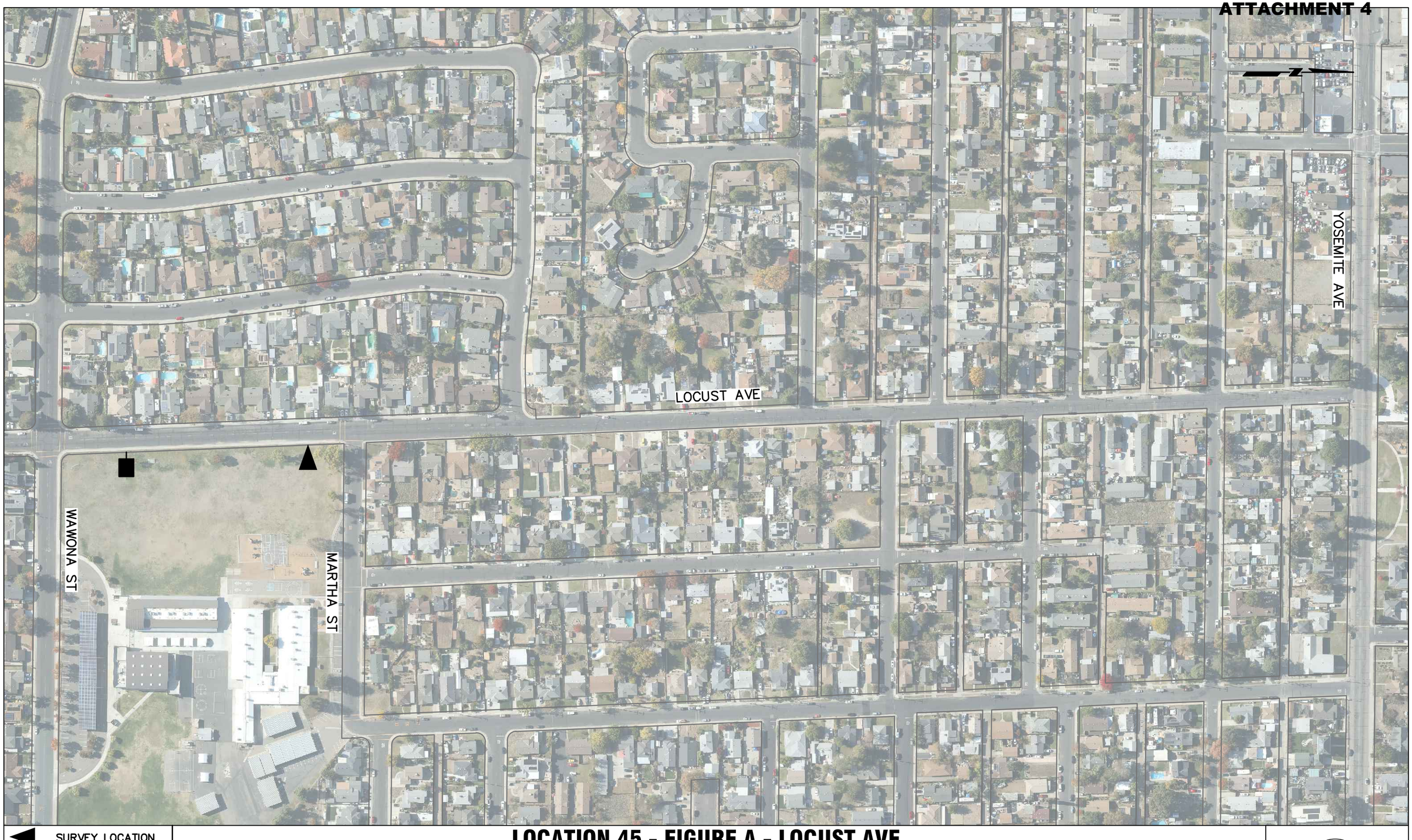
### ANALYSIS INFORMATION

**Segment Length(mi):** 0.92 **ADT:** 2,166 **Count Date:** 9/8/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.46 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 36 - 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low/Medium Density Residential/Commercial/ Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 " Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls below this range. The collision rate is below the expected rate.

**ATTACHMENT 4**



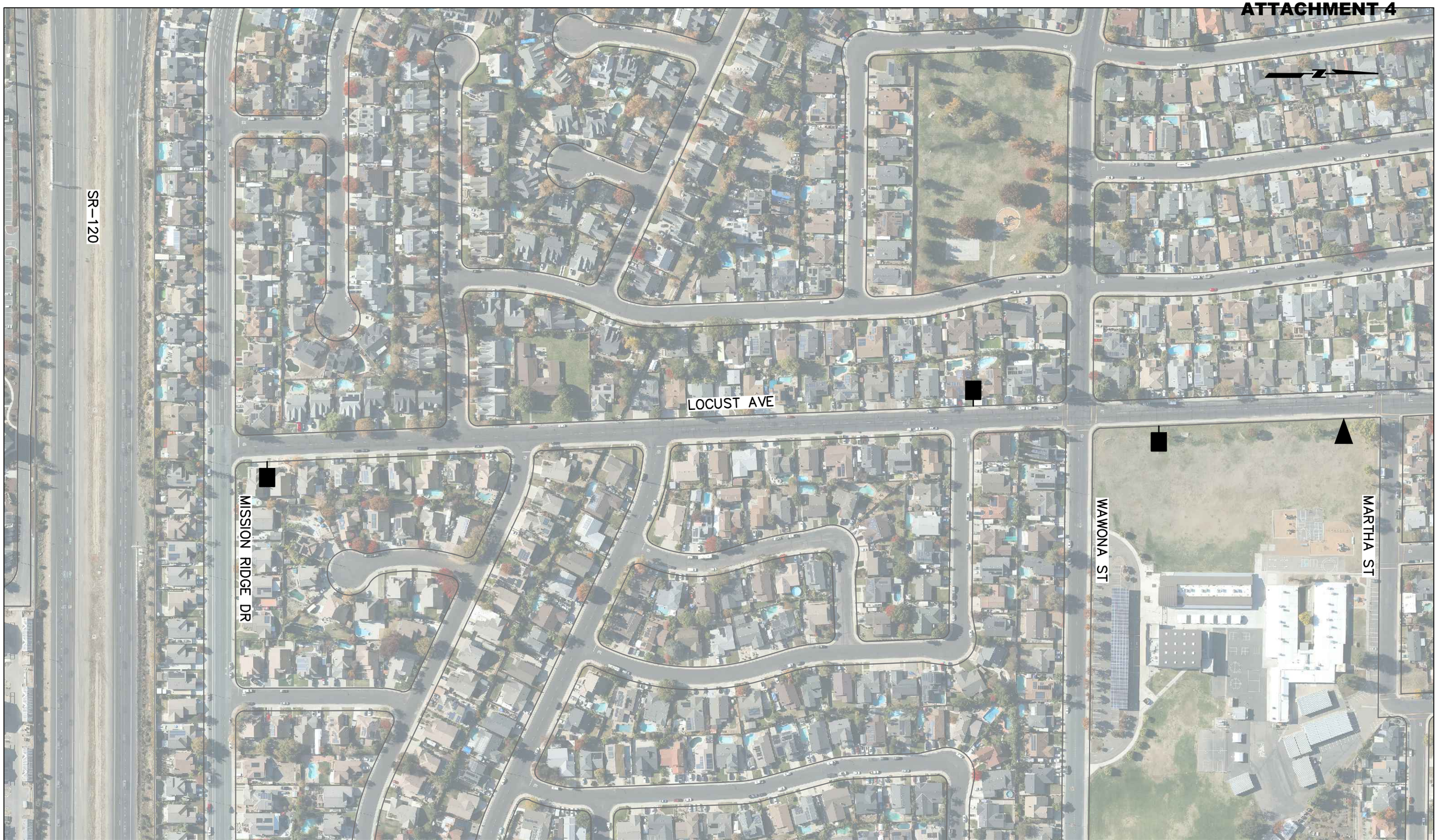

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 45 - FIGURE A - LOCUST AVE
# BETWEEN YOSEMITE AVE AND MISSION RIDGE DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 45 - FIGURE B - LOCUST AVE
# BETWEEN YOSEMITE AVE AND MISSION RIDGE DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

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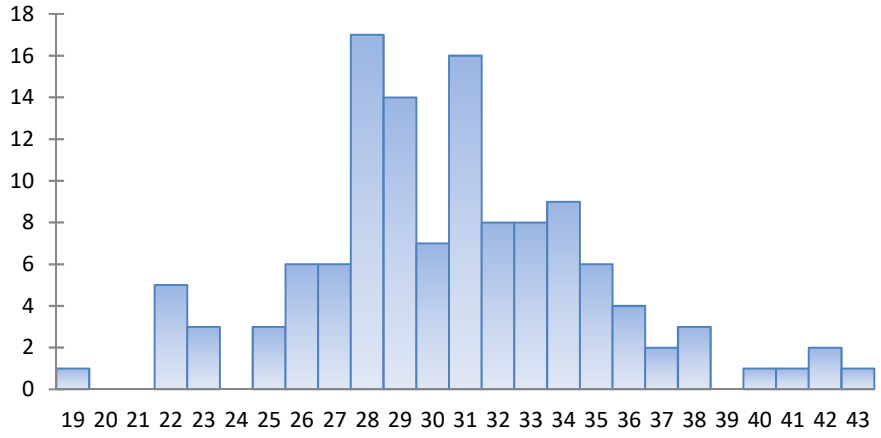
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** LONDON AVE - Lathrop Rd to Nicol Way
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/29/2022 **Weather:** Clear/Dry
**Begin Time:** 9:50 AM **End Time:** 10:40 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 123 |
| Speed Range | 19 - 43 MPH |
| 50th percentile speed | 30 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 26 - 35 MPH |
| % in pace speed | 79% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 18 | 0 | 38 | 3 |
| 19 | 1 | 39 | 0 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 1 |
| 22 | 5 | 42 | 2 |
| 23 | 3 | 43 | 1 |
| 24 | 0 | 44 | 0 |
| 25 | 3 | 45 | 0 |
| 26 | 6 | 46 | 0 |
| 27 | 6 | 47 | 0 |
| 28 | 17 | 48 | 0 |
| 29 | 14 | 49 | 0 |
| 30 | 7 | 50 | 0 |
| 31 | 16 | 51 | 0 |
| 32 | 8 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| 34 | 9 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| 36 | 4 | 56 | 0 |
| 37 | 2 | 57 | 0 |
| TOTAL | | | 123 |

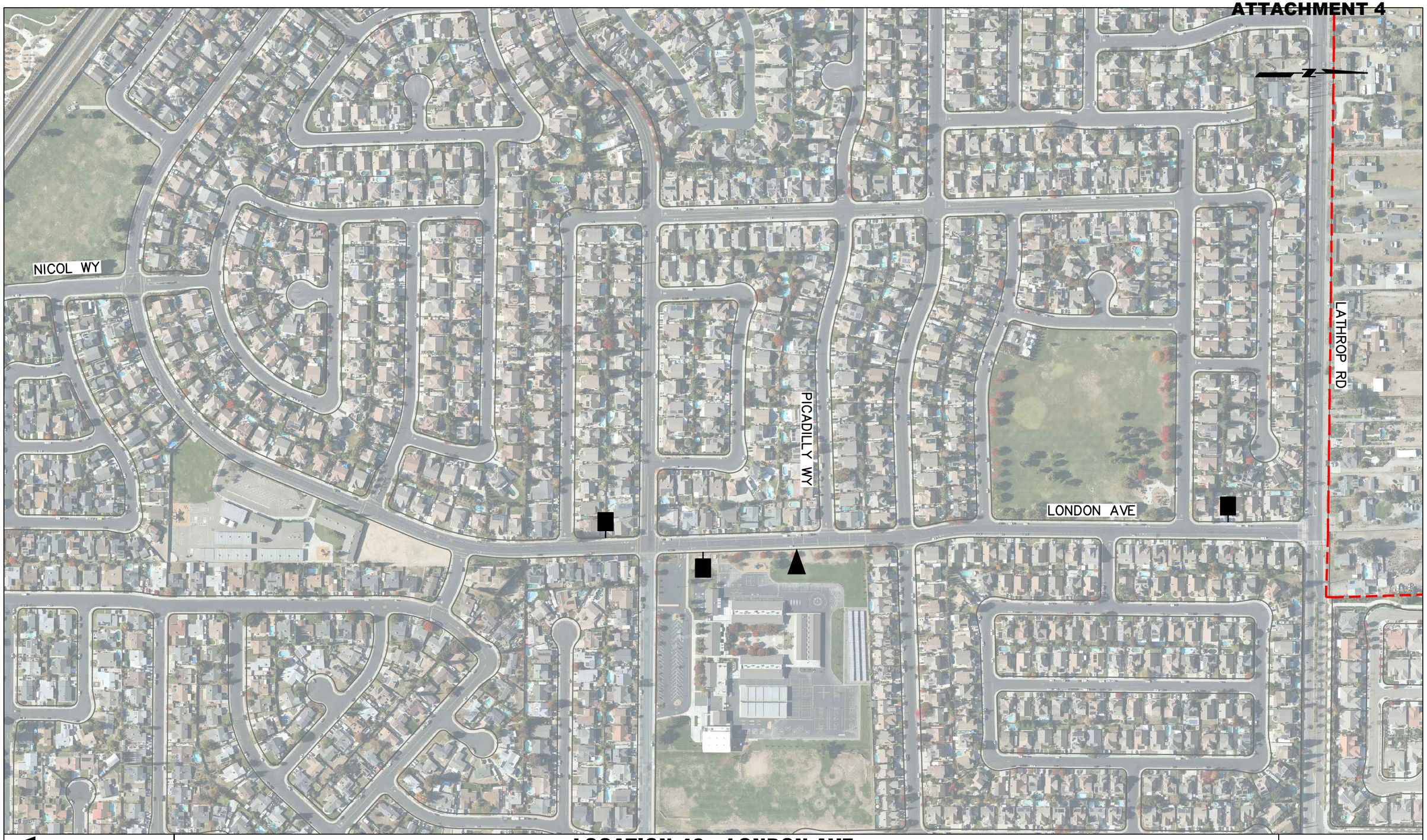
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.83 **ADT:** 2,423 **Count Date:** 7/21/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.45 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 - 55 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 " Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 26 mph to 35 mph and the recommended speed limit falls below this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 46 - LONDON AVE
# BETWEEN LATHROP RD AND NICOL WY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

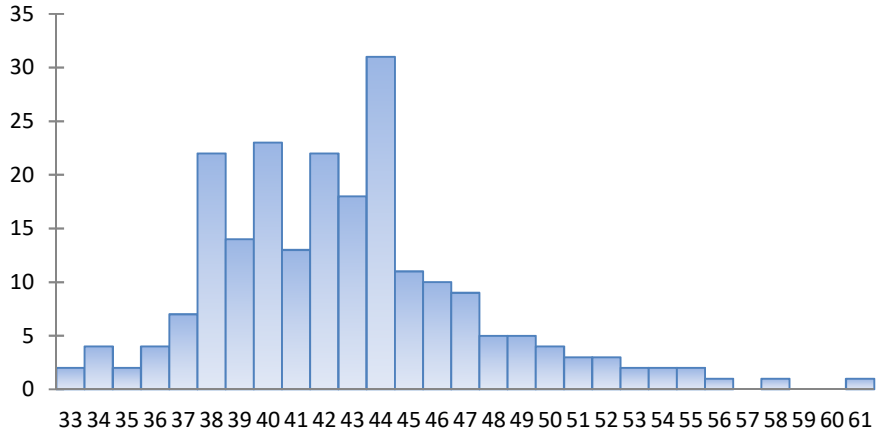
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** LOUISE AVE - 1350 ft. east of Pestana Ave to Cottage Ave
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 3/20/2023 **Weather:** Clear/Dry
**Begin Time:** 2:15 PM **End Time:** 3:00 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 221 |
| Speed Range | 33 - 61 MPH |
| 50th percentile speed | 42 MPH |
| 85th percentile speed | 47 MPH |
| 10 mph pace speed | 38 - 47 MPH |
| % in pace speed | 78% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 0 | 50 | 4 |
| 31 | 0 | 51 | 3 |
| 32 | 0 | 52 | 3 |
| 33 | 2 | 53 | 2 |
| 34 | 4 | 54 | 2 |
| 35 | 2 | 55 | 2 |
| 36 | 4 | 56 | 1 |
| 37 | 7 | 57 | 0 |
| 38 | 22 | 58 | 1 |
| 39 | 14 | 59 | 0 |
| 40 | 23 | 60 | 0 |
| 41 | 13 | 61 | 1 |
| 42 | 22 | 62 | 0 |
| 43 | 18 | 63 | 0 |
| 44 | 31 | 64 | 0 |
| 45 | 11 | 65 | 0 |
| 46 | 10 | 66 | 0 |
| 47 | 9 | 67 | 0 |
| 48 | 5 | 68 | 0 |
| 49 | 5 | 69 | 0 |
| TOTAL | | | 221 |

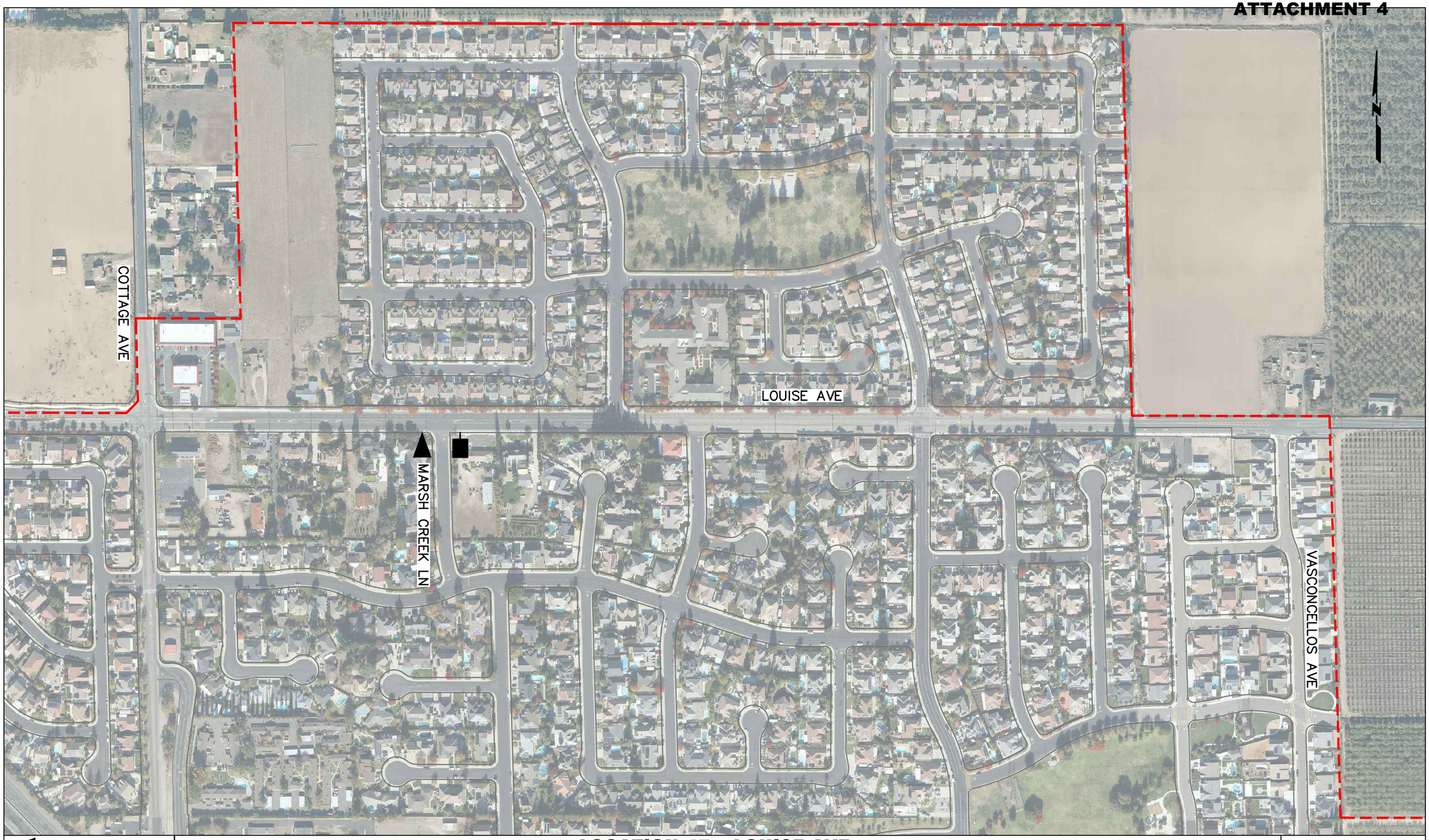
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.75 **ADT:** 3,968 **Count Date:** 7/14/22
**Number of Collisions:** 3 **Time Period:** 3 years
**Calc. Collision Rate =** 0.92 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 24 - 62 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** EB 1-2 WB 1-2 **Adjacent Land Use:** Low/Medium Density Residential/Commercial/ Public/Quasi Public
**Devided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 47 mph indicates a 45 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 38 mph to 47 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 47 - LOUISE AVE
# BETWEEN EAST CITY LIMIT AND COTTAGE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

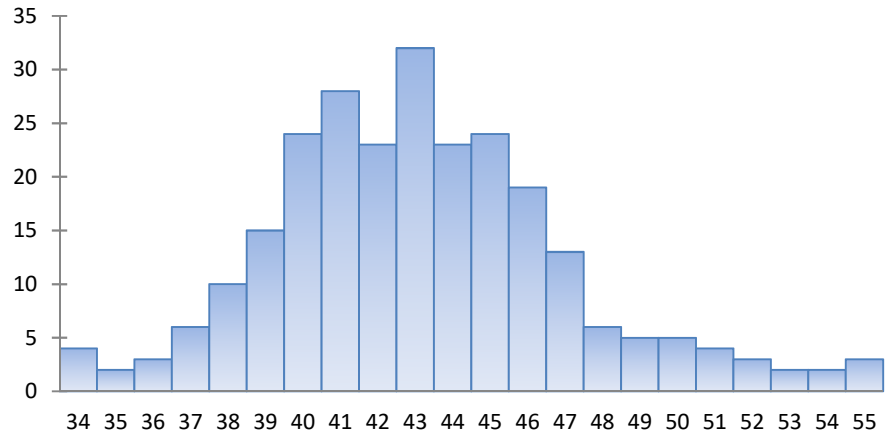
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** LOUISE AVE - Cottage Ave to Main St
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 3/20/2023 **Weather:** Clear/Dry
**Begin Time:** 3:05 PM **End Time:** 3:35 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district and the lack of continuous bike lanes and sidewalks.

### Summary Statistics

| | |
|---|---|
| Total Observed | 256 |
| Speed Range | 34 - 55 MPH |
| 50th percentile speed | 43 MPH |
| 85th percentile speed | 47 MPH |
| 10 mph pace speed | 38 - 47 MPH |
| % in pace speed | 82% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 0 | 50 | 5 |
| 31 | 0 | 51 | 4 |
| 32 | 0 | 52 | 3 |
| 33 | 0 | 53 | 2 |
| 34 | 4 | 54 | 2 |
| 35 | 2 | 55 | 3 |
| 36 | 3 | 56 | 0 |
| 37 | 6 | 57 | 0 |
| 38 | 10 | 58 | 0 |
| 39 | 15 | 59 | 0 |
| 40 | 24 | 60 | 0 |
| 41 | 28 | 61 | 0 |
| 42 | 23 | 62 | 0 |
| 43 | 32 | 63 | 0 |
| 44 | 23 | 64 | 0 |
| 45 | 24 | 65 | 0 |
| 46 | 19 | 66 | 0 |
| 47 | 13 | 67 | 0 |
| 48 | 6 | 68 | 0 |
| 49 | 5 | 69 | 0 |
| TOTAL | | | 256 |

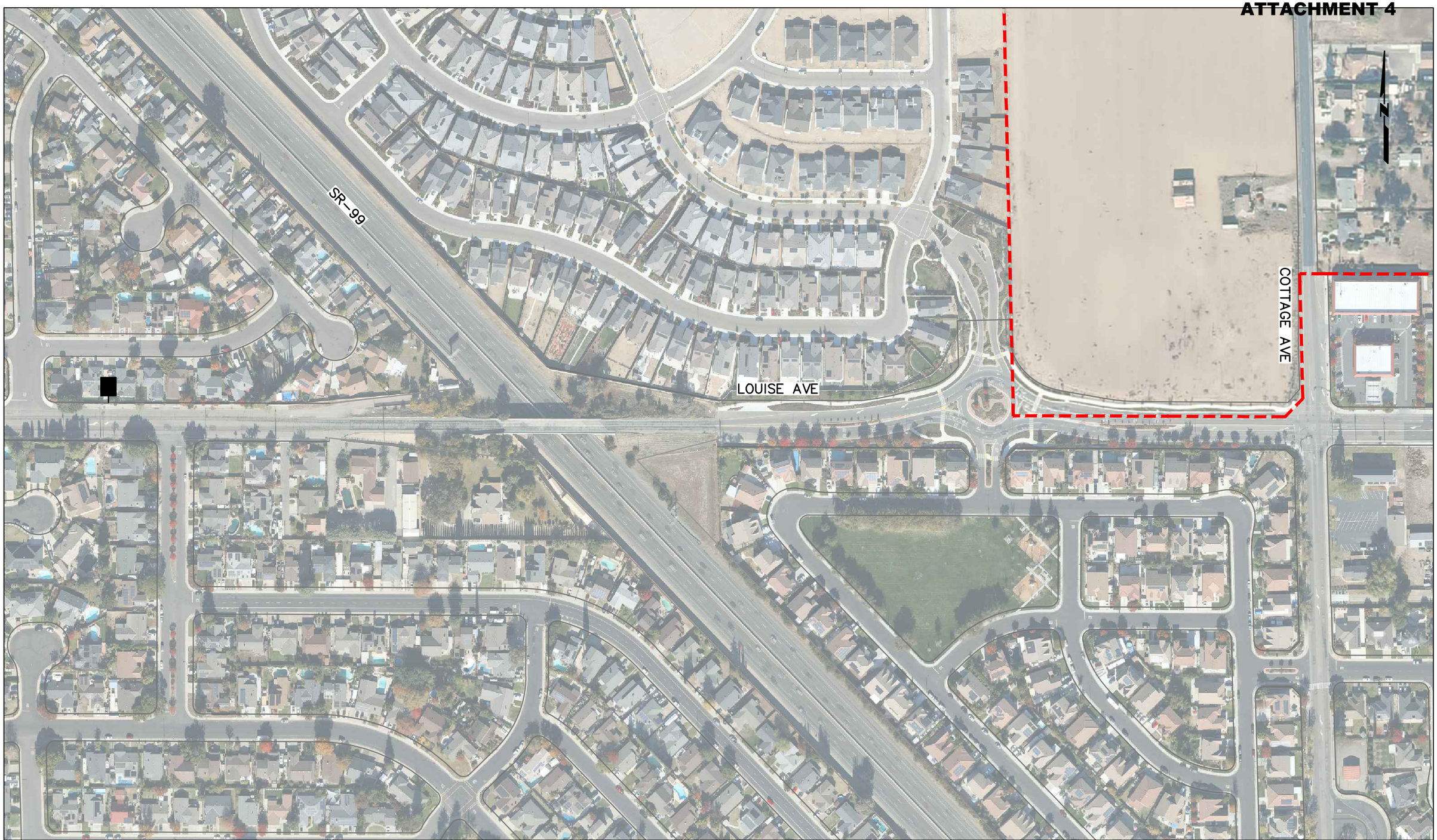
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 13,343 **Count Date:** 9/14/22
**Number of Collisions:** 15 **Time Period:** 3 years
**Calc. Collision Rate =** 1.03 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 25 - 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** EB 1-2 WB 1-2 **Adjacent Land Use:** Low/High Density Residential/Commercial
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 47 mph indicates a 45 mph speed limit. However, due to fronting residential district and the lack of continuous bike lanes and sidewalks, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 38 mph to 47 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 40 mph.

**ATTACHMENT 4**




| | |
|---|---|
| SURVEY LOCATION | |
| SPEED LIMIT SIGN | |
| CITY LIMITS | |
| SCALE: NOT TO SCALE | |

# LOCATION 48 - FIGURE A - LOUISE AVE BETWEEN COTTAGE AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\topia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:00:09 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 48 - FIGURE B - LOUISE AVE BETWEEN COTTAGE AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:00:24 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

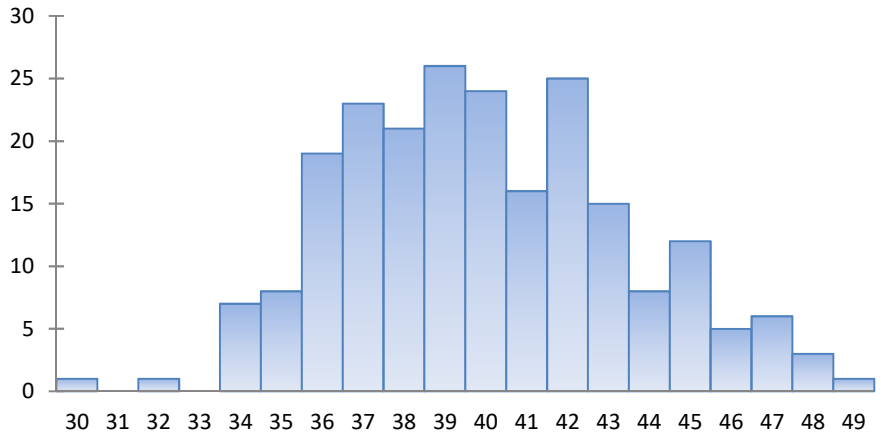
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** LOUISE AVE - Main St to Union Rd
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 9:55 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 221 |
| Speed Range | 30 - 49 MPH |
| 50th percentile speed | 40 MPH |
| 85th percentile speed | 44 MPH |
| 10 mph pace speed | 36 - 45 MPH |
| % in pace speed | 86% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 1 | 50 | 0 |
| 31 | 0 | 51 | 0 |
| 32 | 1 | 52 | 0 |
| 33 | 0 | 53 | 0 |
| 34 | 7 | 54 | 0 |
| 35 | 8 | 55 | 0 |
| 36 | 19 | 56 | 0 |
| 37 | 23 | 57 | 0 |
| 38 | 21 | 58 | 0 |
| 39 | 26 | 59 | 0 |
| 40 | 24 | 60 | 0 |
| 41 | 16 | 61 | 0 |
| 42 | 25 | 62 | 0 |
| 43 | 15 | 63 | 0 |
| 44 | 8 | 64 | 0 |
| 45 | 12 | 65 | 0 |
| 46 | 5 | 66 | 0 |
| 47 | 6 | 67 | 0 |
| 48 | 3 | 68 | 0 |
| 49 | 1 | 69 | 0 |
| TOTAL | 221 | | |

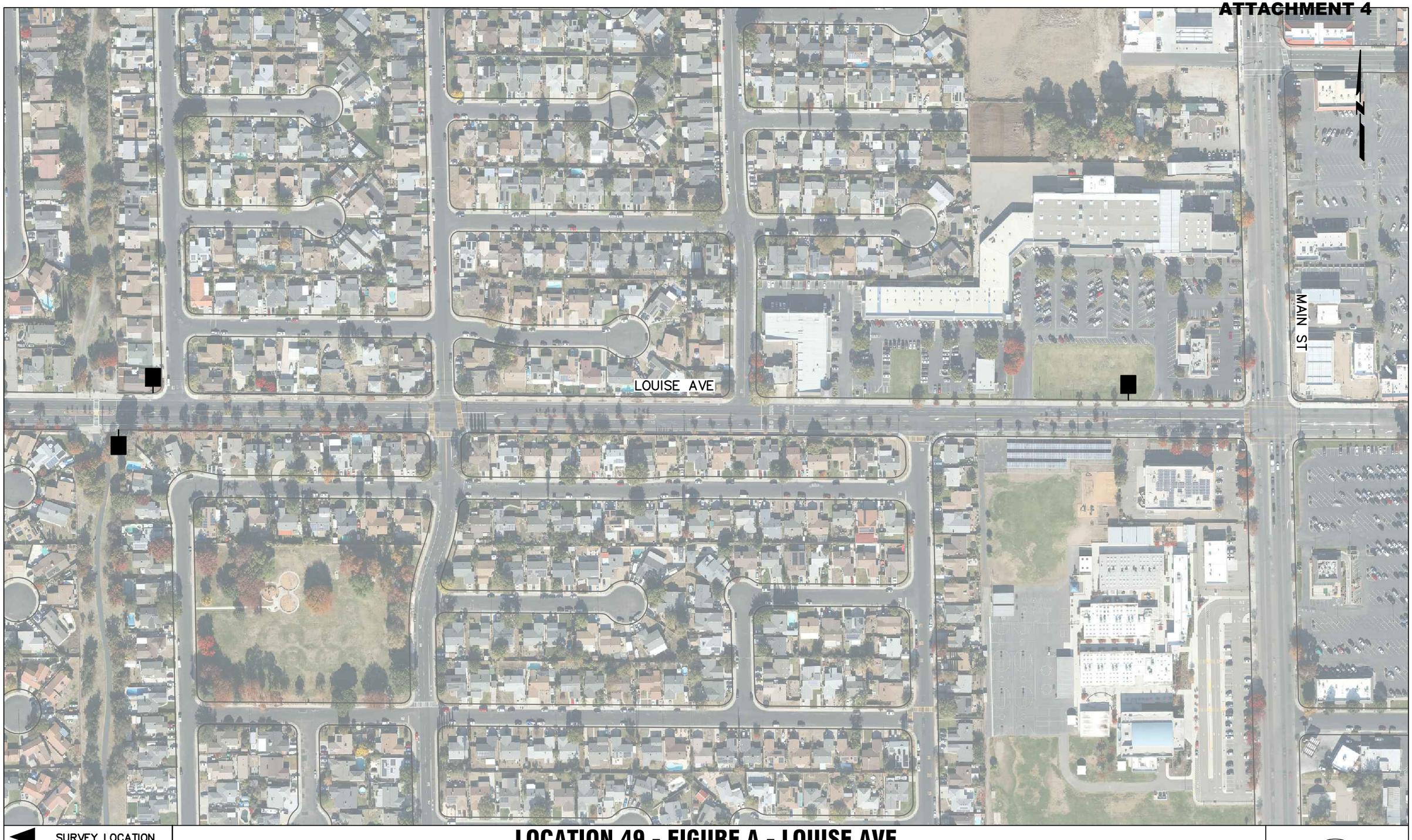
### ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 15,682 **Count Date:** 8/2/22
**Number of Collisions:** 11 **Time Period:** 3 years
**Calc. Collision Rate =** 0.64 collisions per million vehicle-miles **Expected Collisions Rate:** 1.10 c/mvm
**Street Width (ft):** 65 **Driveway** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 2 WB 2 **Adjacent Land Use:** Low Density Residential/ Commercial/Public/ Quasi Public/Park
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 44 mph indicates a 45 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph. The 10 mph pace ranges from 36 mph to 45 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 49 - FIGURE A - LOUISE AVE BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:00:39 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 49 - FIGURE B - LOUISE AVE
# BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:00:54 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

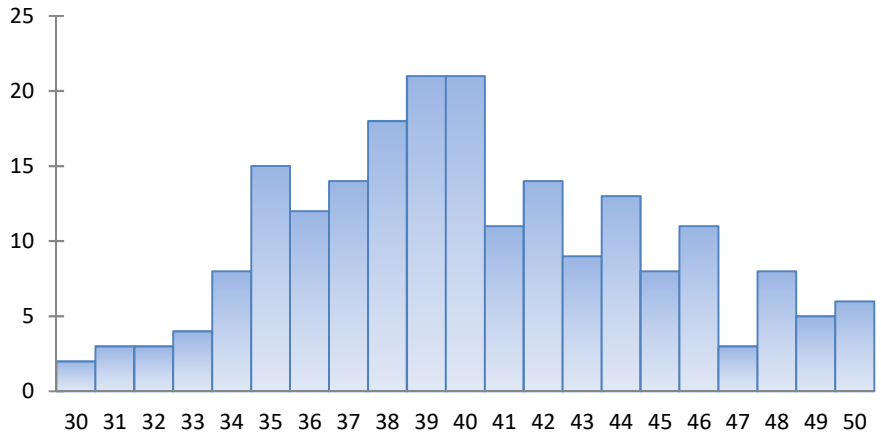
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** LOUISE AVE - Union Rd to 2550 ft. west of Airport Way
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 10:15 AM **End Time:** 11:05 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to pace speed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 209 |
| Speed Range | 30 - 50 MPH |
| 50th percentile speed | 40 MPH |
| 85th percentile speed | 46 MPH |
| 10 mph pace speed | 35 - 44 MPH |
| % in pace speed | 71% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 2 | 50 | 6 |
| 31 | 3 | 51 | 0 |
| 32 | 3 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| 34 | 8 | 54 | 0 |
| 35 | 15 | 55 | 0 |
| 36 | 12 | 56 | 0 |
| 37 | 14 | 57 | 0 |
| 38 | 18 | 58 | 0 |
| 39 | 21 | 59 | 0 |
| 40 | 21 | 60 | 0 |
| 41 | 11 | 61 | 0 |
| 42 | 14 | 62 | 0 |
| 43 | 9 | 63 | 0 |
| 44 | 13 | 64 | 0 |
| 45 | 8 | 65 | 0 |
| 46 | 11 | 66 | 0 |
| 47 | 3 | 67 | 0 |
| 48 | 8 | 68 | 0 |
| 49 | 5 | 69 | 0 |
| TOTAL | | | 209 |

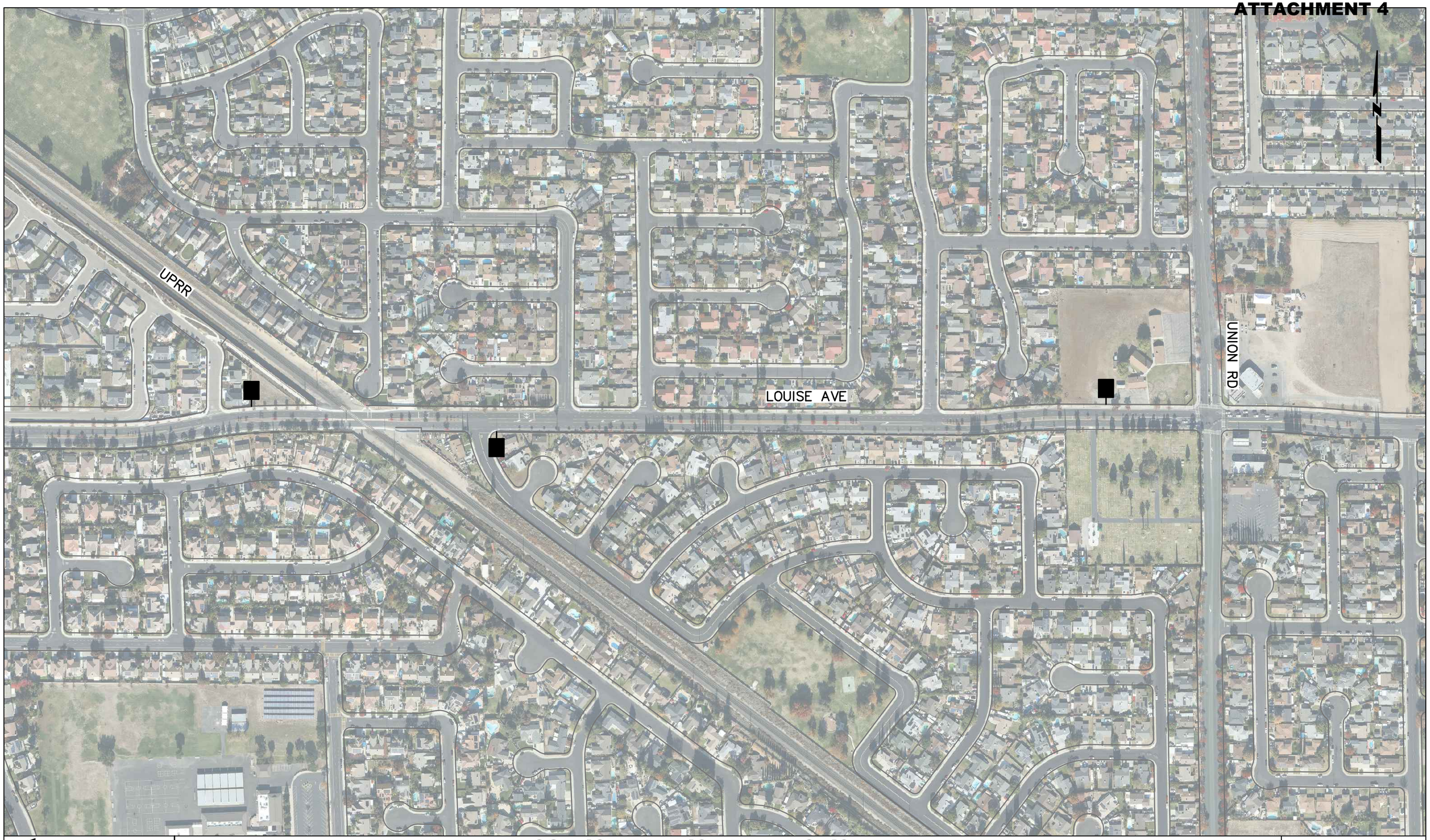
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.45 **ADT:** 13,080 **Count Date:** 7/21/22
**Number of Collisions:** 20 **Time Period:** 3 years
**Calc. Collision Rate =** 0.96 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 40 - 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** EB 1-2 WB 1-2 **Adjacent Land Use:** Low/High Density Residential/Commercial/ Commercial Mixed Use/Public/Quasi Public
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 46 mph indicates a 45 mph speed limit. However, due to pace speed, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 35 mph to 44 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 40 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

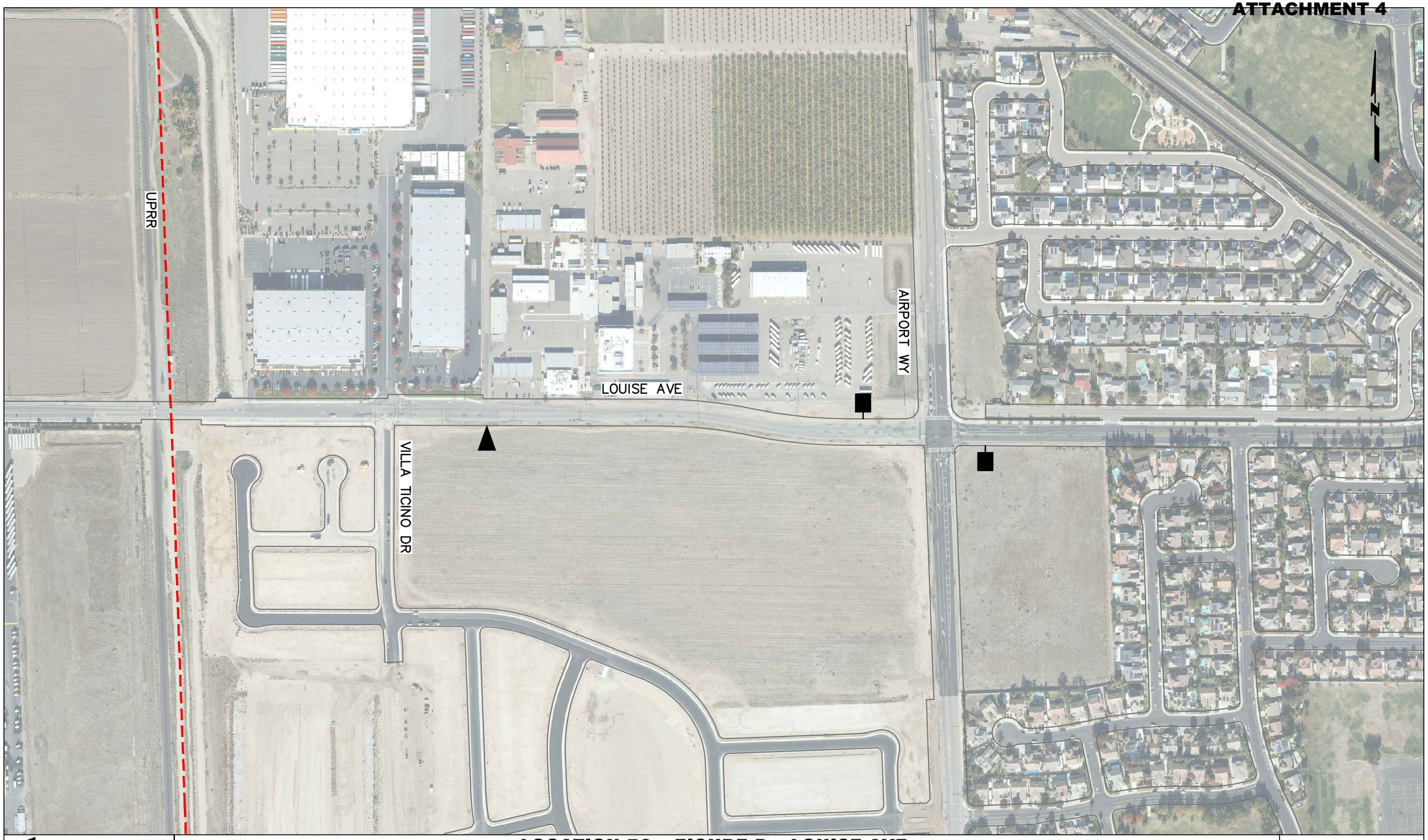
SCALE: NOT TO SCALE

# LOCATION 50 - FIGURE A - LOUISE AVE
# BETWEEN UNION RD AND WEST CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:01:10 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 50 - FIGURE B - LOUISE AVE BETWEEN UNION RD AND WEST CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

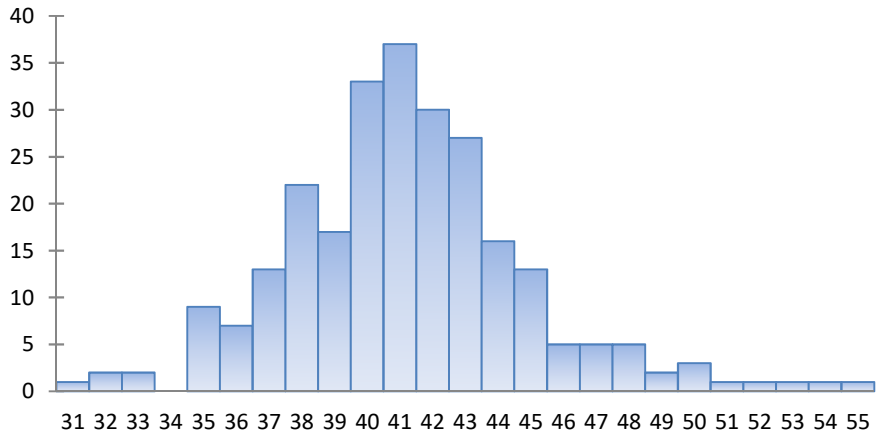
## VEHICLE SPEED DATA

**RECOMMENDED SPEED**
**40 MPH**

**Location:** MAIN STREET - Louise Ave to Lathrop Rd
**Posted Speed Limit:** 40 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 3/20/2023
**Weather:** Clear/Dry
**Begin Time:** 3:45 PM
**End Time:** 4:20 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 254 |
| Speed Range | 31 - 55 MPH |
| 50th percentile speed | 41 MPH |
| 85th percentile speed | 44 MPH |
| 10 mph pace speed | 36 - 45 MPH |
| % in pace speed | 85% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 0 | 50 | 3 |
| 31 | 1 | 51 | 1 |
| 32 | 2 | 52 | 1 |
| 33 | 2 | 53 | 1 |
| 34 | 0 | 54 | 1 |
| 35 | 9 | 55 | 1 |
| 36 | 7 | 56 | 0 |
| 37 | 13 | 57 | 0 |
| 38 | 22 | 58 | 0 |
| 39 | 17 | 59 | 0 |
| 40 | 33 | 60 | 0 |
| 41 | 37 | 61 | 0 |
| 42 | 30 | 62 | 0 |
| 43 | 27 | 63 | 0 |
| 44 | 16 | 64 | 0 |
| 45 | 13 | 65 | 0 |
| 46 | 5 | 66 | 0 |
| 47 | 5 | 67 | 0 |
| 48 | 5 | 68 | 0 |
| 49 | 2 | 69 | 0 |
| TOTAL | | | 254 |

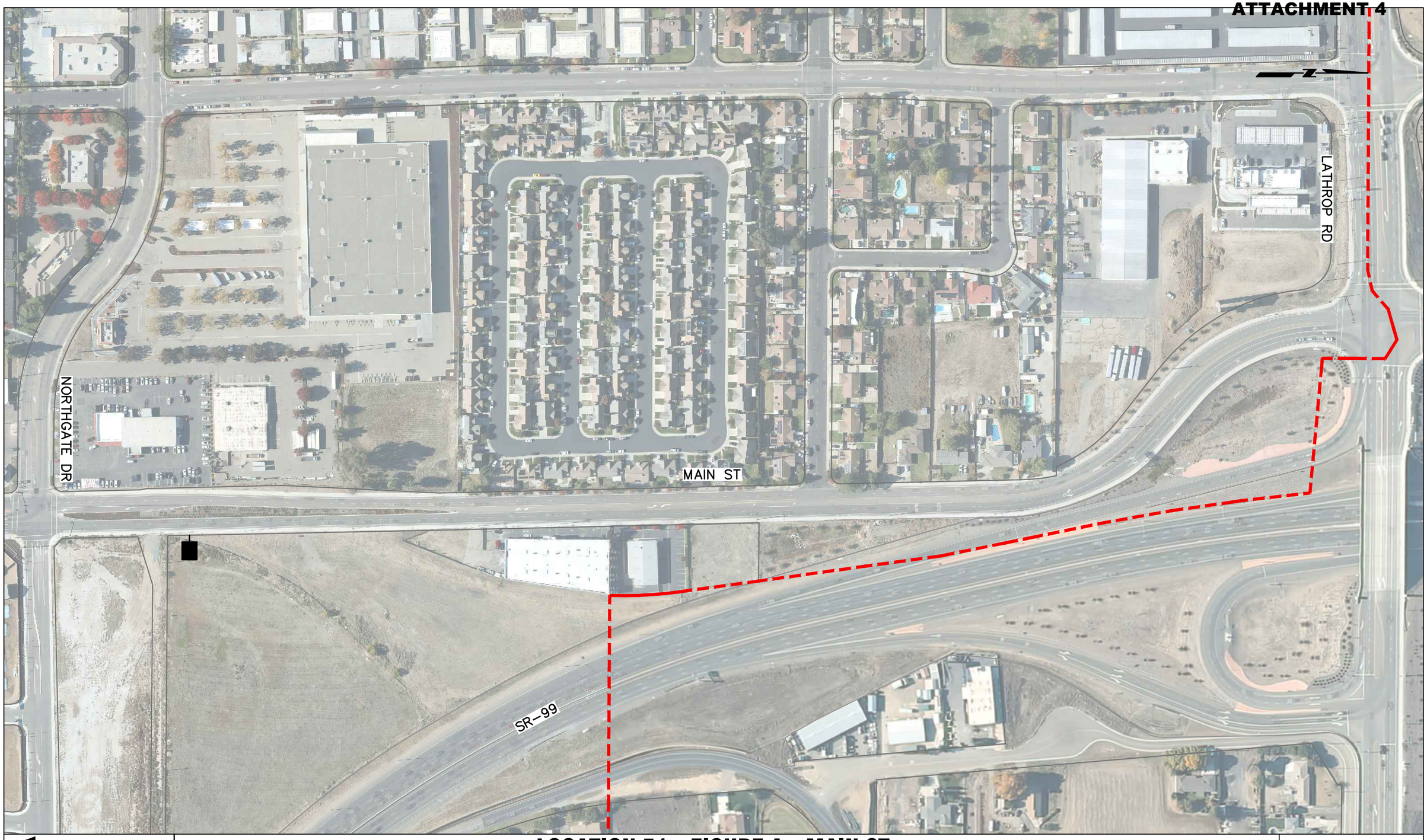
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.04
**ADT:** 13,435
**Count Date:** 9/14/22
**Number of Collisions:** 7
**Time Period:** 3 years
**Calc. Collision Rate =** 0.46 collisions per million vehicle-miles
**State Average Rate:** 1.10 c/mvm
**Street Width (ft):** 64 - 84
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** None
**Sidewalk:** Both Sides
**Bike Lanes:** Varies
**Number of Lanes:** NB 2 SB 2
**Adjacent Land Use:** Low/Medium Density Residential/Commercial/ Commercial Mixed Use/Public/Quasi Public
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 44 mph indicates a 45 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. No further reduction is allowed. Therefore, it is recommended that the posted speed limit remains at 40 mph. The 10 mph pace ranges from 36 mph to 45 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 51 - FIGURE A - MAIN ST
# BETWEEN LOUISE AVE AND LATHROP RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:01:45 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 51 - FIGURE B - MAIN ST
# BETWEEN LOUISE AVE AND LATHROP RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

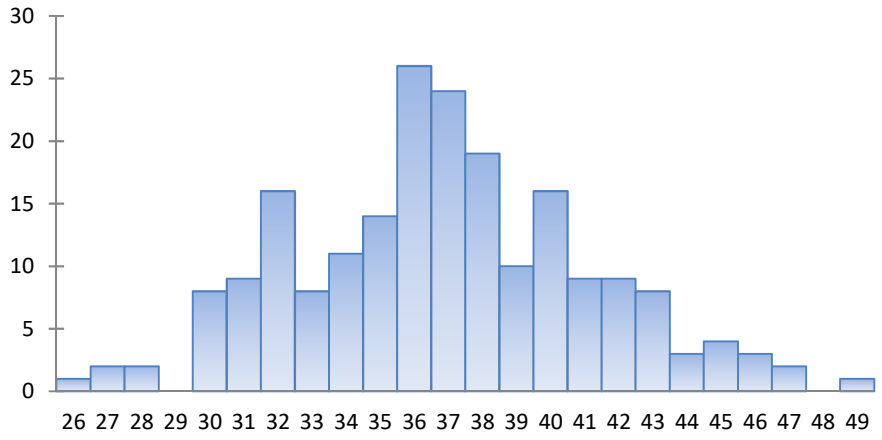
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** MAIN STREET - Louise Ave to Alameda St
**Posted Speed Limit:** 40 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 7/6/2022
**Weather:** Clear/Dry
**Begin Time:** 11:30 AM
**End Time:** 12:05 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 205 |
| Speed Range | 26 - 49 MPH |
| 50th percentile speed | 37 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 31 - 40 MPH |
| % in pace speed | 75% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 25 | 0 | 45 | 4 |
| 26 | 1 | 46 | 3 |
| 27 | 2 | 47 | 2 |
| 28 | 2 | 48 | 0 |
| 29 | 0 | 49 | 1 |
| 30 | 8 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 16 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| 34 | 11 | 54 | 0 |
| 35 | 14 | 55 | 0 |
| 36 | 26 | 56 | 0 |
| 37 | 24 | 57 | 0 |
| 38 | 19 | 58 | 0 |
| 39 | 10 | 59 | 0 |
| 40 | 16 | 60 | 0 |
| 41 | 9 | 61 | 0 |
| 42 | 9 | 62 | 0 |
| 43 | 8 | 63 | 0 |
| 44 | 3 | 64 | 0 |
| TOTAL | 205 | | |

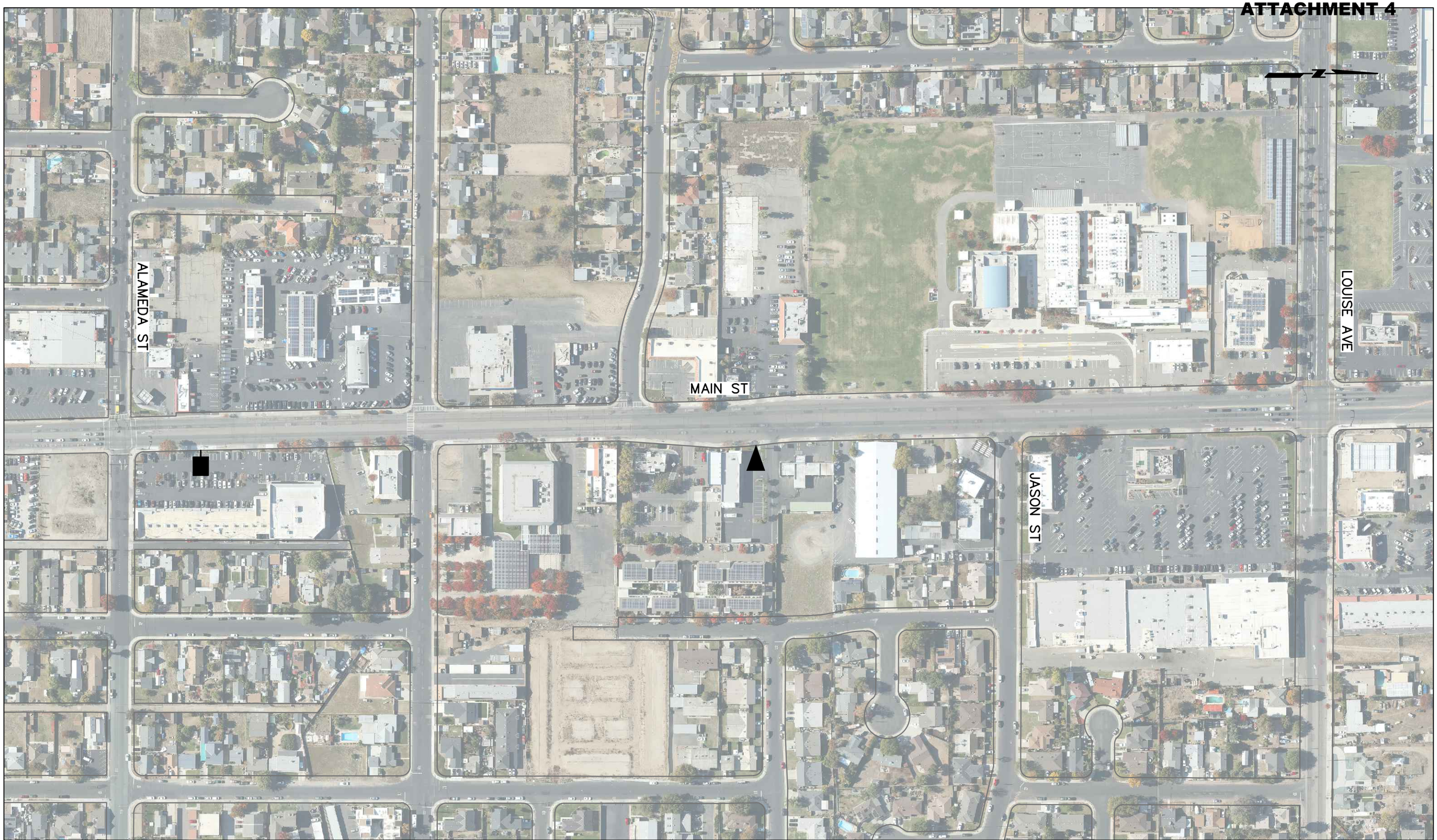
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.50
**ADT:** 20,867
**Count Date:** 8/4/22
**Number of Collisions:** 9
**Time Period:** 3 years
**Calc. Collision Rate =** 0.79 collisions per million vehicle-miles
**Expected Collisions Rate:** 1.10 c/mvm
**Street Width (ft):** 64 - 84
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Varies
**Sidewalk:** Both Sides
**Bike Lanes:** None
**Number of Lanes:** NB 2 SB 2
**Adjacent Land Use:** Commercial/Public/ Quasi Public
**Divided Median:** TWLTL
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 52 - MAIN ST
# BETWEEN LOUISE AVE AND ALAMEDA ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:02:25 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

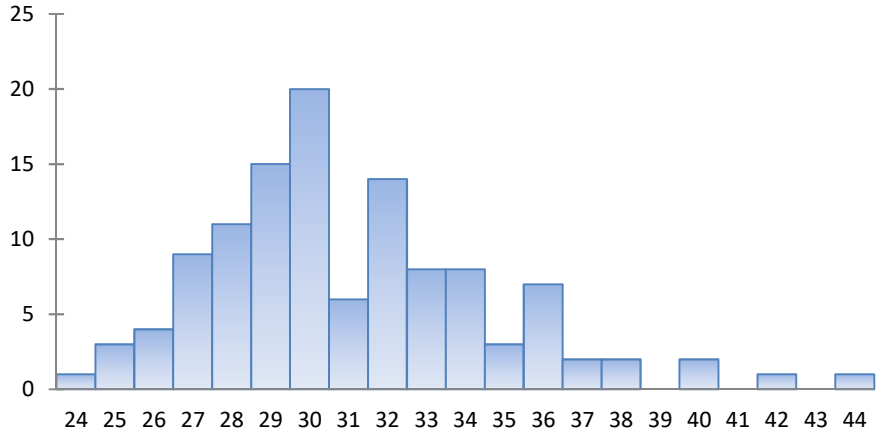
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** MAIN STREET - Alameda St to Wetmore St
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/7/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:00 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to uncontrolled crosswalk, and the lack of continuous bike lanes north of Yosemite Ave.

### Summary Statistics

| | |
|---|---|
| Total Observed | 117 |
| Speed Range | 24 - 44 MPH |
| 50th percentile speed | 30 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 86% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 2 |
| 21 | 0 | 41 | 0 |
| 22 | 0 | 42 | 1 |
| 23 | 0 | 43 | 0 |
| 24 | 1 | 44 | 1 |
| 25 | 3 | 45 | 0 |
| 26 | 4 | 46 | 0 |
| 27 | 9 | 47 | 0 |
| 28 | 11 | 48 | 0 |
| 29 | 15 | 49 | 0 |
| 30 | 20 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 14 | 52 | 0 |
| 33 | 8 | 53 | 0 |
| 34 | 8 | 54 | 0 |
| 35 | 3 | 55 | 0 |
| 36 | 7 | 56 | 0 |
| 37 | 2 | 57 | 0 |
| 38 | 2 | 58 | 0 |
| 39 | 0 | 59 | 0 |
| TOTAL | | | 117 |

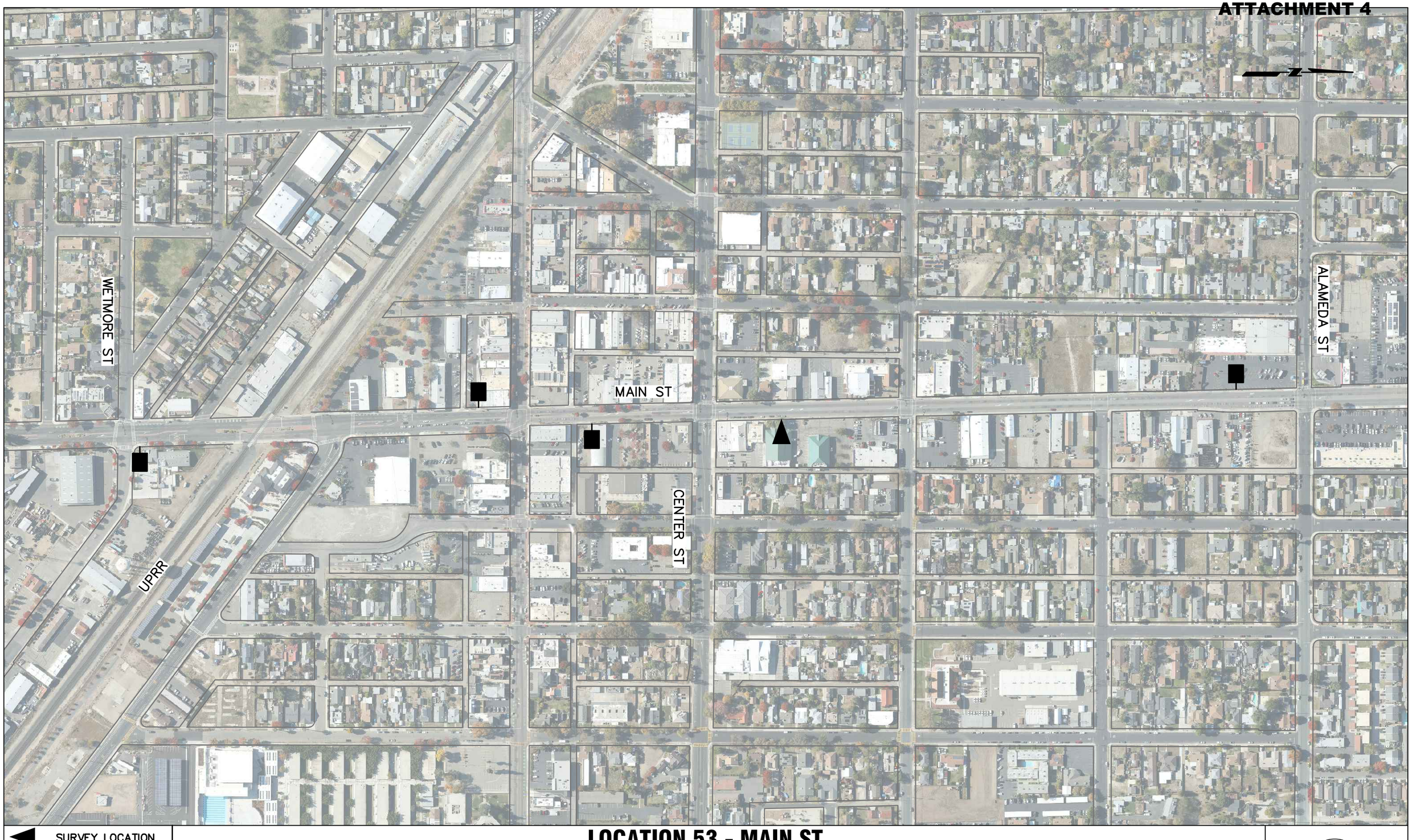
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.78 **ADT:** 14,836 **Count Date:** 7/28/22
**Number of Collisions:** 19 **Time Period:** 3 years
**Calc. Collision Rate =** 1.50 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 - 70 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** NB 1-2 SB 1-2 **Adjacent Land Use:** Downtown
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. However, due to uncontrolled crosswalk, and the lack of continuous bike lanes north of Yosemite Ave, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls within this range. The collision rate is slightly above the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 53 - MAIN ST
# BETWEEN ALAMEDA ST AND WETMORE ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 01-53.dwg, 4/20/2023 9:02:45 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

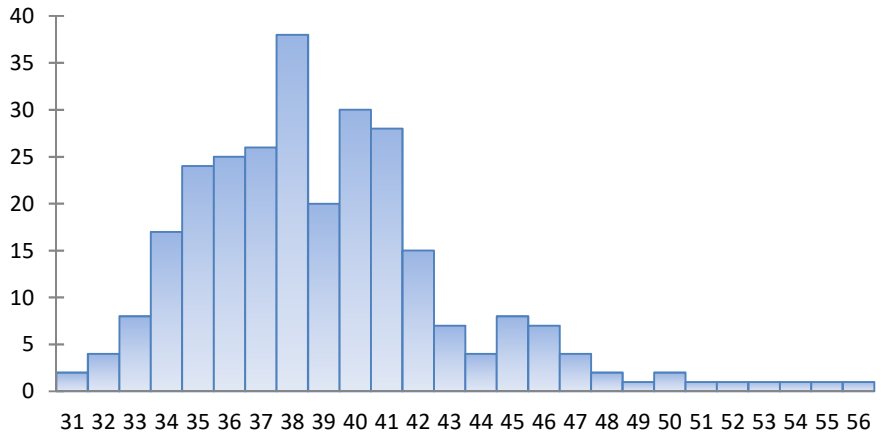
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** MAIN STREET - Wetmore St to Atherton Dr
**Posted Speed Limit:** 35 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 3/20/2023
**Weather:** Clear/Dry
**Begin Time:** 4:25 PM
**End Time:** 4:50 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 278 |
| Speed Range | 31 - 56 MPH |
| 50th percentile speed | 38 MPH |
| 85th percentile speed | 42 MPH |
| 10 mph pace speed | 33 - 42 MPH |
| % in pace speed | 83% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 30 |
| 21 | 0 | 41 | 28 |
| 22 | 0 | 42 | 15 |
| 23 | 0 | 43 | 7 |
| 24 | 0 | 44 | 4 |
| 25 | 0 | 45 | 8 |
| 26 | 0 | 46 | 7 |
| 27 | 0 | 47 | 4 |
| 28 | 0 | 48 | 2 |
| 29 | 0 | 49 | 1 |
| 30 | 0 | 50 | 2 |
| 31 | 2 | 51 | 1 |
| 32 | 4 | 52 | 1 |
| 33 | 8 | 53 | 1 |
| 34 | 17 | 54 | 1 |
| 35 | 24 | 55 | 1 |
| 36 | 25 | 56 | 1 |
| 37 | 26 | 57 | 0 |
| 38 | 38 | 58 | 0 |
| 39 | 20 | 59 | 0 |
| TOTAL | | | 278 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.01
**ADT:** 17,175
**Count Date:** 9/8/22
**Number of Collisions:** 18
**Time Period:** 3 years
**Calc. Collision Rate =** 0.95 collisions per million vehicle-miles
**State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 34 - 94
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Varies
**Sidewalk:** Varies
**Bike Lanes:** Varies
**Number of Lanes:** NB 1-2 SB 1-2
**Adjacent Land Use:** Commercial/ Commercial Mixed Use/Industrial
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to the fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 33 mph to 42 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

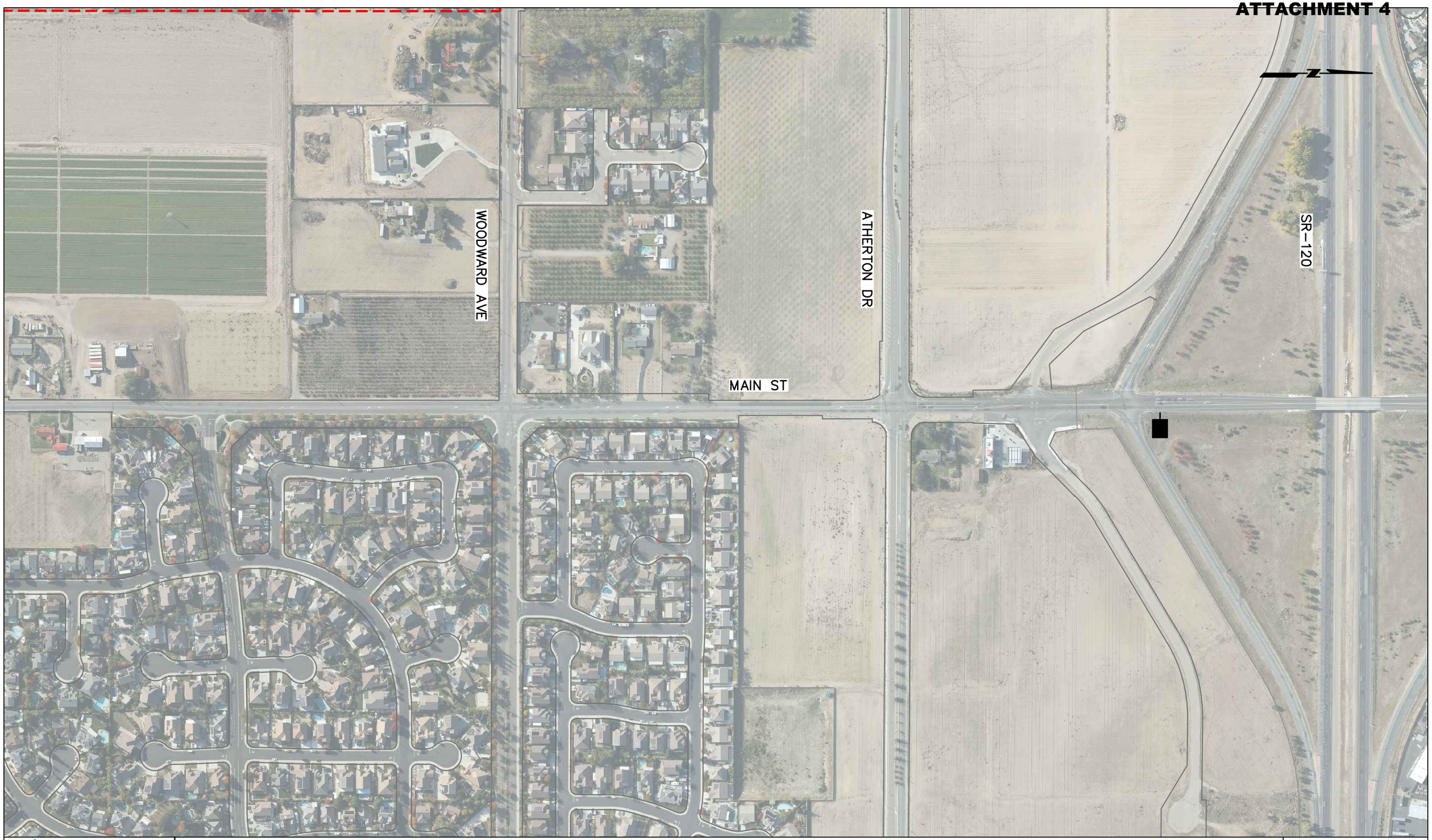
SCALE: NOT TO SCALE

# LOCATION 54 - FIGURE A - MAIN ST
# BETWEEN WETMORE ST AND ATHERTON DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 54 - FIGURE B - MAIN ST
# BETWEEN WETMORE ST AND ATHERTON DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:04:00 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

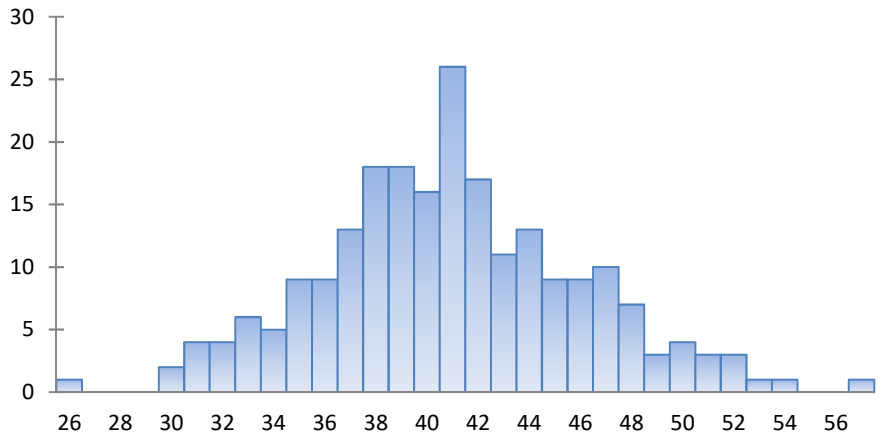
**RECOMMENDED SPEED LIMIT**

**40 MPH**

**Location:** MAIN STREET between Woodward Ave and Sedan Ave
**Posted Speed Limit:** SB 40 MPH - NB 40/45/55 MPH
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 10:25 AM **End Time:** 11:00 AM
**Speed Limit Change:** Yes
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to pace speed and fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 223 |
| Speed Range | 26 - 57 MPH |
| 50th percentile speed | 41 MPH |
| 85th percentile speed | 46 MPH |
| 10 mph pace speed | 35 - 44 MPH |
| % in pace speed | 67% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 16 |
| 21 | 0 | 41 | 26 |
| 22 | 0 | 42 | 17 |
| 23 | 0 | 43 | 11 |
| 24 | 0 | 44 | 13 |
| 25 | 0 | 45 | 9 |
| 26 | 1 | 46 | 9 |
| 27 | 0 | 47 | 10 |
| 28 | 0 | 48 | 7 |
| 29 | 0 | 49 | 3 |
| 30 | 2 | 50 | 4 |
| 31 | 4 | 51 | 3 |
| 32 | 4 | 52 | 3 |
| 33 | 6 | 53 | 1 |
| 34 | 5 | 54 | 1 |
| 35 | 9 | 55 | 0 |
| 36 | 9 | 56 | 0 |
| 37 | 13 | 57 | 1 |
| 38 | 18 | 58 | 0 |
| 39 | 18 | 59 | 0 |
| TOTAL | | | 223 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.50 **ADT:** 10,275 **Count Date:** 7/12/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 24 - 80 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** NB 1-2 SB 1-2 **Adjacent Land Use:** Low Density Residential/Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 46 mph indicates a 45 mph speed limit. However, due to pace speed and fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 35 mph to 44 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit becomes 40 mph.

ATTACHMENT 4




| | |
|---|---|
| SURVEY LOCATION | |
| SPEED LIMIT SIGN | |
| CITY LIMITS | |
| SCALE: NOT TO SCALE | |

# LOCATION 55 - FIGURE A - MAIN ST
# BETWEEN WOODWARD AVE AND SOUTH CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 55 - FIGURE B - MAIN ST
# BETWEEN WOODWARD AVE AND SOUTH CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

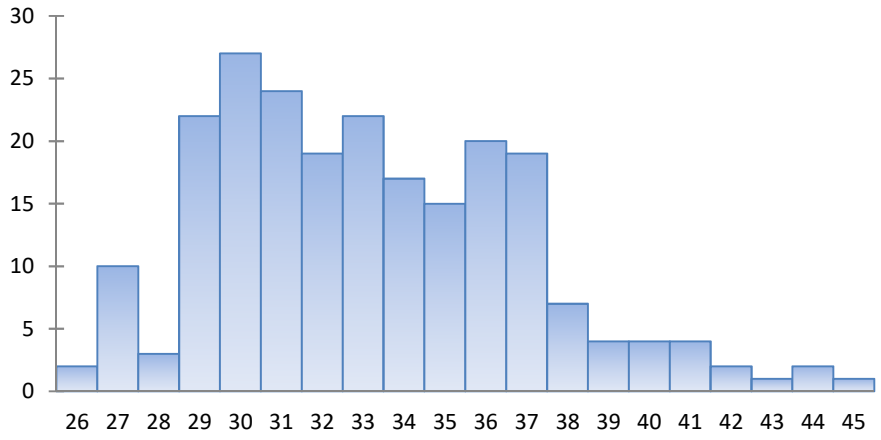
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** MISSION RIDGE DRIVE - Main St to Union Rd
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 3/27/2023 **Weather:** Clear/Dry
**Begin Time:** 2:20 PM **End Time:** 3:00 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district and proximity to park.

### Summary Statistics

| | |
|---|---|
| Total Observed | 225 |
| Speed Range | 26 - 45 MPH |
| 50th percentile speed | 33 MPH |
| 85th percentile speed | 37 MPH |
| 10 mph pace speed | 29 - 38 MPH |
| % in pace speed | 85% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 4 |
| 21 | 0 | 41 | 4 |
| 22 | 0 | 42 | 2 |
| 23 | 0 | 43 | 1 |
| 24 | 0 | 44 | 2 |
| 25 | 0 | 45 | 1 |
| 26 | 2 | 46 | 0 |
| 27 | 10 | 47 | 0 |
| 28 | 3 | 48 | 0 |
| 29 | 22 | 49 | 0 |
| 30 | 27 | 50 | 0 |
| 31 | 24 | 51 | 0 |
| 32 | 19 | 52 | 0 |
| 33 | 22 | 53 | 0 |
| 34 | 17 | 54 | 0 |
| 35 | 15 | 55 | 0 |
| 36 | 20 | 56 | 0 |
| 37 | 19 | 57 | 0 |
| 38 | 7 | 58 | 0 |
| 39 | 4 | 59 | 0 |
| TOTAL | | | 225 |

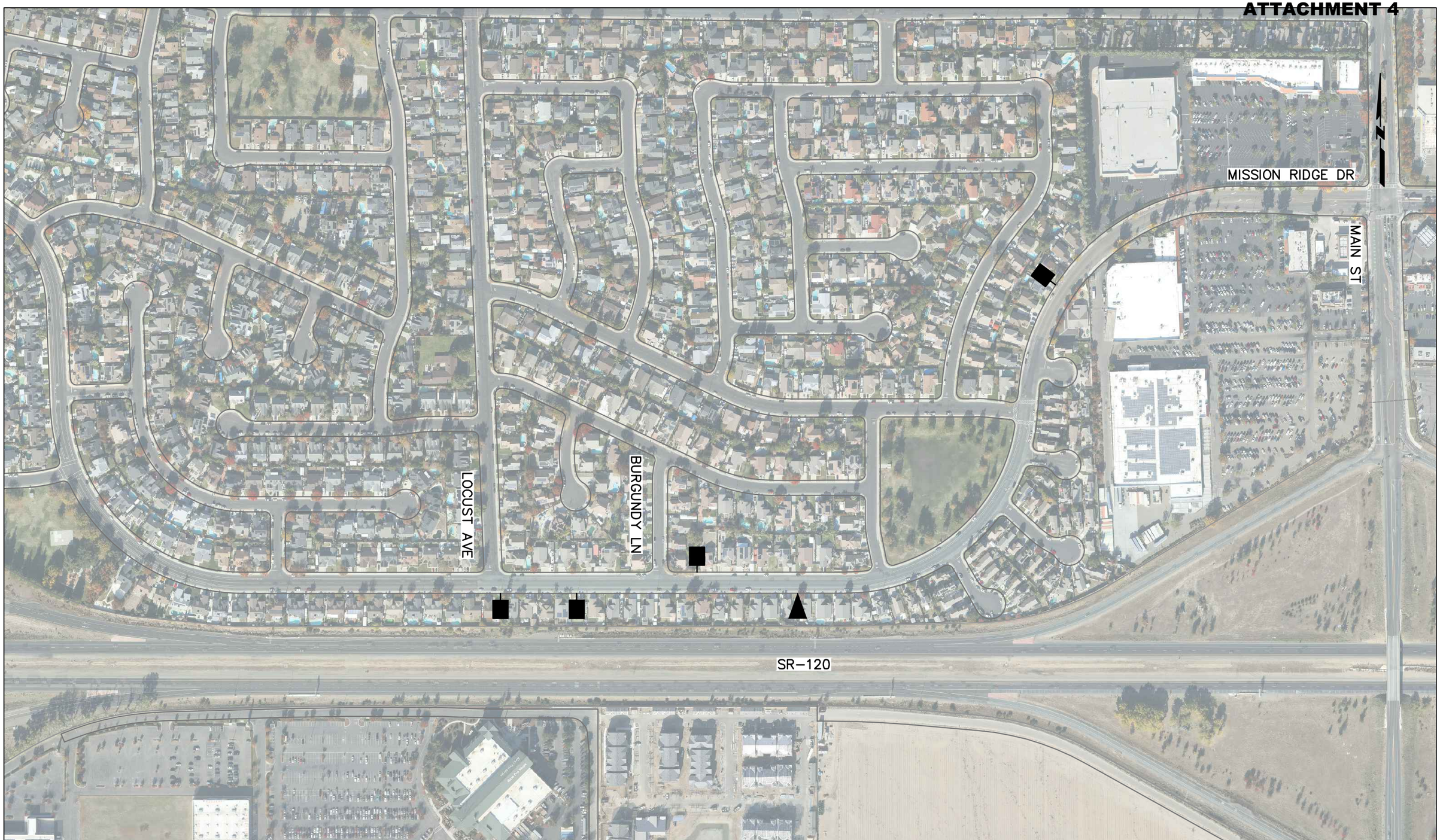
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.31 **ADT:** 2,915 **Count Date:** 8/31/22
**Number of Collisions:** 5 **Time Period:** 3 years
**Calc. Collision Rate =** 1.20 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 55 - 81 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1-2 **Adjacent Land Use:** Low Density Residential/Park/ Commercial
**Divided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. However, due to fronting residential district and proximity to park, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 29 mph to 38 mph and the recommended speed limit falls within this range. The collision rate is slightly above the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 56 - FIGURE A - MISSION RIDGE DR BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 56 - FIGURE B - MISSION RIDGE DR BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

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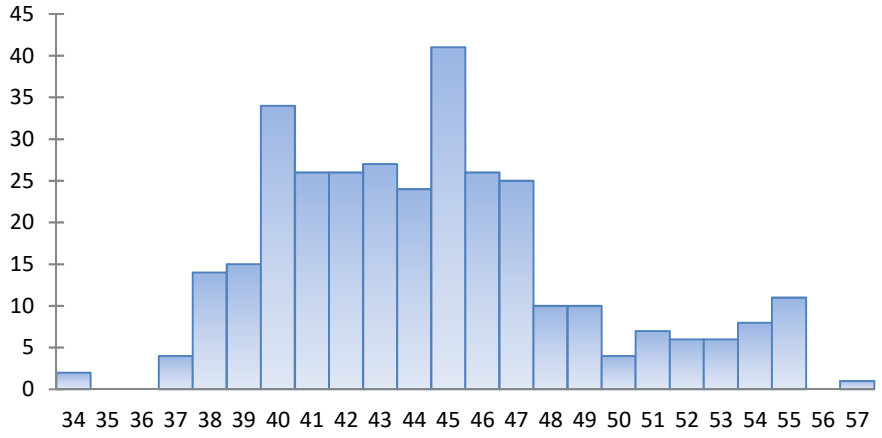
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** MOFFAT BOULEVARD - Austin Rd to Powers Ave
**Posted Speed Limit:** 45 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 4/5/2023
**Weather:** Clear/Dry
**Begin Time:** 10:40 AM
**End Time:** 11:30 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 327 |
| Speed Range | 34 - 57 MPH |
| 50th percentile speed | 44 MPH |
| 85th percentile speed | 49 MPH |
| 10 mph pace speed | 38 - 47 MPH |
| % in pace speed | 79% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 0 | 50 | 4 |
| 31 | 0 | 51 | 7 |
| 32 | 0 | 52 | 6 |
| 33 | 0 | 53 | 6 |
| 34 | 2 | 54 | 8 |
| 35 | 0 | 55 | 11 |
| 36 | 0 | 56 | 0 |
| 37 | 4 | 57 | 1 |
| 38 | 14 | 58 | 0 |
| 39 | 15 | 59 | 0 |
| 40 | 34 | 60 | 0 |
| 41 | 26 | 61 | 0 |
| 42 | 26 | 62 | 0 |
| 43 | 27 | 63 | 0 |
| 44 | 24 | 64 | 0 |
| 45 | 41 | 65 | 0 |
| 46 | 26 | 66 | 0 |
| 47 | 25 | 67 | 0 |
| 48 | 10 | 68 | 0 |
| 49 | 10 | 69 | 0 |
| TOTAL | | | 327 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.80
**ADT:** 6,301
**Count Date:** 7/12/22
**Number of Collisions:** 13
**Time Period:** 3 years
**Calc. Collision Rate =** 1.05 collisions per million vehicle-miles
**State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 30 - 64
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Varies
**Sidewalk:** Varies
**Bike Lanes:** None
**Number of Lanes:** EB 1-2 WB 1
**Divided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** Yes
**Adjacent Land Use:** Commercial/Park/ Industrial/Business Industrial Park/ Public/Quasi Public

**Comments:**

Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. No further reduction is allowed. Therefore, it is recommended that the posted speed limit remains at 45 mph. The 10 mph pace ranges from 38 mph to 47 mph, and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 57 - FIGURE A - MOFFAT BLVD BETWEEN AUSTIN RD AND POWERS AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 57 - FIGURE B - MOFFAT BLVD BETWEEN AUSTIN RD AND POWERS AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 57 - FIGURE C - MOFFAT BLVD BETWEEN AUSTIN RD AND POWERS AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:06:05 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

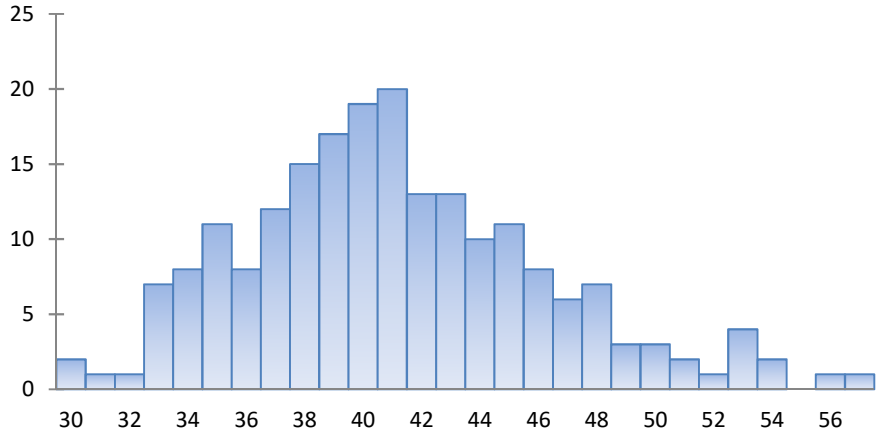
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** MOFFAT BOULEVARD - Powers Ave to Main St
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/29/2022 **Weather:** Clear/Dry
**Begin Time:** 2:30 PM **End Time:** 3:20 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to pace speed, uncontrolled crosswalk, and pedestrians crossing the road to access transit center.

### Summary Statistics

| | |
|---|---|
| Total Observed | 206 |
| Speed Range | 30 - 57 MPH |
| 50th percentile speed | 41 MPH |
| 85th percentile speed | 46 MPH |
| 10 mph pace speed | 35 - 44 MPH |
| % in pace speed | 67% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 30 | 2 | 50 | 3 |
| 31 | 1 | 51 | 2 |
| 32 | 1 | 52 | 1 |
| 33 | 7 | 53 | 4 |
| 34 | 8 | 54 | 2 |
| 35 | 11 | 55 | 0 |
| 36 | 8 | 56 | 1 |
| 37 | 12 | 57 | 1 |
| 38 | 15 | 58 | 0 |
| 39 | 17 | 59 | 0 |
| 40 | 19 | 60 | 0 |
| 41 | 20 | 61 | 0 |
| 42 | 13 | 62 | 0 |
| 43 | 13 | 63 | 0 |
| 44 | 10 | 64 | 0 |
| 45 | 11 | 65 | 0 |
| 46 | 8 | 66 | 0 |
| 47 | 6 | 67 | 0 |
| 48 | 7 | 68 | 0 |
| 49 | 3 | 69 | 0 |
| TOTAL | | | 206 |

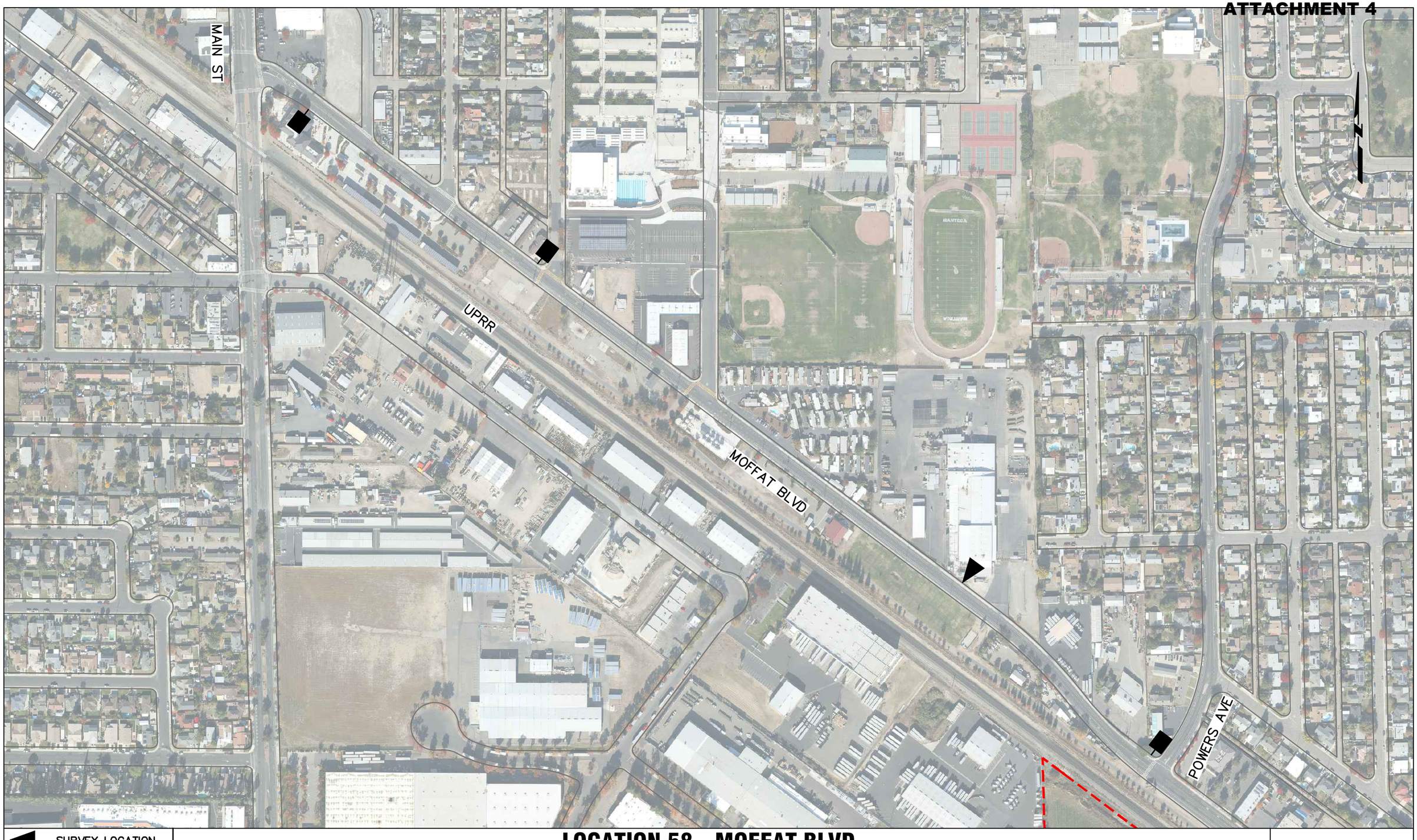
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.73 **ADT:** 6,475 **Count Date:** 9/8/22
**Number of Collisions:** 4 **Time Period:** 3 years
**Calc. Collision Rate =** 0.77 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 47 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Commercial/Medium Density Residential/ Downtown/ Industrial
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 46 mph indicates a 45 mph speed limit. However, due to pace speed, uncontrolled crosswalk, and pedestrians crossing the road to access transit center, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 35 mph to 44 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 58 - MOFFAT BLVD
# BETWEEN POWERS AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

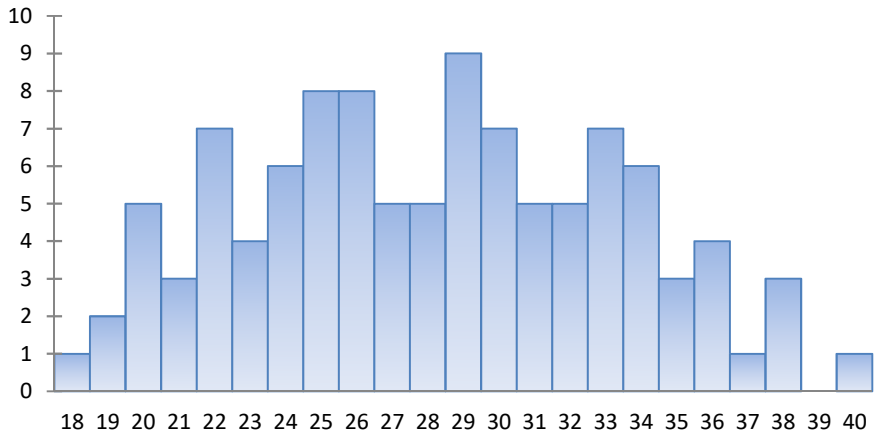
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** MONO STREET - Pillsbury Rd to Springfield Dr
**Posted Speed Limit:** None
**Direction:** Both **Recorder:** NDS
**Survey Date:** 11/29/2022 **Weather:** Clear/Dry
**Begin Time:** 10:50 AM **End Time:** 1:15 PM
**Speed Limit Change:** Yes
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 105 |
| Speed Range | 18 - 40 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 34 MPH |
| 10 mph pace speed | 24 - 33 MPH |
| % in pace speed | 62% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 14 | 0 | 34 | 6 |
| 15 | 0 | 35 | 3 |
| 16 | 0 | 36 | 4 |
| 17 | 0 | 37 | 1 |
| 18 | 1 | 38 | 3 |
| 19 | 2 | 39 | 0 |
| 20 | 5 | 40 | 1 |
| 21 | 3 | 41 | 0 |
| 22 | 7 | 42 | 0 |
| 23 | 4 | 43 | 0 |
| 24 | 6 | 44 | 0 |
| 25 | 8 | 45 | 0 |
| 26 | 8 | 46 | 0 |
| 27 | 5 | 47 | 0 |
| 28 | 5 | 48 | 0 |
| 29 | 9 | 49 | 0 |
| 30 | 7 | 50 | 0 |
| 31 | 5 | 51 | 0 |
| 32 | 5 | 52 | 0 |
| 33 | 7 | 53 | 0 |
| TOTAL | | | 105 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.71 **ADT:** 757 **Count Date:** 7/12/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 44 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low Density Residential/Park
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 34 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit becomes 25 mph. The 10 mph pace ranges from 24 mph to 33 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 59 - MONO ST
# BETWEEN PILLSBURY RD AND SPRINGFIELD DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

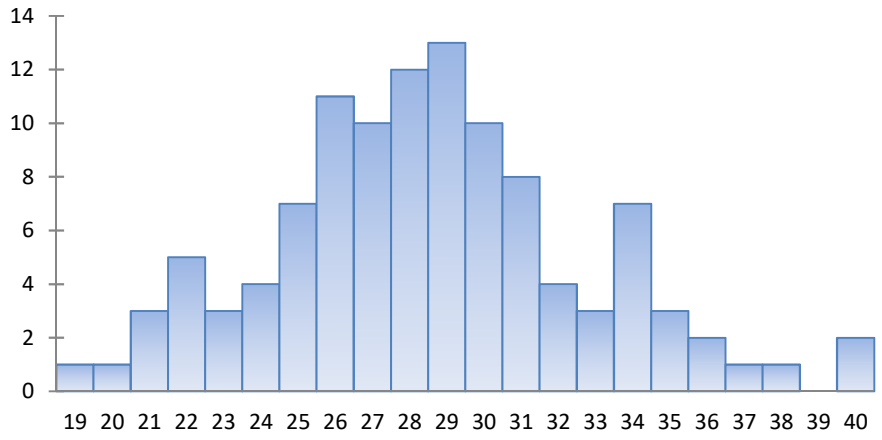
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** NEHEMIAH DRIVE - 1275 ft. east of Pestana Ave to Button Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 10:10 AM **End Time:** 11:30 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 111 |
| Speed Range | 19 - 40 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 33 MPH |
| 10 mph pace speed | 25 - 34 MPH |
| % in pace speed | 77% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 14 | 0 | 34 | 7 |
| 15 | 0 | 35 | 3 |
| 16 | 0 | 36 | 2 |
| 17 | 0 | 37 | 1 |
| 18 | 0 | 38 | 1 |
| 19 | 1 | 39 | 0 |
| 20 | 1 | 40 | 2 |
| 21 | 3 | 41 | 0 |
| 22 | 5 | 42 | 0 |
| 23 | 3 | 43 | 0 |
| 24 | 4 | 44 | 0 |
| 25 | 7 | 45 | 0 |
| 26 | 11 | 46 | 0 |
| 27 | 10 | 47 | 0 |
| 28 | 12 | 48 | 0 |
| 29 | 13 | 49 | 0 |
| 30 | 10 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 4 | 52 | 0 |
| 33 | 3 | 53 | 0 |
| TOTAL | | | 111 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.54 **ADT:** 869 **Count Date:** 7/14/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low/High Density Residential
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 33 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit becomes 25 mph. The 10 mph pace ranges from 25 mph to 34 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 60 - NEHEMIAH DR
# BETWEEN EAST END AND BUTTON AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

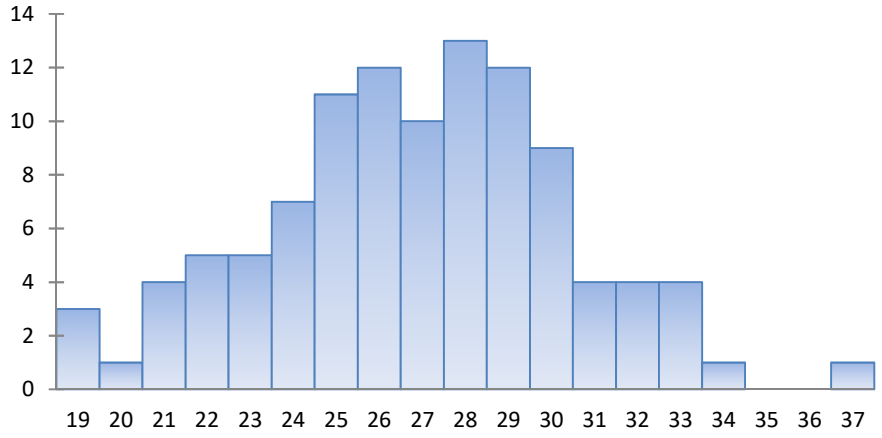
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** NORTH STREET - Lovell Way to Cottage Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/28/2022 **Weather:** Clear/Dry
**Begin Time:** 11:05 AM **End Time:** 12:05 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and the collision rate exceeding expected collisions rate.

### Summary Statistics

| | |
|---|---|
| Total Observed | 106 |
| Speed Range | 19 - 37 MPH |
| 50th percentile speed | 27 MPH |
| 85th percentile speed | 30 MPH |
| 10 mph pace speed | 21 - 30 MPH |
| % in pace speed | 83% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 14 | 0 | 34 | 1 |
| 15 | 0 | 35 | 0 |
| 16 | 0 | 36 | 0 |
| 17 | 0 | 37 | 1 |
| 18 | 0 | 38 | 0 |
| 19 | 3 | 39 | 0 |
| 20 | 1 | 40 | 0 |
| 21 | 4 | 41 | 0 |
| 22 | 5 | 42 | 0 |
| 23 | 5 | 43 | 0 |
| 24 | 7 | 44 | 0 |
| 25 | 11 | 45 | 0 |
| 26 | 12 | 46 | 0 |
| 27 | 10 | 47 | 0 |
| 28 | 13 | 48 | 0 |
| 29 | 12 | 49 | 0 |
| 30 | 9 | 50 | 0 |
| 31 | 4 | 51 | 0 |
| 32 | 4 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| TOTAL | | | 106 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.26 **ADT:** 4,055 **Count Date:** 7/14/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 1.73 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 41 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Medium/High Density Residential/Commercial/ Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 30 mph indicates a 30 mph speed limit. However, due to fronting residential district, uncontrolled crosswalk, and the collision rate exceeding expected collisions rate, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 21 mph to 30 mph and the recommended speed limit falls within this range. Therefore, it is recommended that the posted speed limit remains at 25 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 61 - NORTH ST
# BETWEEN LOVELL WAY AND COTTAGE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:07:10 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

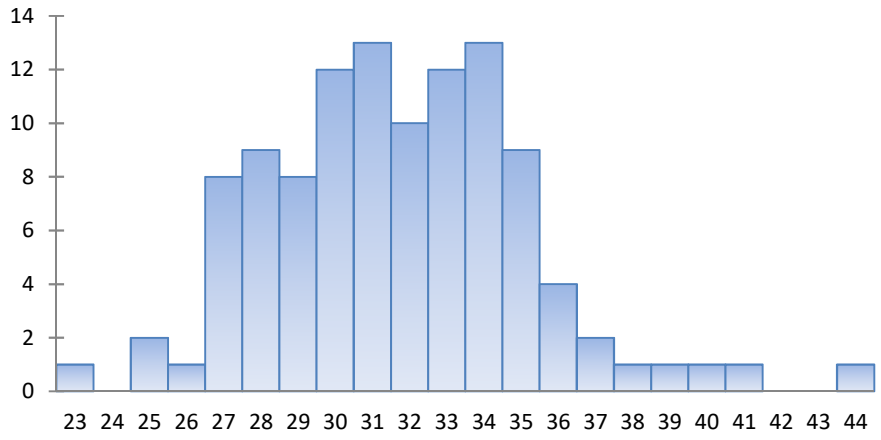
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** NORTH STREET - Cottage Ave to Main St
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/28/2022 **Weather:** Clear/Dry
**Begin Time:** 9:45 AM **End Time:** 10:45 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district, uncontrolled crosswalk, and lack of continuous bike lane.

### Summary Statistics

| | |
|---|---|
| Total Observed | 109 |
| Speed Range | 23 - 44 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 90% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 14 | 0 | 34 | 13 |
| 15 | 0 | 35 | 9 |
| 16 | 0 | 36 | 4 |
| 17 | 0 | 37 | 2 |
| 18 | 0 | 38 | 1 |
| 19 | 0 | 39 | 1 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 0 |
| 23 | 1 | 43 | 0 |
| 24 | 0 | 44 | 1 |
| 25 | 2 | 45 | 0 |
| 26 | 1 | 46 | 0 |
| 27 | 8 | 47 | 0 |
| 28 | 9 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 12 | 50 | 0 |
| 31 | 13 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 12 | 53 | 0 |
| TOTAL | | | 109 |

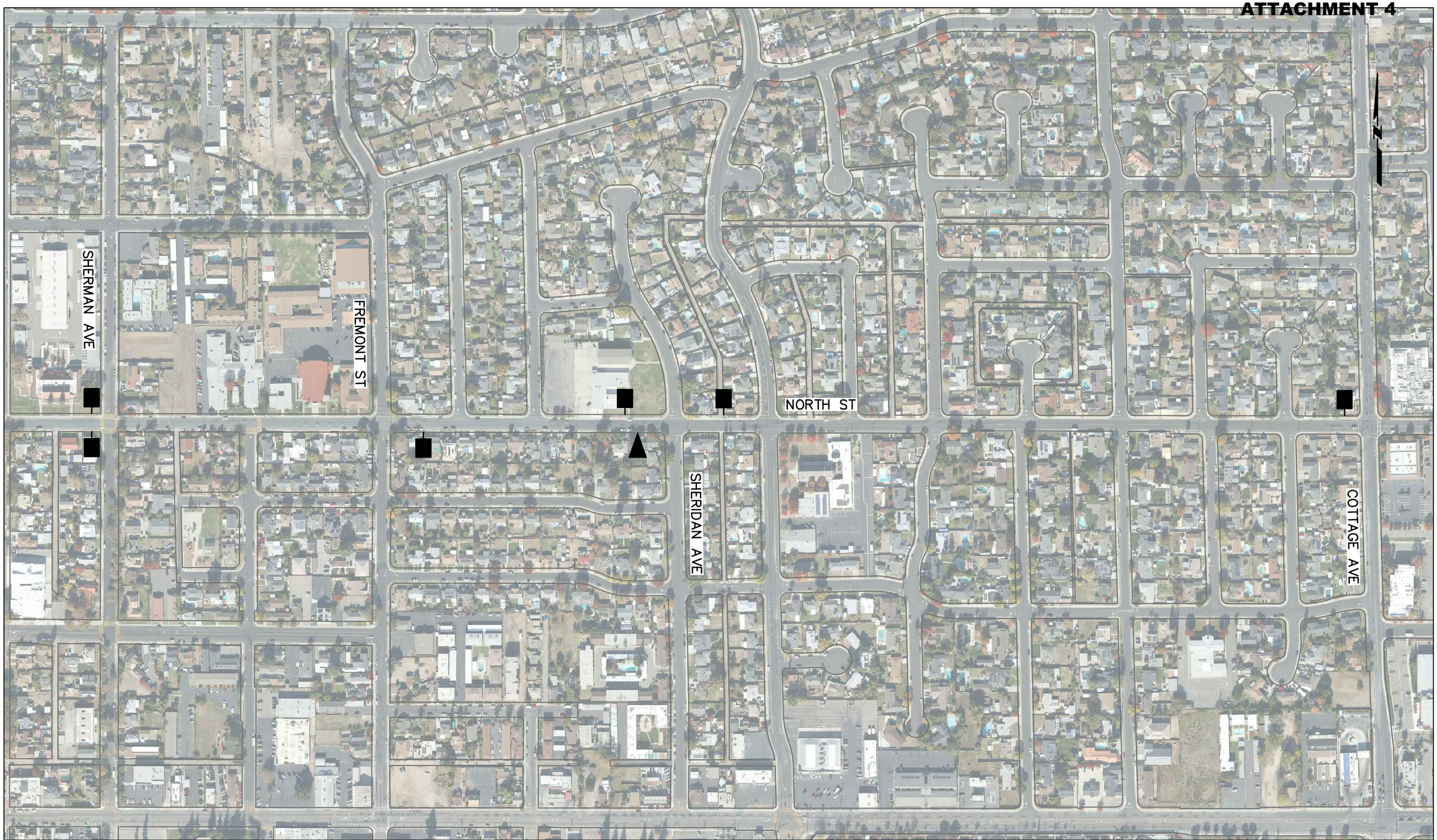
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 6,447 **Count Date:** 8/4/22
**Number of Collisions:** 8 **Time Period:** 3 years
**Calc. Collision Rate =** 1.13 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 41 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low/High Density Residential/Public/Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. However, due to fronting residential district, uncontrolled crosswalk, and lack of continuous bike lane, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls within this range. The collision rate is blow the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 62 - FIGURE A - NORTH ST
# BETWEEN COTTAGE AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 62 - FIGURE B - NORTH ST BETWEEN COTTAGE AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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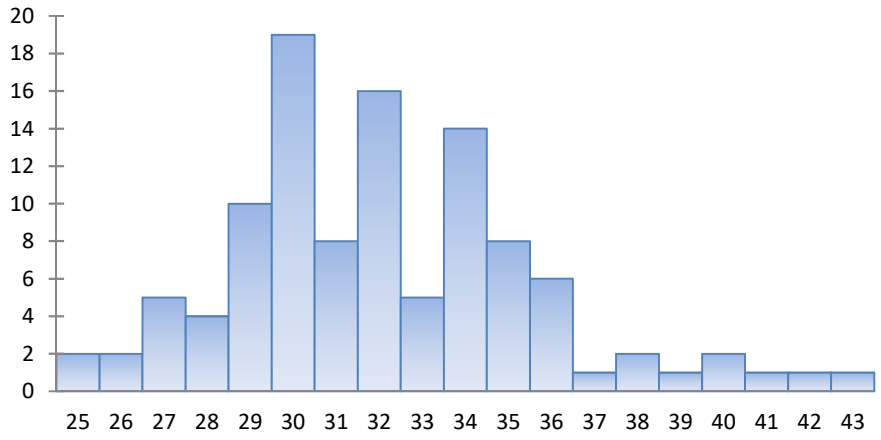
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** NORTH STREET - Main St to Elm Ave
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/7/2022 **Weather:** Clear/Dry
**Begin Time:** 10:15 AM **End Time:** 11:45 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district and lack of a bike lane.

### Summary Statistics

| | |
|---|---|
| Total Observed | 108 |
| Speed Range | 25 - 43 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 88% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 14 | 0 | 34 | 14 |
| 15 | 0 | 35 | 8 |
| 16 | 0 | 36 | 6 |
| 17 | 0 | 37 | 1 |
| 18 | 0 | 38 | 2 |
| 19 | 0 | 39 | 1 |
| 20 | 0 | 40 | 2 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 1 |
| 23 | 0 | 43 | 1 |
| 24 | 0 | 44 | 0 |
| 25 | 2 | 45 | 0 |
| 26 | 2 | 46 | 0 |
| 27 | 5 | 47 | 0 |
| 28 | 4 | 48 | 0 |
| 29 | 10 | 49 | 0 |
| 30 | 19 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 16 | 52 | 0 |
| 33 | 5 | 53 | 0 |
| TOTAL | | | 108 |

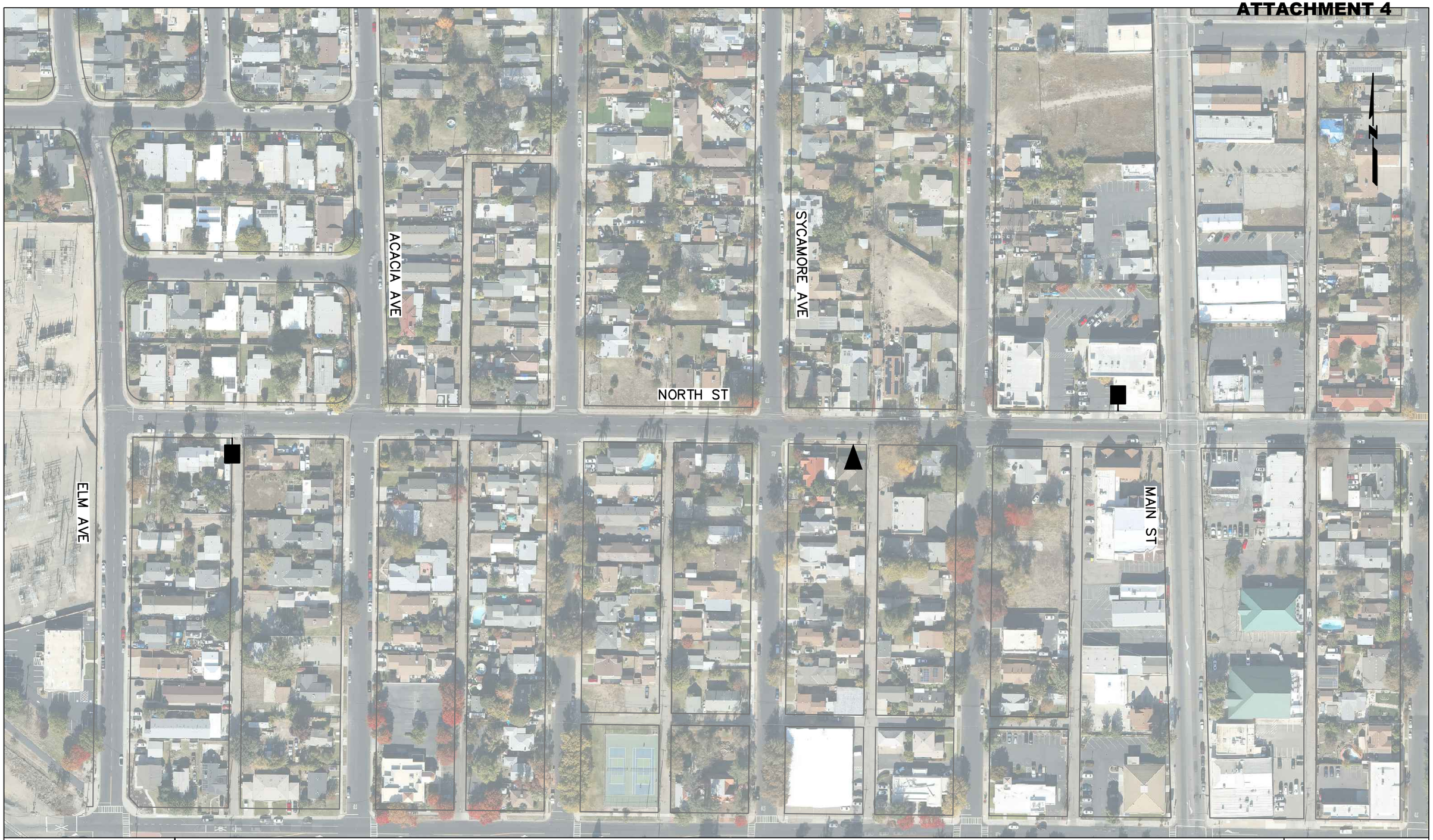
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.33 **ADT:** 3,085 **Count Date:** 8/10/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 41 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low Density Residential/Downtown
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. However, due to fronting residential district and lack of continuous bike lane, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls within this range. The collision rate is blow the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 63 - NORTH ST
# BETWEEN MAIN ST AND ELM AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

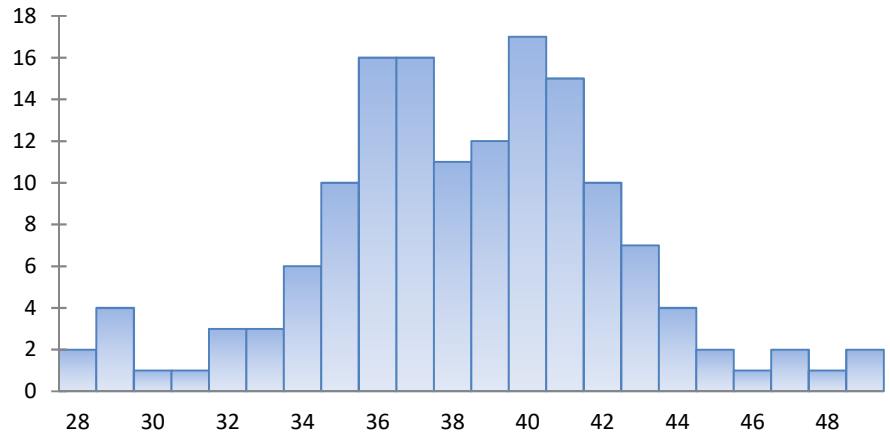
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** NORTHGATE DRIVE - Main St to Union Rd
**Posted Speed Limit:** 35 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 2/16/2023
**Weather:** Clear/Dry
**Begin Time:** 12:15 PM
**End Time:** 1:15 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district, existing school crossing, proximity to school, and the lack of a bike lane.

### Summary Statistics

| | |
|---|---|
| Total Observed | 146 |
| Speed Range | 28 - 49 MPH |
| 50th percentile speed | 38 MPH |
| 85th percentile speed | 42 MPH |
| 10 mph pace speed | 34 - 43 MPH |
| % in pace speed | 82% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 17 |
| 21 | 0 | 41 | 15 |
| 22 | 0 | 42 | 10 |
| 23 | 0 | 43 | 7 |
| 24 | 0 | 44 | 4 |
| 25 | 0 | 45 | 2 |
| 26 | 0 | 46 | 1 |
| 27 | 0 | 47 | 2 |
| 28 | 2 | 48 | 1 |
| 29 | 4 | 49 | 2 |
| 30 | 1 | 50 | 0 |
| 31 | 1 | 51 | 0 |
| 32 | 3 | 52 | 0 |
| 33 | 3 | 53 | 0 |
| 34 | 6 | 54 | 0 |
| 35 | 10 | 55 | 0 |
| 36 | 16 | 56 | 0 |
| 37 | 16 | 57 | 0 |
| 38 | 11 | 58 | 0 |
| 39 | 12 | 59 | 0 |
| TOTAL | | | 146 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00
**ADT:** 6,595
**Count Date:** 7/28/22
**Number of Collisions:** 13
**Time Period:** 3 years
**Calc. Collision Rate =** 1.80 collisions per million vehicle-miles
**State Average Rate:** 1.46 c/mvm
**Street Width (ft):** 65
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Varies
**Sidewalk:** Both Sides
**Bike Lanes:** None
**Number of Lanes:** EB 2 WB 1-2
**Adjacent Land Use:** Low/Medium/High Density Residential/Commercial/ Public/Quasi Public
**Divided Median:** Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to fronting residential district, existing school crossing, proximity to school, and the lack of a bike lane, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 34 mph to 43 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

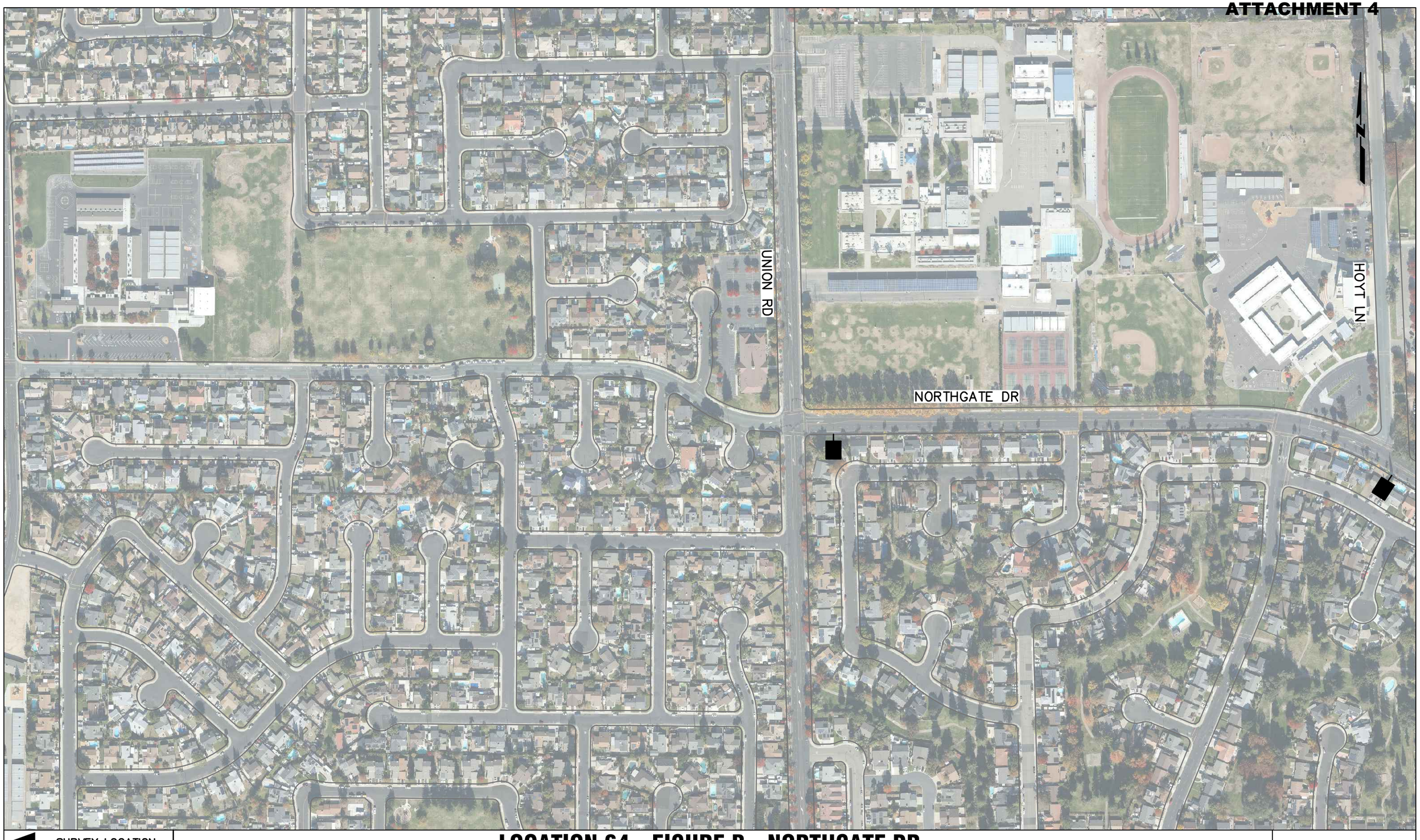
SCALE: NOT TO SCALE

# LOCATION 64 - FIGURE A - NORTHGATE DR BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:08:10 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 64 - FIGURE B - NORTHGATE DR
# BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\604 Traffic Engineering\604-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:08:30 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

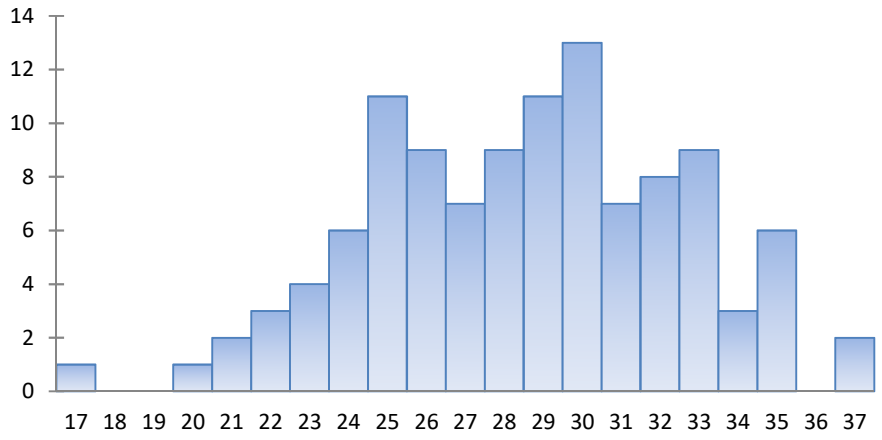
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** NORTHGATE DRIVE - Union Rd to Airport Way
**Posted Speed Limit:** 25 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 11/15/2022
**Weather:** Clear/Dry
**Begin Time:** 10:00 AM
**End Time:** 11:50 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 112 |
| Speed Range | 17 - 37 MPH |
| 50th percentile speed | 29 MPH |
| 85th percentile speed | 33 MPH |
| 10 mph pace speed | 24 - 33 MPH |
| % in pace speed | 80% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 0 |
| 17 | 1 | 37 | 2 |
| 18 | 0 | 38 | 0 |
| 19 | 0 | 39 | 0 |
| 20 | 1 | 40 | 0 |
| 21 | 2 | 41 | 0 |
| 22 | 3 | 42 | 0 |
| 23 | 4 | 43 | 0 |
| 24 | 6 | 44 | 0 |
| 25 | 11 | 45 | 0 |
| 26 | 9 | 46 | 0 |
| 27 | 7 | 47 | 0 |
| 28 | 9 | 48 | 0 |
| 29 | 11 | 49 | 0 |
| 30 | 13 | 50 | 0 |
| 31 | 7 | 51 | 0 |
| 32 | 8 | 52 | 0 |
| 33 | 9 | 53 | 0 |
| 34 | 3 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| TOTAL | | | 112 |

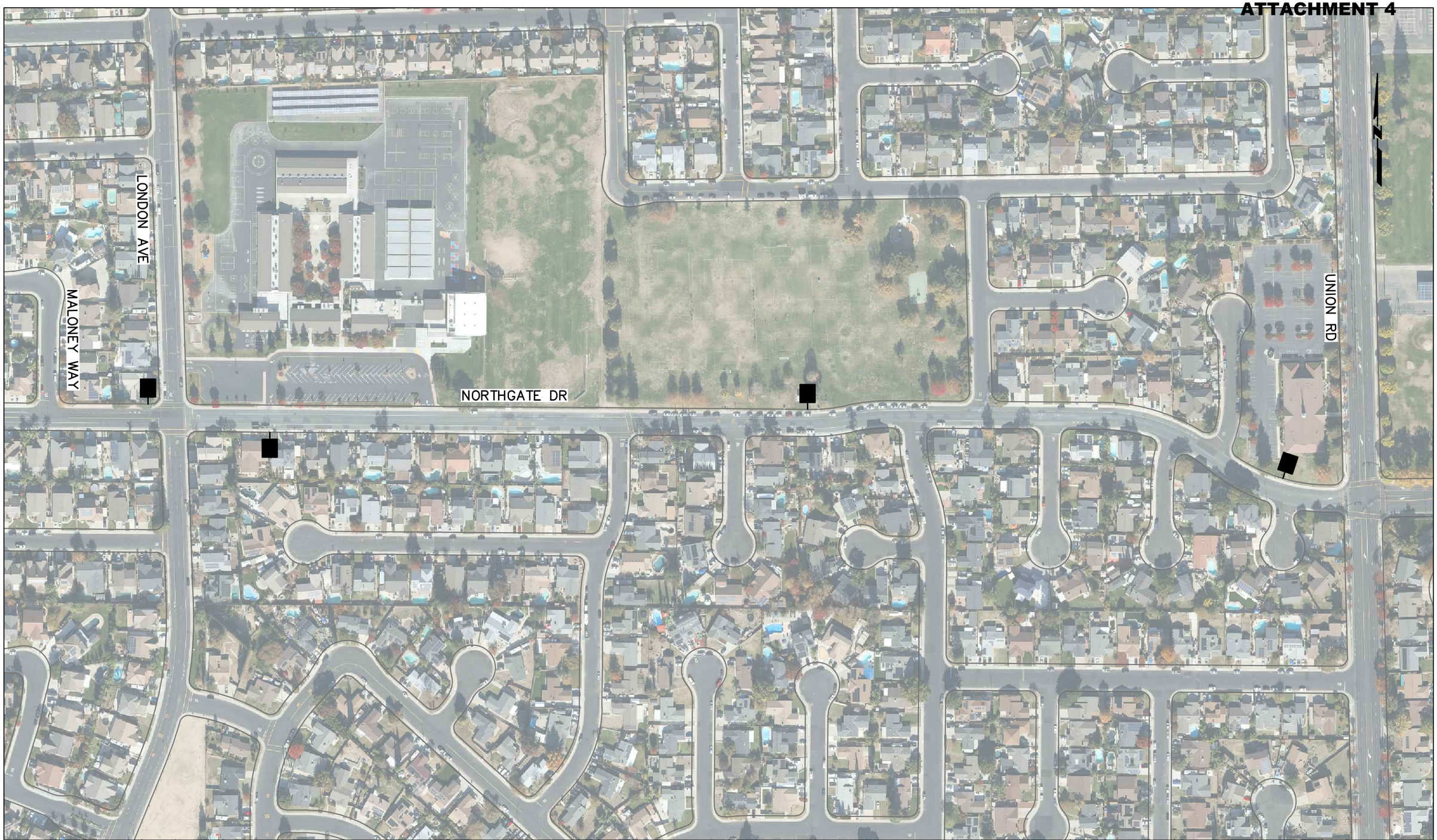
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00
**ADT:** 1,373
**Count Date:** 7/21/22
**Number of Collisions:** 5
**Time Period:** 3 years
**Calc. Collision Rate =** 3.33 collisions per million vehicle-miles
**Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45
**Driveway** Yes
**Terrain:** Flat
**Parking Conditions:** Both Sides
**Sidewalk:** Both Sides
**Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1
**Adjacent Land Use:** Low Density Residential/Public/Quasi Public/Park
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 33 mph indicates a 35 mph speed limit. The collision rate is above the expected rate. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains at 25 mph. The 10 mph pace ranges from 24 mph to 33 mph and the recommended speed limit falls within this range.

ATTACHMENT 4



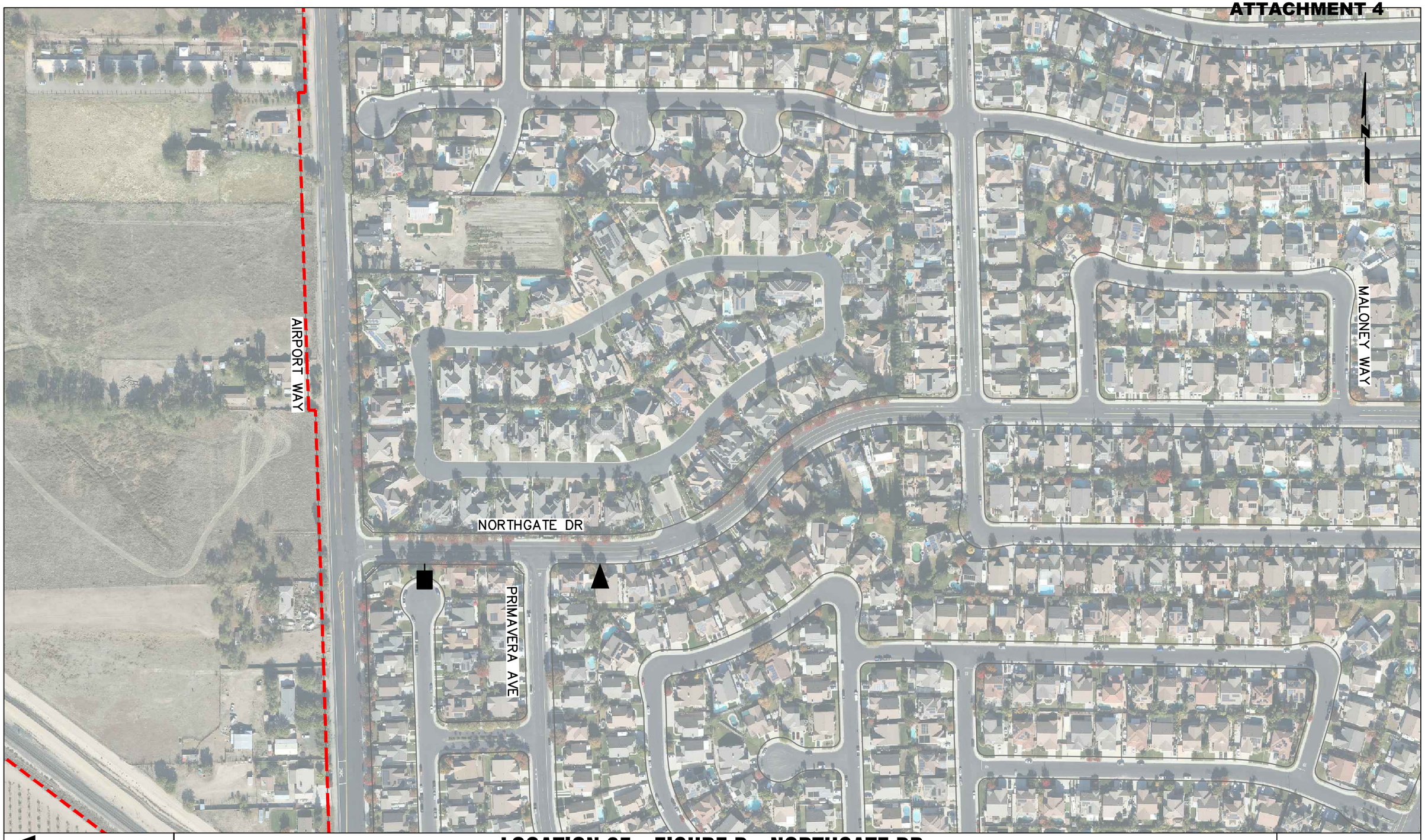

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 65 - FIGURE A - NORTHGATE DR BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:08:50 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 65 - FIGURE B - NORTHGATE DR BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:09:05 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

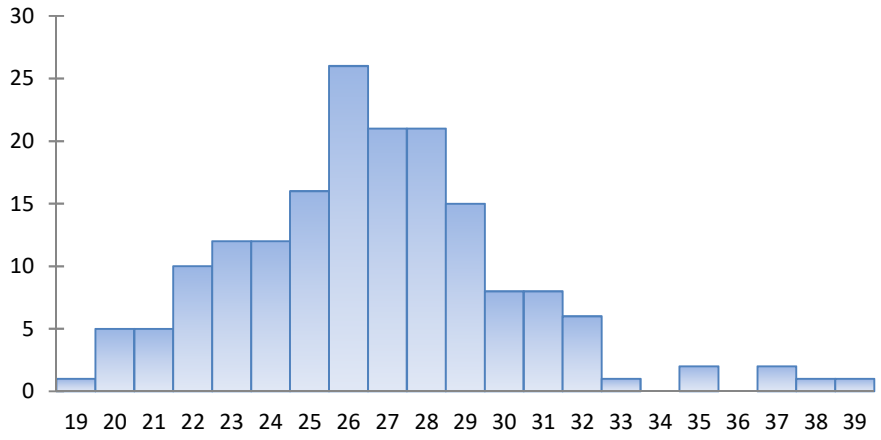
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** NORTHWOODS AVE - Lovell Way to Yosemite Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 2:00 PM **End Time:** 3:00 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district north of Mcnary Cir and lack of a bike lane.

### Summary Statistics

| | |
|---|---|
| Total Observed | 173 |
| Speed Range | 19 - 39 MPH |
| 50th percentile speed | 26 MPH |
| 85th percentile speed | 30 MPH |
| 10 mph pace speed | 22 - 31 MPH |
| % in pace speed | 86% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 0 |
| 17 | 0 | 37 | 2 |
| 18 | 0 | 38 | 1 |
| 19 | 1 | 39 | 1 |
| 20 | 5 | 40 | 0 |
| 21 | 5 | 41 | 0 |
| 22 | 10 | 42 | 0 |
| 23 | 12 | 43 | 0 |
| 24 | 12 | 44 | 0 |
| 25 | 16 | 45 | 0 |
| 26 | 26 | 46 | 0 |
| 27 | 21 | 47 | 0 |
| 28 | 21 | 48 | 0 |
| 29 | 15 | 49 | 0 |
| 30 | 8 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 1 | 53 | 0 |
| 34 | 0 | 54 | 0 |
| 35 | 2 | 55 | 0 |
| TOTAL | | | 173 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.25 **ADT:** 4,588 **Count Date:** 7/14/22
**Number of Collisions:** 6 **Time Period:** 3 years
**Calc. Collision Rate =** 4.78 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 41 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Medium/High Density Residential/Commercial
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 30 mph indicates a 30 mph speed limit. However, due to fronting residential district north of Mcnary Cir and the lack of continuous bike lane, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 22 mph to 31 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Therefore, it is recommended that the posted speed limit remains at 25 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 66 - NORTHWOODS AVE
# BETWEEN LOVELL WAY AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 54-79.dwg, 4/20/2023 9:09:20 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

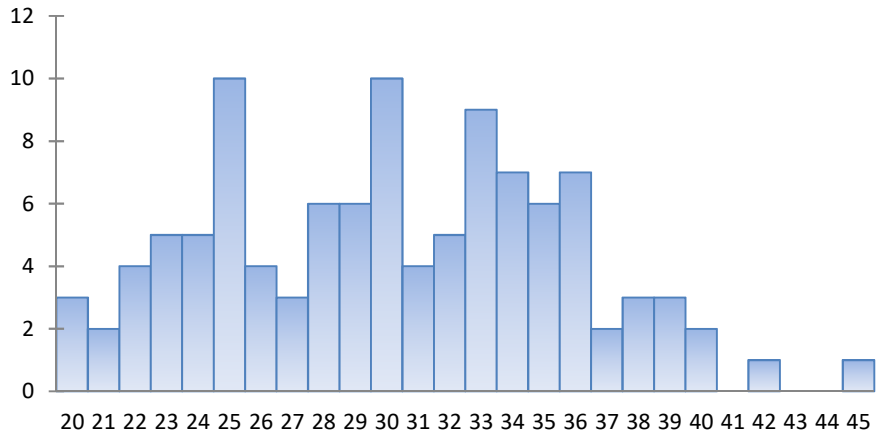
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** OLEANDER AVE - 775 ft. south of Sephos St to Red Pheasant Ln
**Posted Speed Limit:** None
**Direction:** Both **Recorder:** NDS
**Survey Date:** 11/16/2022 **Weather:** Clear/Dry
**Begin Time:** 10:45 AM **End Time:** 1:05 PM
**Speed Limit Change:** Yes
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 108 |
| Speed Range | 20 - 45 MPH |
| 50th percentile speed | 30 MPH |
| 85th percentile speed | 36 MPH |
| 10 mph pace speed | 25 - 34 MPH |
| % in pace speed | 59% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 7 |
| 17 | 0 | 37 | 2 |
| 18 | 0 | 38 | 3 |
| 19 | 0 | 39 | 3 |
| 20 | 3 | 40 | 2 |
| 21 | 2 | 41 | 0 |
| 22 | 4 | 42 | 1 |
| 23 | 5 | 43 | 0 |
| 24 | 5 | 44 | 0 |
| 25 | 10 | 45 | 1 |
| 26 | 4 | 46 | 0 |
| 27 | 3 | 47 | 0 |
| 28 | 6 | 48 | 0 |
| 29 | 6 | 49 | 0 |
| 30 | 10 | 50 | 0 |
| 31 | 4 | 51 | 0 |
| 32 | 5 | 52 | 0 |
| 33 | 9 | 53 | 0 |
| 34 | 7 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| TOTAL | | | 108 |

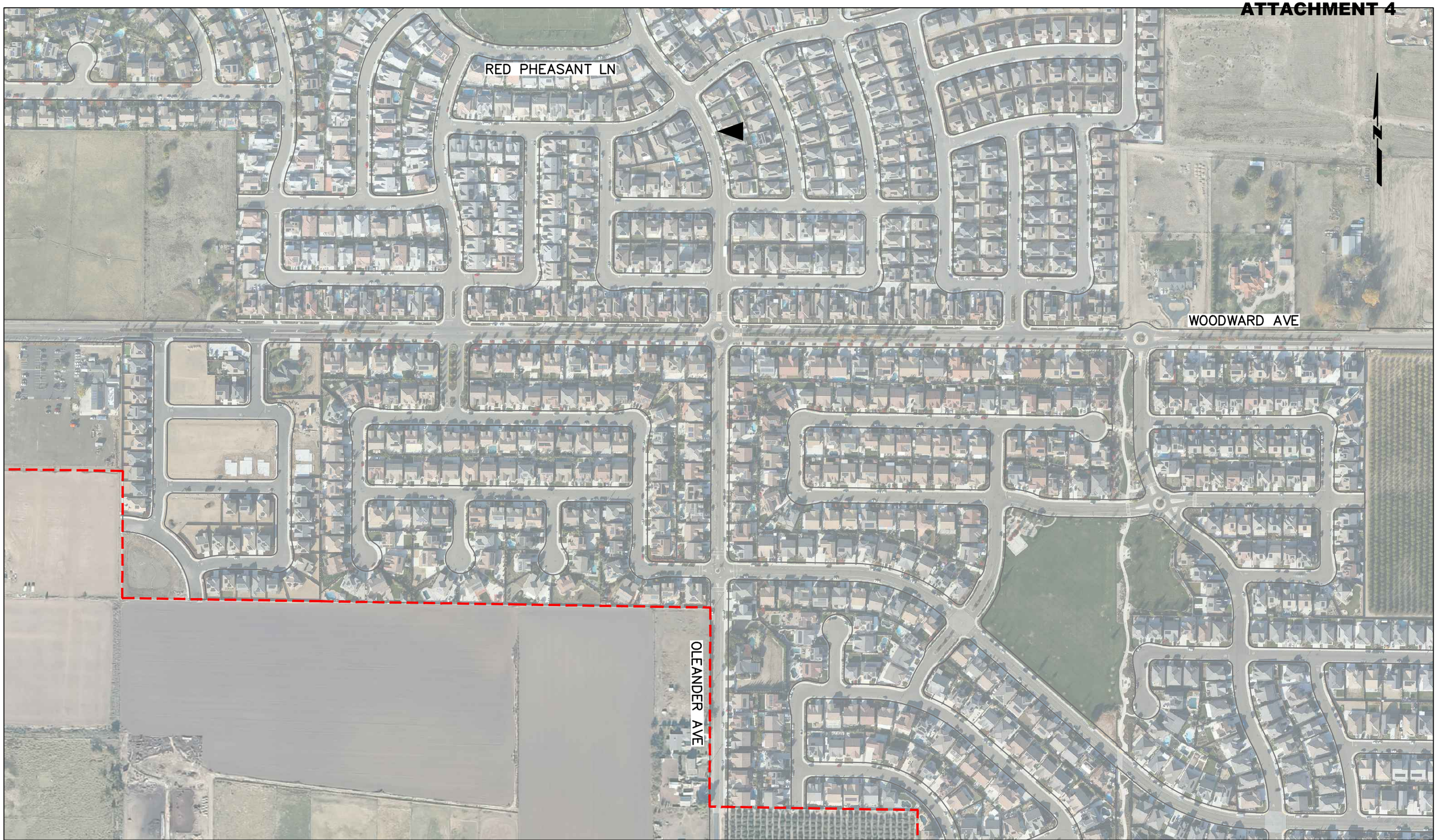
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.30 **ADT:** 612 **Count Date:** 7/21/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 9.95 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 40 - 55 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 36 mph indicates a 35 mph speed limit. The collision rate is above the expected rate. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit becomes 25 mph. The 10 mph pace ranges from 25 mph to 34 mph and the recommended speed limit falls within this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 67 - OLEANDER AVE
# BETWEEN CITY LIMIT AND RED PHEASANT LN

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

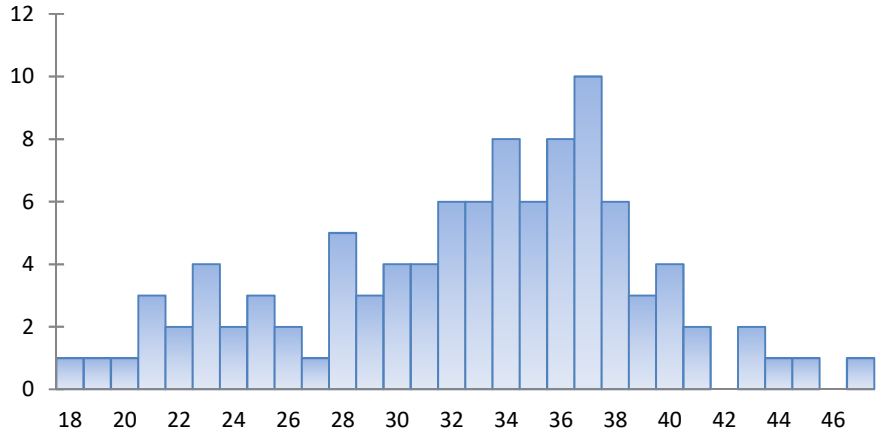
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** PEACH AVE - 530 ft. west of Macedo St to 135 ft. east of Al Fonseca Ln
**Posted Speed Limit:** 35 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 9:30 AM **End Time:** 11:10 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 100 |
| Speed Range | 18 - 47 MPH |
| 50th percentile speed | 34 MPH |
| 85th percentile speed | 38 MPH |
| 10 mph pace speed | 29 - 38 MPH |
| % in pace speed | 61% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 8 |
| 17 | 0 | 37 | 10 |
| 18 | 1 | 38 | 6 |
| 19 | 1 | 39 | 3 |
| 20 | 1 | 40 | 4 |
| 21 | 3 | 41 | 2 |
| 22 | 2 | 42 | 0 |
| 23 | 4 | 43 | 2 |
| 24 | 2 | 44 | 1 |
| 25 | 3 | 45 | 1 |
| 26 | 2 | 46 | 0 |
| 27 | 1 | 47 | 1 |
| 28 | 5 | 48 | 0 |
| 29 | 3 | 49 | 0 |
| 30 | 4 | 50 | 0 |
| 31 | 4 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 6 | 53 | 0 |
| 34 | 8 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| TOTAL | | | 100 |

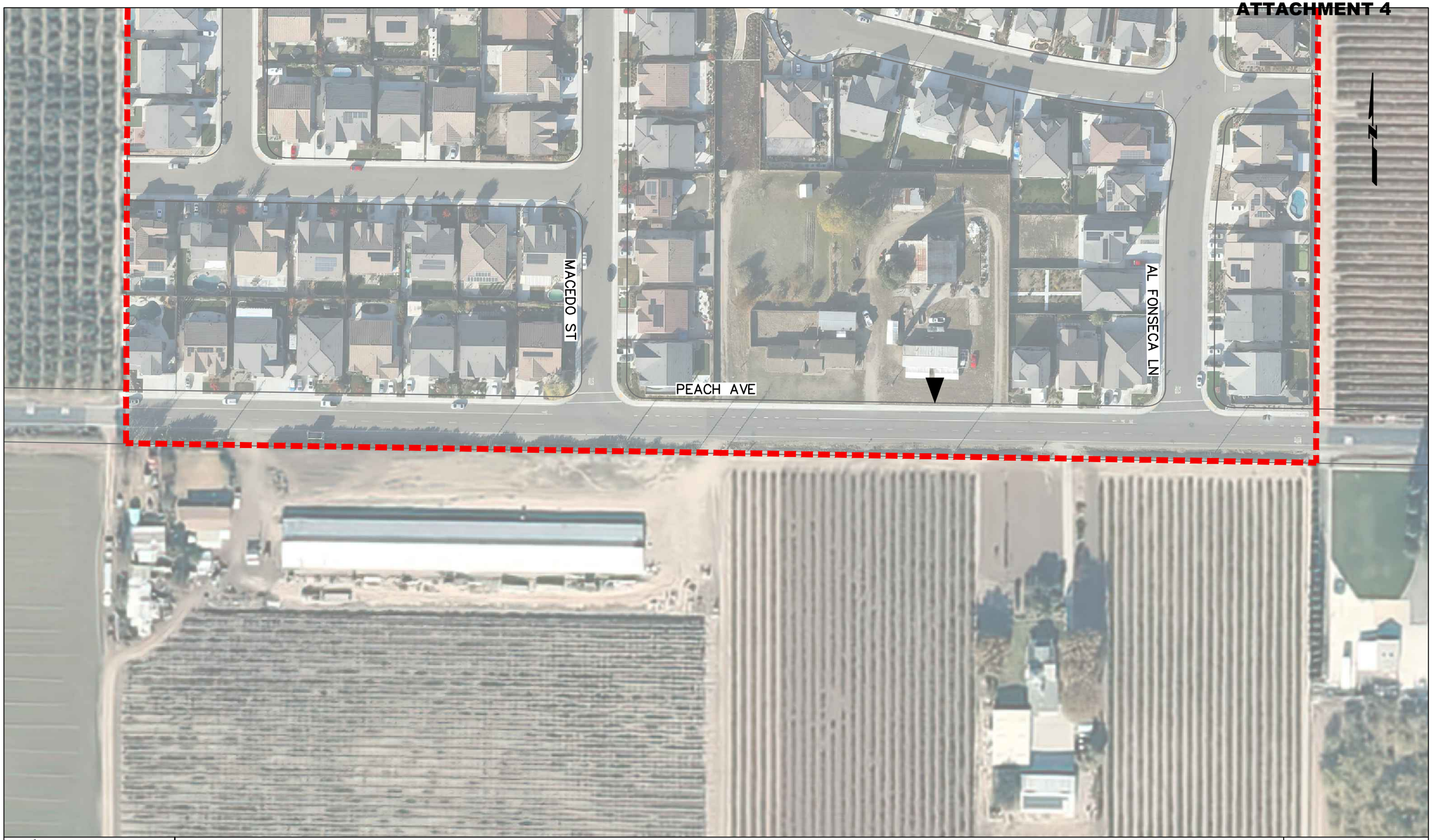
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.26 **ADT:** 532 **Count Date:** 7/12/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 42 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** One Side **Sidewalk:** One Side **Bike Lanes:** One Side
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low Density Residential
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 38 mph indicates a 40 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph. The 10 mph pace ranges from 29 mph to 38 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 68 - PEACH AVE
# BETWEEN WEST CITY LIMIT AND EAST CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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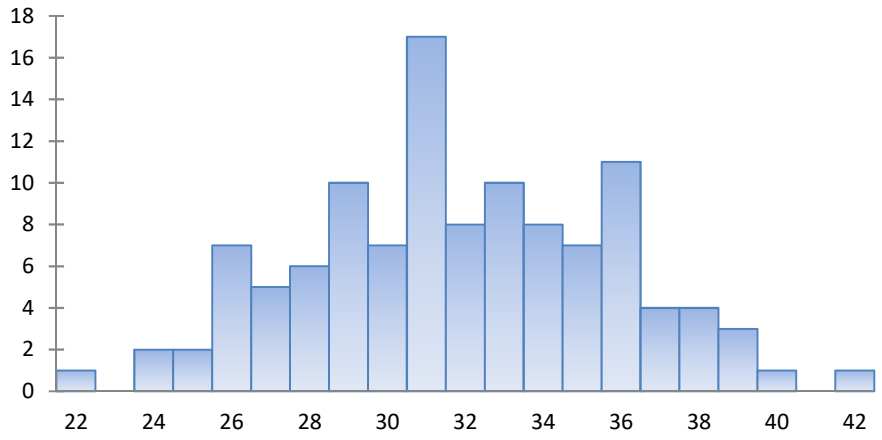
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** PESTANA AVE - 120 ft. north of Pin Oak Ct to Louise Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/5/2022 **Weather:** Clear/Dry
**Begin Time:** 1:50 PM **End Time:** 2:50 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 114 |
| Speed Range | 22 - 42 MPH |
| 50th percentile speed | 31 MPH |
| 85th percentile speed | 36 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 78% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 11 |
| 17 | 0 | 37 | 4 |
| 18 | 0 | 38 | 4 |
| 19 | 0 | 39 | 3 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 0 |
| 22 | 1 | 42 | 1 |
| 23 | 0 | 43 | 0 |
| 24 | 2 | 44 | 0 |
| 25 | 2 | 45 | 0 |
| 26 | 7 | 46 | 0 |
| 27 | 5 | 47 | 0 |
| 28 | 6 | 48 | 0 |
| 29 | 10 | 49 | 0 |
| 30 | 7 | 50 | 0 |
| 31 | 17 | 51 | 0 |
| 32 | 8 | 52 | 0 |
| 33 | 10 | 53 | 0 |
| 34 | 8 | 54 | 0 |
| 35 | 7 | 55 | 0 |
| TOTAL | | | 114 |

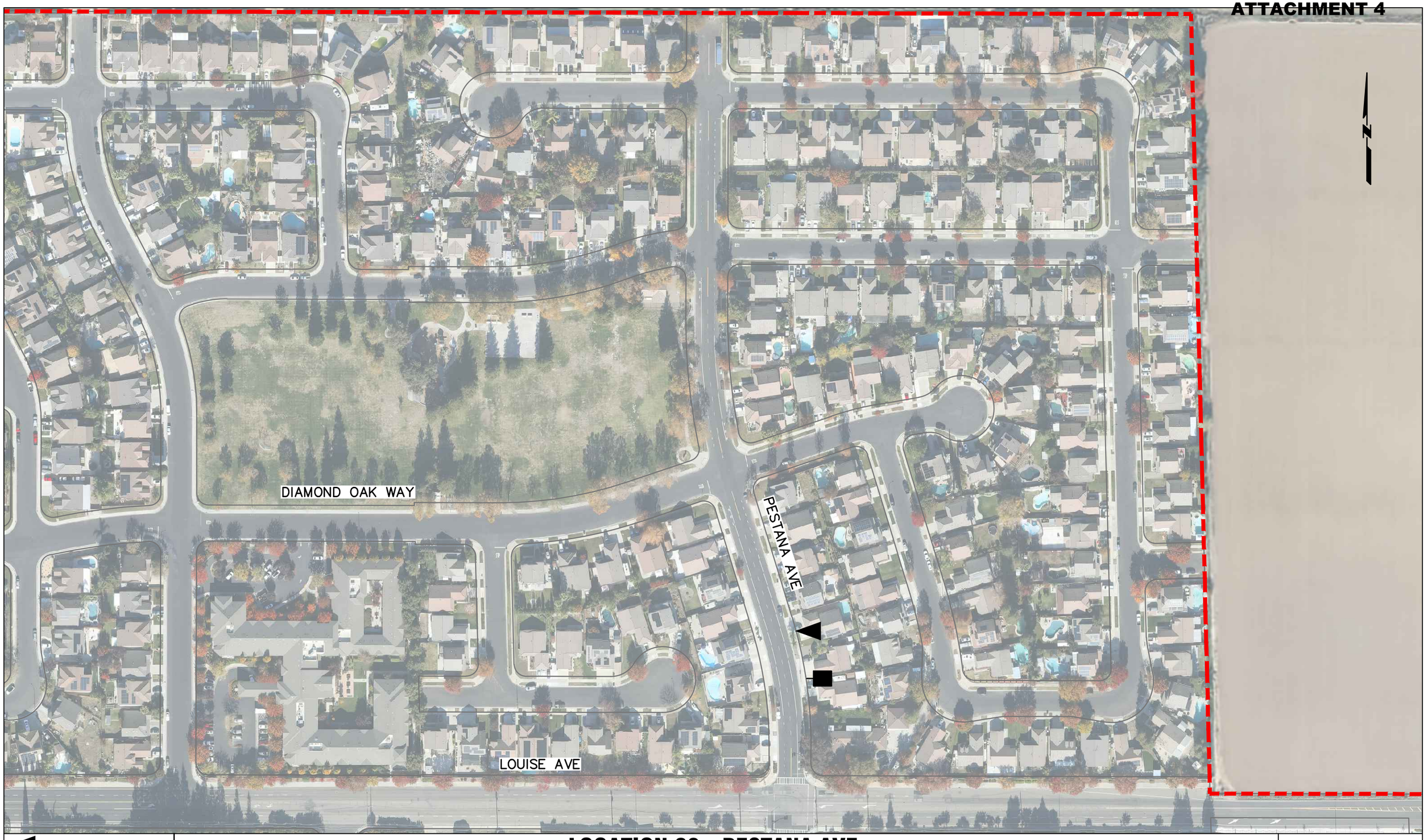
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.25 **ADT:** 1,517 **Count Date:** 7/14/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** One Side **Sidewalk:** One Side **Bike Lanes:** One Side
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Park
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 36 mph indicates a 35 mph speed limit. The collision rate is below the expected rate. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 69 - PESTANA AVE
# BETWEEN NORTH CITY LIMIT AND LOUISE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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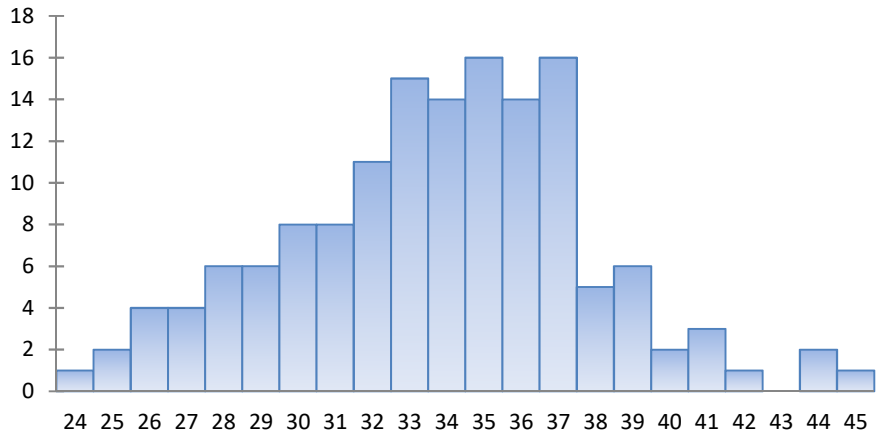
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** PESTANA AVE - Louise Ave to Yosemite Ave
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 2/15/2023 **Weather:** Clear/Dry
**Begin Time:** 1:15 PM **End Time:** 2:15 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 145 |
| Speed Range | 24 - 45 MPH |
| 50th percentile speed | 34 MPH |
| 85th percentile speed | 37 MPH |
| 10 mph pace speed | 28 - 37 MPH |
| % in pace speed | 79% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 14 |
| 17 | 0 | 37 | 16 |
| 18 | 0 | 38 | 5 |
| 19 | 0 | 39 | 6 |
| 20 | 0 | 40 | 2 |
| 21 | 0 | 41 | 3 |
| 22 | 0 | 42 | 1 |
| 23 | 0 | 43 | 0 |
| 24 | 1 | 44 | 2 |
| 25 | 2 | 45 | 1 |
| 26 | 4 | 46 | 0 |
| 27 | 4 | 47 | 0 |
| 28 | 6 | 48 | 0 |
| 29 | 6 | 49 | 0 |
| 30 | 8 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 11 | 52 | 0 |
| 33 | 15 | 53 | 0 |
| 34 | 14 | 54 | 0 |
| 35 | 16 | 55 | 0 |
| TOTAL | | | 145 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 2,574 **Count Date:** 7/14/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.35 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low/Medium/High Density Residential/Commercial/ Public/Quasi Public/Park
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 28 mph to 37 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

ATTACHMENT 4



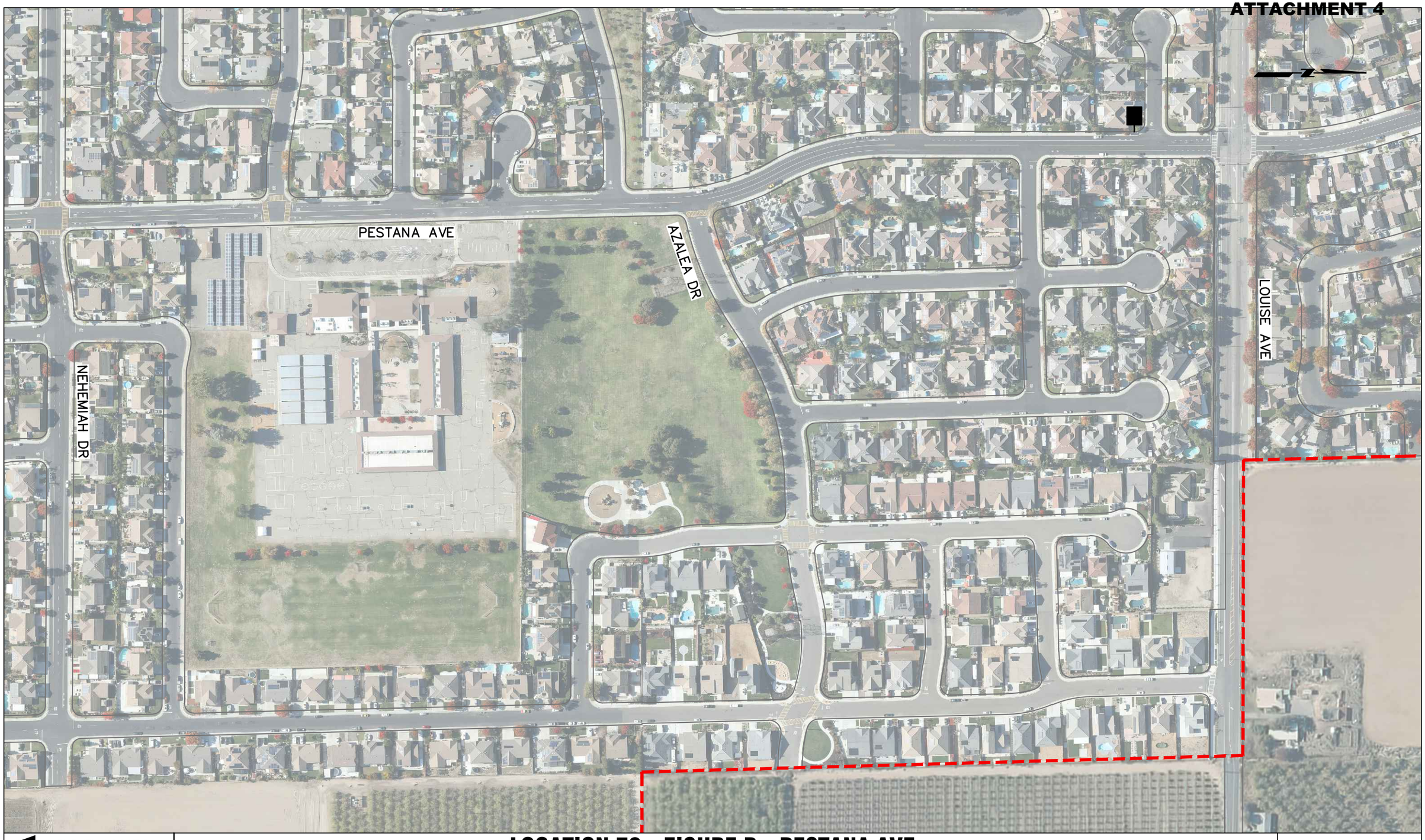

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 70 - FIGURE A - PESTANA AVE
# BETWEEN LOUISE AVE AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 70 - FIGURE B - PESTANA AVE
# BETWEEN LOUISE AVE AND YOSEMITE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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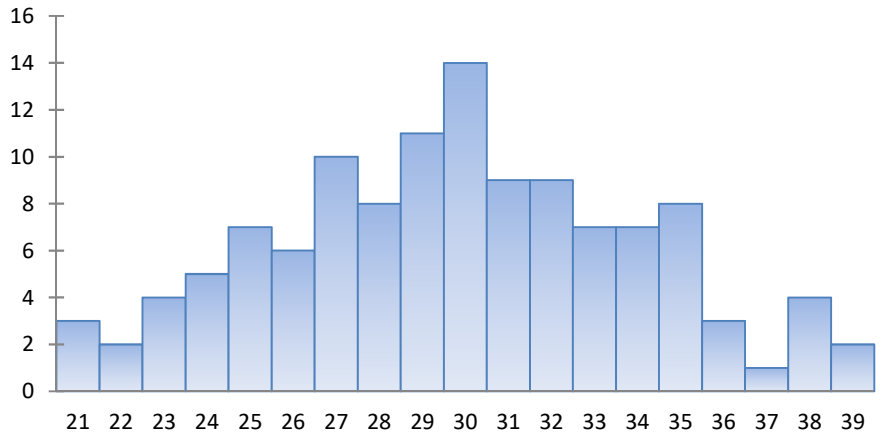
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** PHOENIX DRIVE - Commerce Ct to Spreckels Ave
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/28/2022 **Weather:** Clear/Dry
**Begin Time:** 11:45 AM **End Time:** 12:45 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 120 |
| Speed Range | 21 - 39 MPH |
| 50th percentile speed | 30 MPH |
| 85th percentile speed | 34 MPH |
| 10 mph pace speed | 26 - 35 MPH |
| % in pace speed | 74% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 3 |
| 17 | 0 | 37 | 1 |
| 18 | 0 | 38 | 4 |
| 19 | 0 | 39 | 2 |
| 20 | 0 | 40 | 0 |
| 21 | 3 | 41 | 0 |
| 22 | 2 | 42 | 0 |
| 23 | 4 | 43 | 0 |
| 24 | 5 | 44 | 0 |
| 25 | 7 | 45 | 0 |
| 26 | 6 | 46 | 0 |
| 27 | 10 | 47 | 0 |
| 28 | 8 | 48 | 0 |
| 29 | 11 | 49 | 0 |
| 30 | 14 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 9 | 52 | 0 |
| 33 | 7 | 53 | 0 |
| 34 | 7 | 54 | 0 |
| 35 | 8 | 55 | 0 |
| TOTAL | | | 120 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.19 **ADT:** 5,257 **Count Date:** 8/31/22
**Number of Collisions:** 4 **Time Period:** 3 years
**Calc. Collision Rate =** 3.66 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** One Side **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Commercial/Industrial
**Divided Median:** TWLTL
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 34 mph indicates a 35 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph. The 10 mph pace ranges from 26 mph to 35 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 71 - PHOENIX DR
# BETWEEN COMMERCE CT AND SPRECKELS AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

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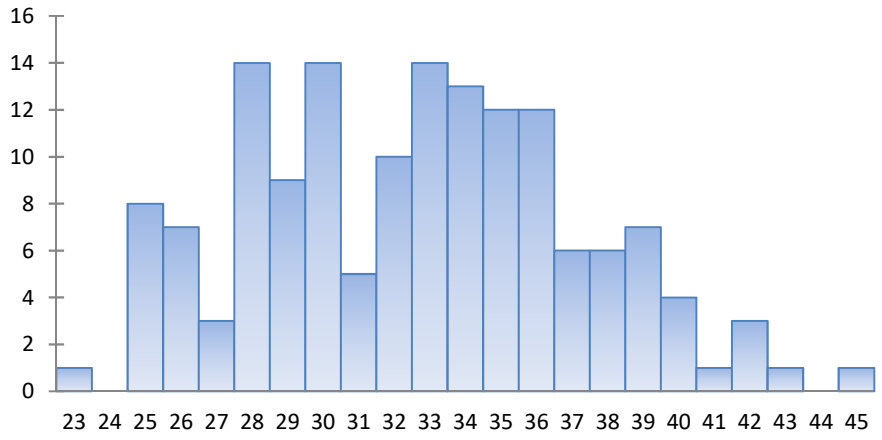
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** PILLSBURY ROAD - Woodward Ave to 375 ft. south of Mono St
**Posted Speed Limit:** 25 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 6/30/2022
**Weather:** Clear/Dry
**Begin Time:** 9:00 AM
**End Time:** 10:00 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 151 |
| Speed Range | 23 - 45 MPH |
| 50th percentile speed | 33 MPH |
| 85th percentile speed | 38 MPH |
| 10 mph pace speed | 28 - 37 MPH |
| % in pace speed | 72% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 12 |
| 17 | 0 | 37 | 6 |
| 18 | 0 | 38 | 6 |
| 19 | 0 | 39 | 7 |
| 20 | 0 | 40 | 4 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 3 |
| 23 | 1 | 43 | 1 |
| 24 | 0 | 44 | 0 |
| 25 | 8 | 45 | 1 |
| 26 | 7 | 46 | 0 |
| 27 | 3 | 47 | 0 |
| 28 | 14 | 48 | 0 |
| 29 | 9 | 49 | 0 |
| 30 | 14 | 50 | 0 |
| 31 | 5 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 14 | 53 | 0 |
| 34 | 13 | 54 | 0 |
| 35 | 12 | 55 | 0 |
| TOTAL | | | 151 |

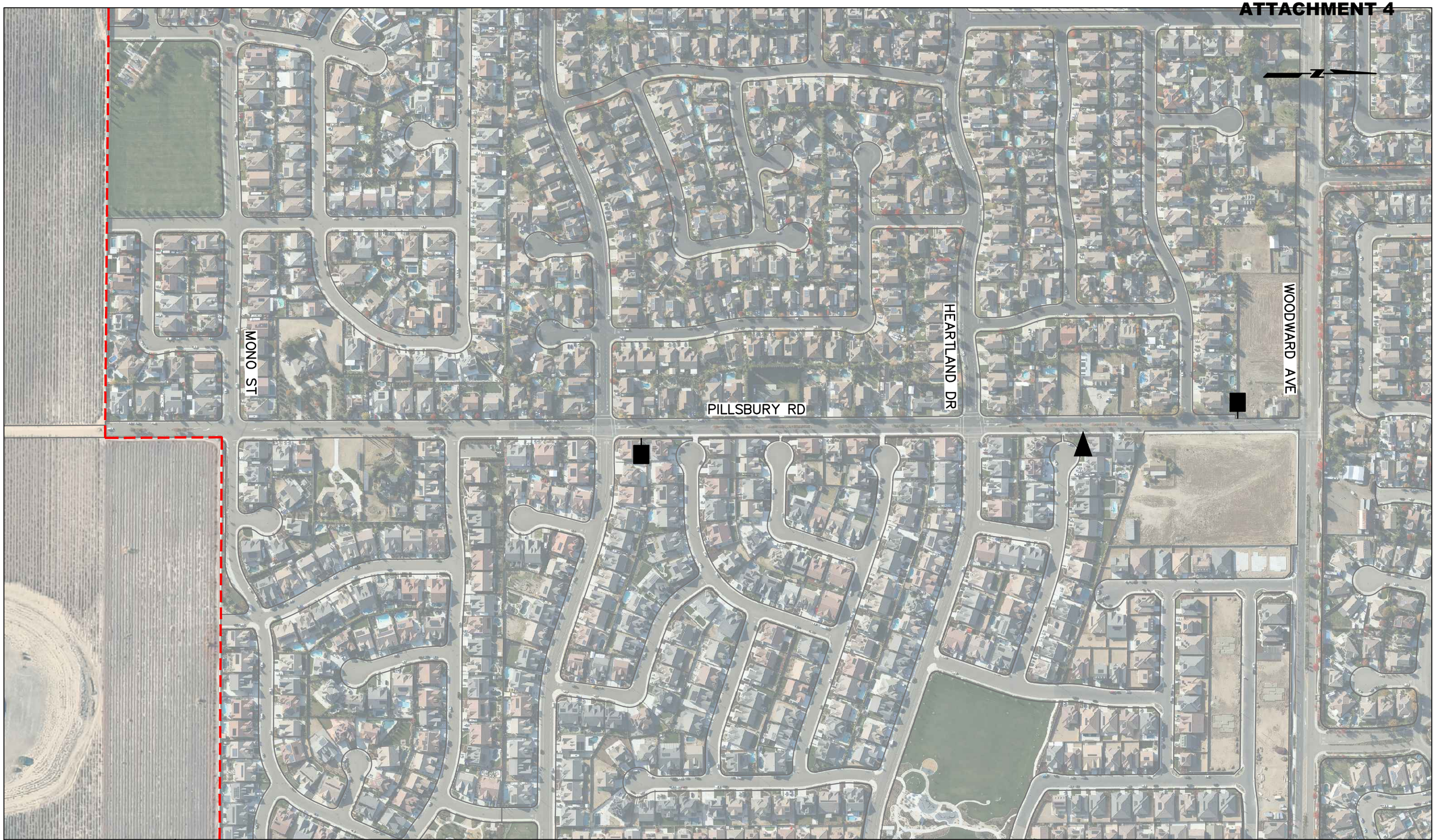
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.76
**ADT:** 3,250
**Count Date:** 7/12/22
**Number of Collisions:** 2
**Time Period:** 3 years
**Calc. Collision Rate =** 0.74 collisions per million vehicle-miles
**Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 - 60
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Both Sides
**Sidewalk:** Varies
**Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1
**Adjacent Land Use:** Commercial Mixed Use/Low Density Residential
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 38 mph indicates a 40 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 28 mph to 37 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 72 - PILLSBURY RD
## BETWEEN WOODWARD AVE AND SOUTH CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

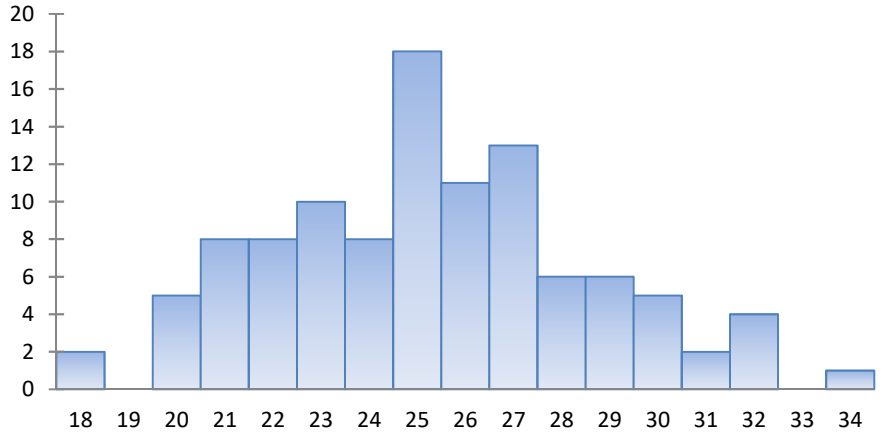
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** POWERS AVE - North St to Moffat Blvd
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 9:00 AM **End Time:** 10:00 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 107 |
| Speed Range | 18 - 34 MPH |
| 50th percentile speed | 25 MPH |
| 85th percentile speed | 29 MPH |
| 10 mph pace speed | 20 - 29 MPH |
| % in pace speed | 87% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 0 |
| 17 | 0 | 37 | 0 |
| 18 | 2 | 38 | 0 |
| 19 | 0 | 39 | 0 |
| 20 | 5 | 40 | 0 |
| 21 | 8 | 41 | 0 |
| 22 | 8 | 42 | 0 |
| 23 | 10 | 43 | 0 |
| 24 | 8 | 44 | 0 |
| 25 | 18 | 45 | 0 |
| 26 | 11 | 46 | 0 |
| 27 | 13 | 47 | 0 |
| 28 | 6 | 48 | 0 |
| 29 | 6 | 49 | 0 |
| 30 | 5 | 50 | 0 |
| 31 | 2 | 51 | 0 |
| 32 | 4 | 52 | 0 |
| 33 | 0 | 53 | 0 |
| 34 | 1 | 54 | 0 |
| 35 | 0 | 55 | 0 |
| TOTAL | | | 107 |

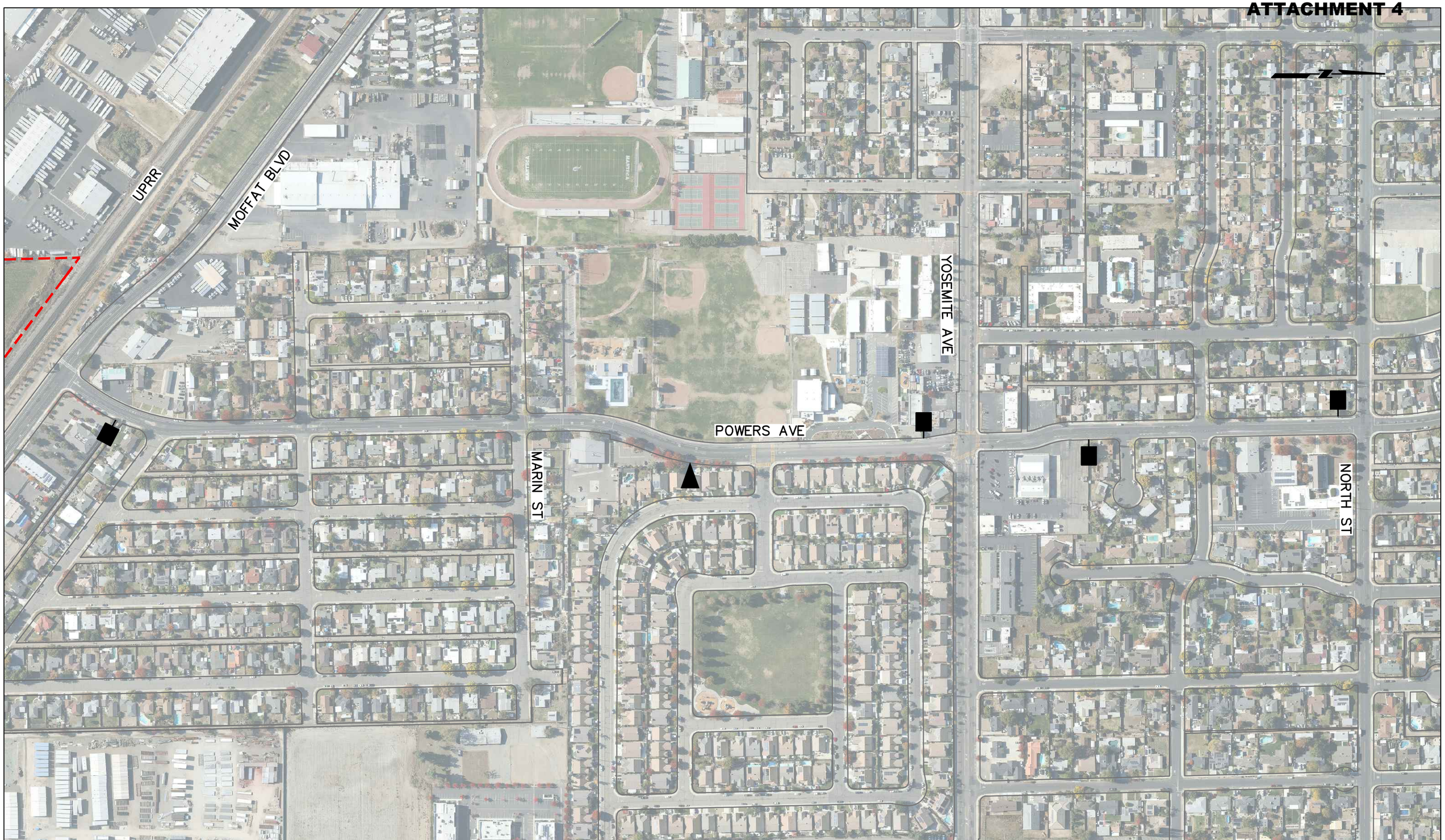
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.82 **ADT:** 3,307 **Count Date:** 7/14/22
**Number of Collisions:** 7 **Time Period:** 3 years
**Calc. Collision Rate =** 2.36 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 53 - 61 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Commercial/Public/Quasi Public/Park
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 29 mph indicates a 30 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 25 mph. The 10 mph pace ranges from 20 mph to 29 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 73 - POWERS AVE
# BETWEEN NORTH ST AND MOFFAT BLVD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

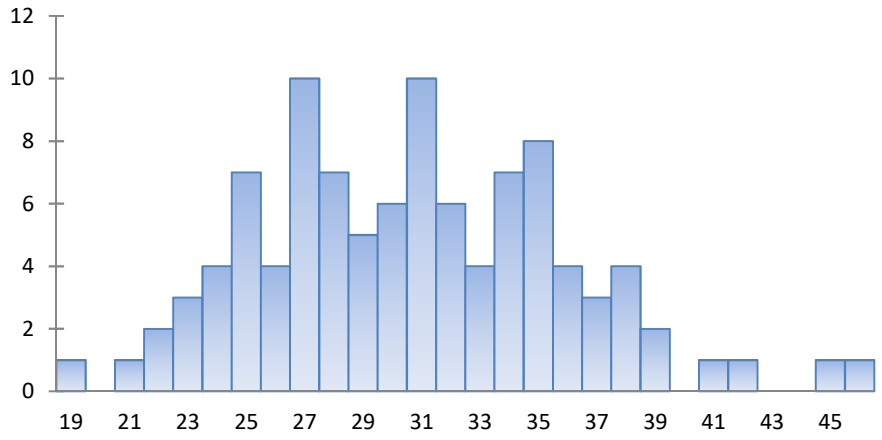
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** PRIMAVERA AVE - Northgate Dr to Nicol Way
**Posted Speed Limit:** 25 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 11/15/2022
**Weather:** Clear/Dry
**Begin Time:** 11:55 AM
**End Time:** 1:25 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 102 |
| Speed Range | 19 - 46 MPH |
| 50th percentile speed | 31 MPH |
| 85th percentile speed | 36 MPH |
| 10 mph pace speed | 26 - 35 MPH |
| % in pace speed | 66% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 4 |
| 17 | 0 | 37 | 3 |
| 18 | 0 | 38 | 4 |
| 19 | 1 | 39 | 2 |
| 20 | 0 | 40 | 0 |
| 21 | 1 | 41 | 1 |
| 22 | 2 | 42 | 1 |
| 23 | 3 | 43 | 0 |
| 24 | 4 | 44 | 0 |
| 25 | 7 | 45 | 1 |
| 26 | 4 | 46 | 1 |
| 27 | 10 | 47 | 0 |
| 28 | 7 | 48 | 0 |
| 29 | 5 | 49 | 0 |
| 30 | 6 | 50 | 0 |
| 31 | 10 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| 34 | 7 | 54 | 0 |
| 35 | 8 | 55 | 0 |
| TOTAL | | | 102 |

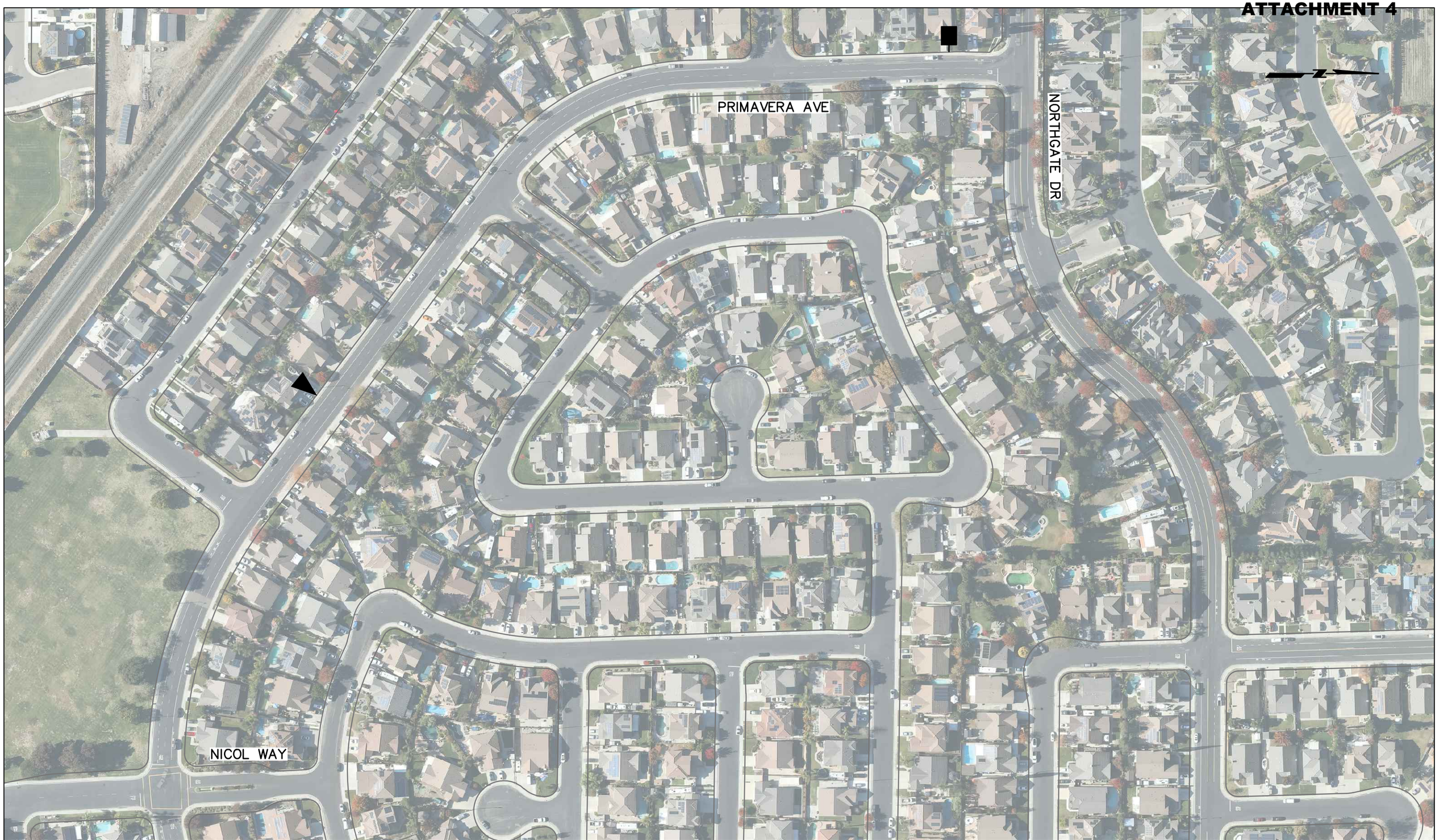
## ANALYSIS INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| Segment Length(mi): | 0.40 | ADT: | 650 | Count Date: | 7/21/22 |
| Number of Collisions: | 0 | Time Period: | 3 years | | |
| Calc. Collision Rate = | 0.00 collisions per million vehicle-miles | | | Expected Collisions Rate: | 1.18 c/mvm |
| Street Width (ft): | 44 | Driveway: | Yes | Terrain: | Flat |
| Parking Conditions: | Both Sides | Sidewalk: | Both Sides | Bike Lanes: | Both Sides |
| Number of Lanes: | NB 1 SB 1 | | | Adjacent Land Use: | Low Density Residential |
| Divided Median: | No | | | | |
| Uncontrolled Crosswalks | No | | | | |

**Comments:**

The 85th-percentile speed of 36 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 26 mph to 35 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION

SPEED LIMIT SIGN

CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 74 - PRIMAVERA AVE
# BETWEEN NORTHGATE DR AND NICOL WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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**ATTACHMENT 4**

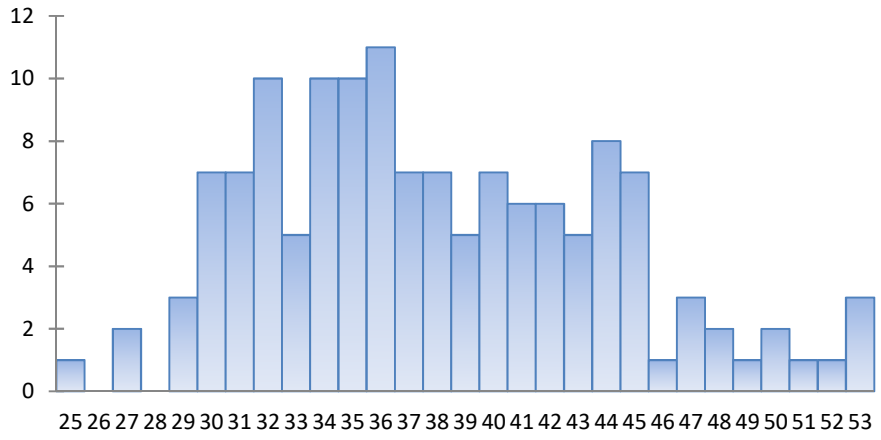
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** ROTH RD - Intermodal Way to Airport Way
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/7/2022 **Weather:** Clear/Dry
**Begin Time:** 12:45 PM **End Time:** 1:50 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 138 |
| Speed Range | 25 - 53 MPH |
| 50th percentile speed | 37 MPH |
| 85th percentile speed | 45 MPH |
| 10 mph pace speed | 30 - 39 MPH |
| % in pace speed | 57% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 11 |
| 17 | 0 | 37 | 7 |
| 18 | 0 | 38 | 7 |
| 19 | 0 | 39 | 5 |
| 20 | 0 | 40 | 7 |
| 21 | 0 | 41 | 6 |
| 22 | 0 | 42 | 6 |
| 23 | 0 | 43 | 5 |
| 24 | 0 | 44 | 8 |
| 25 | 1 | 45 | 7 |
| 26 | 0 | 46 | 1 |
| 27 | 2 | 47 | 3 |
| 28 | 0 | 48 | 2 |
| 29 | 3 | 49 | 1 |
| 30 | 7 | 50 | 2 |
| 31 | 7 | 51 | 1 |
| 32 | 10 | 52 | 1 |
| 33 | 5 | 53 | 3 |
| 34 | 10 | 54 | 0 |
| 35 | 10 | 55 | 0 |
| TOTAL | | | 138 |

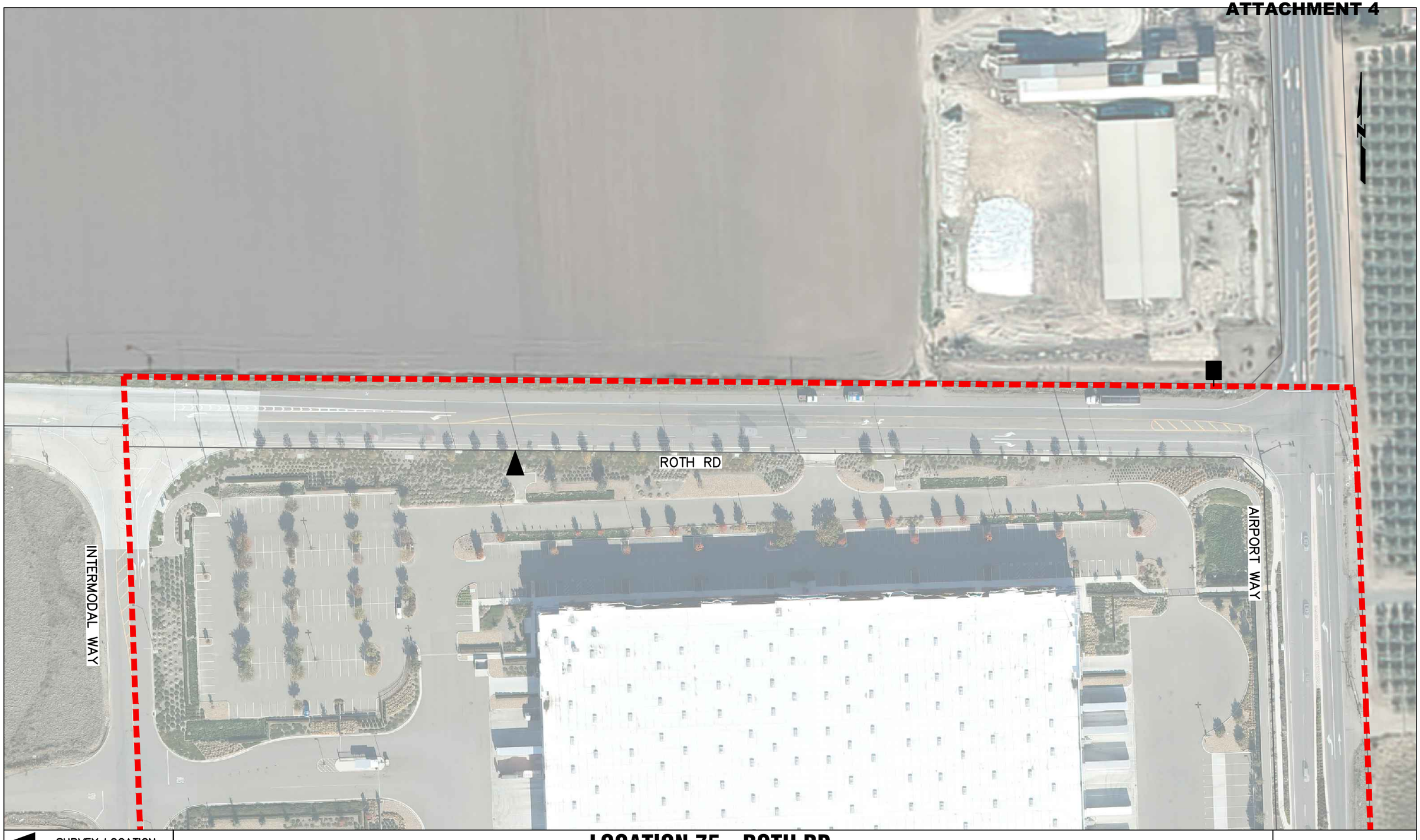
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.26 **ADT:** 5,743 **Count Date:** 7/21/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.61 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 44 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** None **Bike Lanes:** None
**Number of Lanes:** EB 2 WB 1 **Adjacent Land Use:** Industrial
**Divided Median:** TWLTL
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 45 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 30 mph to 39 mph and the recommended speed limit falls above this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 75 - ROTH RD
# BETWEEN INTERMODAL WAY AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

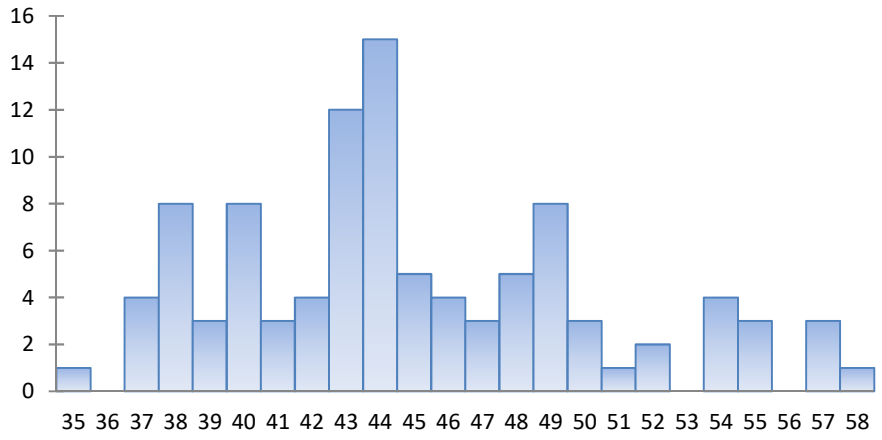
## VEHICLE SPEED DATA

**RECOMMENDED SPEED**
**45 MPH**

**Location:** SOUTHLAND ROAD - Mitchell Rd to Highway 99 E Frontage Rd
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 4/5/2023 **Weather:** Clear/Dry
**Begin Time:** 2:30 PM **End Time:** 4:50 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to pace speed and fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 100 |
| Speed Range | 35 - 58 MPH |
| 50th percentile speed | 44 MPH |
| 85th percentile speed | 50 MPH |
| 10 mph pace speed | 40 - 49 MPH |
| % in pace speed | 67% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 25 | 0 | 45 | 5 |
| 26 | 0 | 46 | 4 |
| 27 | 0 | 47 | 3 |
| 28 | 0 | 48 | 5 |
| 29 | 0 | 49 | 8 |
| 30 | 0 | 50 | 3 |
| 31 | 0 | 51 | 1 |
| 32 | 0 | 52 | 2 |
| 33 | 0 | 53 | 0 |
| 34 | 0 | 54 | 4 |
| 35 | 1 | 55 | 3 |
| 36 | 0 | 56 | 0 |
| 37 | 4 | 57 | 3 |
| 38 | 8 | 58 | 1 |
| 39 | 3 | 59 | 0 |
| 40 | 8 | 60 | 0 |
| 41 | 3 | 61 | 0 |
| 42 | 4 | 62 | 0 |
| 43 | 12 | 63 | 0 |
| 44 | 15 | 64 | 0 |
| TOTAL | | | 100 |

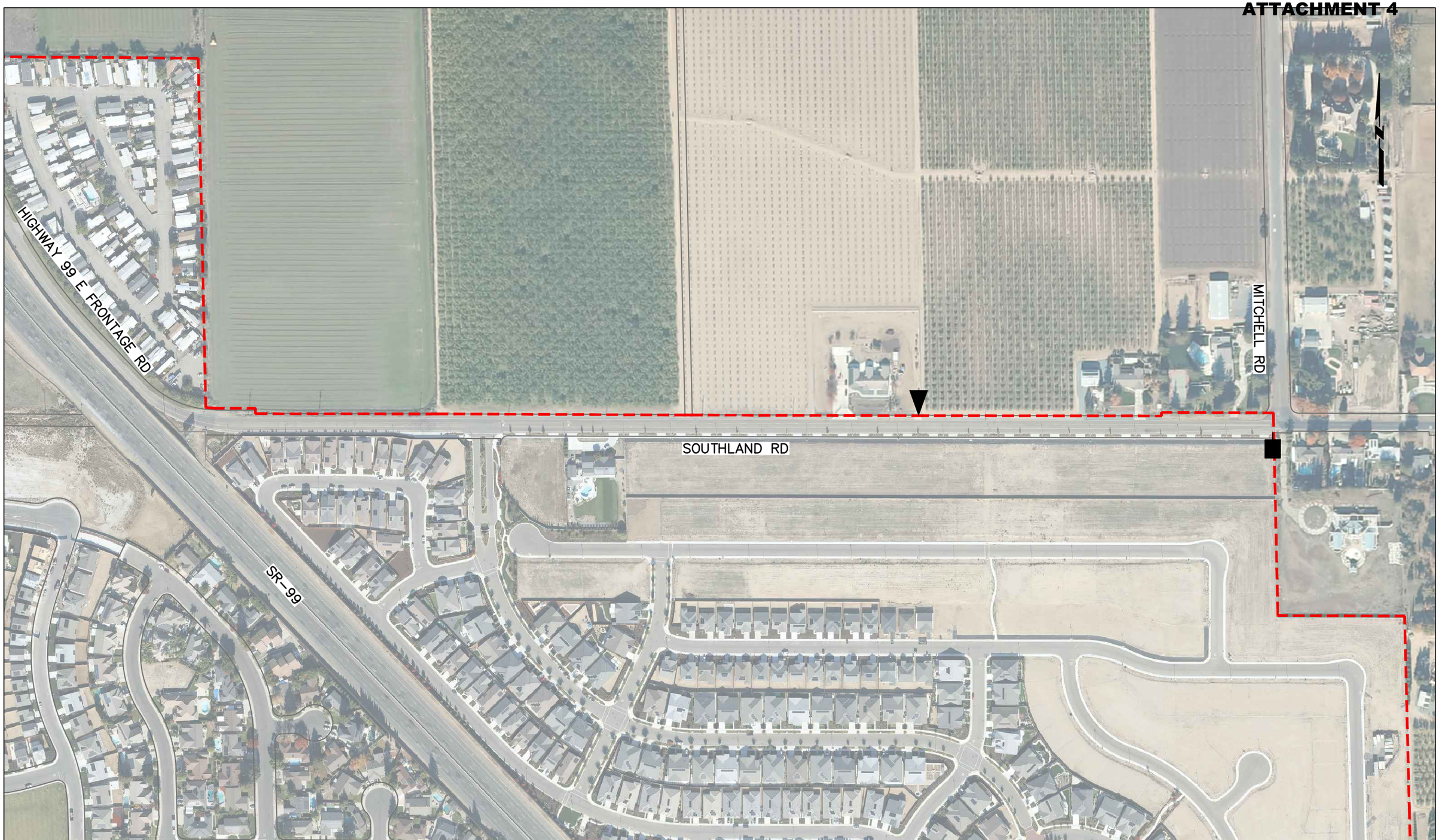
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.60 **ADT:** 527 **Count Date:** 7/28/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 25 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** None **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low/Medium/High Density Residential/Public/Quasi Public/Business Professional
**Divided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 50 mph indicates a 50 mph speed limit. However, due to pace speed and fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 40 mph to 49 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 45 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 76 - SOUTHLAND RD
# BETWEEN MITCHELL RD AND HIGHWAY 99 E FRONTAGE RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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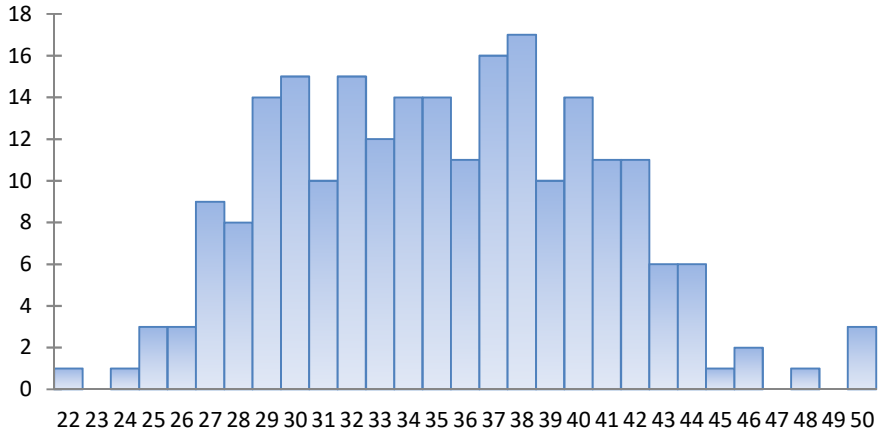
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** SPRECKELS AVENUE - Yosemite Ave to Moffat Blvd
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/28/2022 **Weather:** Clear/Dry
**Begin Time:** 1:00 PM **End Time:** 1:50 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 228 |
| Speed Range | 22 - 50 MPH |
| 50th percentile speed | 35 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 29 - 38 MPH |
| % in pace speed | 61% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 14 |
| 21 | 0 | 41 | 11 |
| 22 | 1 | 42 | 11 |
| 23 | 0 | 43 | 6 |
| 24 | 1 | 44 | 6 |
| 25 | 3 | 45 | 1 |
| 26 | 3 | 46 | 2 |
| 27 | 9 | 47 | 0 |
| 28 | 8 | 48 | 1 |
| 29 | 14 | 49 | 0 |
| 30 | 15 | 50 | 3 |
| 31 | 10 | 51 | 0 |
| 32 | 15 | 52 | 0 |
| 33 | 12 | 53 | 0 |
| 34 | 14 | 54 | 0 |
| 35 | 14 | 55 | 0 |
| 36 | 11 | 56 | 0 |
| 37 | 16 | 57 | 0 |
| 38 | 17 | 58 | 0 |
| 39 | 10 | 59 | 0 |
| TOTAL | | | 228 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.87 **ADT:** 13,324 **Count Date:** 7/14/22
**Number of Collisions:** 21 **Time Period:** 3 years
**Calc. Collision Rate =** 1.65 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 70 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** Class 1
**Number of Lanes:** NB 1-2 SB 1-2 **Adjacent Land Use:** Commercial/Industrial /Park
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the recommended speed limit falls above this range. The collision rate is above the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 77 - SPRECKELS AVE
# BETWEEN YOSEMITE AVE AND MOFFAT BLVD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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**ATTACHMENT 4**

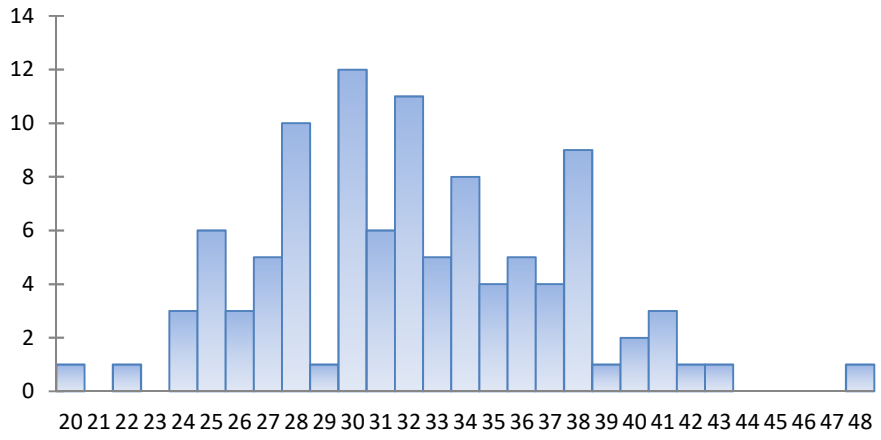
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** TANNEHILL DRIVE - Main St to Atherton Dr
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 10:15 AM **End Time:** 11:40 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 103 |
| Speed Range | 20 - 48 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 38 MPH |
| 10 mph pace speed | 25 - 34 MPH |
| % in pace speed | 65% |



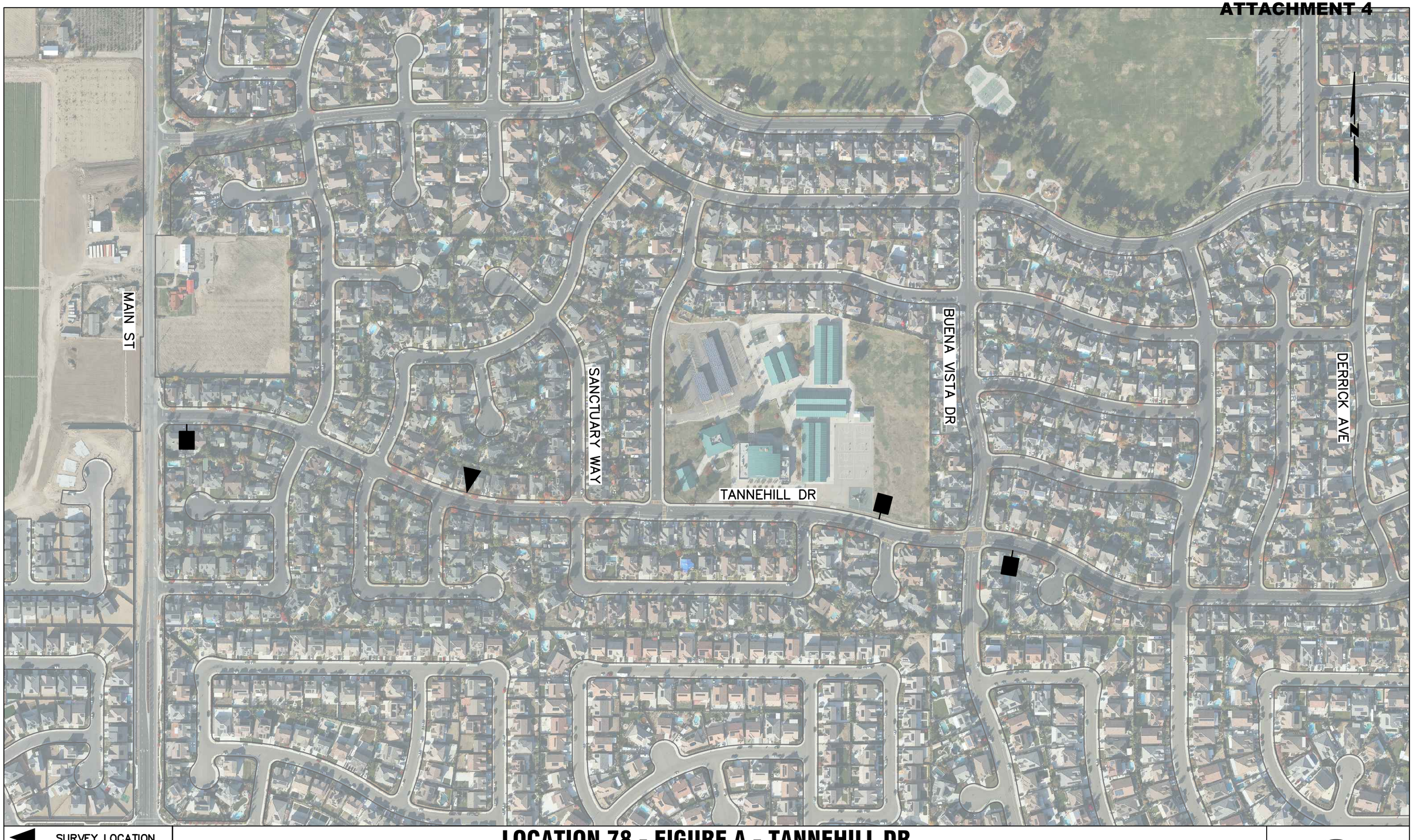

| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 5 |
| 17 | 0 | 37 | 4 |
| 18 | 0 | 38 | 9 |
| 19 | 0 | 39 | 1 |
| 20 | 1 | 40 | 2 |
| 21 | 0 | 41 | 3 |
| 22 | 1 | 42 | 1 |
| 23 | 0 | 43 | 1 |
| 24 | 3 | 44 | 0 |
| 25 | 6 | 45 | 0 |
| 26 | 3 | 46 | 0 |
| 27 | 5 | 47 | 0 |
| 28 | 10 | 48 | 1 |
| 29 | 1 | 49 | 0 |
| 30 | 12 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 11 | 52 | 0 |
| 33 | 5 | 53 | 0 |
| 34 | 8 | 54 | 0 |
| 35 | 4 | 55 | 0 |
| TOTAL | | | 103 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.52 **ADT:** 1,054 **Count Date:** 7/12/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 44 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low Density Residential/Public/Quasi Public/Park
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 38 mph indicates a 40 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 25 mph to 34 mph and the recommended speed limit falls within this range.



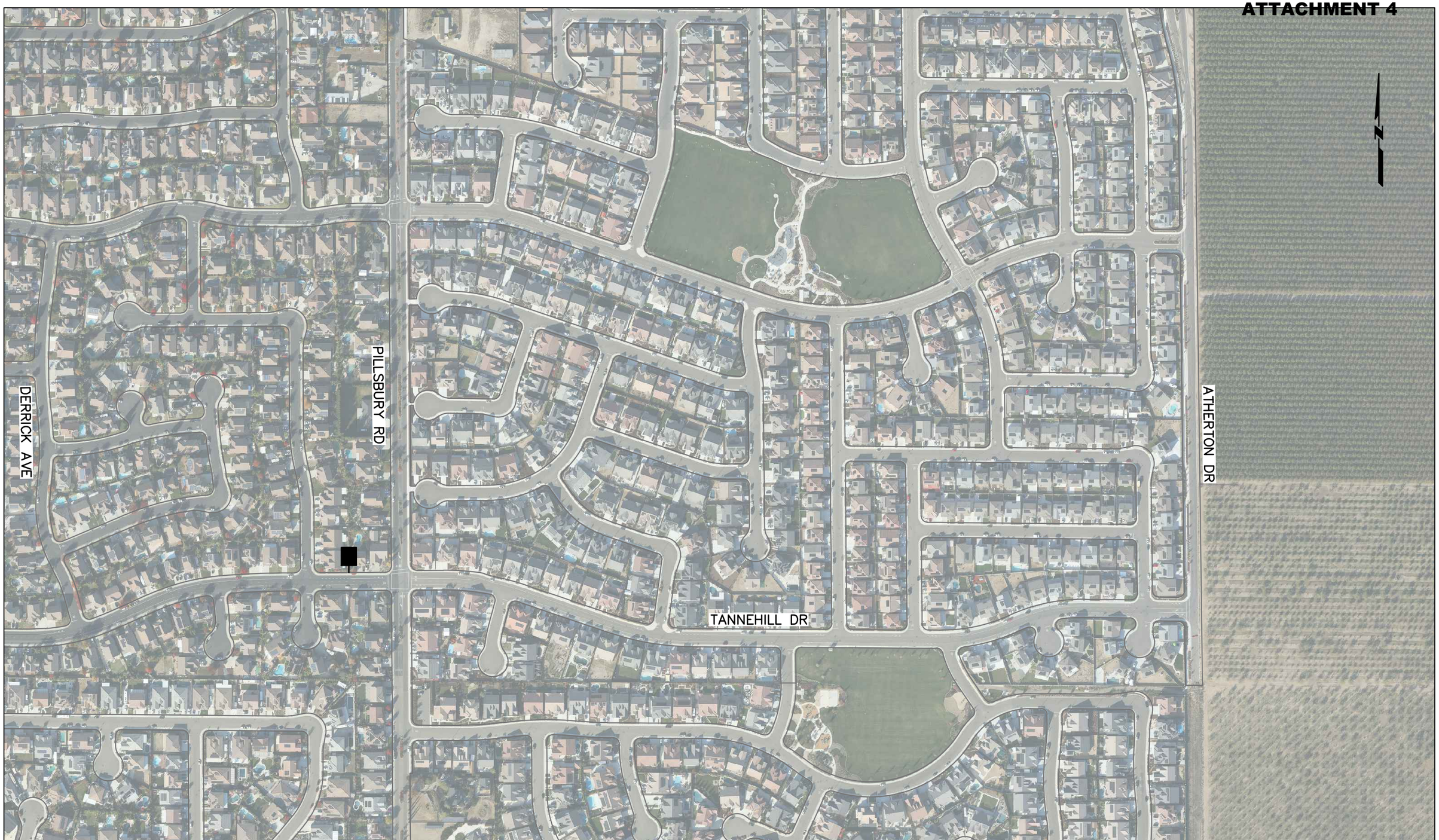

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 78 - FIGURE A - TANNEHILL DR BETWEEN MAIN ST AND ATHERTON DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 78 - FIGURE B - TANNEHILL DR BETWEEN MAIN ST AND ATHERTON DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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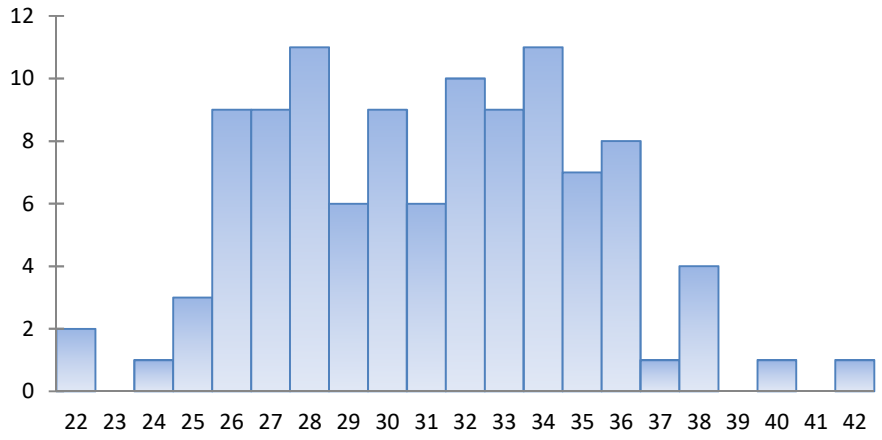
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** TESORO DR/SERENO DR - Atherton Dr TO Atherton Dr
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 11:55 AM **End Time:** 1:55 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 108 |
| Speed Range | 22 - 42 MPH |
| 50th percentile speed | 31 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 26 - 35 MPH |
| % in pace speed | 81% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 8 |
| 17 | 0 | 37 | 1 |
| 18 | 0 | 38 | 4 |
| 19 | 0 | 39 | 0 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 0 |
| 22 | 2 | 42 | 1 |
| 23 | 0 | 43 | 0 |
| 24 | 1 | 44 | 0 |
| 25 | 3 | 45 | 0 |
| 26 | 9 | 46 | 0 |
| 27 | 9 | 47 | 0 |
| 28 | 11 | 48 | 0 |
| 29 | 6 | 49 | 0 |
| 30 | 9 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 9 | 53 | 0 |
| 34 | 11 | 54 | 0 |
| 35 | 7 | 55 | 0 |
| TOTAL | | | 108 |

### ANALYSIS INFORMATION

**Segment Length(mi):** 0.75 **ADT:** 1,329 **Count Date:** 7/12/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.92 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 44 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low Density Residential/Park
**Divided Median:** Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 26 mph to 35 mph and the recommended speed limit falls below this range.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 79 - TESORO DR / SERENO DR
# BETWEEN ATHERTON DR AND ATHERTON DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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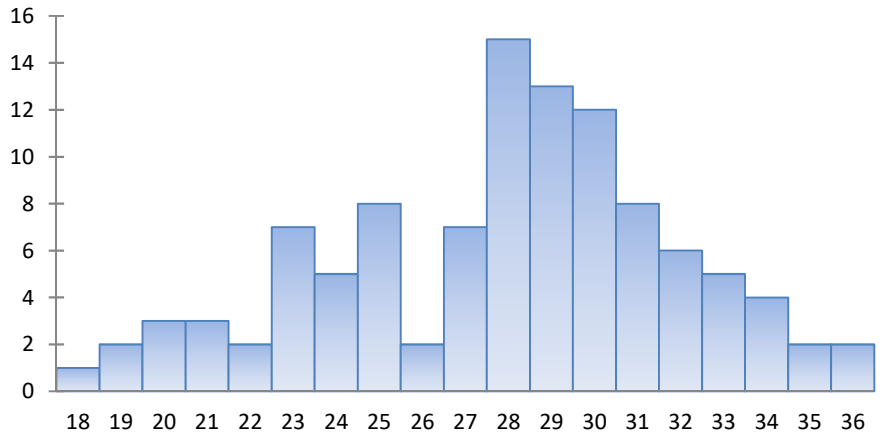
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**30 MPH**

**Location:** THOMAS ST - Winters Dr to Fishback Rd
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 12/6/2022 **Weather:** Clear/Dry
**Begin Time:** 9:45 AM **End Time:** 12:30 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 107 |
| Speed Range | 18 - 36 MPH |
| 50th percentile speed | 28 MPH |
| 85th percentile speed | 32 MPH |
| 10 mph pace speed | 23 - 32 MPH |
| % in pace speed | 78% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 2 |
| 17 | 0 | 37 | 0 |
| 18 | 1 | 38 | 0 |
| 19 | 2 | 39 | 0 |
| 20 | 3 | 40 | 0 |
| 21 | 3 | 41 | 0 |
| 22 | 2 | 42 | 0 |
| 23 | 7 | 43 | 0 |
| 24 | 5 | 44 | 0 |
| 25 | 8 | 45 | 0 |
| 26 | 2 | 46 | 0 |
| 27 | 7 | 47 | 0 |
| 28 | 15 | 48 | 0 |
| 29 | 13 | 49 | 0 |
| 30 | 12 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 5 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 2 | 55 | 0 |
| TOTAL | | | 107 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.33 **ADT:** 1,704 **Count Date:** 8/18/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 1.62 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 52 - 64 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** EB 2 WB 1-2 **Adjacent Land Use:** Low Density Residential/Public/Quasi Public
**Divided Median:** TWLTL
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 32 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 23 mph to 32 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 30 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 80 - THOMAS ST
# BETWEEN WINTERS DR AND FISHBACK RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

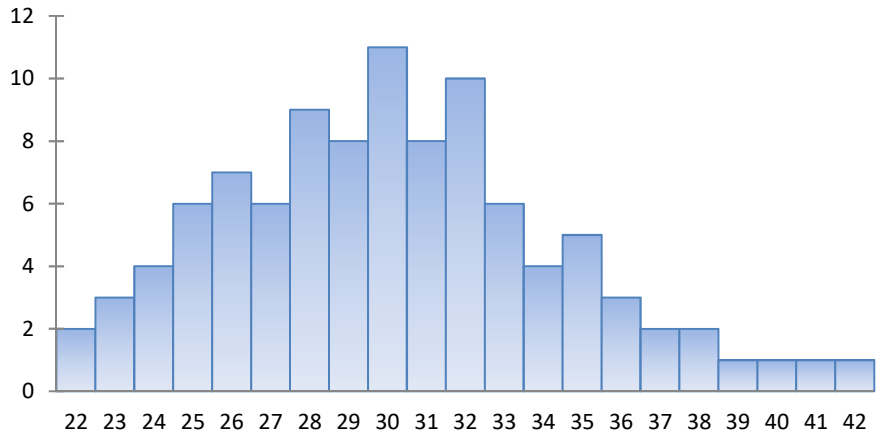
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** TRAILWOOD AVE - Northgate Dr to Louise Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 11/30/2022 **Weather:** Clear/Dry
**Begin Time:** 9:15 AM **End Time:** 11:45 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 100 |
| Speed Range | 22 - 42 MPH |
| 50th percentile speed | 30 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 24 - 33 MPH |
| % in pace speed | 75% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 3 |
| 17 | 0 | 37 | 2 |
| 18 | 0 | 38 | 2 |
| 19 | 0 | 39 | 1 |
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 1 |
| 22 | 2 | 42 | 1 |
| 23 | 3 | 43 | 0 |
| 24 | 4 | 44 | 0 |
| 25 | 6 | 45 | 0 |
| 26 | 7 | 46 | 0 |
| 27 | 6 | 47 | 0 |
| 28 | 9 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 11 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 6 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 5 | 55 | 0 |
| TOTAL | | | 100 |

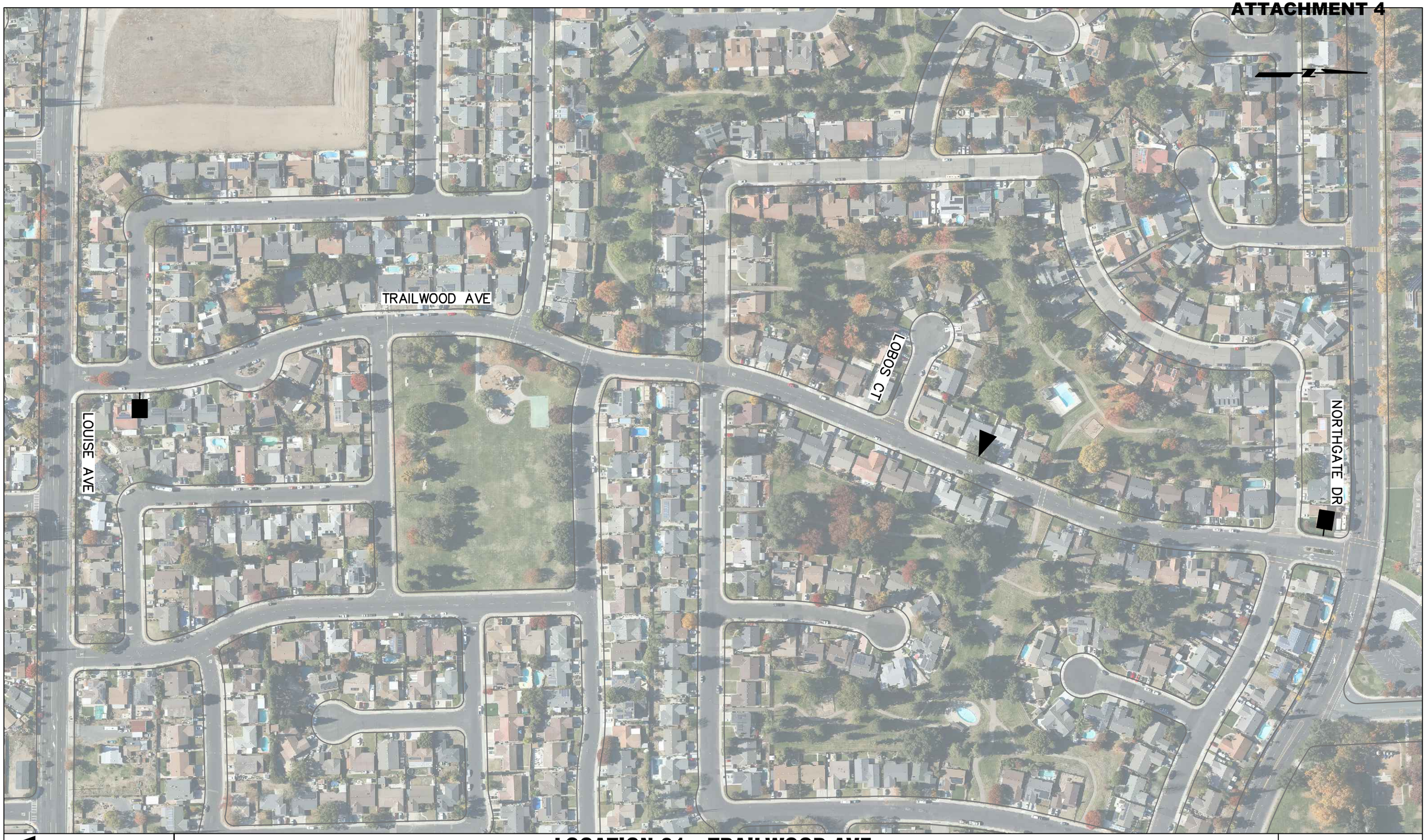
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.57 **ADT:** 1,329 **Count Date:** 9/14/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 2.41 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential
**Divided Median:** Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is above the expected rate. The 10 mph pace ranges from 24 mph to 33 mph and the recommended speed limit falls within this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 81 - TRAILWOOD AVE
# BETWEEN NORTHGATE DR AND LOUISE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

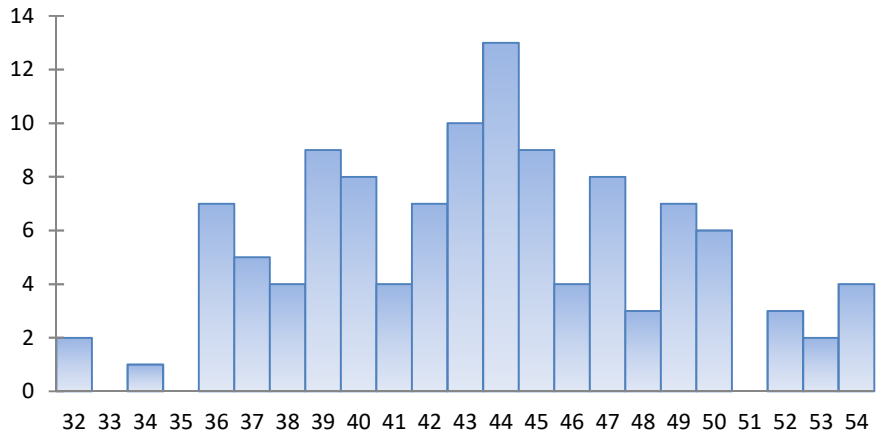
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** UNION RD - Shady Pines St to Lathrop Rd
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/7/2022 **Weather:** Clear/Dry
**Begin Time:** 11:10 AM **End Time:** 12:25 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 116 |
| Speed Range | 32 - 54 MPH |
| 50th percentile speed | 44 MPH |
| 85th percentile speed | 49 MPH |
| 10 mph pace speed | 36 - 45 MPH |
| % in pace speed | 66% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 16 | 0 | 36 | 7 |
| 17 | 0 | 37 | 5 |
| 18 | 0 | 38 | 4 |
| 19 | 0 | 39 | 9 |
| 20 | 0 | 40 | 8 |
| 21 | 0 | 41 | 4 |
| 22 | 0 | 42 | 7 |
| 23 | 0 | 43 | 10 |
| 24 | 0 | 44 | 13 |
| 25 | 0 | 45 | 9 |
| 26 | 0 | 46 | 4 |
| 27 | 0 | 47 | 8 |
| 28 | 0 | 48 | 3 |
| 29 | 0 | 49 | 7 |
| 30 | 0 | 50 | 6 |
| 31 | 0 | 51 | 0 |
| 32 | 2 | 52 | 3 |
| 33 | 0 | 53 | 2 |
| 34 | 1 | 54 | 4 |
| 35 | 0 | 55 | 0 |
| TOTAL | | | 116 |

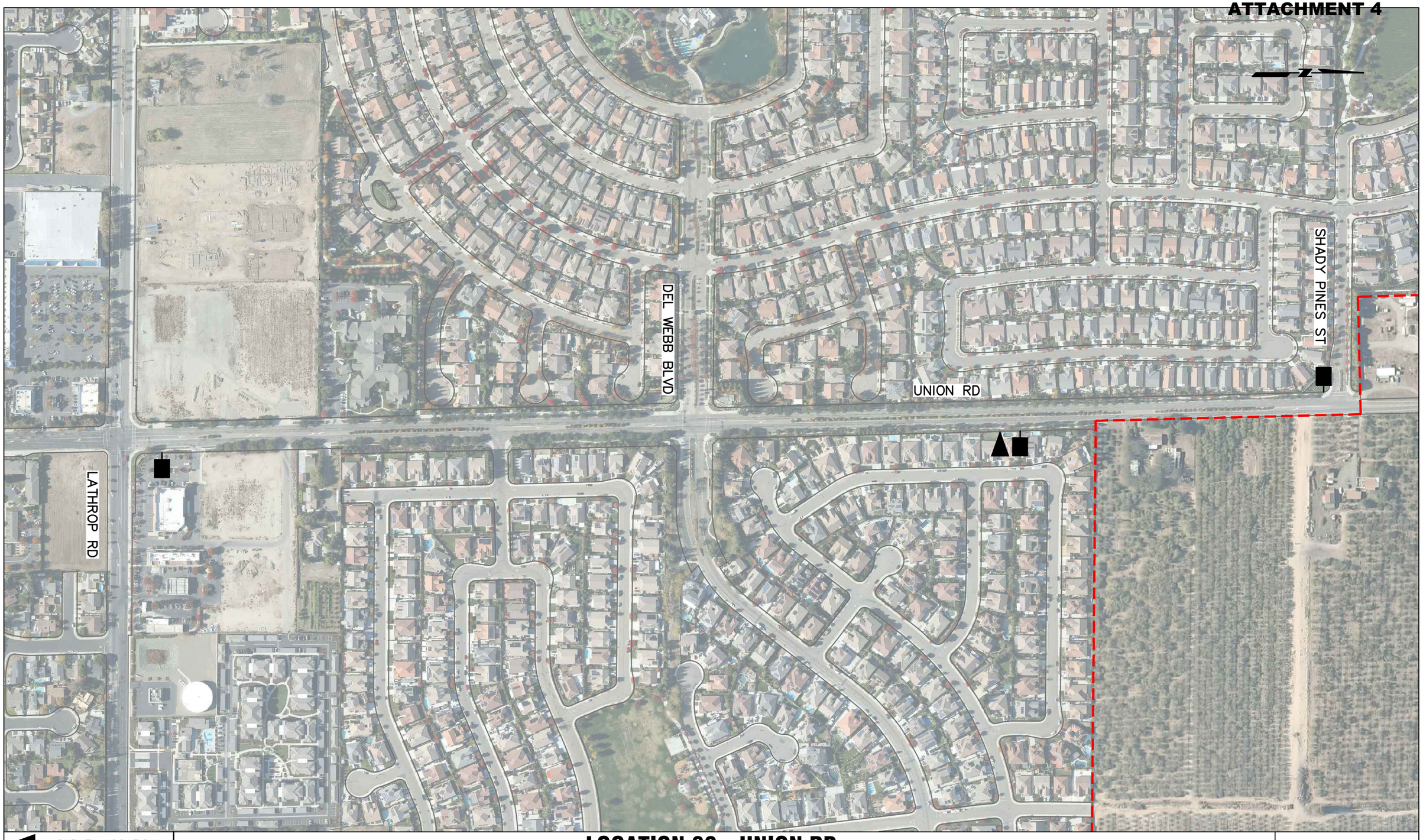
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.78 **ADT:** 6,762 **Count Date:** 7/21/22
**Number of Collisions:** 6 **Time Period:** 3 years
**Calc. Collision Rate =** 1.04 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 53 - 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** NB 1-2 SB 2 **Adjacent Land Use:** Low/High Density Residential/Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 49 mph indicates a 50 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 45 mph. The 10 mph pace ranges from 36 mph to 45 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 82 - UNION RD
# BETWEEN SHADY PINES ST AND LATHROP RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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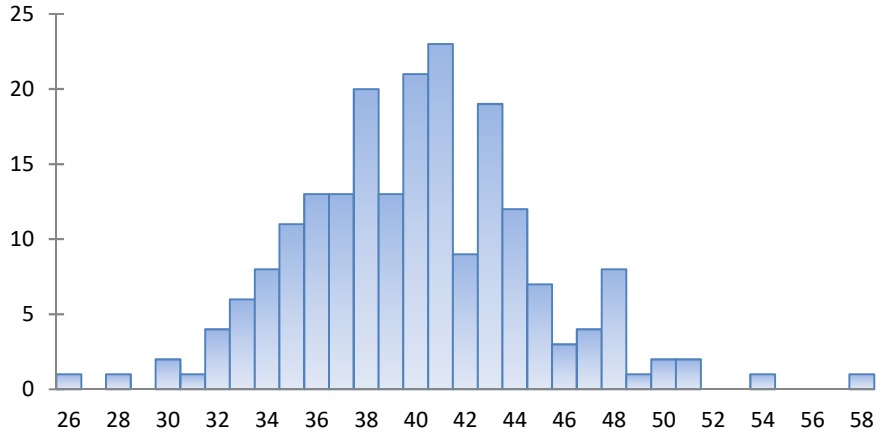
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** UNION RD - Lathrop Rd to Louise Ave
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/7/2022 **Weather:** Clear/Dry
**Begin Time:** 12:20 AM **End Time:** 1:10 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 206 |
| Speed Range | 26 - 58 MPH |
| 50th percentile speed | 40 MPH |
| 85th percentile speed | 44 MPH |
| 10 mph pace speed | 35 - 44 MPH |
| % in pace speed | 75% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 25 | 0 | 45 | 7 |
| 26 | 1 | 46 | 3 |
| 27 | 0 | 47 | 4 |
| 28 | 1 | 48 | 8 |
| 29 | 0 | 49 | 1 |
| 30 | 2 | 50 | 2 |
| 31 | 1 | 51 | 2 |
| 32 | 4 | 52 | 0 |
| 33 | 6 | 53 | 0 |
| 34 | 8 | 54 | 1 |
| 35 | 11 | 55 | 0 |
| 36 | 13 | 56 | 0 |
| 37 | 13 | 57 | 0 |
| 38 | 20 | 58 | 1 |
| 39 | 13 | 59 | 0 |
| 40 | 21 | 60 | 0 |
| 41 | 23 | 61 | 0 |
| 42 | 9 | 62 | 0 |
| 43 | 19 | 63 | 0 |
| 44 | 12 | 64 | 0 |
| TOTAL | | | 206 |

### ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 14,486 **Count Date:** 7/21/22
**Number of Collisions:** 9 **Time Period:** 3 years
**Calc. Collision Rate =** 0.57 collisions per million vehicle-miles **Expected Collisions Rate:** 1.10 c/mvm
**Street Width (ft):** 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** NB 2 SB 2 **Adjacent Land Use:** Low/High Density Residential/Commercial/ Public/Quasi Public
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 44 mph indicates a 45 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph. The 10 mph pace ranges from 35 mph to 44 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

**ATTACHMENT 4**



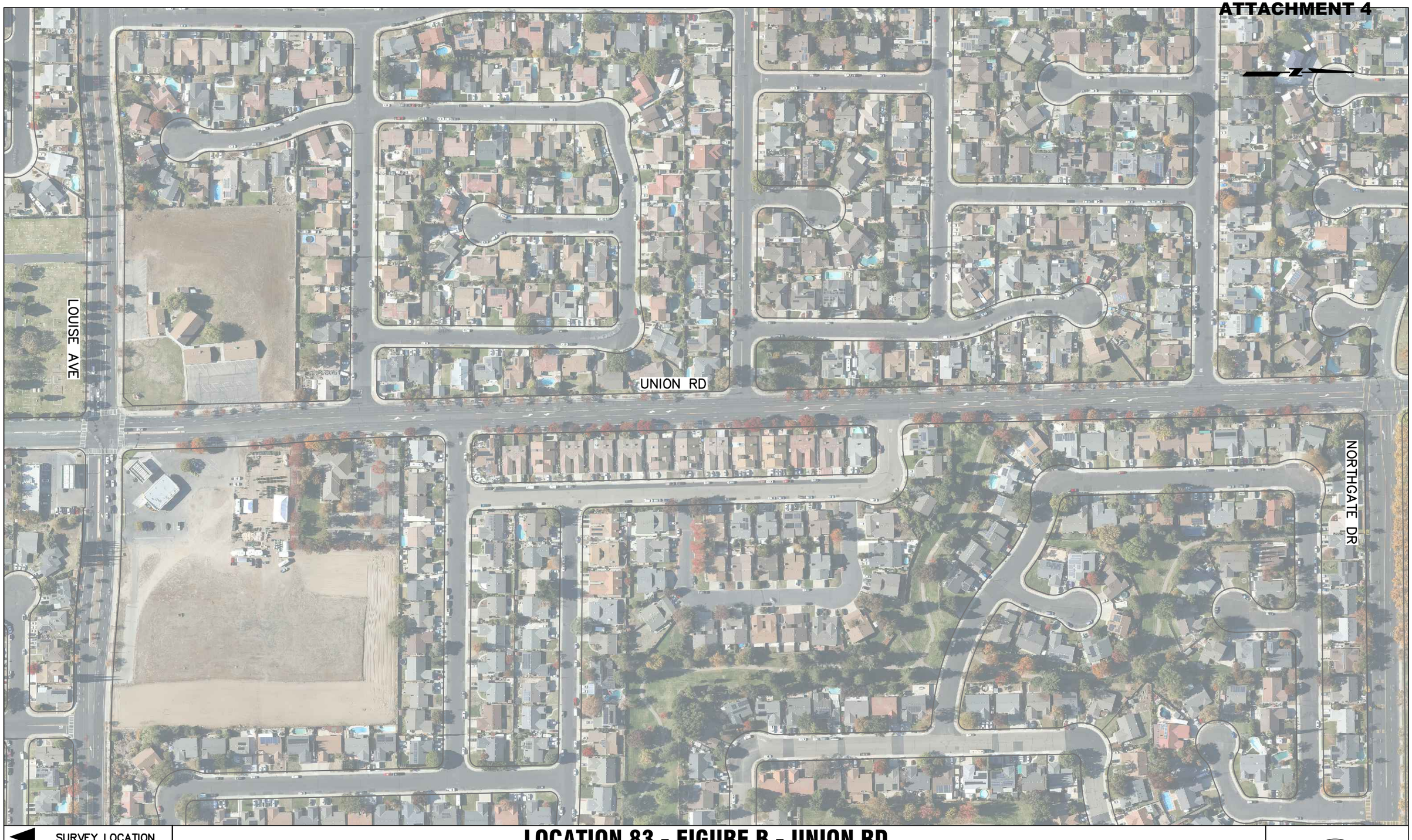

SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 83 - FIGURE A - UNION RD
# BETWEEN LATHROP RD AND LOUISE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 83 - FIGURE B - UNION RD
# BETWEEN LATHROP RD AND LOUISE AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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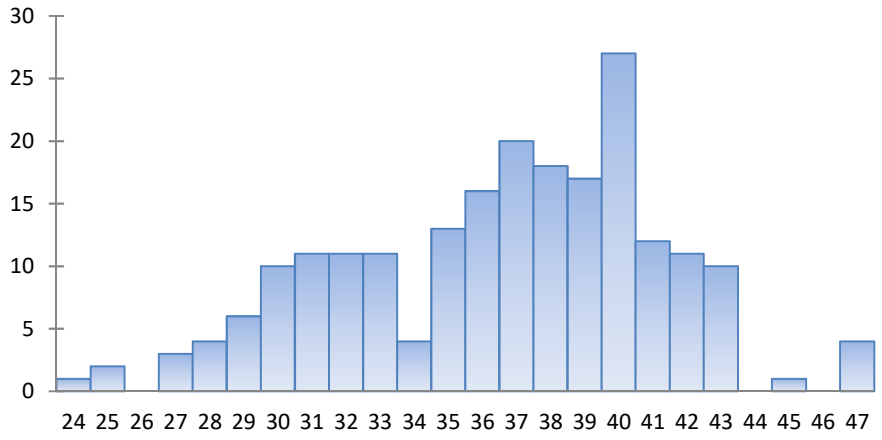
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**40 MPH**

**Location:** UNION RD - Louise Ave to Center St
**Posted Speed Limit:** 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 11:15 AM **End Time:** 12:15 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 212 |
| Speed Range | 24 - 47 MPH |
| 50th percentile speed | 37 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 32 - 41 MPH |
| % in pace speed | 70% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 22 | 0 | 42 | 11 |
| 23 | 0 | 43 | 10 |
| 24 | 1 | 44 | 0 |
| 25 | 2 | 45 | 1 |
| 26 | 0 | 46 | 0 |
| 27 | 3 | 47 | 4 |
| 28 | 4 | 48 | 0 |
| 29 | 6 | 49 | 0 |
| 30 | 10 | 50 | 0 |
| 31 | 11 | 51 | 0 |
| 32 | 11 | 52 | 0 |
| 33 | 11 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 13 | 55 | 0 |
| 36 | 16 | 56 | 0 |
| 37 | 20 | 57 | 0 |
| 38 | 18 | 58 | 0 |
| 39 | 17 | 59 | 0 |
| 40 | 27 | 60 | 0 |
| 41 | 12 | 61 | 0 |
| TOTAL | | | 212 |

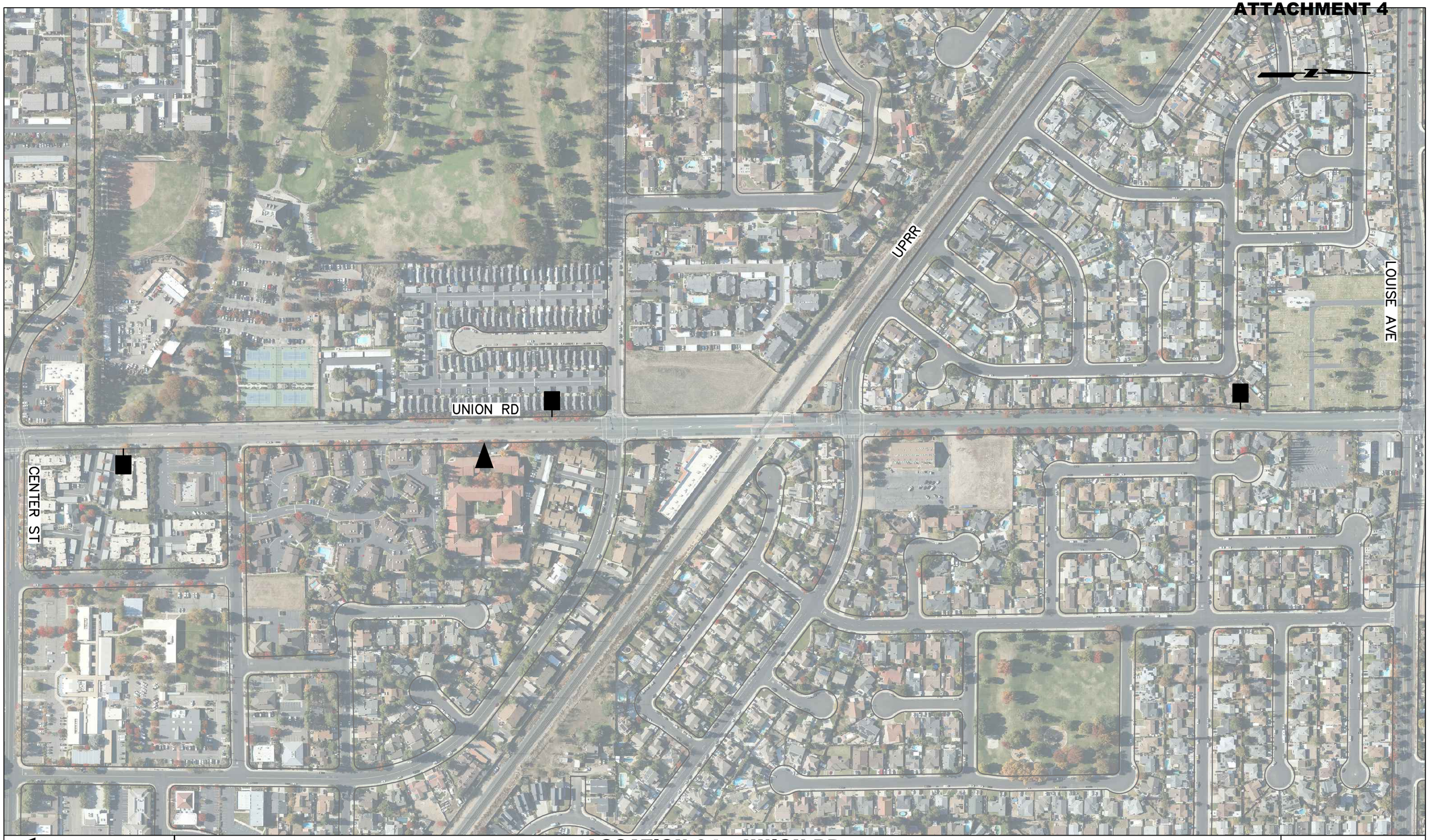
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 25,205 **Count Date:** 8/2/22
**Number of Collisions:** 28 **Time Period:** 3 years
**Calc. Collision Rate =** 1.01 collisions per million vehicle-miles **Expected Collisions Rate:** 1.46 c/mvm
**Street Width (ft):** 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** NB 2 SB 2 **Adjacent Land Use:** Low/Medium/High Density Residential/Commercial/ Park/Public/Quasi Public
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 84 - UNION RD
# BETWEEN LOUISE AVE AND CENTER ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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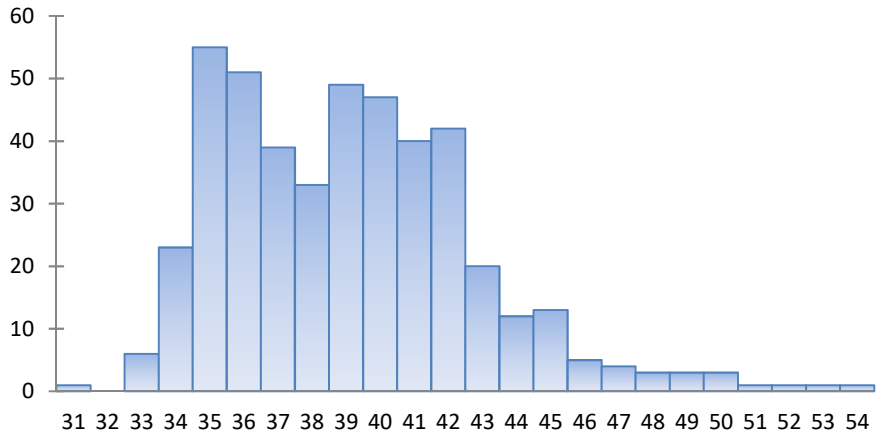
## VEHICLE SPEED DATA

**RECOMMENDED SPEED**
**35 MPH**

**Location:** UNION RD - Center St to Wawona St
**Posted Speed Limit:** 35 mph
**Direction:** Both
**Recorder:** BD/FG
**Survey Date:** 3/27/2023
**Weather:** Clear/Dry
**Begin Time:** 3:03 PM
**End Time:** 3:33 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 453 |
| Speed Range | 31 - 54 MPH |
| 50th percentile speed | 39 MPH |
| 85th percentile speed | 42 MPH |
| 10 mph pace speed | 34 - 43 MPH |
| % in pace speed | 88% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 22 | 0 | 42 | 42 |
| 23 | 0 | 43 | 20 |
| 24 | 0 | 44 | 12 |
| 25 | 0 | 45 | 13 |
| 26 | 0 | 46 | 5 |
| 27 | 0 | 47 | 4 |
| 28 | 0 | 48 | 3 |
| 29 | 0 | 49 | 3 |
| 30 | 0 | 50 | 3 |
| 31 | 1 | 51 | 1 |
| 32 | 0 | 52 | 1 |
| 33 | 6 | 53 | 1 |
| 34 | 23 | 54 | 1 |
| 35 | 55 | 55 | 0 |
| 36 | 51 | 56 | 0 |
| 37 | 39 | 57 | 0 |
| 38 | 33 | 58 | 0 |
| 39 | 49 | 59 | 0 |
| 40 | 47 | 60 | 0 |
| 41 | 40 | 61 | 0 |
| TOTAL | | | 453 |

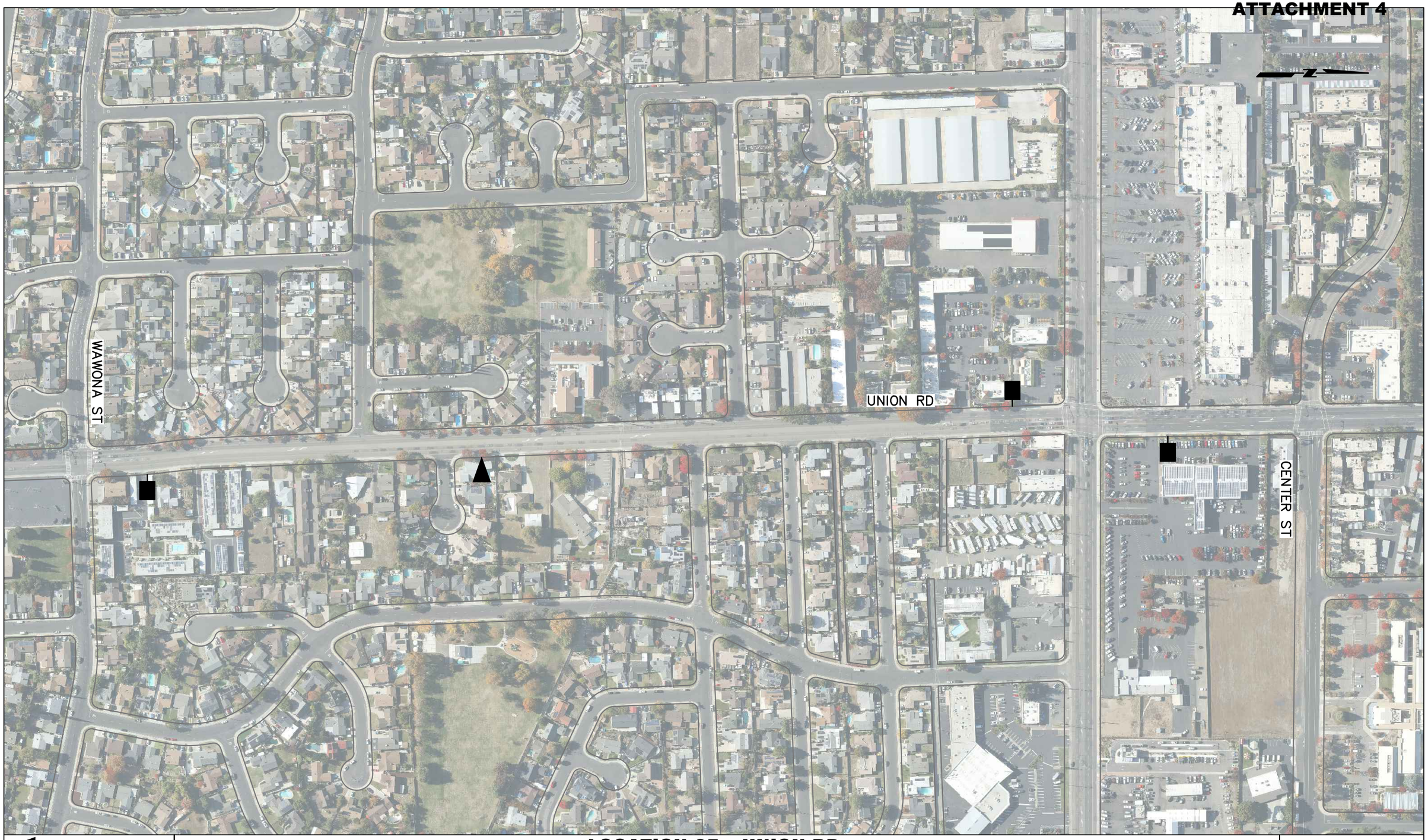
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.53
**ADT:** 22,110
**Count Date:** 8/3/22
**Number of Collisions:** 16
**Time Period:** 3 years
**Calc. Collision Rate =** 1.25 collisions per million vehicle-miles
**State Average Rate:** 1.10 c/mvm
**Street Width (ft):** 65
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** None
**Sidewalk:** Both Sides
**Bike Lanes:** None
**Number of Lanes:** NB 2 SB 2
**Adjacent Land Use:** Low/Medium/High Density Residential/Commercial
**Divided Median:** TWLTL
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 34 mph to 43 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 85 - UNION RD
# BETWEEN CENTER ST AND WAWONA ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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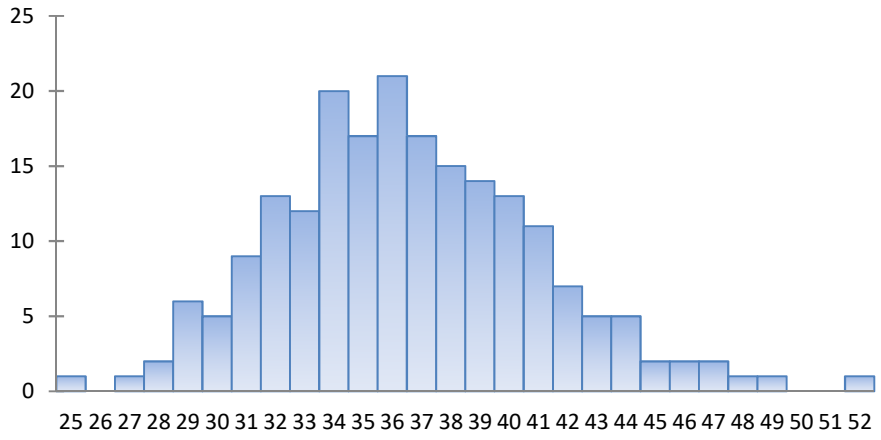
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** UNION RD - Wawona St to 400 ft. south of Sephos St
**Posted Speed Limit:** NB 35-40 mph / SB 40 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/7/2022 **Weather:** Clear/Dry
**Begin Time:** 1:25 PM **End Time:** 2:10 PM
**Speed Limit Change:** Yes
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district and the existing uncontrolled crosswalks.

### Summary Statistics

| | |
|---|---|
| Total Observed | 203 |
| Speed Range | 25 - 52 MPH |
| 50th percentile speed | 36 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 32 - 41 MPH |
| % in pace speed | 75% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 24 | 0 | 44 | 5 |
| 25 | 1 | 45 | 2 |
| 26 | 0 | 46 | 2 |
| 27 | 1 | 47 | 2 |
| 28 | 2 | 48 | 1 |
| 29 | 6 | 49 | 1 |
| 30 | 5 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 13 | 52 | 1 |
| 33 | 12 | 53 | 0 |
| 34 | 20 | 54 | 0 |
| 35 | 17 | 55 | 0 |
| 36 | 21 | 56 | 0 |
| 37 | 17 | 57 | 0 |
| 38 | 15 | 58 | 0 |
| 39 | 14 | 59 | 0 |
| 40 | 13 | 60 | 0 |
| 41 | 11 | 61 | 0 |
| 42 | 7 | 62 | 0 |
| 43 | 5 | 63 | 0 |
| TOTAL | | | 203 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 22,908 **Count Date:** 8/11/22
**Number of Collisions:** 18 **Time Period:** 3 years
**Calc. Collision Rate =** 0.72 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 64 - 100 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** NB 1-2 SB 1-2 **Adjacent Land Use:** Low/High Density Residential/Public/Quasi Public/Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. However, due to fronting residential district and the existing uncontrolled crosswalks, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 32 mph to 41 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit is decreased to 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 86 - FIGURE A - UNION RD
# BETWEEN WAWONA ST AND SOUTH CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 86 - FIGURE B - UNION RD
# BETWEEN WAWONA ST AND SOUTH CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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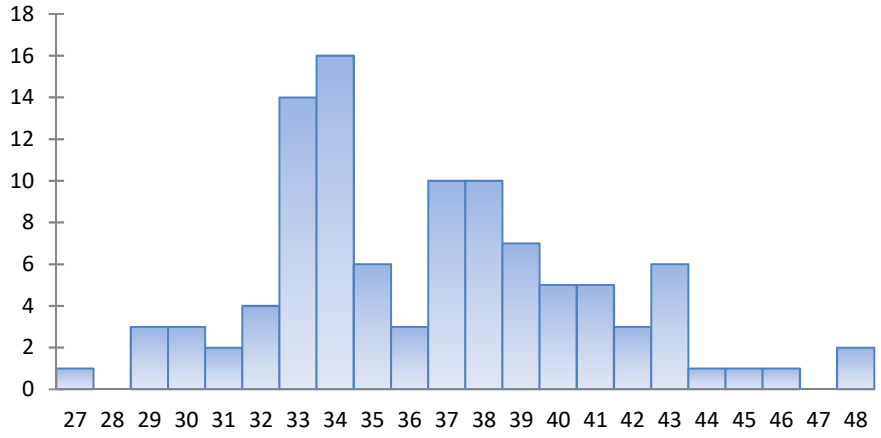
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** VAN RYN AVE - Industrial Park Dr to Woodward Ave
**Posted Speed Limit:** 35 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 11/30/2022 **Weather:** Clear/Dry
**Begin Time:** 1:55 PM **End Time:** 3:15 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to lack of bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 103 |
| Speed Range | 27 - 48 MPH |
| 50th percentile speed | 36 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 32 - 41 MPH |
| % in pace speed | 78% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 24 | 0 | 44 | 1 |
| 25 | 0 | 45 | 1 |
| 26 | 0 | 46 | 1 |
| 27 | 1 | 47 | 0 |
| 28 | 0 | 48 | 2 |
| 29 | 3 | 49 | 0 |
| 30 | 3 | 50 | 0 |
| 31 | 2 | 51 | 0 |
| 32 | 4 | 52 | 0 |
| 33 | 14 | 53 | 0 |
| 34 | 16 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| 36 | 3 | 56 | 0 |
| 37 | 10 | 57 | 0 |
| 38 | 10 | 58 | 0 |
| 39 | 7 | 59 | 0 |
| 40 | 5 | 60 | 0 |
| 41 | 5 | 61 | 0 |
| 42 | 3 | 62 | 0 |
| 43 | 6 | 63 | 0 |
| TOTAL | | | 103 |

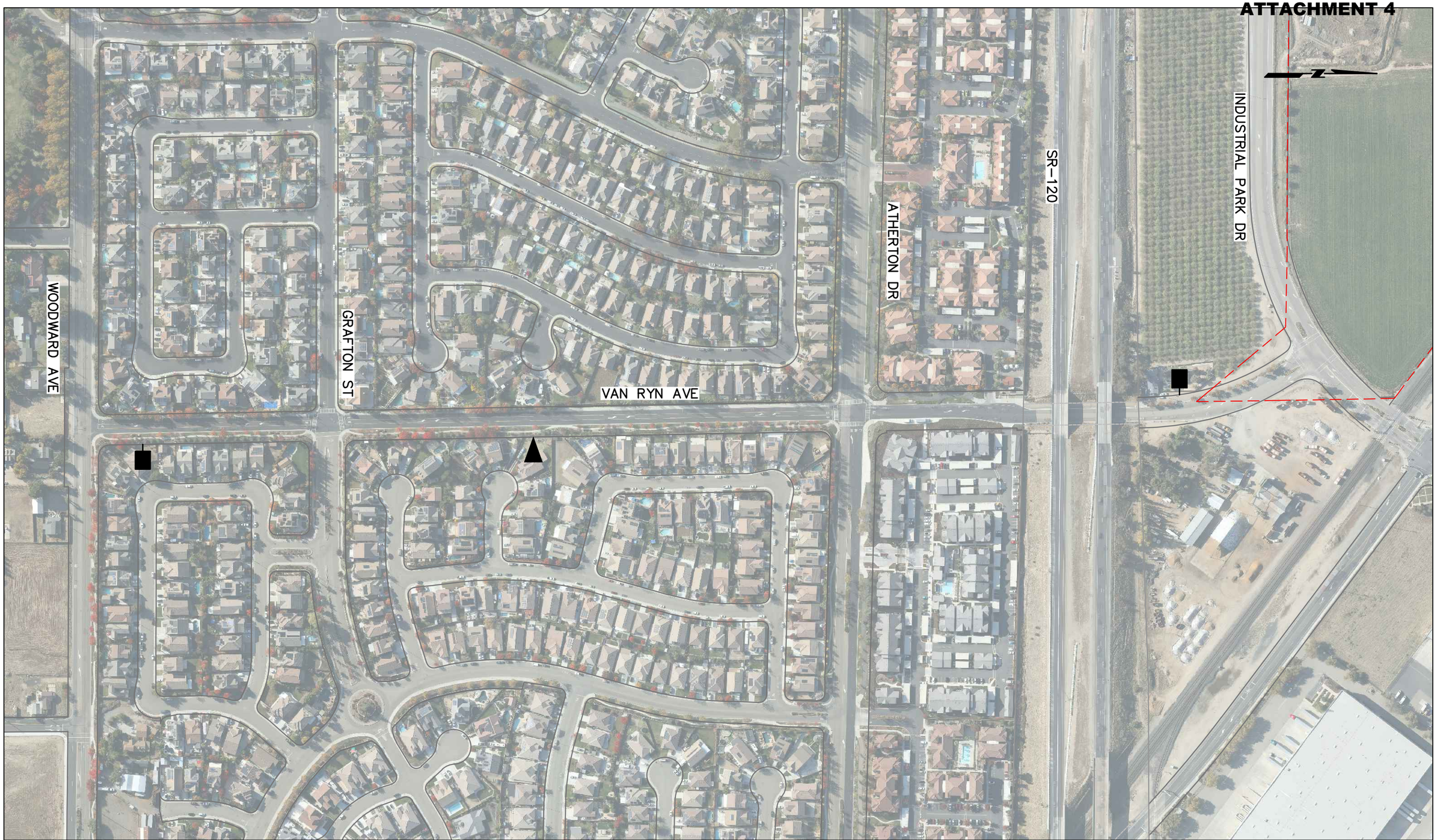
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.65 **ADT:** 4,012 **Count Date:** 7/12/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 0.70 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 41 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low/High Density Residential/Industrial/ Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. However, due to the lack of continuous bike lane, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 32 mph to 41 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 87 - VAN RYN AVE
# BETWEEN INDUSTRIAL PARK DR AND WOODWARD AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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2023 Engineering and Traffic Survey

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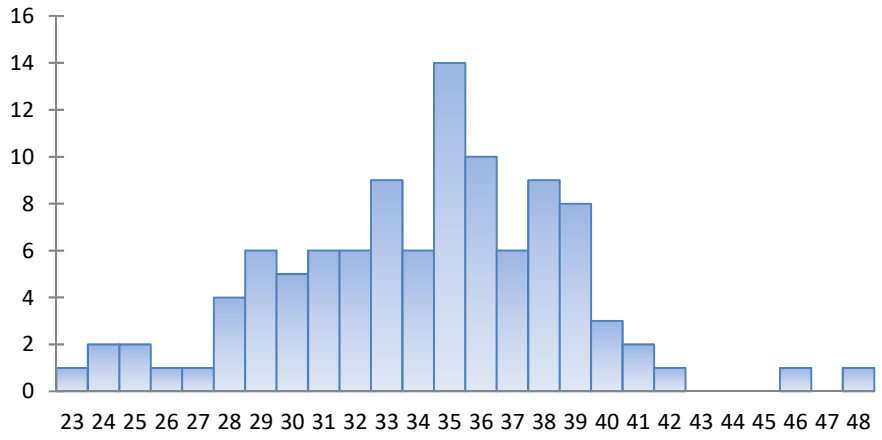
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** VASCONCELLOS AVENUE, Louise Ave to 545 ft. south of Serene Way
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/29/2022 **Weather:** Clear/Dry
**Begin Time:** 11:20 AM **End Time:** 12:20 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 104 |
| Speed Range | 23 - 48 MPH |
| 50th percentile speed | 35 MPH |
| 85th percentile speed | 39 MPH |
| 10 mph pace speed | 30 - 39 MPH |
| % in pace speed | 76% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 3 |
| 21 | 0 | 41 | 2 |
| 22 | 0 | 42 | 1 |
| 23 | 1 | 43 | 0 |
| 24 | 2 | 44 | 0 |
| 25 | 2 | 45 | 0 |
| 26 | 1 | 46 | 1 |
| 27 | 1 | 47 | 0 |
| 28 | 4 | 48 | 1 |
| 29 | 6 | 49 | 0 |
| 30 | 5 | 50 | 0 |
| 31 | 6 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 9 | 53 | 0 |
| 34 | 6 | 54 | 0 |
| 35 | 14 | 55 | 0 |
| 36 | 10 | 56 | 0 |
| 37 | 6 | 57 | 0 |
| 38 | 9 | 58 | 0 |
| 39 | 8 | 59 | 0 |
| TOTAL | | | 104 |

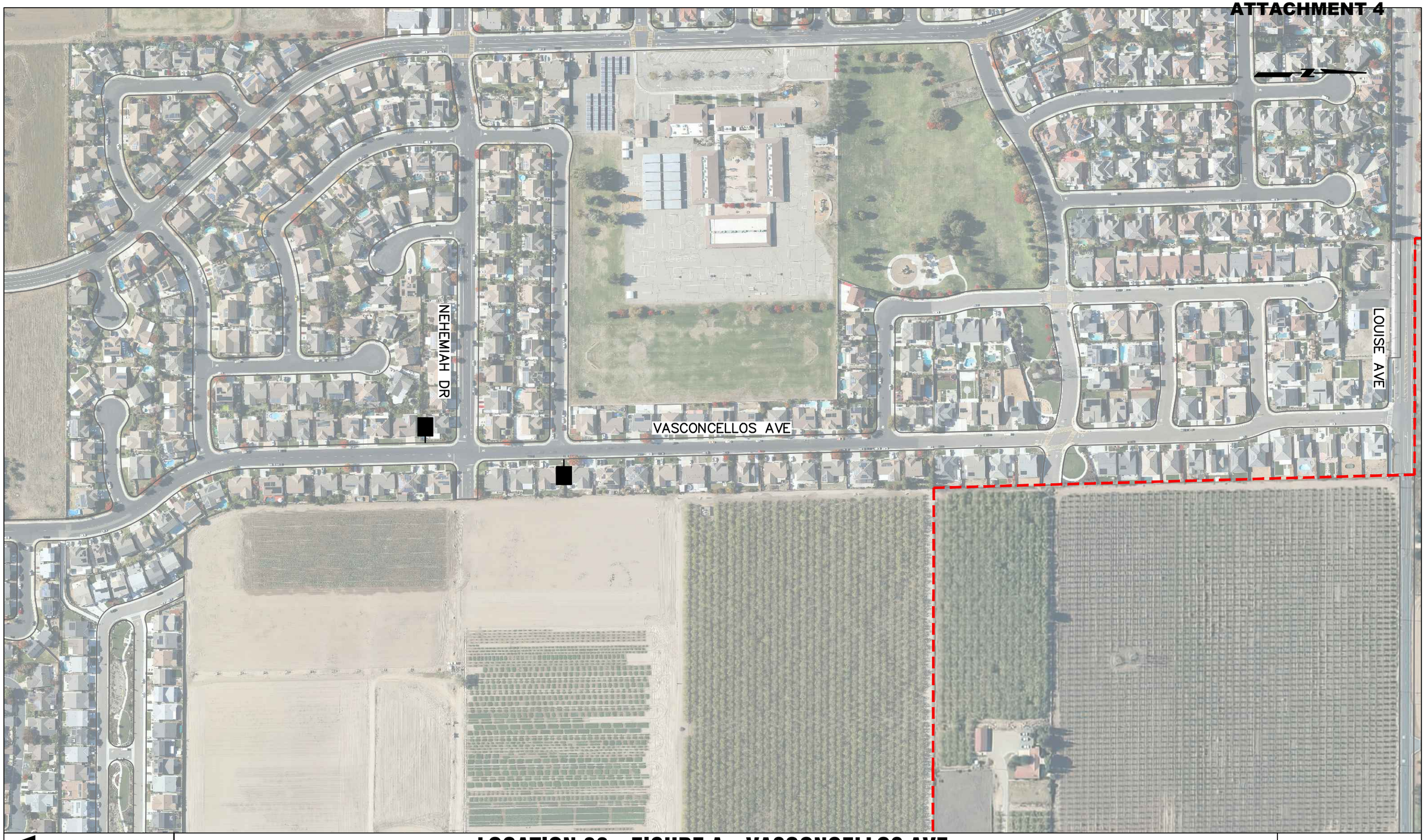
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.25 **ADT:** 1,218 **Count Date:** 7/14/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 35 - 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low/Medium/High Density Residential/Commercial
**Divided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 39 mph indicates a 40 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 30 mph to 39 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION

SPEED LIMIT SIGN

CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 88 - FIGURE A - VASCONCELLOS AVE BETWEEN LOUISE AVE AND SOUTHERN END

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 88 - FIGURE B - VASCONCELLOS AVE BETWEEN LOUISE AVE AND SOUTHERN END

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 80-94.dwg, 4/26/2023 9:18:31 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

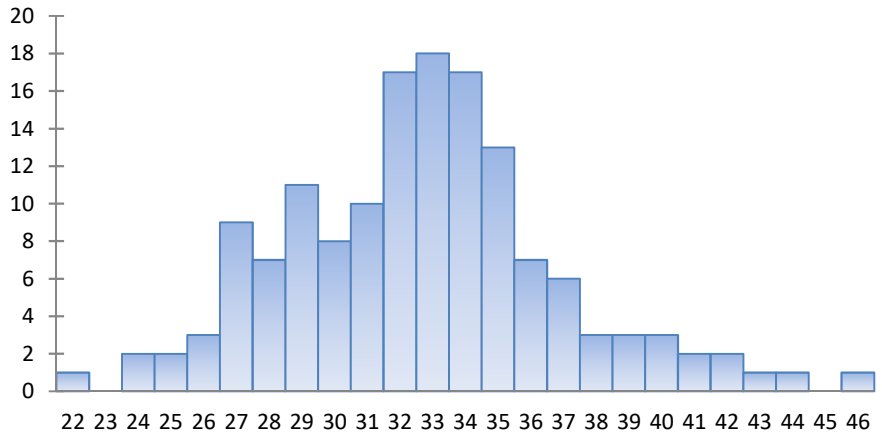
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** WAWONA STREET, Main St to Union Rd
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 11:40 AM **End Time:** 12:40 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 147 |
| Speed Range | 22 - 46 MPH |
| 50th percentile speed | 33 MPH |
| 85th percentile speed | 36 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 80% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 3 |
| 21 | 0 | 41 | 2 |
| 22 | 1 | 42 | 2 |
| 23 | 0 | 43 | 1 |
| 24 | 2 | 44 | 1 |
| 25 | 2 | 45 | 0 |
| 26 | 3 | 46 | 1 |
| 27 | 9 | 47 | 0 |
| 28 | 7 | 48 | 0 |
| 29 | 11 | 49 | 0 |
| 30 | 8 | 50 | 0 |
| 31 | 10 | 51 | 0 |
| 32 | 17 | 52 | 0 |
| 33 | 18 | 53 | 0 |
| 34 | 17 | 54 | 0 |
| 35 | 13 | 55 | 0 |
| 36 | 7 | 56 | 0 |
| 37 | 6 | 57 | 0 |
| 38 | 3 | 58 | 0 |
| 39 | 3 | 59 | 0 |
| TOTAL | | | 147 |

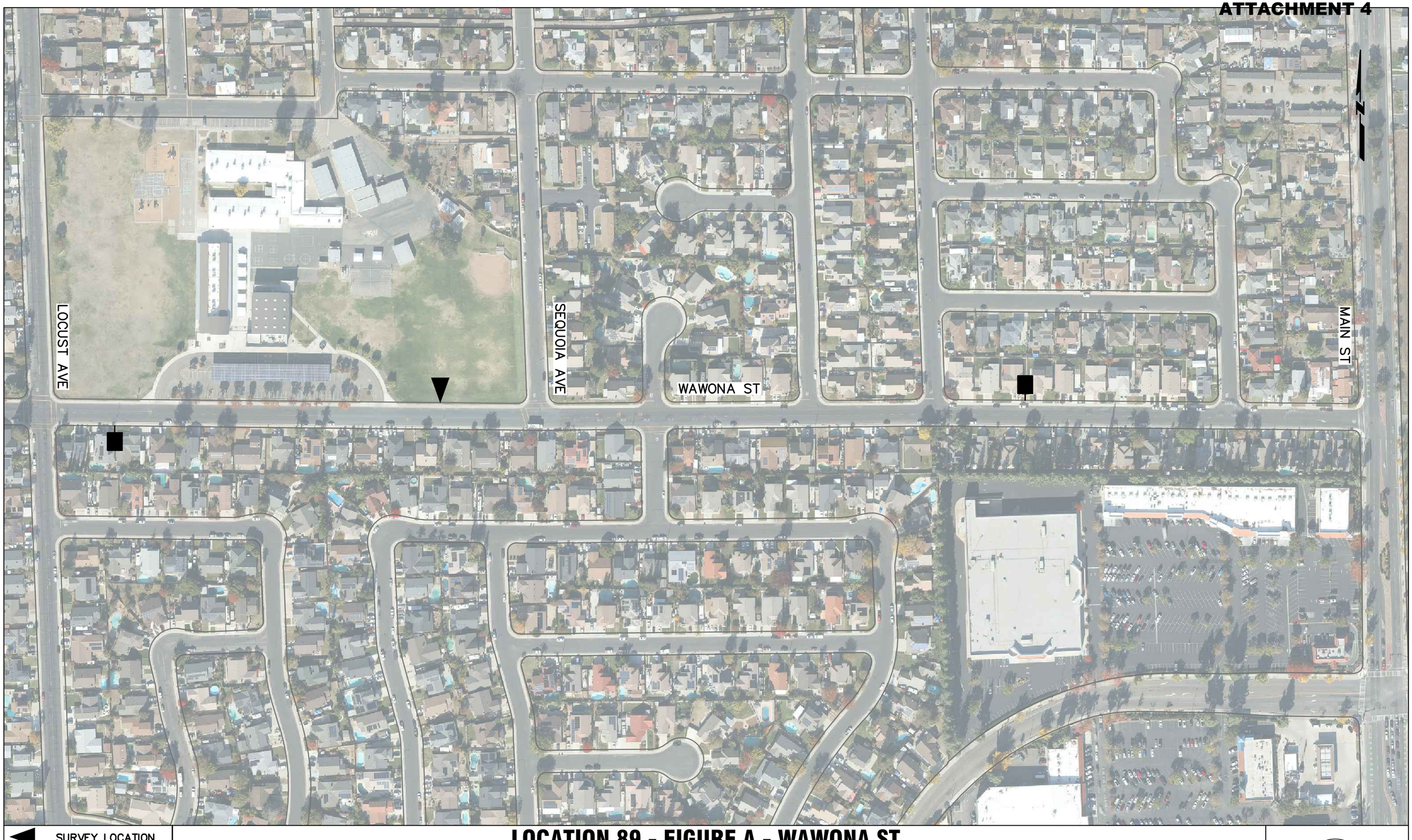
### ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 3,458 **Count Date:** 9/8/22
**Number of Collisions:** 4 **Time Period:** 3 years
**Calc. Collision Rate =** 1.06 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 44 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low/High Denisty Residential/Park/Public/ Quasi Public
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 36 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 89 - FIGURE A - WAWONA ST
# BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 80-94.dwg, 4/20/2023 9:18:56 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 89 - FIGURE B - WAWONA ST
# BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

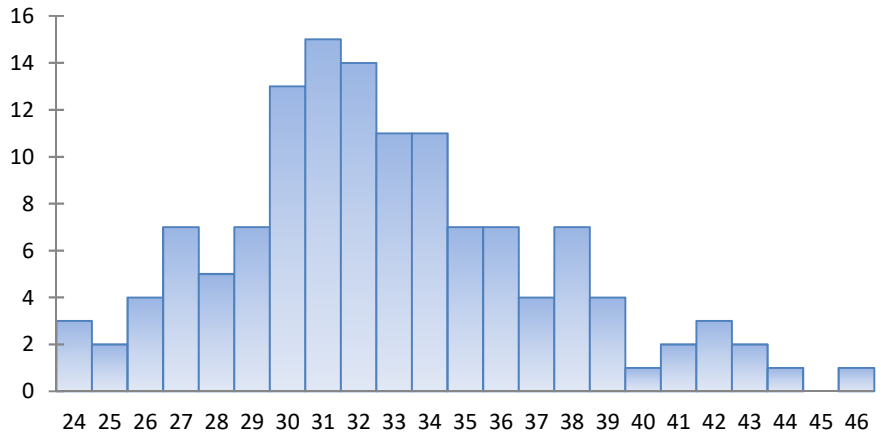
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** WAWONA STREET, Union Rd to Airport Way
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 8/9/2022 **Weather:** Clear/Dry
**Begin Time:** 12:40 PM **End Time:** 1:40 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 131 |
| Speed Range | 24 - 46 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 38 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 74% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 2 |
| 22 | 0 | 42 | 3 |
| 23 | 0 | 43 | 2 |
| 24 | 3 | 44 | 1 |
| 25 | 2 | 45 | 0 |
| 26 | 4 | 46 | 1 |
| 27 | 7 | 47 | 0 |
| 28 | 5 | 48 | 0 |
| 29 | 7 | 49 | 0 |
| 30 | 13 | 50 | 0 |
| 31 | 15 | 51 | 0 |
| 32 | 14 | 52 | 0 |
| 33 | 11 | 53 | 0 |
| 34 | 11 | 54 | 0 |
| 35 | 7 | 55 | 0 |
| 36 | 7 | 56 | 0 |
| 37 | 4 | 57 | 0 |
| 38 | 7 | 58 | 0 |
| 39 | 4 | 59 | 0 |
| TOTAL | 131 | | |

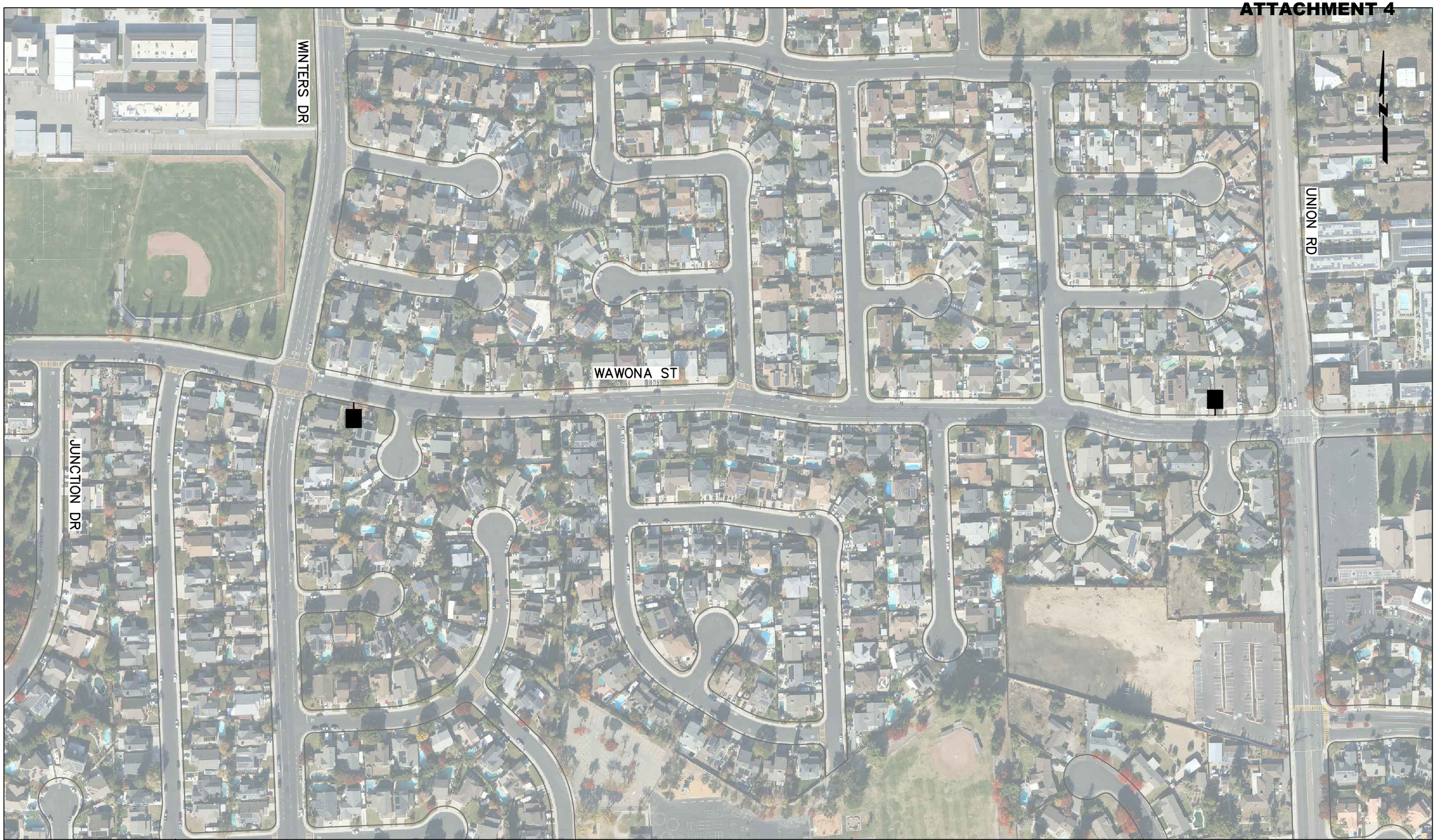
### ANALYSIS INFORMATION

**Segment Length(mi):** 0.97 **ADT:** 3,526 **Count Date:** 8/9/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 0.53 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 45 - 62 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Commercial/Very Low/Low Density Residential/ Public/Quasi Public
**Divided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 38 mph indicates a 40 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 90 - FIGURE A - WAWONA ST
# BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 90 - FIGURE B - WAWONA ST
# BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

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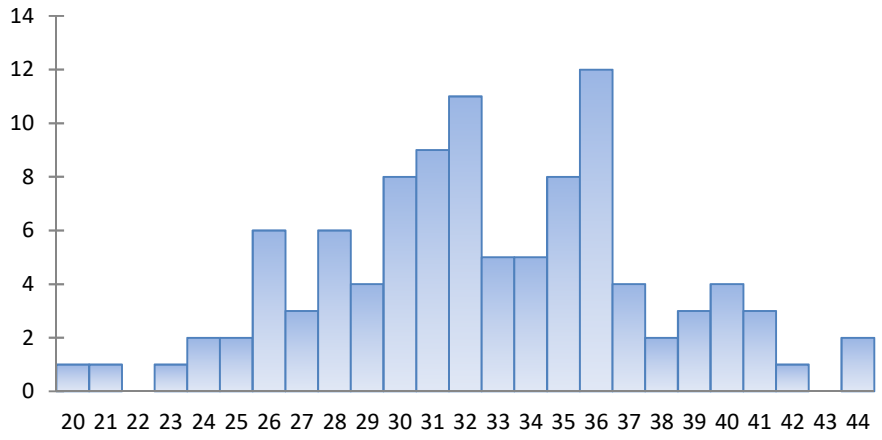
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** WELLINGTON AVE, Atherton Dr to Woodward Ave
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 11/30/2022 **Weather:** Clear/Dry
**Begin Time:** 10:00 AM **End Time:** 11:55 AM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 103 |
| Speed Range | 20 - 44 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 37 MPH |
| 10 mph pace speed | 28 - 37 MPH |
| % in pace speed | 70% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 1 | 40 | 4 |
| 21 | 1 | 41 | 3 |
| 22 | 0 | 42 | 1 |
| 23 | 1 | 43 | 0 |
| 24 | 2 | 44 | 2 |
| 25 | 2 | 45 | 0 |
| 26 | 6 | 46 | 0 |
| 27 | 3 | 47 | 0 |
| 28 | 6 | 48 | 0 |
| 29 | 4 | 49 | 0 |
| 30 | 8 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 11 | 52 | 0 |
| 33 | 5 | 53 | 0 |
| 34 | 5 | 54 | 0 |
| 35 | 8 | 55 | 0 |
| 36 | 12 | 56 | 0 |
| 37 | 4 | 57 | 0 |
| 38 | 2 | 58 | 0 |
| 39 | 3 | 59 | 0 |
| TOTAL | | | 103 |

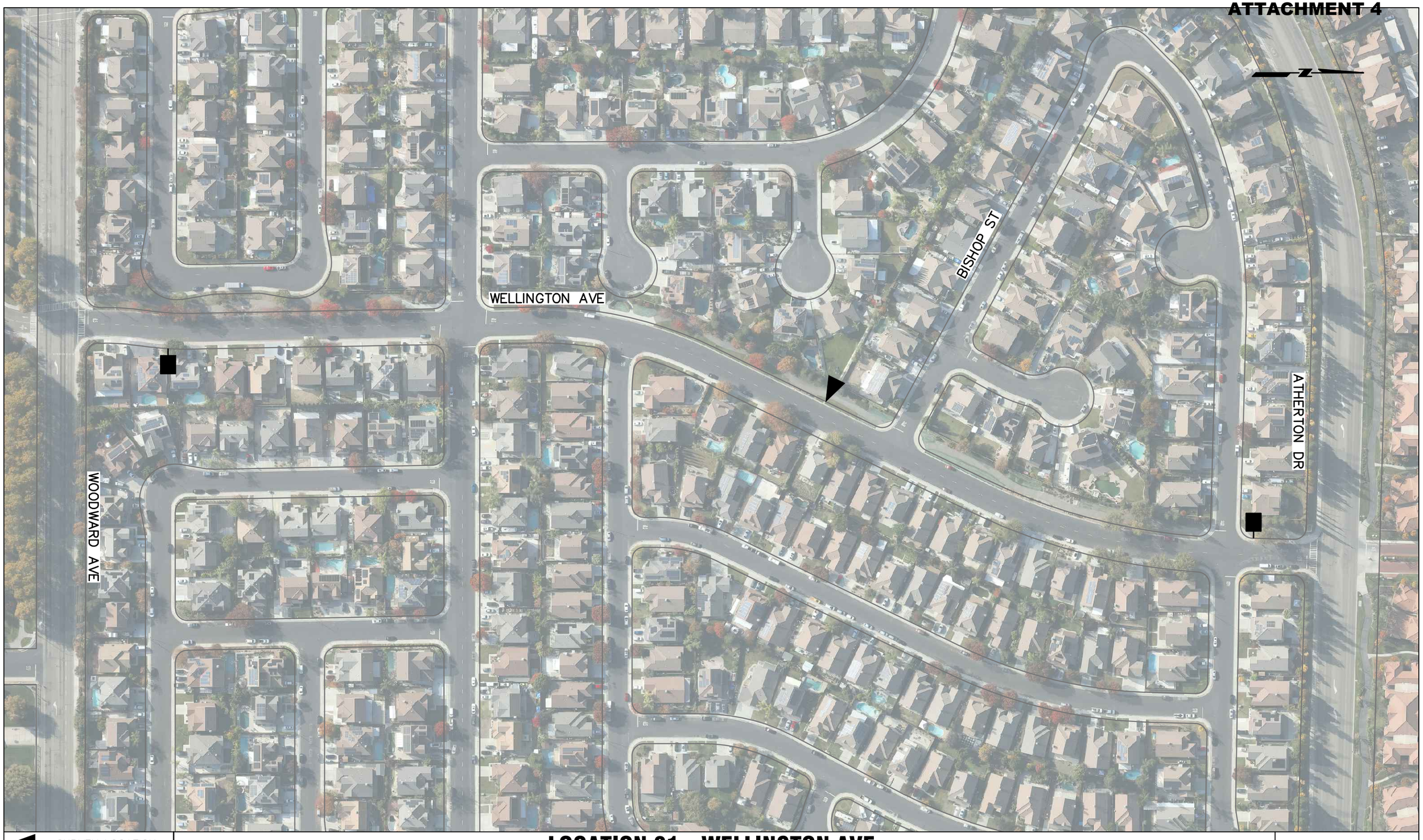
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.42 **ADT:** 1,092 **Count Date:** 7/12/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 3.98 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 44 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Park
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is above the expected rate. The 10 mph pace ranges from 28 mph to 37 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION

SPEED LIMIT SIGN

CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 91 - WELLINGTON AVE
# BETWEEN ATHERTON DR AND WOODWARD AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

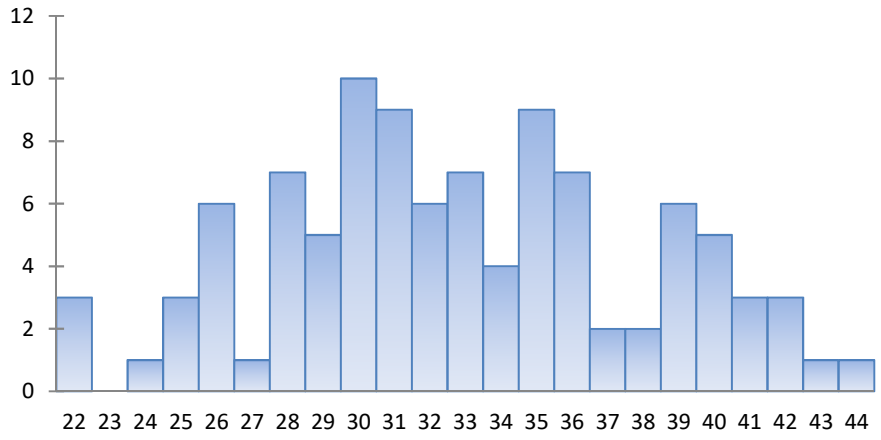
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** WETMORE STREET, Main St to Mellon Ave
**Posted Speed Limit:** 30 mph
**Direction:** Both
**Recorder:** NDS
**Survey Date:** 11/16/2022
**Weather:** Clear/Dry
**Begin Time:** 1:25 PM
**End Time:** 3:20 PM
**Speed Limit Change:** Yes
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 101 |
| Speed Range | 22 - 44 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 39 MPH |
| 10 mph pace speed | 28 - 37 MPH |
| % in pace speed | 65% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 5 |
| 21 | 0 | 41 | 3 |
| 22 | 3 | 42 | 3 |
| 23 | 0 | 43 | 1 |
| 24 | 1 | 44 | 1 |
| 25 | 3 | 45 | 0 |
| 26 | 6 | 46 | 0 |
| 27 | 1 | 47 | 0 |
| 28 | 7 | 48 | 0 |
| 29 | 5 | 49 | 0 |
| 30 | 10 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 7 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| 36 | 7 | 56 | 0 |
| 37 | 2 | 57 | 0 |
| 38 | 2 | 58 | 0 |
| 39 | 6 | 59 | 0 |
| TOTAL | | | 101 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.37
**ADT:** 951
**Count Date:** 8/31/22
**Number of Collisions:** 0
**Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles
**Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 50
**Driveway:** Yes
**Terrain:** Flat
**Parking Conditions:** Both Sides
**Sidewalk:** None
**Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1
**Adjacent Land Use:** Downtown/Public/Quasi Public/Industrial
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 39 mph indicates a 40 mph speed limit. Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit increased to 35 mph. The 10 mph pace ranges from 28 mph to 37 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 92 - WETMORE ST
# BETWEEN MAIN ST AND MELLON AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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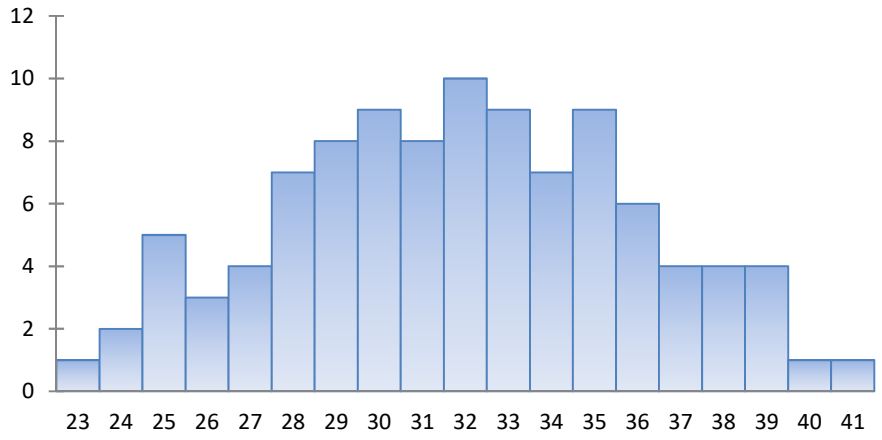
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** WINTERS DRIVE, Yosemite Ave to Wawona St
**Posted Speed Limit:** 35 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 1:45 PM **End Time:** 2:00 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 102 |
| Speed Range | 23 - 41 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 36 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 75% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 1 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 0 |
| 23 | 1 | 43 | 0 |
| 24 | 2 | 44 | 0 |
| 25 | 5 | 45 | 0 |
| 26 | 3 | 46 | 0 |
| 27 | 4 | 47 | 0 |
| 28 | 7 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 9 | 50 | 0 |
| 31 | 8 | 51 | 0 |
| 32 | 10 | 52 | 0 |
| 33 | 9 | 53 | 0 |
| 34 | 7 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| 36 | 6 | 56 | 0 |
| 37 | 4 | 57 | 0 |
| 38 | 4 | 58 | 0 |
| 39 | 4 | 59 | 0 |
| TOTAL | | | 102 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.50 **ADT:** 4,350 **Count Date:** 9/8/22
**Number of Collisions:** 3 **Time Period:** 3 years
**Calc. Collision Rate =** 1.26 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Business Professional/Commercial/Public/Quasi Public
**Divided Median:** TWLTL
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 36 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 93 - WINTERS DR
# BETWEEN YOSEMITE AVE AND WAWONA ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

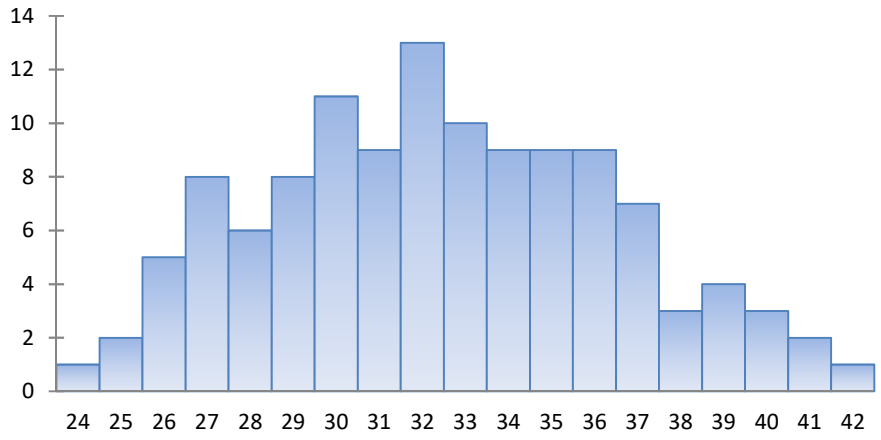
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** WINTERS DRIVE, Wawona St to Daniels St
**Posted Speed Limit:** 25 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 11:30 AM **End Time:** 12:30 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 "Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 120 |
| Speed Range | 24 - 42 MPH |
| 50th percentile speed | 32 MPH |
| 85th percentile speed | 37 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 77% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 3 |
| 21 | 0 | 41 | 2 |
| 22 | 0 | 42 | 1 |
| 23 | 0 | 43 | 0 |
| 24 | 1 | 44 | 0 |
| 25 | 2 | 45 | 0 |
| 26 | 5 | 46 | 0 |
| 27 | 8 | 47 | 0 |
| 28 | 6 | 48 | 0 |
| 29 | 8 | 49 | 0 |
| 30 | 11 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 13 | 52 | 0 |
| 33 | 10 | 53 | 0 |
| 34 | 9 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| 36 | 9 | 56 | 0 |
| 37 | 7 | 57 | 0 |
| 38 | 3 | 58 | 0 |
| 39 | 4 | 59 | 0 |
| TOTAL | | | 120 |

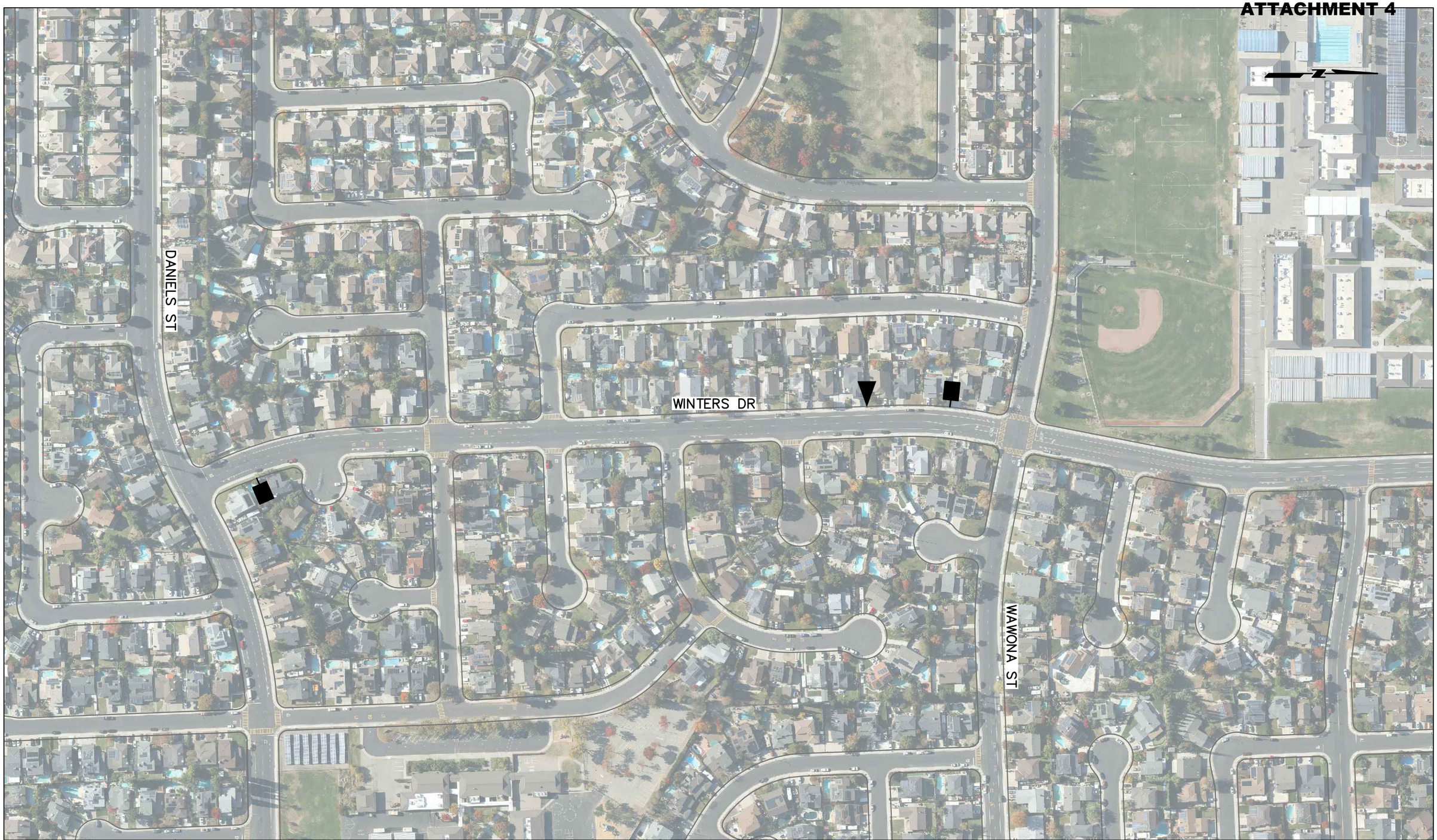
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.34 **ADT:** 2,779 **Count Date:** 8/18/22
**Number of Collisions:** 1 **Time Period:** 3 years
**Calc. Collision Rate =** 0.97 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 56 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential
**Divided Median:** No
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, it is recommended that the speed limit remains 25 mph. The collision rate is below the expected rate. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 94 - WINTERS DR
# BETWEEN WAWONA ST AND DANIELS ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

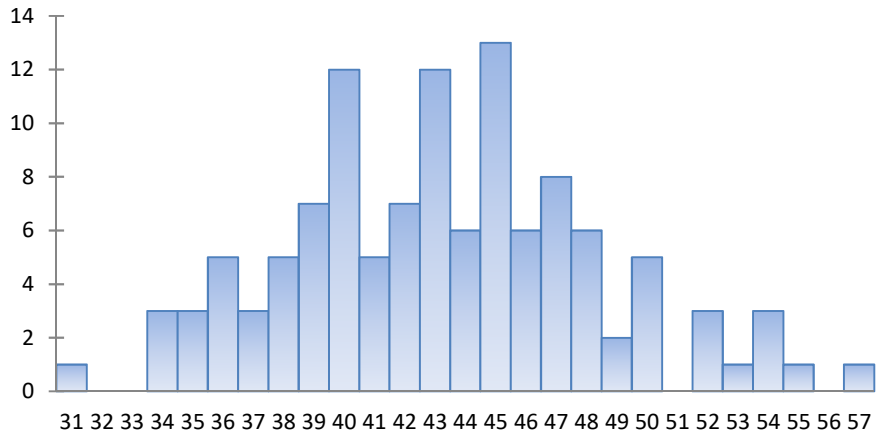
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** WOODWARD AVE, Moffat Blvd to Main St
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather:** Clear/Dry
**Begin Time:** 1:25 PM **End Time:** 3:20 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 118 |
| Speed Range | 31 - 57 MPH |
| 50th percentile speed | 43 MPH |
| 85th percentile speed | 48 MPH |
| 10 mph pace speed | 39 - 48 MPH |
| % in pace speed | 69% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 12 |
| 21 | 0 | 41 | 5 |
| 22 | 0 | 42 | 7 |
| 23 | 0 | 43 | 12 |
| 24 | 0 | 44 | 6 |
| 25 | 0 | 45 | 13 |
| 26 | 0 | 46 | 6 |
| 27 | 0 | 47 | 8 |
| 28 | 0 | 48 | 6 |
| 29 | 0 | 49 | 2 |
| 30 | 0 | 50 | 5 |
| 31 | 1 | 51 | 0 |
| 32 | 0 | 52 | 3 |
| 33 | 0 | 53 | 1 |
| 34 | 3 | 54 | 3 |
| 35 | 3 | 55 | 1 |
| 36 | 5 | 56 | 0 |
| 37 | 3 | 57 | 1 |
| 38 | 5 | 58 | 0 |
| 39 | 7 | 59 | 0 |
| TOTAL | | | 118 |

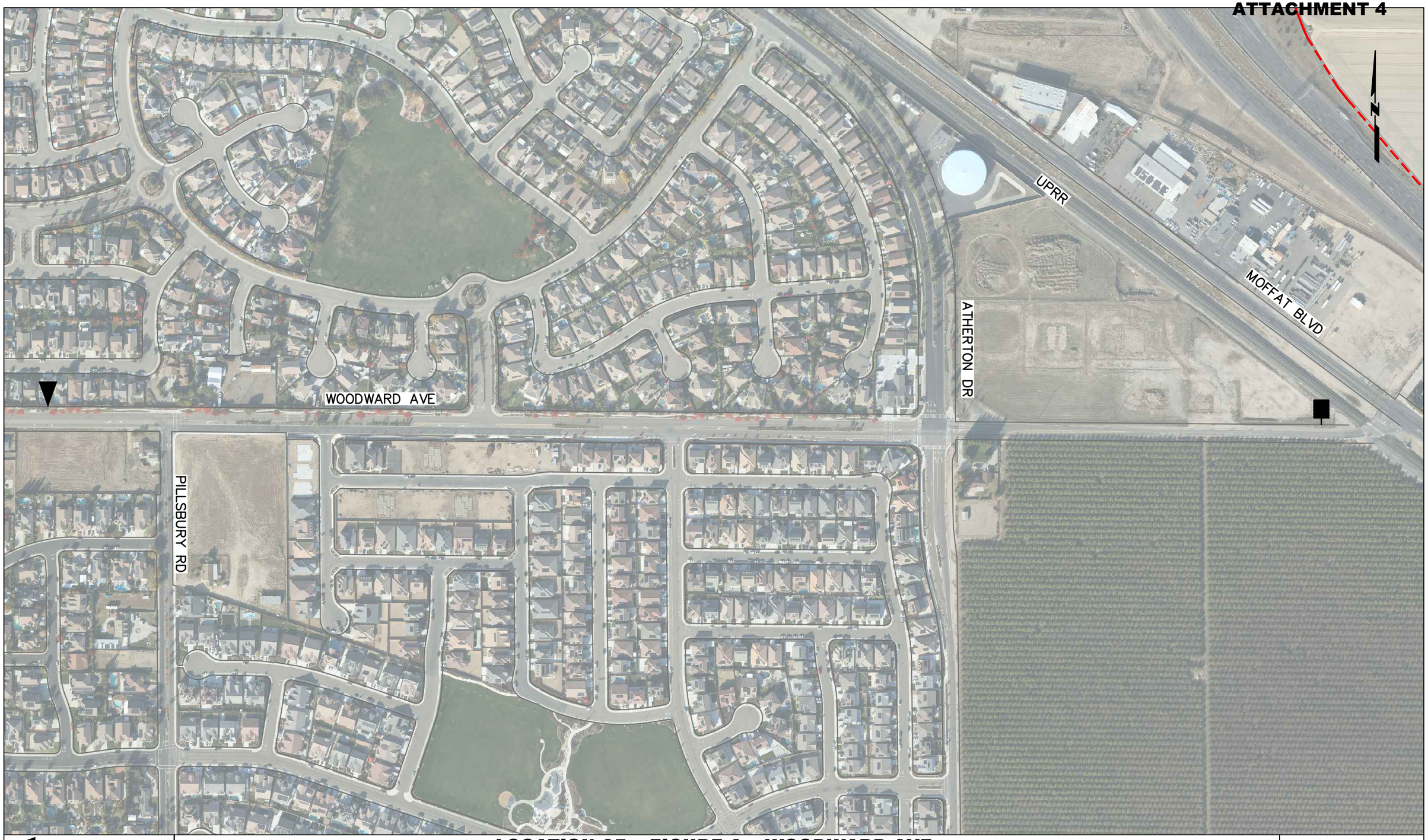
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.78 **ADT:** 5,972 **Count Date:** 7/12/22
**Number of Collisions:** 7 **Time Period:** 3 years
**Calc. Collision Rate =** 0.60 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 24 - 65 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** EB 1-2 WB 1-2 **Adjacent Land Use:** Low/Medium Density Residential/Park/Industrial/ Business Industrial Park/Commercial/Mixed Use
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. No further reduction is allowed. Therefore, it is recommended that the posted speed limit remains at 45 mph. The 10 mph pace ranges from 39 mph to 48 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 95 - FIGURE A - WOODWARD AVE BETWEEN MOFFAT BLVD AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 95-106.dwg, 4/20/2023 9:21:49 AM

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 95 - FIGURE B - WOODWARD AVE BETWEEN MOFFAT BLVD AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\topia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 95-106.dwg, 4/20/2023 9:22:01 AM

City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

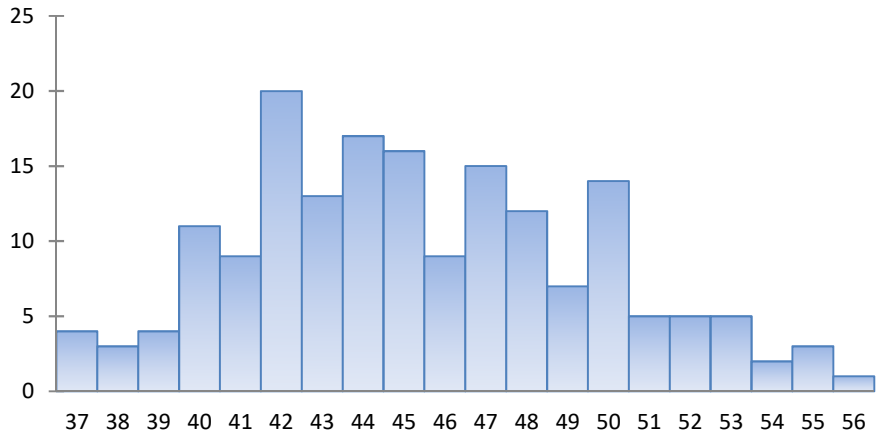
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** WOODWARD AVE, Main St to Union Rd
**Posted Speed Limit:** 45 mph
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/30/2022 **Weather** Clear/Dry
**Begin Time:** 11:25 AM **End Time:** 12:25 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to the existing school crossing and the lack of bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 175 |
| Speed Range | 37 - 56 MPH |
| 50th percentile speed | 45 MPH |
| 85th percentile speed | 50 MPH |
| 10 mph pace speed | 41 - 50 MPH |
| % in pace speed | 75% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 11 |
| 21 | 0 | 41 | 9 |
| 22 | 0 | 42 | 20 |
| 23 | 0 | 43 | 13 |
| 24 | 0 | 44 | 17 |
| 25 | 0 | 45 | 16 |
| 26 | 0 | 46 | 9 |
| 27 | 0 | 47 | 15 |
| 28 | 0 | 48 | 12 |
| 29 | 0 | 49 | 7 |
| 30 | 0 | 50 | 14 |
| 31 | 0 | 51 | 5 |
| 32 | 0 | 52 | 5 |
| 33 | 0 | 53 | 5 |
| 34 | 0 | 54 | 2 |
| 35 | 0 | 55 | 3 |
| 36 | 0 | 56 | 1 |
| 37 | 4 | 57 | 0 |
| 38 | 3 | 58 | 0 |
| 39 | 4 | 59 | 0 |
| TOTAL | | | 175 |

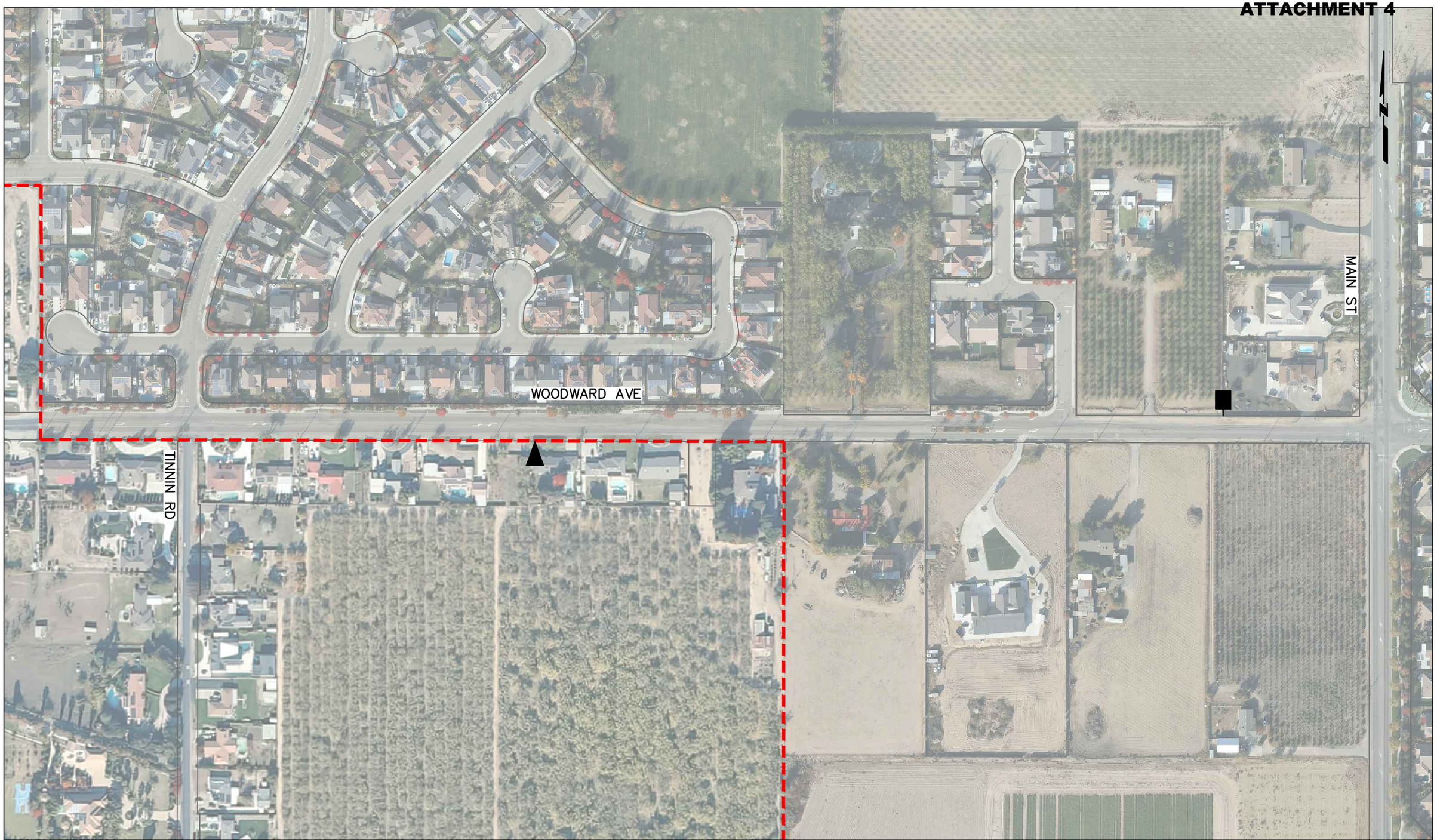
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 4,709 **Count Date:** 7/21/22
**Number of Collisions:** 5 **Time Period:** 3 years
**Calc. Collision Rate =** 0.97 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 41 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low Density Residential
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 50 mph indicates a 50 mph speed limit. However, due to the existing school crossing and the lack of continuous bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 41 mph to 50 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 45 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 96 - FIGURE A - WOODWARD AVE BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 96 - FIGURE B - WOODWARD AVE BETWEEN MAIN ST AND UNION RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

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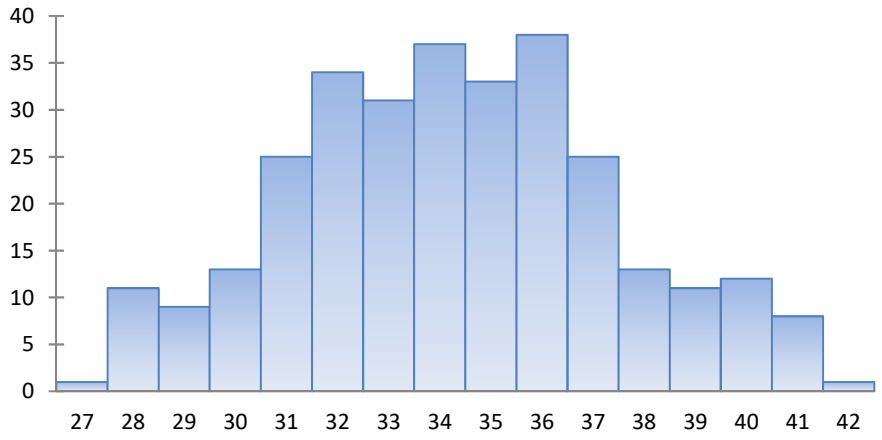
## VEHICLE SPEED DATA

**RECOMMENDED SPEED**
**30 MPH**

**Location:** WOODWARD AVE, Union Rd to Airport Way
**Posted Speed Limit:** 30 mph
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 4/17/2023 **Weather:** Clear/Dry
**Begin Time:** 1:50 PM **End Time:** 3:00 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 302 |
| Speed Range | 27 - 42 MPH |
| 50th percentile speed | 34 MPH |
| 85th percentile speed | 37 MPH |
| 10 mph pace speed | 30 - 39 MPH |
| % in pace speed | 86% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 12 |
| 21 | 0 | 41 | 8 |
| 22 | 0 | 42 | 1 |
| 23 | 0 | 43 | 0 |
| 24 | 0 | 44 | 0 |
| 25 | 0 | 45 | 0 |
| 26 | 0 | 46 | 0 |
| 27 | 1 | 47 | 0 |
| 28 | 11 | 48 | 0 |
| 29 | 9 | 49 | 0 |
| 30 | 13 | 50 | 0 |
| 31 | 25 | 51 | 0 |
| 32 | 34 | 52 | 0 |
| 33 | 31 | 53 | 0 |
| 34 | 37 | 54 | 0 |
| 35 | 33 | 55 | 0 |
| 36 | 38 | 56 | 0 |
| 37 | 25 | 57 | 0 |
| 38 | 13 | 58 | 0 |
| 39 | 11 | 59 | 0 |
| TOTAL | | | 302 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 3,891 **Count Date:** 7/21/22
**Number of Collisions:** 5 **Time Period:** 3 years
**Calc. Collision Rate =** 1.17 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 41 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low/Medium/High Density Residential/Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 37 mph indicates a 35 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 30 mph to 39 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 30 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

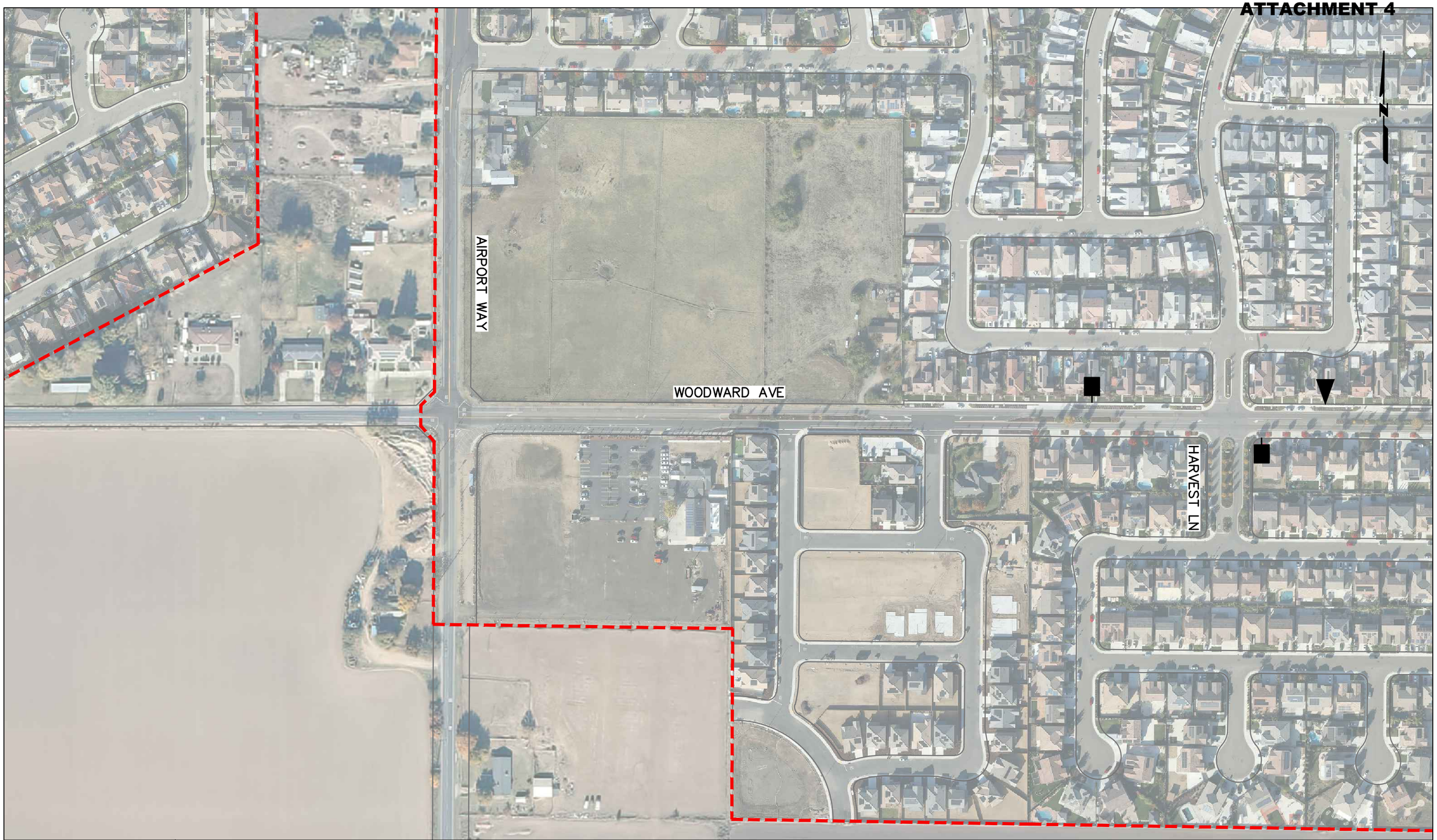
SCALE: NOT TO SCALE

# LOCATION 97 - FIGURE A - WOODWARD AVE BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 97 - FIGURE B - WOODWARD AVE BETWEEN UNION RD AND AIRPORT WAY

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

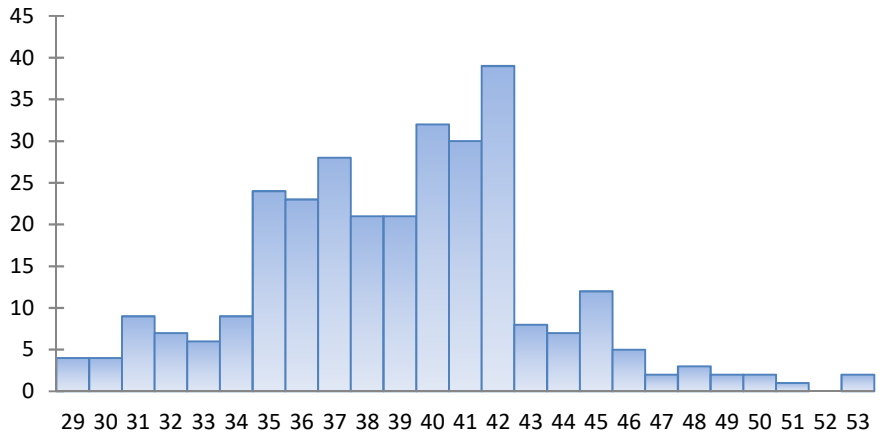
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** WOODWARD AVE, Airport Way to McKinley Ave
**Posted Speed Limit:** 35 mph County & None City
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 4/5/2023 **Weather:** Clear/Dry
**Begin Time:** 1:45 PM **End Time:** 2:20 PM
**Speed Limit Change:** Yes
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 301 |
| Speed Range | 29 - 53 MPH |
| 50th percentile speed | 39 MPH |
| 85th percentile speed | 42 MPH |
| 10 mph pace speed | 34 - 43 MPH |
| % in pace speed | 78% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 2 |
| 28 | 0 | 48 | 3 |
| 29 | 4 | 49 | 2 |
| 30 | 4 | 50 | 2 |
| 31 | 9 | 51 | 1 |
| 32 | 7 | 52 | 0 |
| 33 | 6 | 53 | 2 |
| 34 | 9 | 54 | 0 |
| 35 | 24 | 55 | 0 |
| 36 | 23 | 56 | 0 |
| 37 | 28 | 57 | 0 |
| 38 | 21 | 58 | 0 |
| 39 | 21 | 59 | 0 |
| 40 | 32 | 60 | 0 |
| 41 | 30 | 61 | 0 |
| 42 | 39 | 62 | 0 |
| 43 | 8 | 63 | 0 |
| 44 | 7 | 64 | 0 |
| 45 | 12 | 65 | 0 |
| 46 | 5 | 66 | 0 |
| TOTAL | | | 301 |

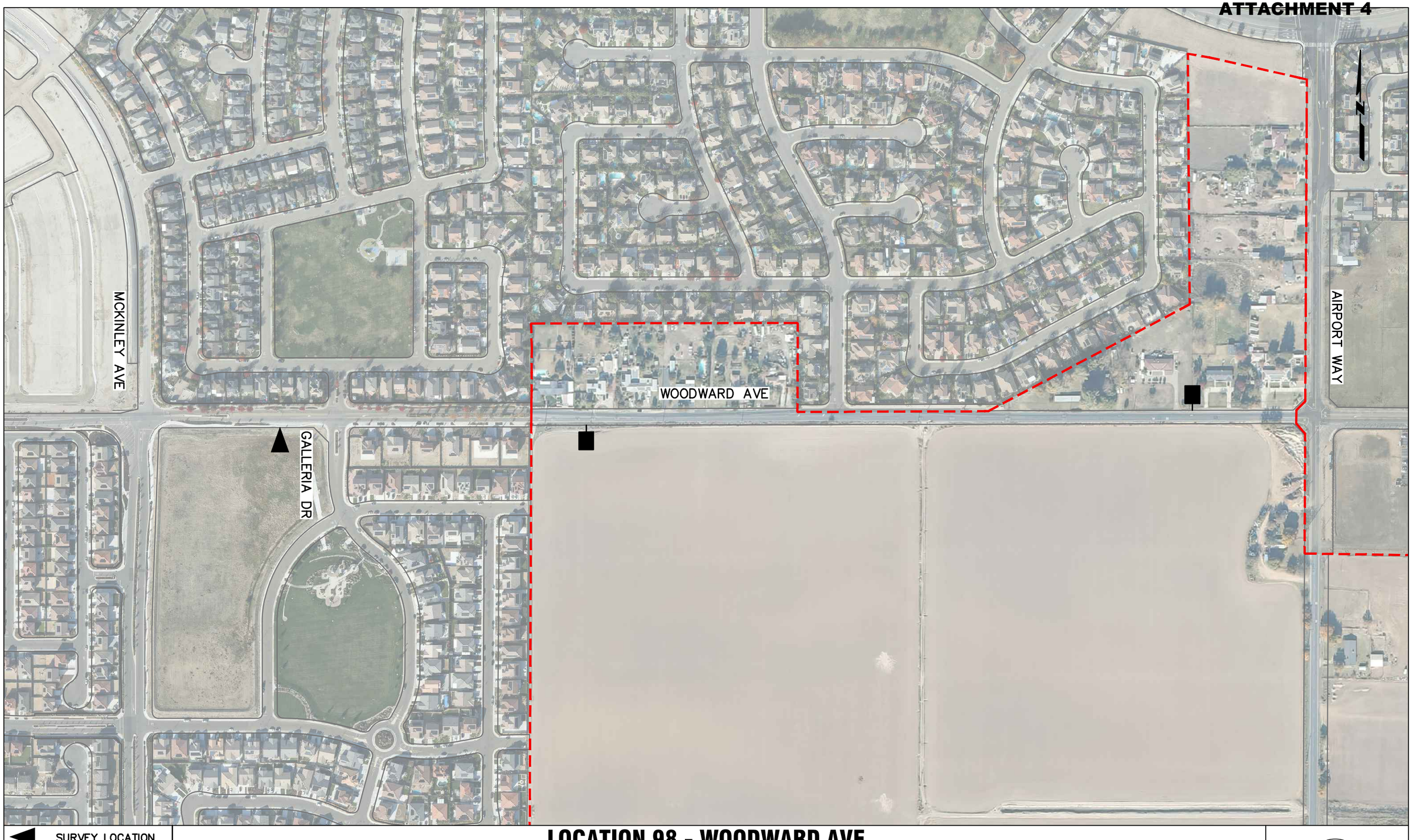
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.00 **ADT:** 7,672 **Count Date:** 7/21/22
**Number of Collisions:** 2 **Time Period:** 3 years
**Calc. Collision Rate =** 0.24 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 28 - 53 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low/High Density Residential/Commercial
**Divided Median:** Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 34 mph to 43 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph as posted on the County right of way.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 98 - WOODWARD AVE
# BETWEEN AIRPORT WAY AND MCKINLEY AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

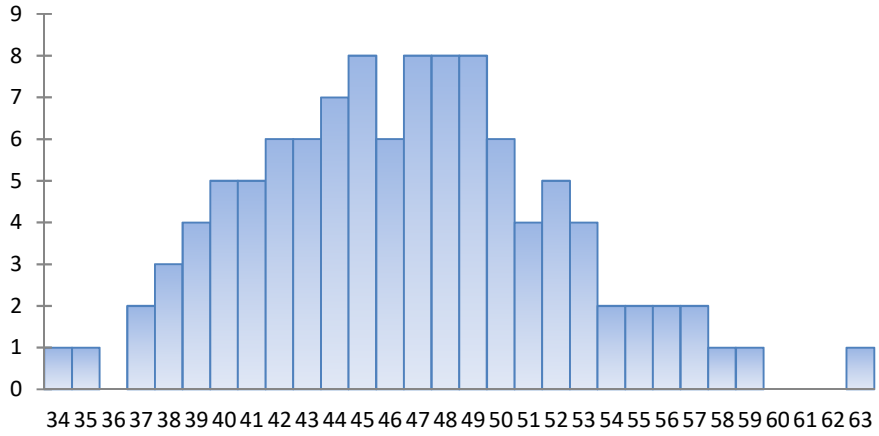
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

**Location:** WOODWARD AVE, McKinley Ave to South Woodward Ave
**Posted Speed Limit:** None
**Direction:** Both **Recorder:** NDS
**Survey Date:** 7/6/2022 **Weather:** Clear/Dry
**Begin Time:** 10:20 AM **End Time:** 11:20 AM
**Speed Limit Change:** Yes
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed to be within 10 mph of adjacent segments, and due to the lack of bike lanes.

### Summary Statistics

| | |
|---|---|
| Total Observed | 108 |
| Speed Range | 34 - 63 MPH |
| 50th percentile speed | 46 MPH |
| 85th percentile speed | 52 MPH |
| 10 mph pace speed | 41 - 50 MPH |
| % in pace speed | 63% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 27 | 0 | 47 | 8 |
| 28 | 0 | 48 | 8 |
| 29 | 0 | 49 | 8 |
| 30 | 0 | 50 | 6 |
| 31 | 0 | 51 | 4 |
| 32 | 0 | 52 | 5 |
| 33 | 0 | 53 | 4 |
| 34 | 1 | 54 | 2 |
| 35 | 1 | 55 | 2 |
| 36 | 0 | 56 | 2 |
| 37 | 2 | 57 | 2 |
| 38 | 3 | 58 | 1 |
| 39 | 4 | 59 | 1 |
| 40 | 5 | 60 | 0 |
| 41 | 5 | 61 | 0 |
| 42 | 6 | 62 | 0 |
| 43 | 6 | 63 | 1 |
| 44 | 7 | 64 | 0 |
| 45 | 8 | 65 | 0 |
| 46 | 6 | 66 | 0 |
| TOTAL | | | 108 |

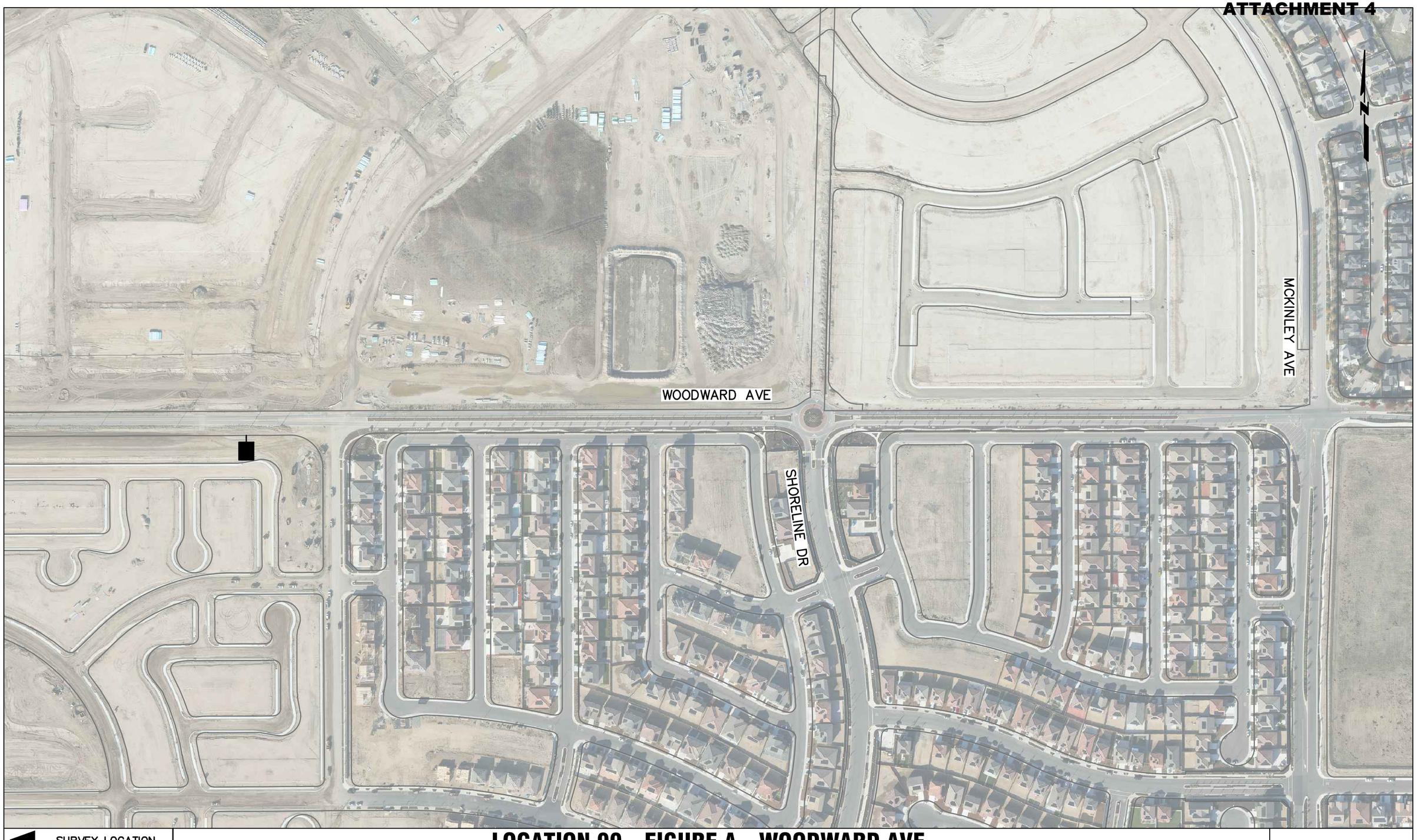
## ANALYSIS INFORMATION

**Segment Length(mi):** 1.43 **ADT:** 3,751 **Count Date:** 7/21/22
**Number of Collisions:** 4 **Time Period:** 3 years
**Calc. Collision Rate =** 0.68 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 25 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** None **Bike Lanes:** None
**Number of Lanes:** EB 1 WB 1 **Adjacent Land Use:** Low/High Density Residential/Public/Quasi Public
**Divided Median:** Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 52 mph indicates a 50 mph speed limit. However, to be within 10 mph of adjacent segments, and due to the lack of bike lanes, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 41 mph to 50 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit becomes 45 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 99 - FIGURE A - WOODWARD AVE
# BETWEEN MCKINLEY AVE AND S. WOODWARD AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

\\utopia\Engr\PWENG\804 Traffic Engineering\804-05 Traffic Studies\2022 Speed Survey\Location Maps\Radar Map 95-106.dwg, 4/20/2023 9:23:32 AM

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 99 - FIGURE B - WOODWARD AVE
# BETWEEN MCKINLEY AVE AND S. WOODWARD AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

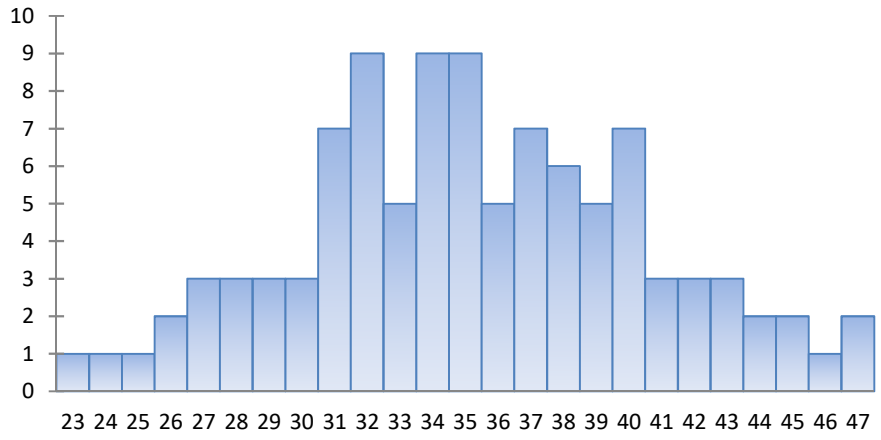
## VEHICLE SPEED DATA

**RECOMMENDED SPEED**
**35 MPH**

**Location:** South WOODWARD AVE, Woodward Ave to Williamson Rd
**Posted Speed Limit:** 35 MPH
**Direction:** Both **Recorder:** NDS
**Survey Date:** 6/29/2022 **Weather:** Clear/Dry
**Begin Time:** 12:05 PM **End Time:** 1:40 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 102 |
| Speed Range | 23 - 47 MPH |
| 50th percentile speed | 35 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 31 - 40 MPH |
| % in pace speed | 68% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 7 |
| 21 | 0 | 41 | 3 |
| 22 | 0 | 42 | 3 |
| 23 | 1 | 43 | 3 |
| 24 | 1 | 44 | 2 |
| 25 | 1 | 45 | 2 |
| 26 | 2 | 46 | 1 |
| 27 | 3 | 47 | 2 |
| 28 | 3 | 48 | 0 |
| 29 | 3 | 49 | 0 |
| 30 | 3 | 50 | 0 |
| 31 | 7 | 51 | 0 |
| 32 | 9 | 52 | 0 |
| 33 | 5 | 53 | 0 |
| 34 | 9 | 54 | 0 |
| 35 | 9 | 55 | 0 |
| 36 | 5 | 56 | 0 |
| 37 | 7 | 57 | 0 |
| 38 | 6 | 58 | 0 |
| 39 | 5 | 59 | 0 |
| TOTAL | | | 102 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.43 **ADT:** 891 **Count Date:** 7/21/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 25 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** None **Bike Lanes:** None
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low/Medium Density Residential/Open Space
**Divided Median:** No
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 31 mph to 40 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains 35 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 100 - S. WOODWARD AVE
# BETWEEN WOODWARD AVE AND WILLIAMSON RD

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

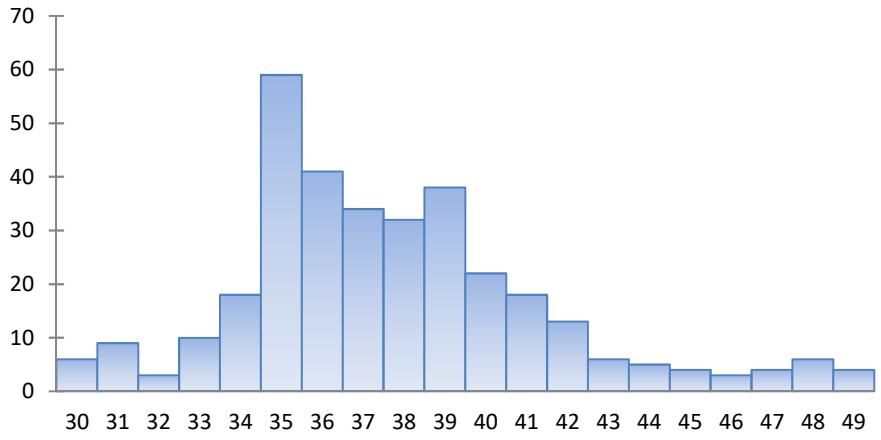
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** YOSEMITE AVE, State Route 99 to Powers Ave
**Posted Speed Limit:** 35 MPH
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 4/5/2023 **Weather:** Clear/Dry
**Begin Time:** 9:50 AM **End Time:** 10:30 AM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential and Commercial district and proximity to school.

### Summary Statistics

| | |
|---|---|
| Total Observed | 335 |
| Speed Range | 30 - 49 MPH |
| 50th percentile speed | 37 MPH |
| 85th percentile speed | 41 MPH |
| 10 mph pace speed | 33 - 42 MPH |
| % in pace speed | 85% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 22 |
| 21 | 0 | 41 | 18 |
| 22 | 0 | 42 | 13 |
| 23 | 0 | 43 | 6 |
| 24 | 0 | 44 | 5 |
| 25 | 0 | 45 | 4 |
| 26 | 0 | 46 | 3 |
| 27 | 0 | 47 | 4 |
| 28 | 0 | 48 | 6 |
| 29 | 0 | 49 | 4 |
| 30 | 6 | 50 | 0 |
| 31 | 9 | 51 | 0 |
| 32 | 3 | 52 | 0 |
| 33 | 10 | 53 | 0 |
| 34 | 18 | 54 | 0 |
| 35 | 59 | 55 | 0 |
| 36 | 41 | 56 | 0 |
| 37 | 34 | 57 | 0 |
| 38 | 32 | 58 | 0 |
| 39 | 38 | 59 | 0 |
| TOTAL | | | 335 |

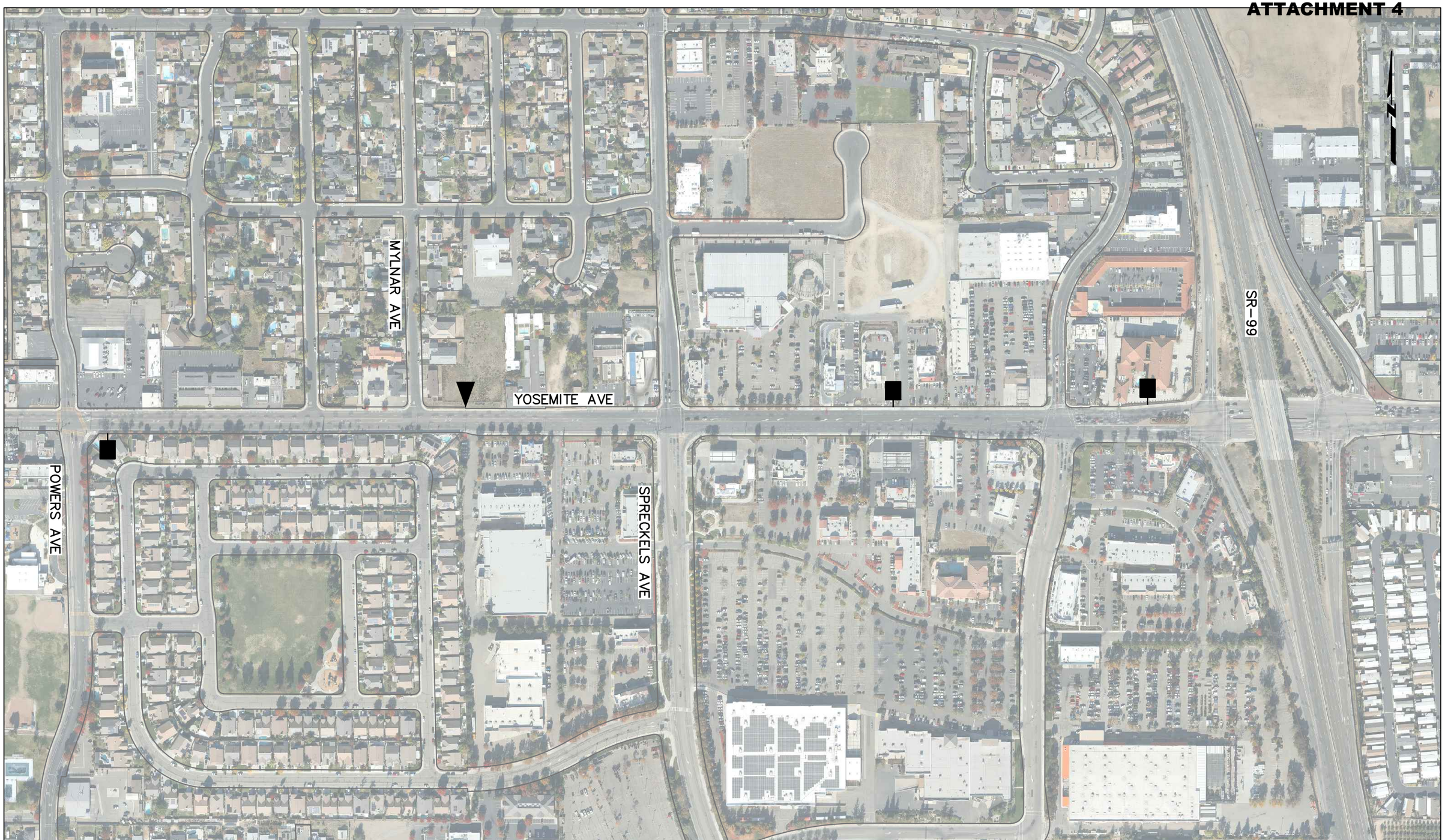
## ANALYSIS INFORMATION

**Segment Length(mi):** 0.70 **ADT:** 23,860 **Count Date:** 7/14/22
**Number of Collisions:** 19 **Time Period:** 3 years
**Calc. Collision Rate =** 1.04 collisions per million vehicle-miles **State Average Rate:** 1.46 c/mvm
**Street Width (ft):** 67 - 106 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Varies **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** EB 2-3 WB 1-2 **Adjacent Land Use:** Commercial/Low Density Residential
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 41 mph indicates a 40 mph speed limit. However, due to fronting residential and Commercial district and proximity to school, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 33 mph to 42 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 101 - YOSEMITE AVE
# BETWEEN SR-99 AND POWERS AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

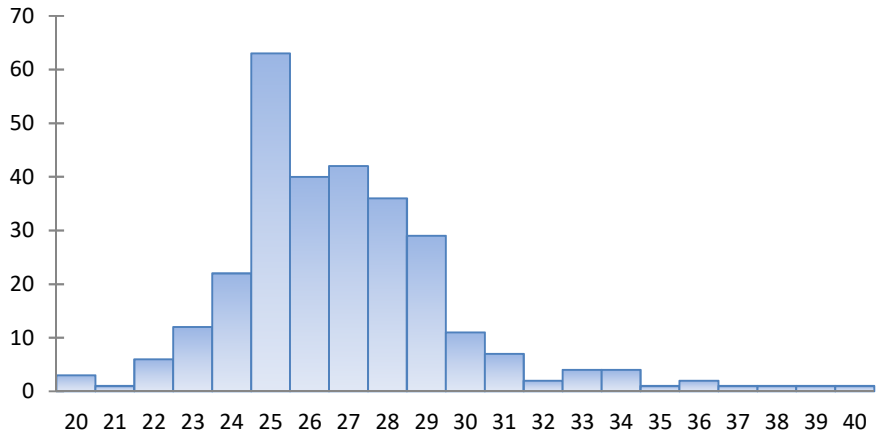
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** YOSEMITE AVE, Powers Ave to Main St
**Posted Speed Limit:** 25 MPH
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 4/5/2023 **Weather:** Clear/Dry
**Begin Time:** 9:15 AM **End Time:** 9:45 AM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 289 |
| Speed Range | 20 - 40 MPH |
| 50th percentile speed | 26 MPH |
| 85th percentile speed | 29 MPH |
| 10 mph pace speed | 22 - 31 MPH |
| % in pace speed | 93% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 3 | 40 | 1 |
| 21 | 1 | 41 | 0 |
| 22 | 6 | 42 | 0 |
| 23 | 12 | 43 | 0 |
| 24 | 22 | 44 | 0 |
| 25 | 63 | 45 | 0 |
| 26 | 40 | 46 | 0 |
| 27 | 42 | 47 | 0 |
| 28 | 36 | 48 | 0 |
| 29 | 29 | 49 | 0 |
| 30 | 11 | 50 | 0 |
| 31 | 7 | 51 | 0 |
| 32 | 2 | 52 | 0 |
| 33 | 4 | 53 | 0 |
| 34 | 4 | 54 | 0 |
| 35 | 1 | 55 | 0 |
| 36 | 2 | 56 | 0 |
| 37 | 1 | 57 | 0 |
| 38 | 1 | 58 | 0 |
| 39 | 1 | 59 | 0 |
| TOTAL | | | 289 |

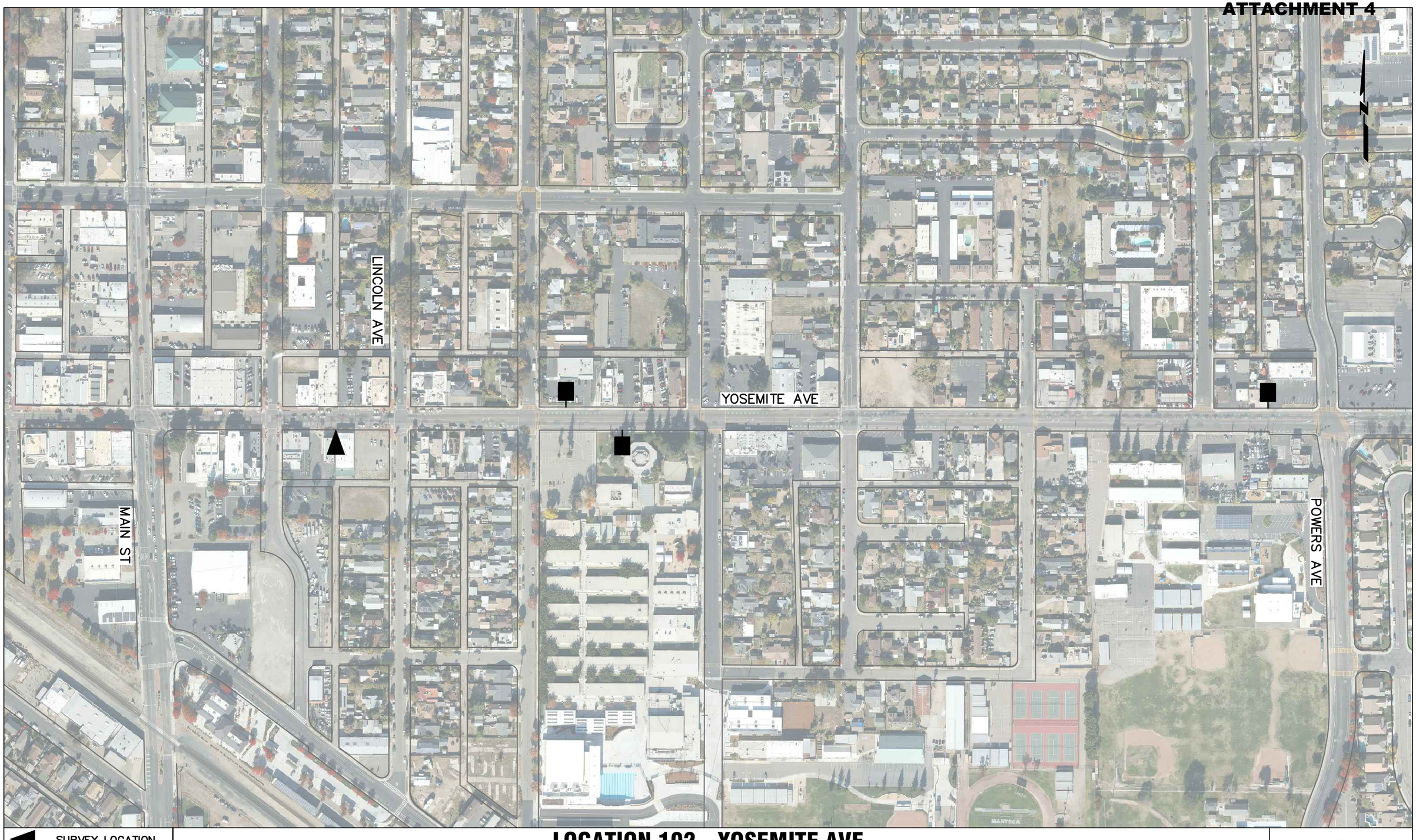
### ANALYSIS INFORMATION

**Segment Length(mi):** 0.63 **ADT:** 15,236 **Count Date:** 7/14/22
**Number of Collisions:** 24 **Time Period:** 3 years
**Calc. Collision Rate =** 2.28 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 46 - 60 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** EB 1-2 WB 1 **Adjacent Land Use:** Commercial/Public/Quasi Public/Downtown
**Divided Median:** TWLTL/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. No further reduction is allowed. Therefore, it is recommended that the posted speed limit remains at 25 mph. The 10 mph pace ranges from 22 mph to 31 mph, and the recommended speed limit falls within this range. The collision rate is above the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 102 - YOSEMITE AVE
# BETWEEN POWERS AVE AND MAIN ST

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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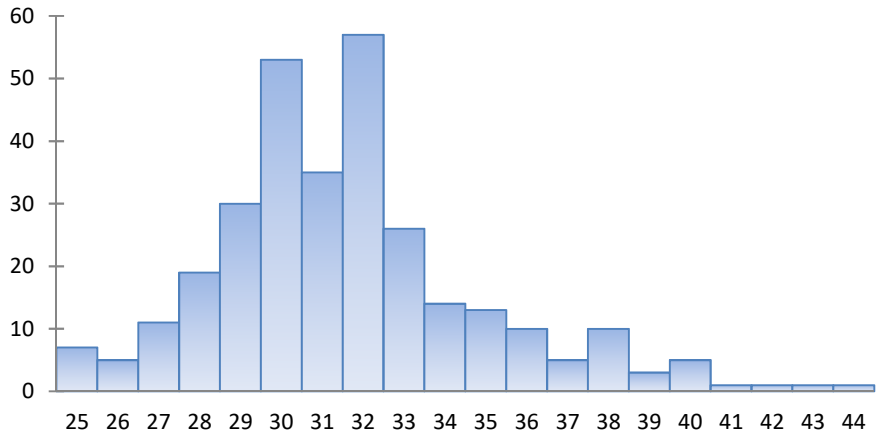
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**25 MPH**

**Location:** YOSEMITE AVE, Main St to El Portal Ave
**Posted Speed Limit:** 25 MPH
**Direction:** Both **Recorder:** BD/FG
**Date:** 3/27/2023 **Weather:** Clear/Dry
**Begin Time:** 4:00 PM **End Time:** 4:45 PM
**Speed Limit Change:** No
**Speed Justification:** This roadway meets the requirements of Section 515 " Residence District" of the CVC. A speed limit of 25 mph is recommended.

### Summary Statistics

| | |
|---|---|
| Total Observed | 307 |
| Speed Range | 25 - 44 MPH |
| 50th percentile speed | 31 MPH |
| 85th percentile speed | 35 MPH |
| 10 mph pace speed | 27 - 36 MPH |
| % in pace speed | 87% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 5 |
| 21 | 0 | 41 | 1 |
| 22 | 0 | 42 | 1 |
| 23 | 0 | 43 | 1 |
| 24 | 0 | 44 | 1 |
| 25 | 7 | 45 | 0 |
| 26 | 5 | 46 | 0 |
| 27 | 11 | 47 | 0 |
| 28 | 19 | 48 | 0 |
| 29 | 30 | 49 | 0 |
| 30 | 53 | 50 | 0 |
| 31 | 35 | 51 | 0 |
| 32 | 57 | 52 | 0 |
| 33 | 26 | 53 | 0 |
| 34 | 14 | 54 | 0 |
| 35 | 13 | 55 | 0 |
| 36 | 10 | 56 | 0 |
| 37 | 5 | 57 | 0 |
| 38 | 10 | 58 | 0 |
| 39 | 3 | 59 | 0 |
| TOTAL | | | 307 |

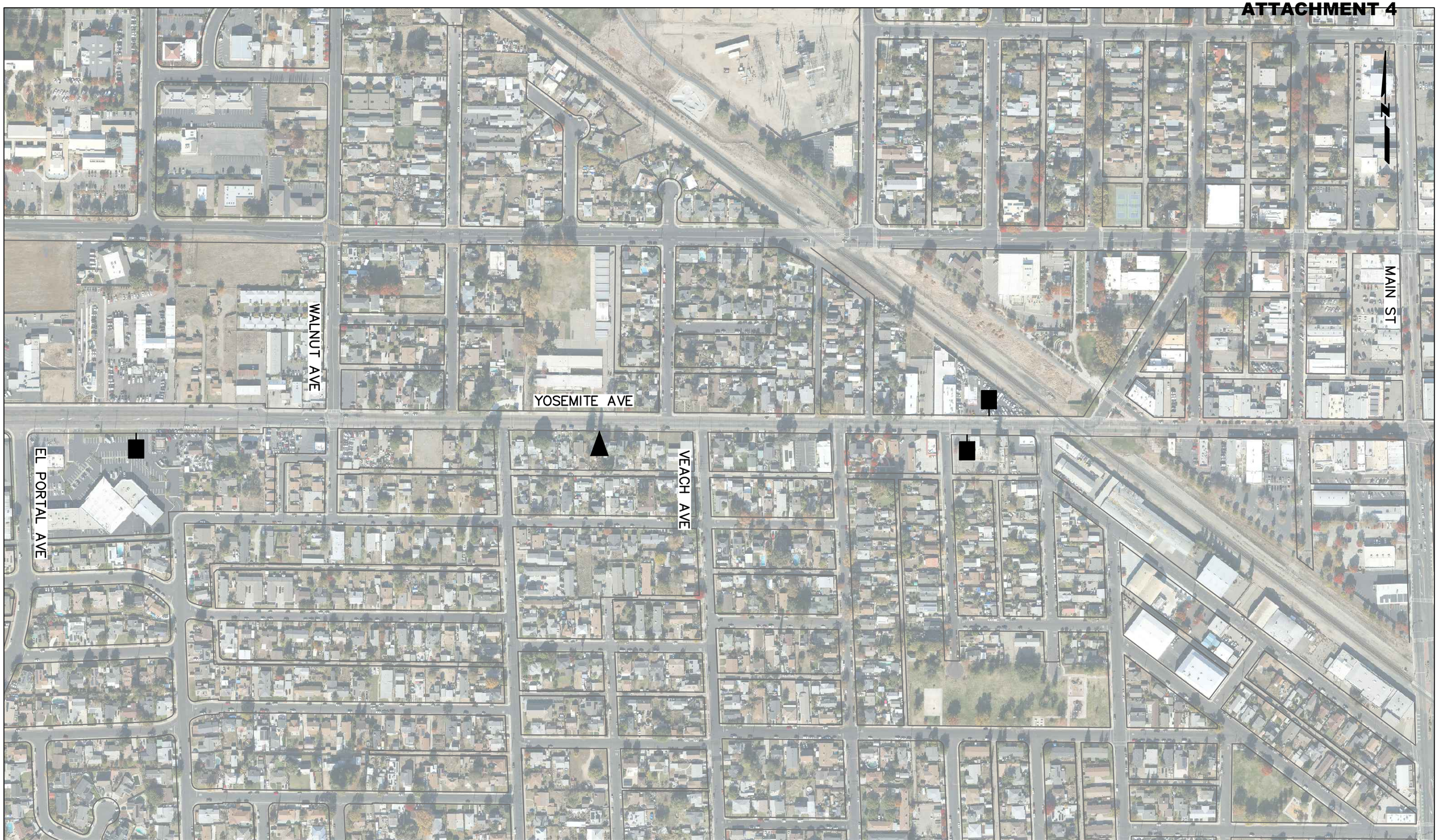
### ANALYSIS INFORMATION

**Segment Length(mi):** 0.89 **ADT:** 14,695 **Count Date:** 7/28/22
**Number of Collisions:** 22 **Time Period:** 3 years
**Calc. Collision Rate =** 1.54 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 46 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Varies
**Number of Lanes:** EB 1 WB 1-2 **Adjacent Land Use:** Low/Medium Density Residential/Commercial/ Public/Quasi Public/Downtown
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** Yes

**Comments:**

The 85th-percentile speed of 35 mph indicates a 35 mph speed limit. Since the roadway meets the requirements of Section 515 "Residence District" of the California Vehicle Code, and the collision rate is above the expected rate, it is recommended that the speed limit remains 25 mph. The 10 mph pace ranges from 27 mph to 36 mph and the recommended speed limit falls below this range.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 103 - YOSEMITE AVE
# BETWEEN MAIN ST AND EL PORTAL AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
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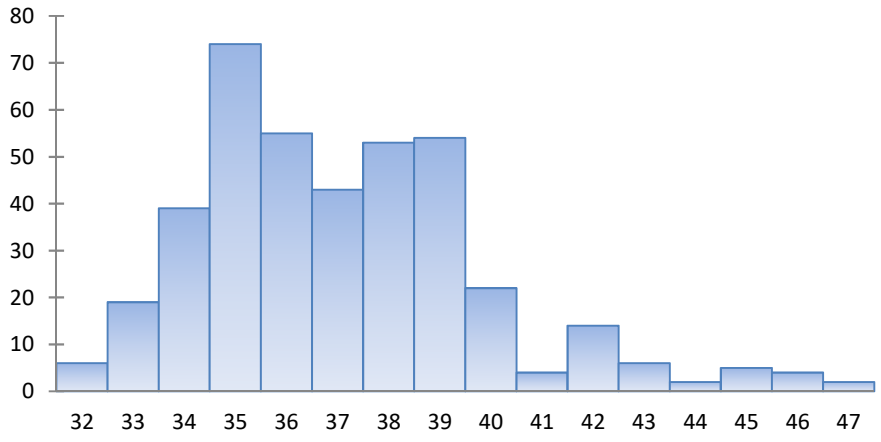
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**35 MPH**

**Location:** YOSEMITE AVE, El Portal Ave to Winters Dr
**Posted Speed Limit:** 35 MPH
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 3/27/2023 **Weather:** Clear/Dry
**Begin Time:** 3:27 PM **End Time:** 3:58 PM
**Speed Limit Change:** No
**Speed Justification:** 85th-percentile speed rounded down to the nearest 5mph increment per CVC Section 22358.6(c). No further reduction is allowed.

### Summary Statistics

| | |
|---|---|
| Total Observed | 402 |
| Speed Range | 32 - 47 MPH |
| 50th percentile speed | 37 MPH |
| 85th percentile speed | 39 MPH |
| 10 mph pace speed | 33 - 42 MPH |
| % in pace speed | 94% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 22 |
| 21 | 0 | 41 | 4 |
| 22 | 0 | 42 | 14 |
| 23 | 0 | 43 | 6 |
| 24 | 0 | 44 | 2 |
| 25 | 0 | 45 | 5 |
| 26 | 0 | 46 | 4 |
| 27 | 0 | 47 | 2 |
| 28 | 0 | 48 | 0 |
| 29 | 0 | 49 | 0 |
| 30 | 0 | 50 | 0 |
| 31 | 0 | 51 | 0 |
| 32 | 6 | 52 | 0 |
| 33 | 19 | 53 | 0 |
| 34 | 39 | 54 | 0 |
| 35 | 74 | 55 | 0 |
| 36 | 55 | 56 | 0 |
| 37 | 43 | 57 | 0 |
| 38 | 53 | 58 | 0 |
| 39 | 54 | 59 | 0 |
| TOTAL | | | 402 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 0.57 **ADT:** 21,902 **Count Date:** 8/3/22
**Number of Collisions:** 20 **Time Period:** 3 years
**Calc. Collision Rate =** 1.46 collisions per million vehicle-miles **State Average Rate:** 1.18 c/mvm
**Street Width (ft):** 74 - 81 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** Both Sides **Sidewalk:** Both Sides **Bike Lanes:** Both Sides
**Number of Lanes:** EB 1-2 WB 2 **Adjacent Land Use:** Medium Density Residential/Commercial/ Mixed Use/Business Professional/Public/Quasi Public
**Divided Median:** TWLTL/Concrete Median
**Uncontrolled Crosswalks** No

**Comments:**

Based on CVC Section 22358.6(c), the 85th-percentile speed was rounded down to the nearest 5 mph increment. No further reduction is allowed. Therefore, it is recommended that the posted speed limit remains at 35 mph. The 10 mph pace ranges from 33 mph to 42 mph, and the recommended speed limit falls within this range. The collision rate is above the expected rate.

ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 104 - YOSEMITE AVE
# BETWEEN EL PORTAL AVE AND WINTERS DR

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

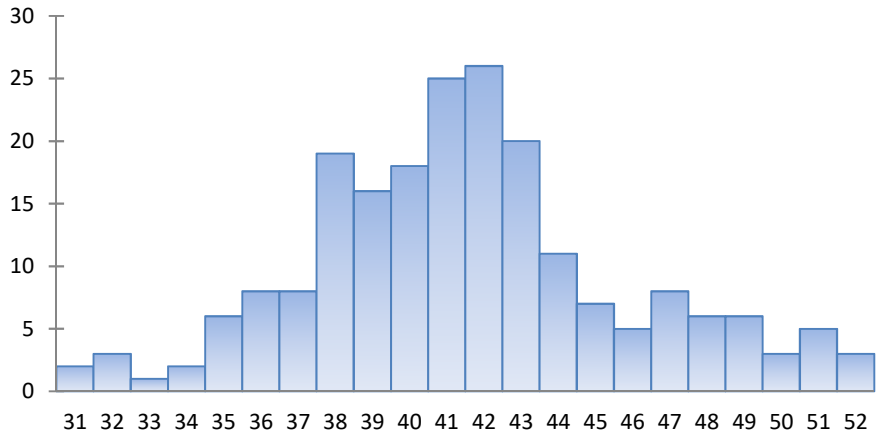
## VEHICLE SPEED DATA

**RECOMMENDED SPEED LIMIT**
**45 MPH**

Location: YOSEMITE AVE, Winters Dr to Union Pacific Railroad (UPRR)
Posted Speed Limit: 45 MPH
Direction: Both
Recorder: NDS
Survey Date: 6/30/2022
Weather: Clear/Dry
Begin Time: 3:05 PM
End Time: 4:00 PM
Speed Limit Change: No
Speed Justification: 85th-percentile speed

### Summary Statistics

| | |
|---|---|
| Total Observed | 208 |
| Speed Range | 31 - 52 MPH |
| 50th percentile speed | 41 MPH |
| 85th percentile speed | 46 MPH |
| 10 mph pace speed | 36 - 45 MPH |
| % in pace speed | 76% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 18 |
| 21 | 0 | 41 | 25 |
| 22 | 0 | 42 | 26 |
| 23 | 0 | 43 | 20 |
| 24 | 0 | 44 | 11 |
| 25 | 0 | 45 | 7 |
| 26 | 0 | 46 | 5 |
| 27 | 0 | 47 | 8 |
| 28 | 0 | 48 | 6 |
| 29 | 0 | 49 | 6 |
| 30 | 0 | 50 | 3 |
| 31 | 2 | 51 | 5 |
| 32 | 3 | 52 | 3 |
| 33 | 1 | 53 | 0 |
| 34 | 2 | 54 | 0 |
| 35 | 6 | 55 | 0 |
| 36 | 8 | 56 | 0 |
| 37 | 8 | 57 | 0 |
| 38 | 19 | 58 | 0 |
| 39 | 16 | 59 | 0 |
| TOTAL | | | 208 |

## ANALYSIS INFORMATION

Segment Length(mi): 1.16
ADT: 13,285
Count Date: 8/18/22
Number of Collisions: 20
Time Period: 3 years
Calc. Collision Rate = 1.19 collisions per million vehicle-miles
Expected Collisions Rate: 1.18 c/mvm
Street Width (ft): 74 - 78
Driveway: Yes
Terrain: Flat
Parking Conditions: Varies
Sidewalk: Varies
Bike Lanes: None
Number of Lanes: EB 1-2 WB 1-2
Adjacent Land Use: Med Density Res/Commercial/Mixed Use/Industrial/Public/ Quasi Public/Business Professional
Divided Median: TWLTL/Concrete Median/No Median
Uncontrolled Crosswalks: No

**Comments:**

The 85th-percentile speed of 46 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the recommended speed limit falls within this range. The collision rate is above the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 105 - FIGURE A - YOSEMITE AVE BETWEEN WINTERS DR AND WEST CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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ATTACHMENT 4




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS

SCALE: NOT TO SCALE

# LOCATION 105 - FIGURE B - YOSEMITE AVE BETWEEN WINTERS DR AND WEST CITY LIMIT

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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City of Manteca
2023 Engineering and Traffic Survey

**ATTACHMENT 4**

## VEHICLE SPEED DATA

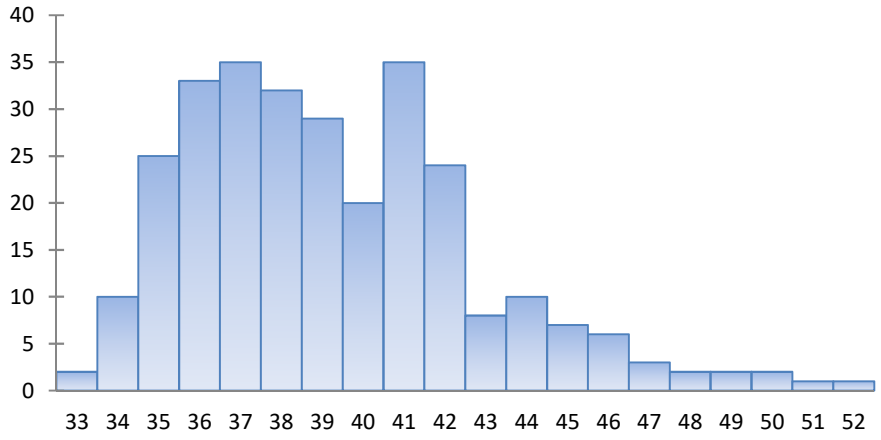
**RECOMMENDED SPEED LIMIT**

**35 MPH**

**Location:** MAIN STREET between E Atherton Dr and E Woodward Ave
**Posted Speed Limit:** 35 MPH
**Direction:** Both **Recorder:** BD/FG
**Survey Date:** 4/5/2023 **Weather:** Clear/Dry
**Begin Time:** 11:40 AM **End Time:** 12:15 PM
**Speed Limit Change:** No
**Speed Justification:** A 5-mph reduction from the 85th-percentile speed due to fronting residential district.

### Summary Statistics

| | |
|---|---|
| Total Observed | 287 |
| Speed Range | 33 - 52 MPH |
| 50th percentile speed | 39 MPH |
| 85th percentile speed | 42 MPH |
| 10 mph pace speed | 34 - 43 MPH |
| % in pace speed | 87% |




| Speed | Number | Speed | Number |
|---|---|---|---|
| 20 | 0 | 40 | 20 |
| 21 | 0 | 41 | 35 |
| 22 | 0 | 42 | 24 |
| 23 | 0 | 43 | 8 |
| 24 | 0 | 44 | 10 |
| 25 | 0 | 45 | 7 |
| 26 | 0 | 46 | 6 |
| 27 | 0 | 47 | 3 |
| 28 | 0 | 48 | 2 |
| 29 | 0 | 49 | 2 |
| 30 | 0 | 50 | 2 |
| 31 | 0 | 51 | 1 |
| 32 | 0 | 52 | 1 |
| 33 | 2 | 53 | 0 |
| 34 | 10 | 54 | 0 |
| 35 | 25 | 55 | 0 |
| 36 | 33 | 56 | 0 |
| 37 | 35 | 57 | 0 |
| 38 | 32 | 58 | 0 |
| 39 | 29 | 59 | 0 |
| TOTAL | | | 287 |

## ANALYSIS INFORMATION

**Segment Length(mi):** 1.50 **ADT:** 10,275 **Count Date:** 7/12/22
**Number of Collisions:** 0 **Time Period:** 3 years
**Calc. Collision Rate =** 0.00 collisions per million vehicle-miles **Expected Collisions Rate:** 1.18 c/mvm
**Street Width (ft):** 24 - 80 **Driveway:** Yes **Terrain:** Flat
**Parking Conditions:** None **Sidewalk:** Varies **Bike Lanes:** Varies
**Number of Lanes:** NB 1 SB 1 **Adjacent Land Use:** Low Density Residential/Commercial/Commercial Mixed Use
**Divided Median:** TWLTL/Concrete Median/No Median
**Uncontrolled Crosswalks** No

**Comments:**

The 85th-percentile speed of 42 mph indicates a 40 mph speed limit. However, due to fronting residential district, a downgrading of the speed limit by 5 mph is justified. The 10 mph pace ranges from 34 mph to 43 mph and the recommended speed limit falls within this range. The collision rate is below the expected rate. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**ATTACHMENT 4**




SURVEY LOCATION
SPEED LIMIT SIGN
CITY LIMITS
SCALE: NOT TO SCALE

# LOCATION 106 - MAIN ST
# BETWEEN ATHERTON DR AND WOODWARD AVE

**CITY OF MANTECA**
ENGINEERING DEPARTMENT

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