



SPEED ZONE SURVEY

PONDEROSA ROAD

(No. 5)

FROM NORTH SHINGLE ROAD (No. 6) TO GREEN VALLEY ROAD (No. 2)

Reviewed by the Traffic Advisory Committee on DEC 16 2021

COMMITTEE APPROVED STAFF'S RECOMMENDATION.

COMMITTEE REQUESTED FURTHER ACTION.

Action APPROVED

DEPARTMENT OF TRANSPORTATION
ENGINEERING AND TRAFFIC SURVEY

Location: From North Shingle Road (No. 6) to Green Valley Road (No. 2)

Subject: Speed Zone Survey Update

Date: October 11, 2021

2021 ENGINEERING AND TRAFFIC SURVEY FOR SPEED LIMITS

1. INTRODUCTION

The California Vehicle Code, Section 22358, allows local authorities to establish speed limits based on an “Engineering and Traffic Survey”. The Vehicle Code goes on, in Section 40801 to prohibit the use of “speed traps” for the purpose of speed enforcement and, in Section 40802, defines “speed trap”. Section 40802 also indicates that an “Engineering and Traffic Survey” is required where speed enforcement involves the use of radar and establishes the frequency with which surveys must be conducted for continued radar enforcement. In order to comply with the provisions of the Vehicle Code, and insure that radar enforced speed zones are based on recent data, the County of El Dorado has established a practice of conducting engineering and traffic survey updates based on a cycle length of five (5) years or less.

In Section 627, the Vehicle Code provides a definition for “Engineering and Traffic Survey”, and states that an “Engineering and Traffic Survey” shall include:

1. Prevailing speeds as determined by traffic engineering measurements.
2. Accident records.
3. Highway, traffic, and roadside conditions not readily apparent to the driver.

In addition, the 2001 edition of the Vehicle Code added that residential density, pedestrian, and bicycle safety may be considered.

While the California Vehicle Code is silent regarding the relationship of the 85th percentile speed to the posted speed, the California Manual on Uniform Traffic Control Devices (CAMUTCD), Section 2B.13, “Speed Limit Sign”, “Engineering and Traffic Survey”, states in part:

“When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th percentile speed of free-flowing traffic . . . [except] the posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th percentile speed . . .”

Section 2B.13 further states in part:

“If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be

approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.

All “Engineering and Traffic Surveys“ performed by the El Dorado County Department of Transportation for establishing speed limits, stop controlled intersections, crosswalks, painted traffic curbs, regulatory traffic signage, and other traffic control devices, use the current publications of the California Vehicle Code, CAMUTCD, California Manual for Setting Speed Limits, applicable County Ordinance Code, and other Civil Engineering publications and California Codes pertaining to the establishment and placement of traffic control devices.

2. NO CHANGES TO EXISTING SPEED LIMIT ON:

- SEGMENT 1: PONDEROSA ROAD FROM NORTH SHINGLE ROAD (No. 6) TO A POINT 475 FEET SOUTH OF MINESHAFT LANE (No. 1119)
- SEGMENT 2: PONDEROSA ROAD FROM 475 FEET SOUTH OF MINESHAFT LANE (No. 1119) TO 100 FEET NORTH OF JACKPINE ROAD (No. 1090)
- SEGMENT 3: PONDEROSA ROAD FROM 100 FEET NORTH OF JACKPINE ROAD (No. 1090) TO GREEN VALLEY ROAD (No. 2)

The existing speed limits on Ponderosa Road, Milepost 0.10 – 3.63, are sanctioned by the following Resolution:

Resolution No. 234-2007 and No. 051-2010

- “(an) Ponderosa Road (No. 5) Forty (40) miles per hour from its intersection with North Shingle Road (No. 6) to a point 475 feet south of Mineshaft Lane (No. 1119) and from that point proceeding north, thirty (30) miles per hour to a point 100 feet north of Jackpine Road (No. 1090).”
- “(fk) Ponderosa Road (No. 5) Forty (40) miles per hour from Jackpine Road (No. 1090) to Green Valley Road (No. 2).”

Data indicates that all three (3) speed zones on Ponderosa Road are recommended for no change in posted speed limit. The reason centers on the fact that newly measured values of the 85th percentile and the 10 mph pace are still within the parameters of the existing speed limits. Hence, the current postings should remain as is. The locations and data are listed below:

Segment 1: Ponderosa Road (No. 5) from North Shingle Road (No. 6) (MP 0.10) to 475 feet south of Mineshaft Lane (No. 1119) (MP 0.62) (Segment Length 0.52 mi.)

This segment of Ponderosa Road is a two lane, Major Collector road that is 0.52 miles in length and serves an average of 4,716 vehicles per day. There have been eight (8) reported collisions with one

(1) injury and zero (0) fatalities in the past three years, resulting in a collision rate of 2.98 collisions per Million Vehicle Miles. This segment provides access to one (1) County maintained roads, and six (6) private roads. This segment mainly serves residential and commercial properties.

- 85th percentile speeds of 45, and 45 miles per hour were recorded.
- The calculated average daily traffic volume was 4,716 vehicles per day.
- There has been no appreciable change to the configuration or physical alignment during the past five (5) years.
- Roadway is mostly straight with minor curvilinear segments.
- There is one (1) intersecting County maintained road and six (6) private roads.
- There were eight (8) collisions with one (1) injury and zero (0) fatalities reported on this section of Ponderosa Road for the three (3) year period from January 1, 2018, through December 31, 2020 with a collision rate of 2.98 collisions per Million Vehicle Miles. This collision rate is higher than the County wide benchmark collision rate of 1.70 per Million Vehicle Miles.
- Staff observed zero (0) bicyclists, and zero (0) pedestrians utilizing Ponderosa Road during the field review that lasted approximately two (2) hours.
- The existing 85th percentile speeds of forty-five (45) and forty-five (45) miles per hour, justifies, in accordance with the CAMUTCD, a radar enforced forty-five (45) miles per hour speed zone. However, due to the numerous driveways and developed area, roadside vegetation and “School Zone” ahead, staff recommends the need for a further reduction of five (5) miles per hour to a radar enforced forty (40) miles per hour.

<i>2021 SITE LOCATIONS</i>	<i>MILE POST</i>	<i>EXISTING SPEED LIMIT</i>	<i>85% SPEED</i>	<i>10 MPH PACE</i>	<i>% IN PACE SPEED</i>
<i>South of Foxwood Ln</i>	<i>0.22</i>	<i>40 mph</i>	<i>45 mph</i>	<i>36-45 mph</i>	<i>81.3%</i>
<i>South of Mineshaft Ln</i>	<i>0.57</i>	<i>40 mph</i>	<i>45 mph</i>	<i>36-45 mph</i>	<i>84.3%</i>

Segment 2: Ponderosa Road from a point 475 feet south of Mineshaft Lane (No. 1119) (MP 0.62) to 100 feet north of Jackpine Road (No. 1090) (MP 1.01) (Segment Length 0.39 mi.)

This segment of Ponderosa Road is a two lane, Local road that is 0.39 miles in length and serves an average of 1,928 vehicles per day. There have been five (5) reported collisions with zero (0) injuries and zero (0) fatalities in the past three years, resulting in a collision rate of 2.37 collisions per Million Entering Vehicles. This collision rate is higher than the County wide benchmark collision rate of 1.00 collisions per Million Entering Vehicles. This segment provides access to two (2) County maintained roads and Ponderosa High School. This segment of Ponderosa Road is straight.

- 85th percentile speed of thirty-seven (37) miles per hour were recorded.
- The calculated average daily traffic volume was 1,928 vehicles per day.
- There has been no appreciable change to the configuration or physical alignment during the past five (5) years.
- Roadway is straight.
- There are two (2) intersecting County maintained roads.
- The road provides access to residential areas and Ponderosa High School.

- There were five (5) collisions with zero (0) injuries and zero (0) fatalities reported on this section of Ponderosa Road for the three (3) year period from January 1, 2018, through December 31, 2020 with a collision rate of 2.37 collisions per Million Entering Vehicles. This collision rate is higher than the County wide benchmark collision rate of 1.00 collisions per Million Entering Vehicles. (Rural, low volume roadways can produce a higher than expected skewed, MEV collision rate with an ADT of 2,000 or lower)
- Staff observed one (1) bicyclists, and zero (0) pedestrians utilizing Ponderosa Road during the field review that lasted approximately one (1) hour.
- The existing 85th percentile speeds of thirty-seven (37) miles per hour, justifies, in accordance with the CAMUTCD, a radar enforced forty five (35) miles per hour speed zone. However, due to the adjacent Ponderosa High School “School Zone”, intersecting roads and high number of turning movements, staff recommends the need for a further reduction of five (5) miles per hour to thirty (30) miles per hour.

<i>2021 SITE LOCATIONS</i>	<i>MILE POST</i>	<i>EXISTING SPEED LIMIT</i>	<i>85% SPEED</i>	<i>10 MPH PACE</i>	<i>% IN PACE SPEED</i>
<i>North of Meder Rd</i>	<i>0.89</i>	<i>30 mph</i>	<i>37 mph</i>	<i>29-38 mph</i>	<i>86.4%</i>

Segment 3: Ponderosa Road from a point 100 feet north of Jackpine Road (No. 1090) (MP 1.01) to Green Valley Road (No. 2) (MP 3.63) (Segment Length 2.62 mi.)

This segment of Ponderosa Road is a two lane, Local road that is 2.62 miles in length and serves an average of 1,610 vehicles per day. There have been twelve (12) reported collisions with six (6) injuries and one (1) fatality in the past three years, resulting in a collision rate of 2.60 collisions per Million Vehicle Miles. This collision rate is higher than the County wide benchmark collision rate of 1.70 collisions per Million Vehicle Miles. This segment provides access to one (1) County maintained road, numerous private roads and driveways, and a few commercial encroachments. This segment of Ponderosa Road is curvilinear with minor grade changes.

- 85th percentile speeds of thirty-nine (39), and forty-one (41) miles per hour were recorded.
- The calculated average daily traffic volume was 1,610 vehicles per day.
- There has been no appreciable change to the configuration or physical alignment during the past five (5) years.
- Roadway is curvilinear with minor grade changes.
- There is (1) intersecting County maintained roads and numerous private driveways and commercial encroachments.
- The road provides access to residential and commercial areas.
- There were twelve (12) collisions with six (6) injuries and one (1) fatality reported on this section of Ponderosa Road for the three (3) year period from January 1, 2018, through December 31, 2020 with a collision rate of 2.60 collisions per Million Vehicle Miles. This collision rate is higher than the County wide benchmark collision rate of 1.70 collisions per Million Vehicle Miles. (Rural, low volume roadways can produce a higher than expected skewed, MVM collision rate with an ADT of 2,000 or lower)
- Staff observed zero (0) bicyclists, and zero (0) pedestrians utilizing Ponderosa Road

- during the field review that lasted approximately two (2) hours.
- The existing 85th percentile speeds of thirty-nine (39), and forty-one (41) miles per hour, justifies, in accordance with the CAMUTCD, a radar enforced forty five (40) miles per hour speed zone. Therefore, in the interest of traffic safety and enforcement, it is justified to maintain the existing 40 mph speed limit, which is in conformance with the provisions of the CVC and the MUTCD.

<i>2021 SITE LOCATIONS</i>	<i>MILE POST</i>	<i>EXISTING SPEED LIMIT</i>	<i>85% SPEED</i>	<i>10 MPH PACE</i>	<i>% IN PACE SPEED</i>
<i>At Welker Ln</i>	<i>1.32</i>	<i>40 mph</i>	<i>39 mph</i>	<i>30-39 mph</i>	<i>80.0%</i>
<i>At Deer Brush Ln</i>	<i>3.17</i>	<i>40 mph</i>	<i>41 mph</i>	<i>33-42 mph</i>	<i>81.1%</i>

FURTHER STAFF RECOMMENDATION:

Prior to 2010 there was a speed zone length error between Segments 2 and 3. Staff recommends the clean-up of this 100 foot discrepancy by changing the limits of Segment 2 and 3 to end and begin 100 feet north of Jackpine Road.

RECOMMENDATION:

- Based on the findings of this survey it is recommended that the Traffic Advisory Committee retain the existing speed zones on Ponderosa Road (MP 0.10-1.01):

Resolution No. 051-2010

- “(an) Ponderosa Road (No. 5) Forty (40) miles per hour from its intersection with North Shingle Road (No. 6) to a point 475 feet south of Mineshaft Lane (No. 1119) and from that point proceeding north, thirty (30) miles per hour to a point 100 feet north of Jackpine Road (No. 1090).”

- Based on the findings of this survey it is recommended that the Traffic Advisory Committee amend the existing speed zone length on Ponderosa Road (MP 1.01-3.63):

Resolution No. 234-2007


Remove:


- ~~“(fk) Ponderosa Road (No. 5) Forty (40) miles per hour from Jackpine Road (No. 1090) to Green Valley Road (No. 2).”~~

Add:

- “(fo) Ponderosa Road (No. 5) Forty (40) miles per hour from a point 100 feet north of Jackpine Road (No. 1090) to Green Valley Road (No. 2).”

3. That the California Highway Patrol continues to utilize radar enforcement in these speed zones on Ponderosa Road.

Prepared by:  _____
Jim Hunnicutt
Senior Engineering Technician

APPROVED BY:  _____ on 11/18/21 _____
Date
Rafael Martinez, T.E., Director
Community Development Services
Department of Transportation

- Attachments:
- Vicinity Map (1 page)
 - Photos (5 pages)
 - Speed Surveys (5 pages)

**PONDEROSA ROAD
MP 0.10 – 3.63
VICINITY MAP**

GREEN VALLEY RD

**PONDEROSA ROAD
40 MPH SPEED ZONE**

**PONDEROSA ROAD
30 MPH SPEED ZONE**

**PONDEROSA ROAD
40 MPH SPEED ZONE**

NORTH SHINGLE ROAD

PONDEROSA ROAD

SOUTH OF FOXWOOD LN MP 0.22



August 2021 Speed Survey

PONDEROSA ROAD

SOUTH OF MINESHAFT LN MP 0.57



August 2021 Speed Survey

PONDEROSA ROAD

NORTH OF MEDER ROAD MP 0.89



August 2021 Speed Survey

PONDEROSA ROAD

AT WELKER LN MP 1.32



August 2021 Speed Survey

PONDEROSA ROAD

AT DEER BRUSH LN MP 3.17



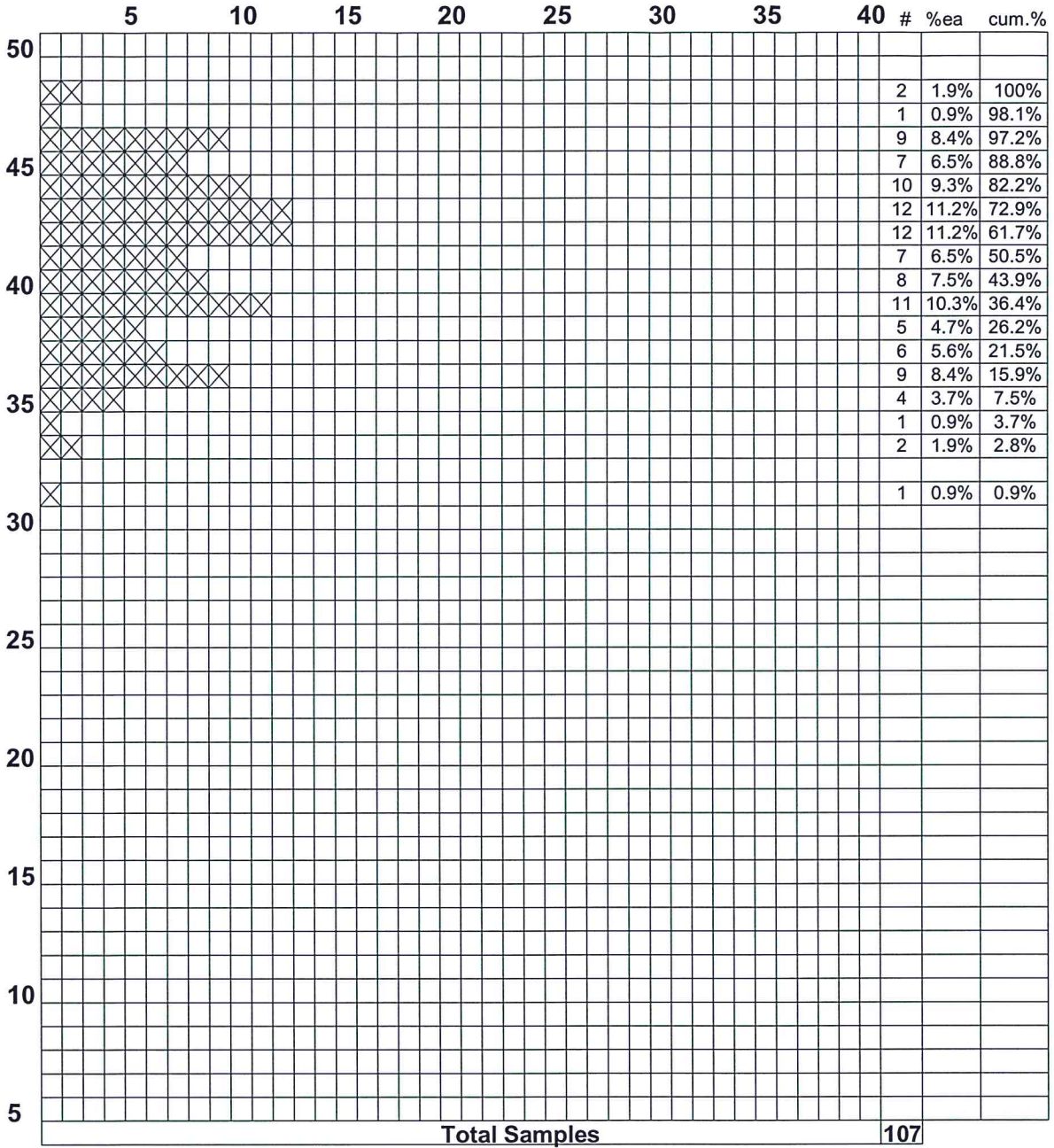
August 2021 Speed Survey

**County of El Dorado
Transportation Division**

Street Name: PONDEROSA RD
Limits: N SHINGLE RD to FOXWOOD LN

Radars Survey Sheet

X=North/South



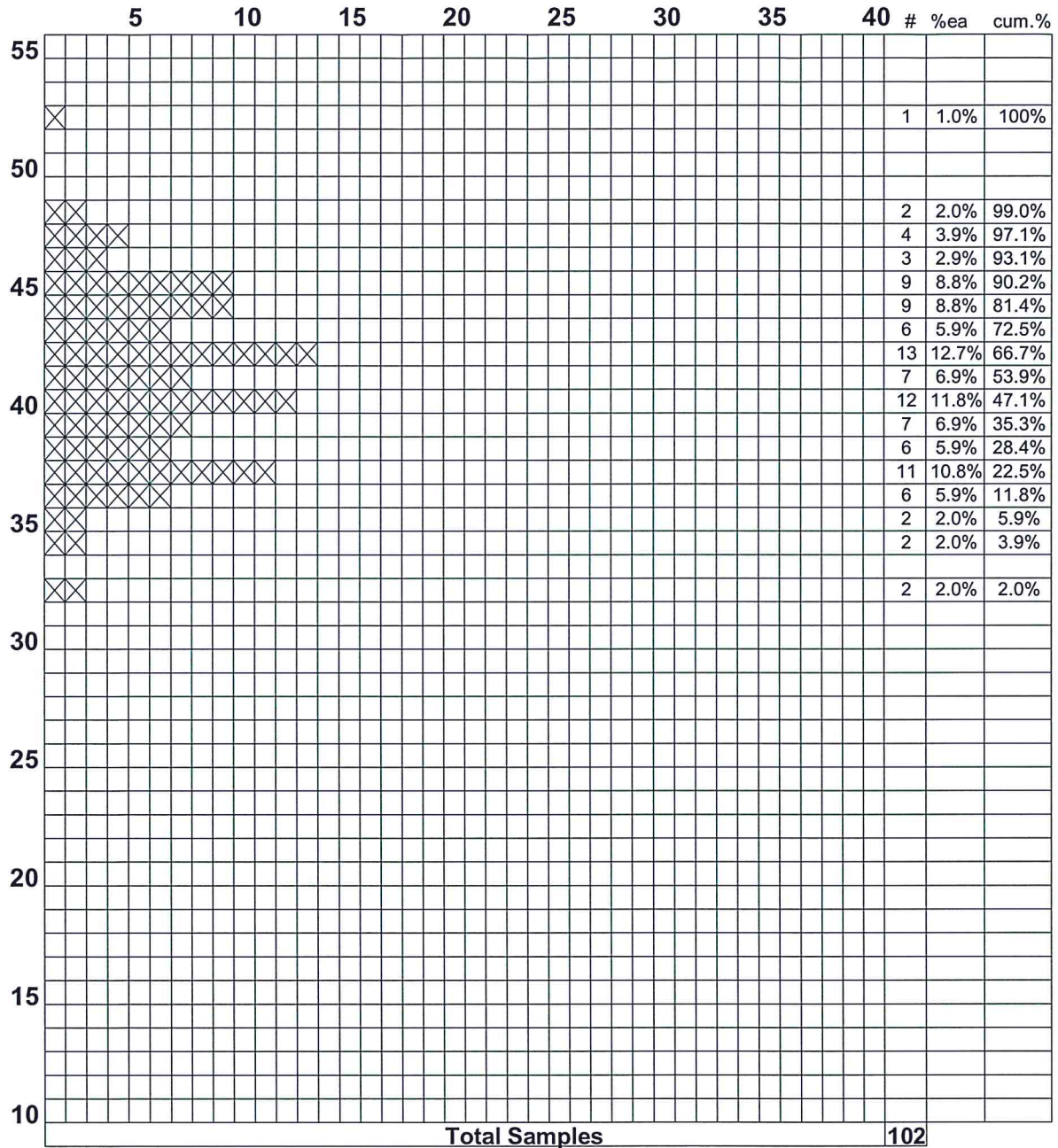
85th Percentile Speed: <u>45</u>	Date of Survey: <u>7/8/2021</u>	Start Time: <u>11:45</u>
50th Percentile Speed: <u>41</u>	Weather: <u>Sunny</u>	End Time: <u>12:28</u>
15th Percentile Speed: <u>36</u>	Road Condition: <u>Good</u>	Posted Speed: <u>40</u>
10 MPH Pace: <u>36-45</u>	Street Class.: <u>Major Collector</u>	
Number in Pace: <u>87</u>	Observer: <u>J. HUNNICUTT</u>	
Percent in Pace: <u>81.3%</u>	Conditions not Apparent:	

**County of El Dorado
Transportation Division**

Street Name: PONDEROSA RD
Limits: FOXWOOD to MINESHAFT

Radar Survey Sheet

X=North/South



85th Percentile Speed: 45
50th Percentile Speed: 41
15th Percentile Speed: 37
10 MPH Pace: 36-45
Number in Pace: 86
Percent in Pace: 84.3%

Date of Survey: 7/8/2021
Weather: Sunny
Road Condition: Good
Street Class.: Major Collector
Observer: J. HUNNICUTT
Conditions not Apparent:

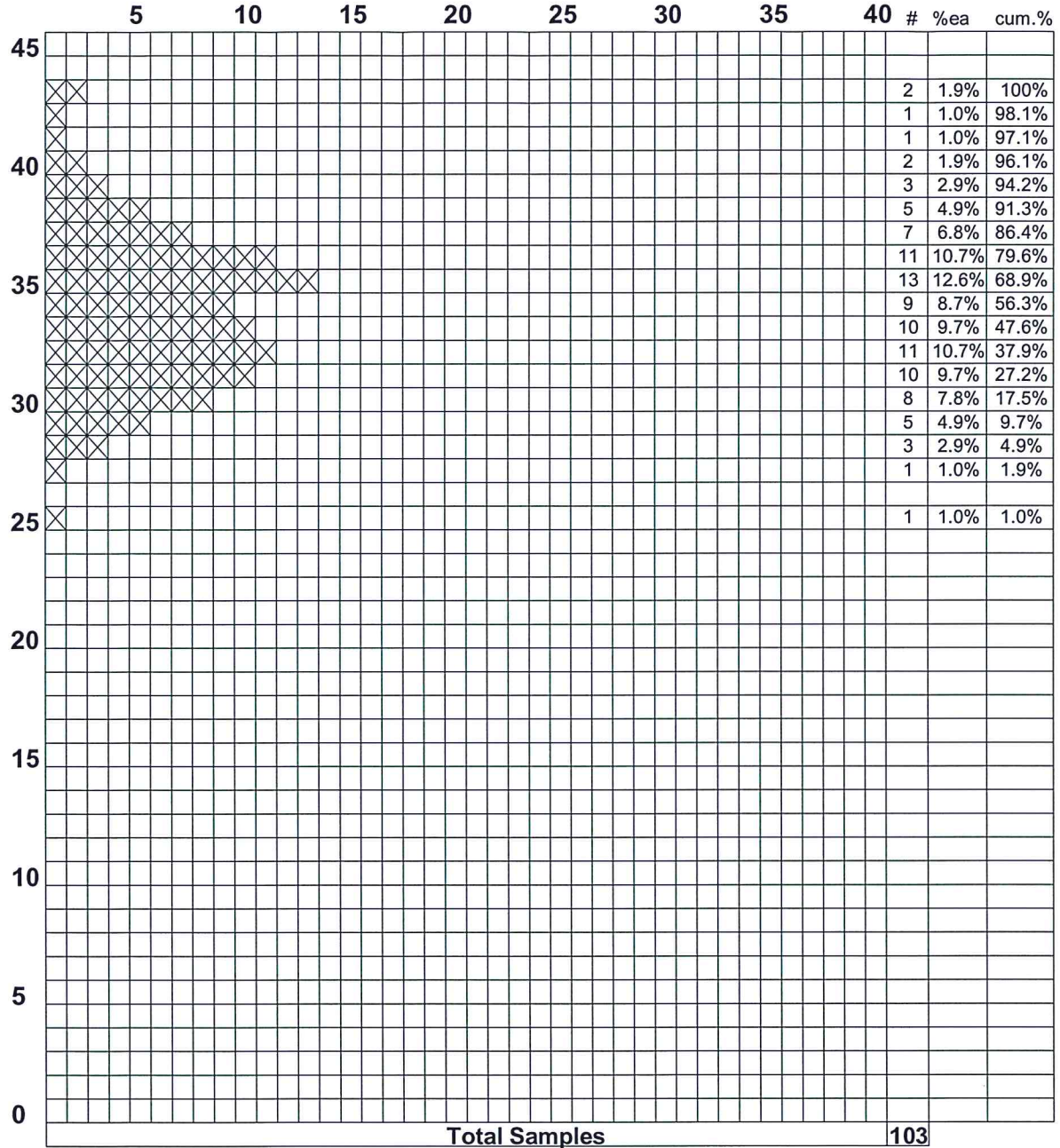
Start Time: 12:37
End Time: 1:10
Posted Speed: 40

**County of El Dorado
Transportation Division**

Street Name: PONDEROSA RD
Limits: MEDER RD to JACKPINE RD

Radars Survey Sheet

X=North/South



85th Percentile Speed: 37
50th Percentile Speed: 34
15th Percentile Speed: 30
10 MPH Pace: 29- 38
Number in Pace: 89
Percent in Pace: 86.4%

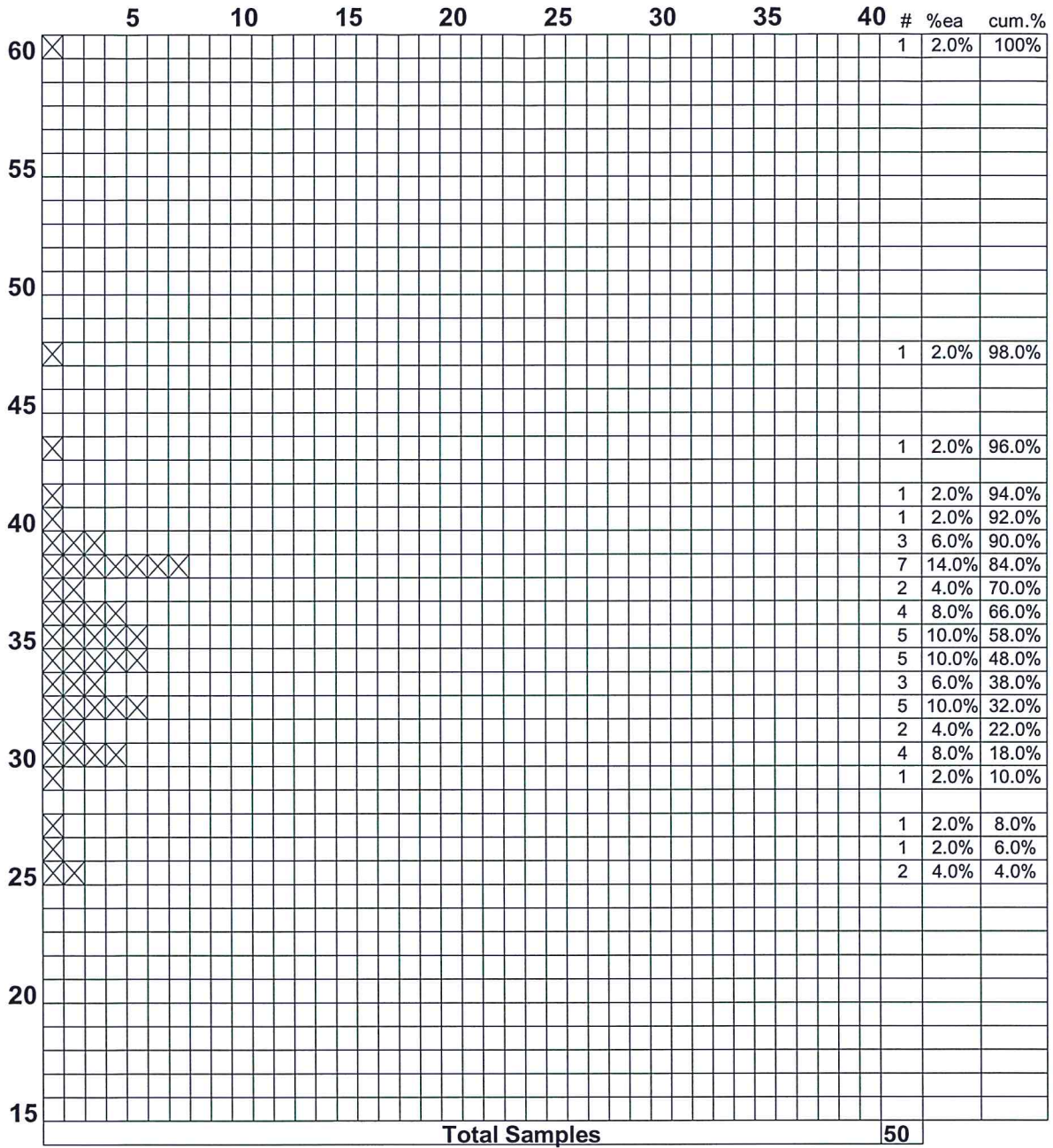
Date of Survey: 7/8/2021 Start Time: 1:13
Weather: Sunny End Time: 2:05
Road Condition: Good Posted Speed: 30
Street Class.: Major Collector
Observer: J. HUNNICUTT
Conditions not Apparent:

**County of El Dorado
Transportation Division**

Street Name: PONDEROSA RD
Limits: CACTUS RD to WELKER LN

Radars Survey Sheet

X=North/South



85th Percentile Speed: 39
50th Percentile Speed: 35
15th Percentile Speed: 30
10 MPH Pace: 30-39
Number in Pace: 40
Percent in Pace: 80.0%

Date of Survey: 7/8/2021
Weather: Sunny
Road Condition: Good
Street Class.: Local
Observer: J. HUNNICUTT
Conditions not Apparent:

Start Time: 2:08
End Time: 2:53
Posted Speed: 40

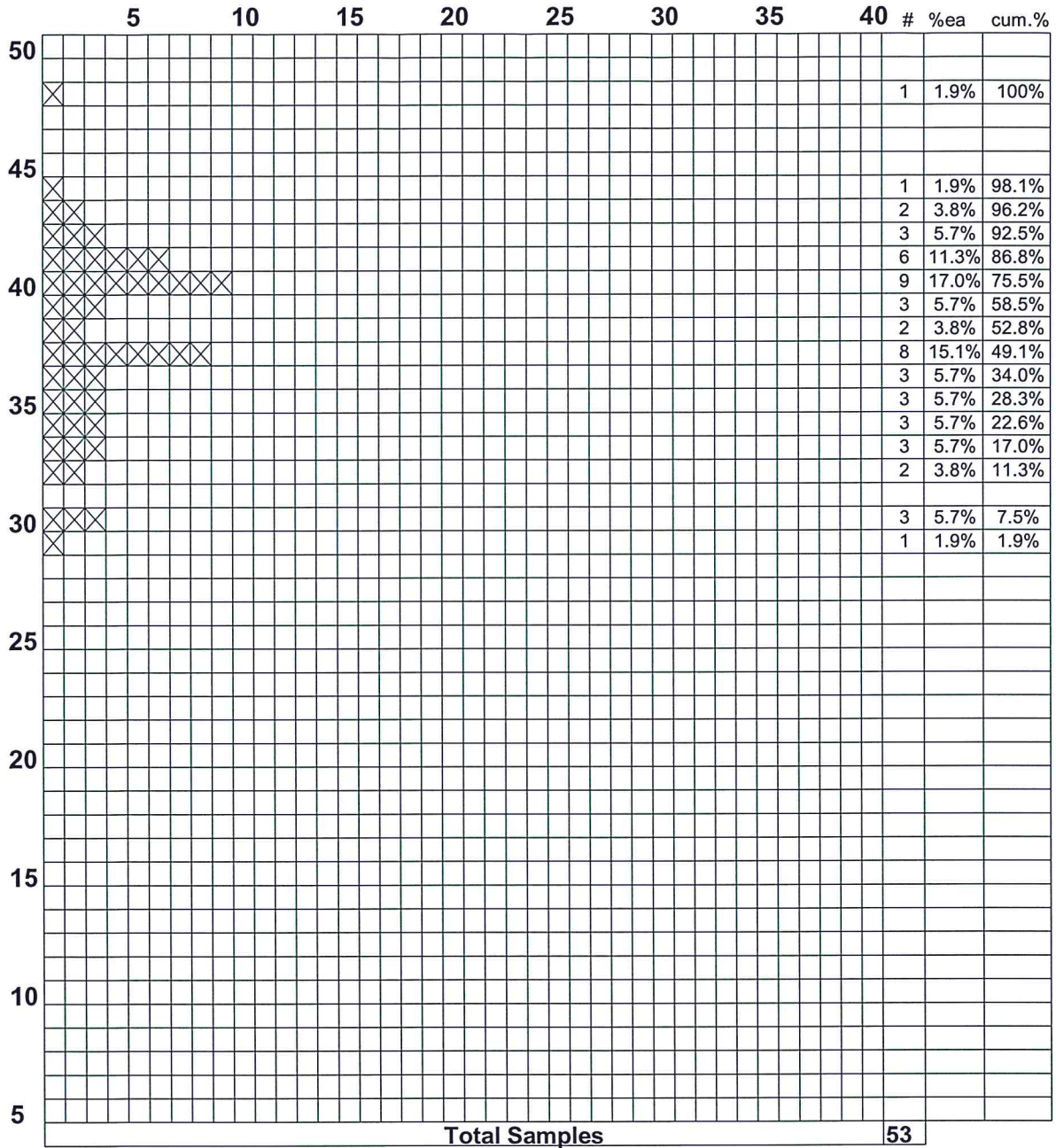
**County of El Dorado
Transportation Division**

Street Name: PONDEROSA RD

Limits: DEER BRUSH LN to REFLECTION RD

Radar Survey Sheet

X=North/South



85th Percentile Speed: 41
 50th Percentile Speed: 38
 15th Percentile Speed: 33
 10 MPH Pace: 33- 42
 Number in Pace: 43
 Percent in Pace: 81.1%

Date of Survey: 7/13/2021
 Weather: Sunny
 Road Condition: Good
 Street Class.: Local
 Observer: J. HUNNICUTT
 Conditions not Apparent:

Start Time: 12:25
 End Time: 1:13
 Posted Speed: 40