

**TRAFFIC
AND
ENGINEERING
REPORT**

JUNE 2018



County of Santa Cruz

DEPARTMENT OF PUBLIC WORKS

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MARCELA TAVANTZIS
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SUBJECT: TRAFFIC AND ENGINEERING REPORTS JUNE 2018

To Whom It May Concern:

These traffic and engineering reports were prepared in accordance with the Vehicle Code Section 40803, to allow the use of radar for speed enforcement purposes. The recommended safe speeds were determined utilizing the prevailing 85th percentile speeds, combined with traffic engineering judgement, to match existing conditions with the traffic safety needs of the community. Accident statistics indicate that unsafe speed is the highest single primary collision factor on roadways and adherence to safe speeds should result in a substantial reduction in vehicle accidents.

Yours truly,

STEVEN B. WIESNER
Assistant Director of Public Works

SBW:jv

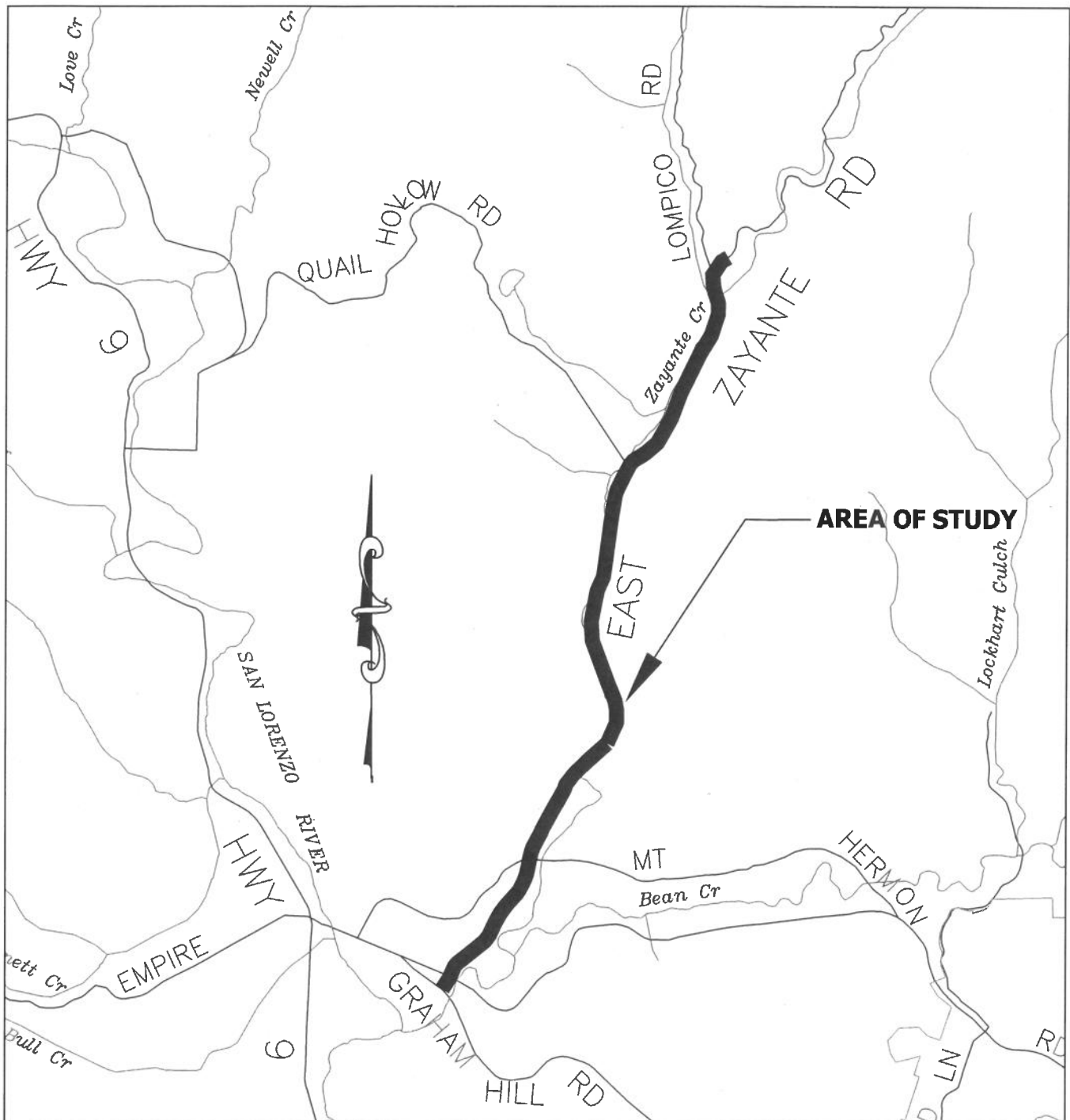
Traffic and Engineering Report June 2018.doc

TRAFFIC AND ENGINEERING REPORT

June, 2018

TABLE OF CONTENTS

East Zayante Road	-----	1 – 5
Pine Flat Road	-----	6 – 10
San Andreas Road	-----	11 – 15
Seventh Avenue	-----	16 – 20
Soquel Avenue	-----	21 – 25
Varni Road	-----	26 – 30



**SANTA CRUZ COUNTY TRAFFIC ENGINEERING
 RADAR SPEED SURVEY
 EAST ZAYANTE ROAD
 GRAHAM HILL ROAD TO 0.10 MILE
 NORTH OF LOMPICO ROAD**

JUNE 2018

TRAFFIC AND ENGINEERING REPORT
JUNE 2018

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

East Zayante Road from Graham Hill Road to .10 mile north of Lompico Road.
(Speed Data collected at #7701).

PREVAILING SPEED DATA:

The existing posted speed limit is 40 mph and is radar enforced.

The prevailing speeds are:

Direction	Northbound	Southbound
85 th Percentile	44 mph	45 mph
Pace Speed	37-47 mph	37-47 mph
Average Speed	41.03 mph	41.56 mph

ANALYSIS:

The prevailing 85th percentile speeds are 45 MPH and 44 MPH depending on the direction of travel. The safe speed is established at the first five miles per hour increment below the 85th percentile which is calculated to be 40 MPH. It is recommended that the existing 40 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

RADAR SPEED SURVEY

Route: E Zayante Rd
From: Graham Hill Rd
To: 0.1 mi N of Lompico Rd
Direction: Northbound
Weather: Cloudy
Posted Speed: 40 MPH
Begin time: 2:20 PM
End time: 2:45 PM

CRITICAL SPEED 44
AVERAGE SPEED 41.03
MEDIAN SPEED 41.0
STANDARD DEVIATION 3.05
PACE RANGE 37 - 47
PERCENTAGE IN PACE 91.8%
TOTAL # OF AUTOS 61

<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
49			100.0%
48	1	◆	100.0%
47	1	◆	98.4%
46	3	◆◆◆	96.7%
45	4	◆◆◆◆	91.8%
44	5	◆◆◆◆◆	85.2%
43	7	◆◆◆◆◆◆◆	77.0%
42	5	◆◆◆◆◆	65.6%
41	7	◆◆◆◆◆◆◆	57.4%
40	5	◆◆◆◆◆	45.9%
39	10	◆◆◆◆◆◆◆◆◆◆	37.7%
38	5	◆◆◆◆◆	21.3%
37	5	◆◆◆◆◆	13.1%
36	2	◆◆	4.9%
35	1	◆	1.6%
34			0.0%
33			0.0%
32			0.0%
31			0.0%
30			0.0%
29			0.0%
28			0.0%

RADAR SPEED SURVEY

Route: E Zayante Rd
From: Graham Hill Rd
To: 0.1 mi N of Lompico Rd
Direction: Southbound
Weather: Cloudy
Posted Speed: 40 MPH
Begin time: 2:20 PM
End time: 2:45 PM

CRITICAL SPEED 45
AVERAGE SPEED 41.56
MEDIAN SPEED 41.0
STANDARD DEVIATION 3.12
PACE RANGE 37 - 47
PERCENTAGE IN PACE 91.2%
TOTAL # OF AUTOS 57

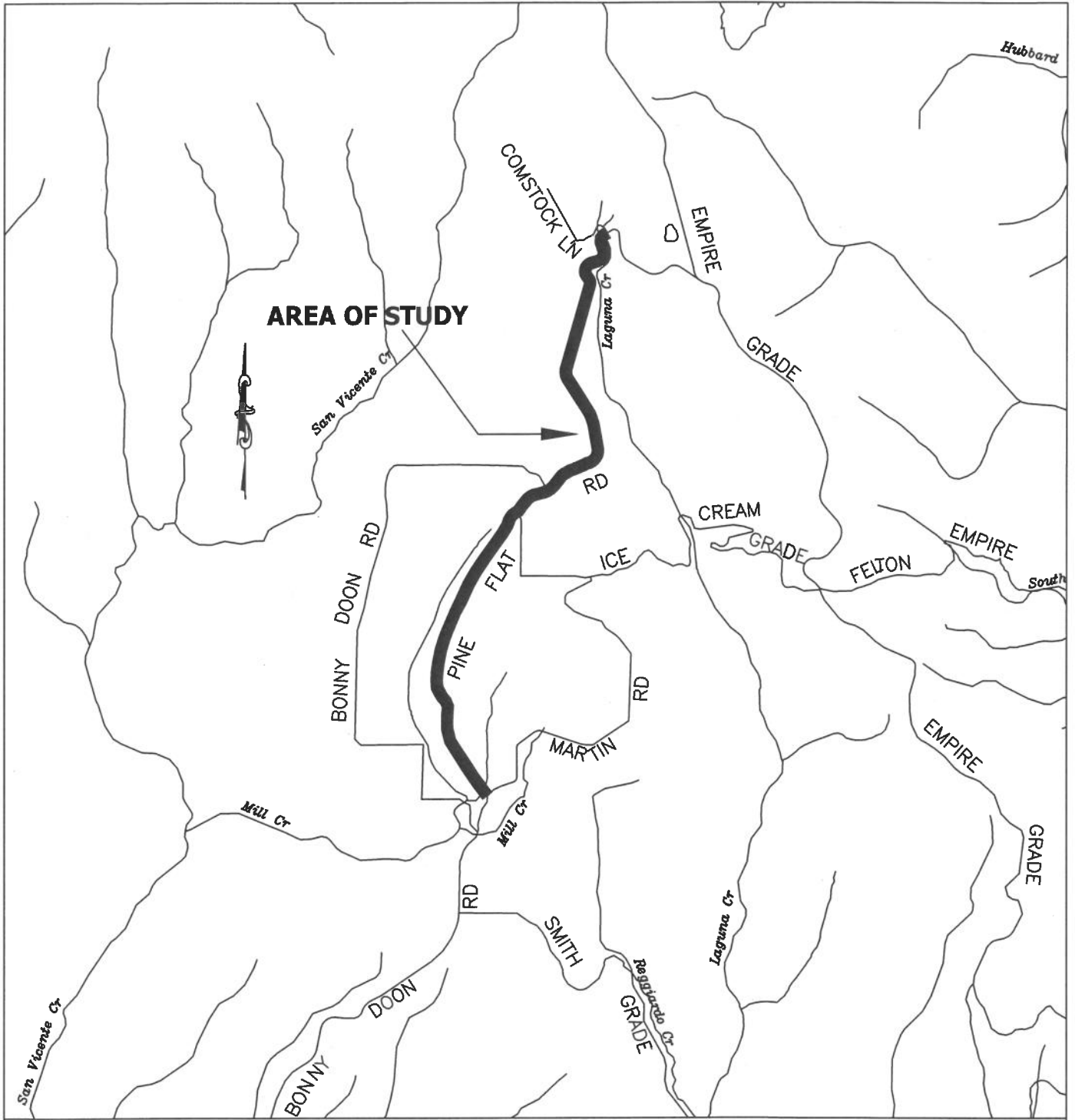
<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
49			100.0%
48	2	◆◆	100.0%
47	1	◆	96.5%
46	3	◆◆◆	94.7%
45	7	◆◆◆◆◆◆◆	89.5%
44	4	◆◆◆◆	77.2%
43	4	◆◆◆◆	70.2%
42	7	◆◆◆◆◆◆◆	63.2%
41	6	◆◆◆◆◆◆	50.9%
40	5	◆◆◆◆◆	40.4%
39	8	◆◆◆◆◆◆◆◆	31.6%
38	6	◆◆◆◆◆◆	17.5%
37	2	◆◆	7.0%
36	1	◆	3.5%
35	1	◆	1.8%
34			0.0%
33			0.0%
32			0.0%
31			0.0%
30			0.0%
29			0.0%
28			0.0%

RADAR SPEED SURVEY
 Santa Cruz County
 Department of Public Works

LOCATION E. ZAYANTE @ #7701 BY JGL
 ROAD NO _____ DATE 1/12/16 DAY TUE BEGIN 2:26 END 2:45
 POSTED SPEED 40 MPH WEATHER cloudy
 NUMBER OF LANES 2 GRADE _____ CALIBRATED

NUMBER OF VEHICLES

MPH	DIRECTION (N) <u>LOMPULO</u> ↑	TOTAL OF EACH SPEED	DIRECTION (S) <u>GHILL</u> ↓	TOTAL OF EACH SPEED
60				
59				
58				
57				
56				
55				
54				
53				
52				
51				
50				
49				
48		1	1	2
47		1		1
46		3	1	3
45		4	1	7
44		5	1	4
43		7	1	4
42		5	1	7
41		7	1	6
40		5	1	5
39		10	1	8
38		5	1	6
37		5		2
36		2		1
35		1		1
34				
33				
32				
31				
30				
29				
28				
27				
26				
25				
24				
23				
22				
21				
20				
TOTAL		61	TOTAL 57	



**SANTA CRUZ COUNTY TRAFFIC ENGINEERING
RADAR SPEED SURVEY
PINE FLAT ROAD
MARTIN ROAD TO COMSTOCK LANE**

JUNE 2018

TRAFFIC AND ENGINEERING REPORT
JUNE 2018

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

Pine Flat Road from Martin Road to Comstock Lane (Speed Data collected at # 2300).

PREVAILING SPEED DATA:

The existing speed limit is not posted.

The prevailing speeds are:

Direction	Northbound	Southbound
85 th Percentile	47 mph	44 mph
Pace Speed	41-51 mph	36-46 mph
Average Speed	42.21 mph	40.52 mph

ANALYSIS:

The prevailing 85th percentile speeds are 47 MPH and 44 MPH depending on the direction of travel. The safe speed is established at the first five miles per hour increment below the 85th percentile which is calculated to be 45 MPH. It is recommended that the speed limit be set to 45 MPH with enforcement activity taking place at speeds above the safe speed.

RADAR SPEED SURVEY

Route: Pine Flat Road
From: Martin Road
To: Comstock Lane
Direction: Northbound
Weather: Sunny
Posted Speed: None
Begin time: 1:45 PM
End time: 3:23 PM

CRITICAL SPEED 47
AVERAGE SPEED 42.21
MEDIAN SPEED 43.0
STANDARD DEVIATION 4.93
PACE RANGE 41 - 51
PERCENTAGE IN PACE 76.8%
TOTAL # OF AUTOS 56

<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
52	1	◆	100.0%
51			98.2%
50	1	◆	98.2%
49	2	◆◆	96.4%
48	1	◆	92.9%
47	5	◆◆◆◆◆	91.1%
46	1	◆	82.1%
45	7	◆◆◆◆◆◆◆	80.4%
44	9	◆◆◆◆◆◆◆◆◆	67.9%
43	5	◆◆◆◆◆	51.8%
42	6	◆◆◆◆◆◆	42.9%
41	6	◆◆◆◆◆◆	32.1%
40			21.4%
39	1	◆	21.4%
38			19.6%
37	2	◆◆	19.6%
36	1	◆	16.1%
35	1	◆	14.3%
34			12.5%
33	5	◆◆◆◆◆	12.5%
32	1	◆	3.6%
31			1.8%
30	1	◆	1.8%
29			0.0%
28			0.0%
27			0.0%
26			0.0%
25			0.0%
24			0.0%
23			0.0%
22			0.0%
21			0.0%
20			0.0%
19			0.0%
18			0.0%
17			0.0%

RADAR SPEED SURVEY

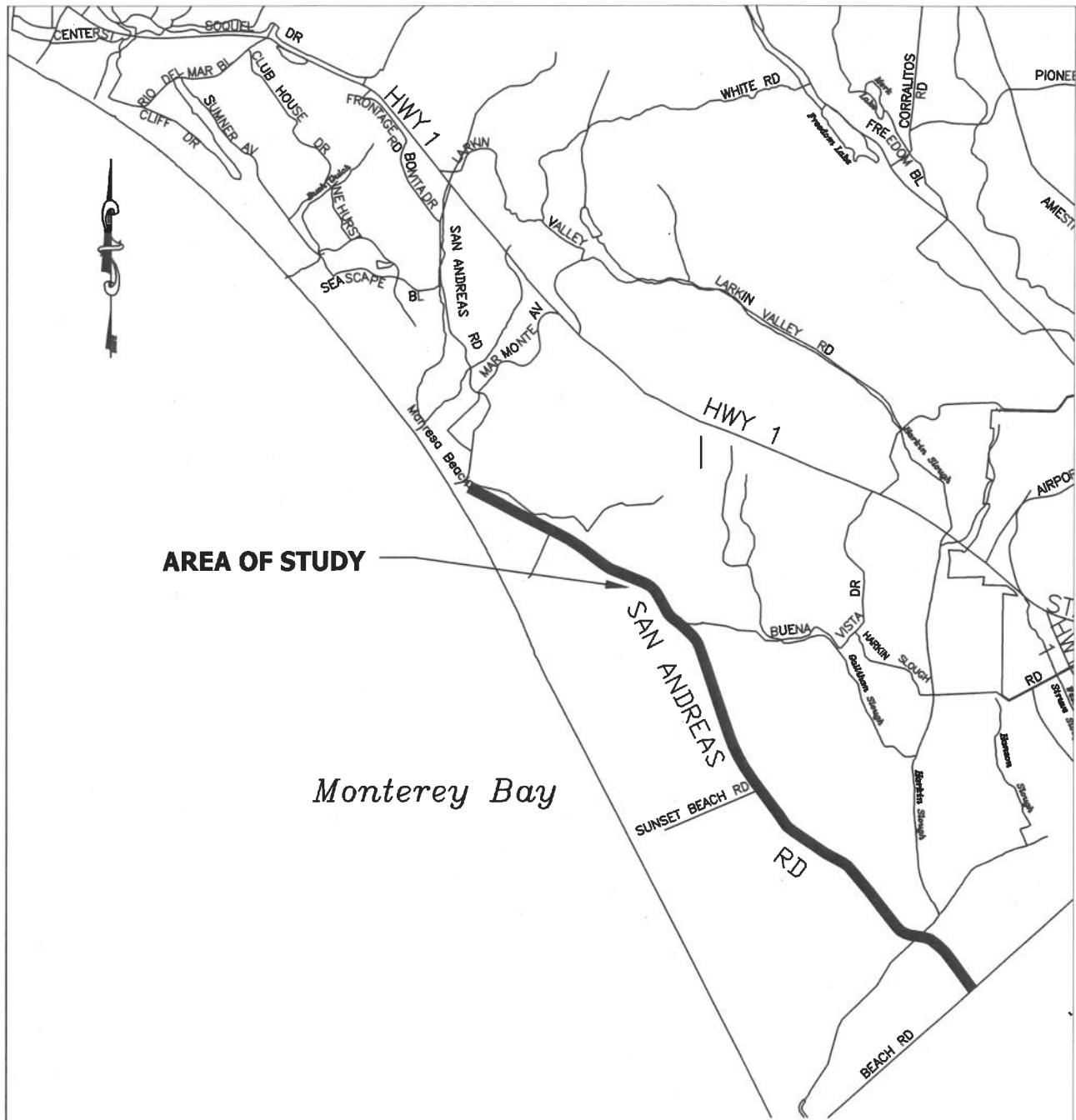
		<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
Route:	Pine Flat Road			
From:	Martin Road	50		100.0%
To:	Comstock Lane	49		100.0%
Direction:	Southbound	48	1 ◆	100.0%
Weather:	Sunny	47	1 ◆	98.4%
Posted Speed:	None	46		96.9%
Begin time:	1:45 PM	45	3 ◆◆◆	96.9%
End time:	3:23 PM	44	5 ◆◆◆◆◆	92.2%
		43	9 ◆◆◆◆◆◆◆◆◆	84.4%
		42	7 ◆◆◆◆◆◆◆	70.3%
		41	9 ◆◆◆◆◆◆◆◆◆	59.4%
		40	7 ◆◆◆◆◆◆◆	45.3%
		39	6 ◆◆◆◆◆◆	34.4%
		38	4 ◆◆◆◆	25.0%
		37	5 ◆◆◆◆◆	18.8%
		36	2 ◆◆	10.9%
		35	2 ◆◆	7.8%
CRITICAL SPEED	44	35	2 ◆◆	7.8%
AVERAGE SPEED	40.52	34	1 ◆	4.7%
MEDIAN SPEED	41.0	33	2 ◆◆	3.1%
STANDARD DEVIATION	3.22	32		0.0%
PACE RANGE	36 - 46	31		0.0%
PERCENTAGE IN PACE	89.1%	30		0.0%
TOTAL # OF AUTOS	64	29		0.0%
		28		0.0%
		27		0.0%
		26		0.0%
		25		0.0%
		24		0.0%
		23		0.0%
		22		0.0%
		21		0.0%
		20		0.0%
		19		0.0%
		18		0.0%
		17		0.0%
		16		0.0%
		15		0.0%

RADAR SPEED SURVEY
 Santa Cruz County
 Department of Public Works

LOCATION VINE FLAT @ # 2300 BY JGL
 ROAD NO _____ DATE 11/29/14 DAY TUE BEGIN 145 END 3 23
 POSTED SPEED _____ WEATHER SUNNY
 NUMBER OF LANES 2 GRADE 2% CALIBRATED

NUMBER OF VEHICLES

MPH	DIRECTION	TOTAL OF EACH SPEED	DIRECTION	TOTAL OF EACH SPEED
	(S) <u>Bowling down</u> ↓		EMPIRE (N) ↑	
60				
59				
58				
57				
56				
55				
54				
53				
52				
51				1
50				
49				1
48		1		2
47		1		1
46				5
45		3		1
44		5		7
43		9		9
42		7		5
41		9		6
40		7		6
39		6		
38		4		1
37		5		
36		2		2
35		2		1
34		1		1
33		2		
32				5
31				1
30				
29				1
28				
27				
26				
25				
24				
23				
22				
21				
20				
TOTAL		<u>64</u>	TOTAL	
			<u>56</u>	



AREA OF STUDY

Monterey Bay

**SANTA CRUZ COUNTY TRAFFIC ENGINEERING
 RADAR SPEED SURVEY
 SAN ANDREAS ROAD
 0.1 MILES SOUTHEASTERLY OF RR UNDERPASS AT
 MANRESA BEACH TO BEACH ROAD**

JUNE 2018

TRAFFIC AND ENGINEERING REPORT
JUNE 2018

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

San Andreas Road from 0.1 mile southeasterly of RR underpass at Manresa Beach to Beach Road (Speed Data collected at Monterey Bay Academy)

PREVAILING SPEED DATA:

The existing posted speed limit is 45 mph and is radar enforced.

The prevailing speeds are:

Direction	Northbound	Southbound
85 th Percentile	50 mph	50 mph
Pace Speed	40-50 mph	41-51 mph
Average Speed	43.66 mph	44.50 mph

ANALYSIS:

The prevailing 85th percentile speeds are 50 MPH for both directions of travel. The safe speed is established at or near the 85th percentile which is calculated to be 50 MPH. However, in matching existing conditions with the traffic safety needs of the community, engineering judgment as provided for in the California Manual on Uniform Traffic Control Devices indicates a further reduction of five miles per hour to 45 MPH. The factors justifying a further reduction are this being tourist area with State Park beaches and campgrounds, an adjacent KOA private campground, the adjacent Monterey Bay Academy, an agricultural area with farm equipment and produce trucks, the presence of highly erodible soil with frequent sand deposits over the pavement and adjacent bike lanes. It is recommended that the existing 45 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

RADAR SPEED SURVEY

		<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
Route:	San Andreas Road				
From:	Manresa Beach	55	1	◆	100.0%
To:	Beach Road	54	2	◆◆	98.5%
Direction:	Northbound	53	2	◆◆	95.6%
Weather:	Sunny	52	2	◆◆	92.6%
Posted Speed:	45	51	2	◆◆	89.7%
Begin time:	2:08 PM	50	3	◆◆◆	86.8%
End time:	3:02 PM	49	4	◆◆◆◆	82.4%
		48	3	◆◆◆	76.5%
		47	2	◆◆	72.1%
		46	6	◆◆◆◆◆◆	69.1%
		45	5	◆◆◆◆◆	60.3%
		44	4	◆◆◆◆	52.9%
		43	5	◆◆◆◆◆	47.1%
		42	1	◆	39.7%
		41	7	◆◆◆◆◆◆◆	38.2%
CRITICAL SPEED	50	40	6	◆◆◆◆◆◆	27.9%
AVERAGE SPEED	43.66	39	3	◆◆◆	19.1%
MEDIAN SPEED	44.0	38			14.7%
STANDARD DEVIATION	6.10	37	2	◆◆	14.7%
PACE RANGE	40 - 50	36	1	◆	11.8%
PERCENTAGE IN PACE	63.2%	35	1	◆	10.3%
TOTAL # OF AUTOS	68	34	1	◆	8.8%
		33			7.4%
		32	1	◆	7.4%
		31	1	◆	5.9%
		30	3	◆◆◆	4.4%

RADAR SPEED SURVEY

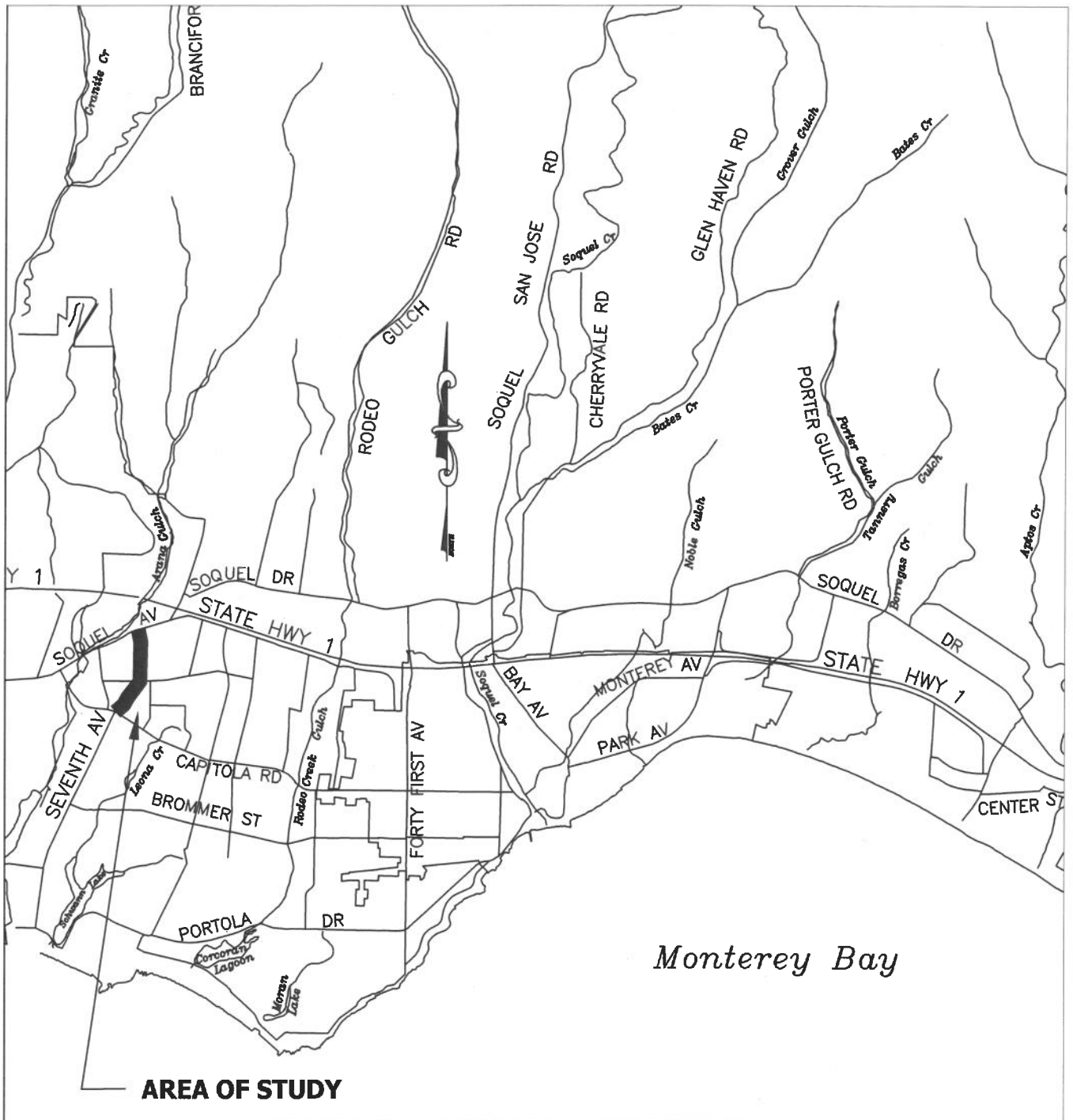
	<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
Route:	San Andreas Road			
From:	Manresa Beach	55	1 ♦	100.0%
To:	Beach Road	54	1 ♦	98.1%
Direction:	Southbound	53		96.3%
Weather:	Sunny	52	5 ♦♦♦♦♦	96.3%
Posted Speed:	45	51		87.0%
Begin time:	2:08 PM	50	3 ♦♦♦	87.0%
End time:	3:02 PM	49	3 ♦♦♦	81.5%
		48	5 ♦♦♦♦♦	75.9%
		47	2 ♦♦	66.7%
		46	5 ♦♦♦♦♦	63.0%
		45	2 ♦♦	53.7%
		44	6 ♦♦♦♦♦♦	50.0%
		43	2 ♦♦	38.9%
		42	5 ♦♦♦♦♦	35.2%
		41	2 ♦♦	25.9%
		40	2 ♦♦	22.2%
CRITICAL SPEED	50	40	2 ♦♦	22.2%
AVERAGE SPEED	44.50	39	1 ♦	18.5%
MEDIAN SPEED	44.5	38	2 ♦♦	16.7%
STANDARD DEVIATION	5.46	37	1 ♦	13.0%
PACE RANGE	41 - 51	36	4 ♦♦♦♦	11.1%
PERCENTAGE IN PACE	64.8%	35	1 ♦	3.7%
TOTAL # OF AUTOS	54	34		1.9%
		33		1.9%
		32		1.9%
		31		1.9%
		30	1 ♦	1.9%

RADAR SPEED SURVEY
 Santa Cruz County
 Department of Public Works

LOCATION San Andres Rd @ Monterey Bay Academy gate (to Beach) (Manresa Beach) BY JGL
 ROAD NO _____ DATE 5/14/18 DAY Monday BEGIN 2:08 END 3:02
 POSTED SPEED 45 WEATHER Sunny
 NUMBER OF LANES 2 GRADE _____ CALIBRATED

NUMBER OF VEHICLES

MPH	DIRECTION		TOTAL OF EACH SPEED	DIRECTION		TOTAL OF EACH SPEED	
	NB	↓ MANRESA		SB	↑ W. BEACH		
60							
59							
58							
57							
56							
55			1			1	
54			2			2	
53			2			2	
52			2			2	
51			2			5	
50			2				
49			4			3	
48			3			3	
47			2			5	
46			6			2	
45			5			5	
44			4			2	
43			5			6	
42			1			2	
41			7			5	
40			6			2	
39			3			2	
38						1	
37			2			2	
36			1			1	
35			1			4	
34			1			1	
33							
32			1				
31			1				
30			3				
29						1	
28							
27							
26							
25							
24							
23							
22							
21							
20							
TOTAL			68	TOTAL			54



**SANTA CRUZ COUNTY TRAFFIC ENGINEERING
 RADAR SPEED SURVEY
 SEVENTH AVENUE
 SOQUEL AVENUE TO CAPITOLA ROAD**

JUNE 2018

TRAFFIC AND ENGINEERING REPORT
JUNE 2018

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

Seventh Avenue from Capitola Road to Soquel Avenue. (Speed Data collected at #2260 Seventh Avenue)

PREVAILING SPEED DATA:

The existing posted speed limit is 25 MPH and is radar enforced.

The prevailing speeds are:

Direction	Northbound	Southbound
85 th Percentile	29 mph	28 mph
Pace Speed	21-31 mph	20-30 mph
Average Speed	26.27 mph	25.66 mph

ANALYSIS:

The prevailing 85th percentile speeds are 29 and 28 MPH depending on the direction of travel. The safe speed is established at the first five miles per hour increment below the 85th percentile which is calculated to be 25 MPH. It is recommended that the existing 25 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

RADAR SPEED SURVEY

Route: Seventh Ave
From: Soquel Ave
To: Capitola Rd
Direction: Northbound
Weather: Sunny
Posted Speed: 25 MPH
Begin time: 1:57 PM
End time: 2:26 PM

<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
32	1	◆	100.0%
31	4	◆◆◆◆	98.8%
30	6	◆◆◆◆◆◆	94.1%
29	10	◆◆◆◆◆◆◆◆◆◆	87.1%
28	7	◆◆◆◆◆◆◆	75.3%
27	10	◆◆◆◆◆◆◆◆◆◆	67.1%
26	10	◆◆◆◆◆◆◆◆◆◆	55.3%
25	14	◆◆◆◆◆◆◆◆◆◆◆◆◆◆	43.5%
24	10	◆◆◆◆◆◆◆◆◆◆	27.1%
23	6	◆◆◆◆◆◆	15.3%
22	6	◆◆◆◆◆◆	8.2%
21	1	◆	1.2%
20			0.0%
19			0.0%
18			0.0%
17			0.0%
16			0.0%
15			0.0%

CRITICAL SPEED 29
AVERAGE SPEED 26.27
MEDIAN SPEED 26.0
STANDARD DEVIATION 2.63
PACE RANGE 21 - 31
PERCENTAGE IN PACE 94.1%
TOTAL # OF AUTOS 85

RADAR SPEED SURVEY

Route: Seventh Ave
From: Soquel Ave
To: Capitola Rd
Direction: Southbound
Weather: Sunny
Posted Speed: 25 MPH
Begin time: 1:57 PM
End time: 2:26 PM

<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
31	1	◆	100.0%
30	3	◆◆◆	98.6%
29	3	◆◆◆	94.6%
28	7	◆◆◆◆◆◆◆	90.5%
27	13	◆◆◆◆◆◆◆◆◆◆◆◆◆	81.1%
26	12	◆◆◆◆◆◆◆◆◆◆◆◆◆	63.5%
25	10	◆◆◆◆◆◆◆◆◆◆◆◆◆	47.3%
24	12	◆◆◆◆◆◆◆◆◆◆◆◆◆	33.8%
23	8	◆◆◆◆◆◆◆◆◆◆◆◆◆	17.6%
22	5	◆◆◆◆◆◆◆◆◆◆◆◆◆	6.8%
21			0.0%
20			0.0%
19			0.0%
18			0.0%
17			0.0%
16			0.0%
15			0.0%

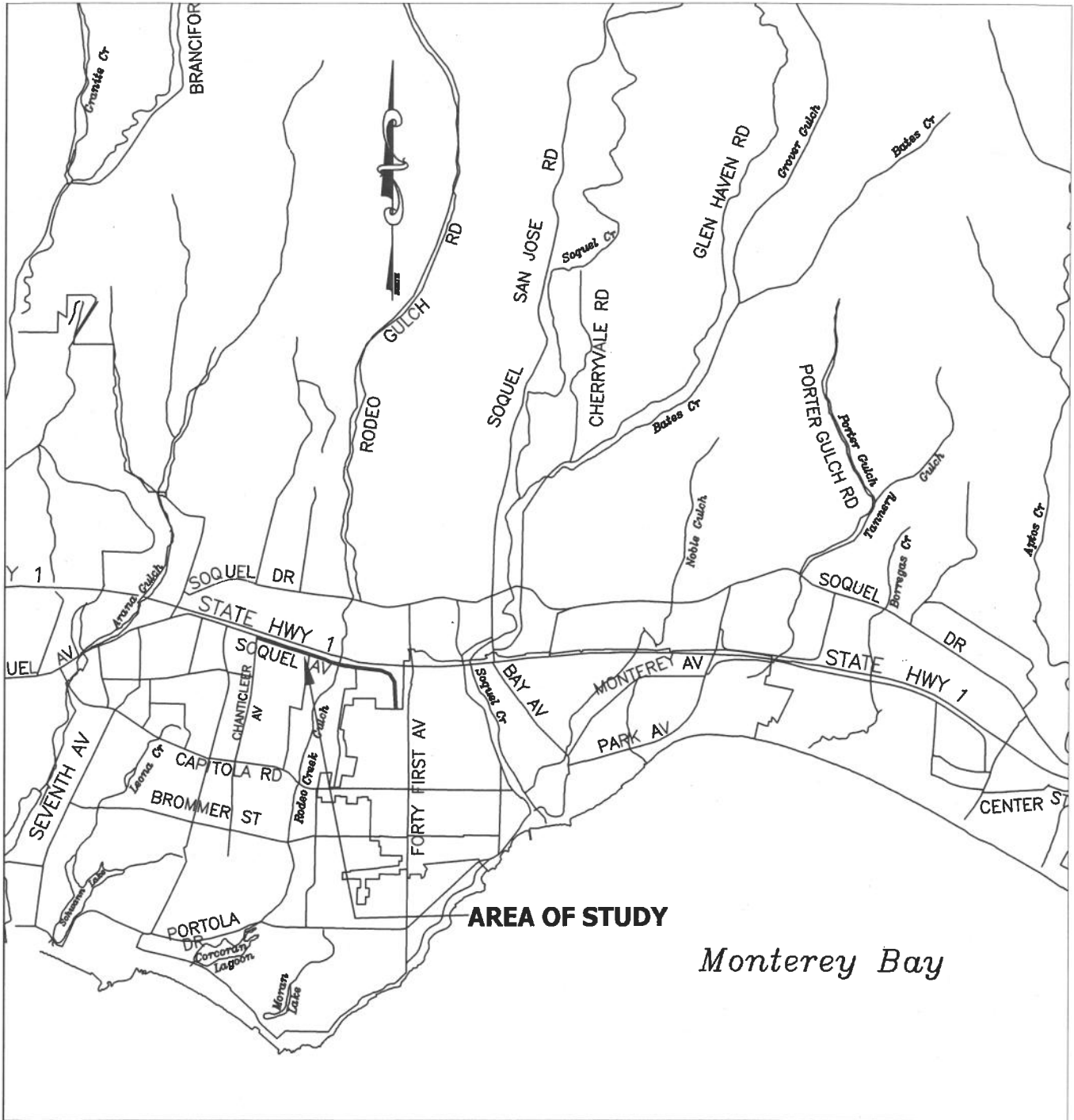
CRITICAL SPEED 28
AVERAGE SPEED 25.66
MEDIAN SPEED 26.0
STANDARD DEVIATION 2.17
PACE RANGE 20 - 30
PERCENTAGE IN PACE 94.6%
TOTAL # OF AUTOS 74

RADAR SPEED SURVEY
 Santa Cruz County
 Department of Public Works

LOCATION 7th Avenue @ VFW hall (Cajuel Ave - Capitola) BY J.6L
 ROAD NO _____ DATE 5/15/18 DAY Tue BEGIN 1:57 END 2:26
 POSTED SPEED 25 WEATHER Sunny
 NUMBER OF LANES 2 GRADE _____ CALIBRATED ✓

NUMBER OF VEHICLES

MPH	DIRECTION		TOTAL OF EACH SPEED	DIRECTION		TOTAL OF EACH SPEED	
	<u>← Saguel</u>	<u>NB</u>		<u>Capitola</u>	<u>→ SB</u>		
60							
59							
58							
57							
56							
55							
54							
53							
52							
51							
50							
49							
48							
47							
46							
45							
44							
43							
42							
41							
40							
39							
38							
37							
36							
35							
34							
33							
32			1				
31			4				
30			6			1	
29			10			3	
28			7			3	
27			10			7	
26			10			13	
25			14			12	
24			10			10	
23			6			12	
22			6			8	
21			1			5	
20-							
TOTAL			85	TOTAL			74



AREA OF STUDY

Monterey Bay

**SANTA CRUZ COUNTY TRAFFIC ENGINEERING
 RADAR SPEED SURVEY
 SOQUEL AVENUE
 CHANTICLEER AVENUE TO GROSS ROAD**

September 2016

TRAFFIC AND ENGINEERING REPORT
JUNE 2018

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

Soquel Avenue from Chanticleer Avenue to Gross Road (Speed Data collected at # 5940)

PREVAILING SPEED DATA:

The existing posted speed limit is 35 mph and is radar enforced.

The prevailing speeds are:

Direction	Eastbound	Westbound
85 th Percentile	38 mph	40 mph
Pace Speed	31-41 mph	32-42 mph
Average Speed	34.58 mph	36.45 mph

ANALYSIS:

The prevailing 85th percentile speeds are 38 MPH and 40 MPH depending on the direction of travel. The safe speed is established at the first five miles per hour increment below the 85th percentile which is calculated to be 35 MPH. It is recommended that the existing 35 MPH speed limit remain with enforcement activity taking place at speeds above the safe speed.

RADAR SPEED SURVEY

Route: Soquel Avenue
 From: Chanticleer Avenue
 To: Gross Road
 Direction: EB
 Weather: Sunny
 Posted Speed: 35 MPH
 Begin time: 2:20 PM
 End time: 2:58 PM

		<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
		44			100.0%
		43	1	◆	100.0%
		42	1	◆	98.7%
		41	2	◆◆	97.4%
		40	4	◆◆◆◆	94.8%
		39	1	◆	89.6%
		38	7	◆◆◆◆◆◆◆	88.3%
		37	4	◆◆◆◆	79.2%
		36	14	◆◆◆◆◆◆◆◆◆◆◆◆◆◆	74.0%
		35	11	◆◆◆◆◆◆◆◆◆◆◆	55.8%
		34	4	◆◆◆◆	41.6%
		33	8	◆◆◆◆◆◆◆◆	36.4%
		32	5	◆◆◆◆◆	26.0%
		31	6	◆◆◆◆◆◆	19.5%
		30	0		11.7%
CRITICAL SPEED	38	29	2	◆◆	11.7%
AVERAGE SPEED	34.58	28	3	◆◆◆	9.1%
MEDIAN SPEED	35.0	27	3	◆◆◆	5.2%
STANDARD DEVIATION	3.75	26	0		1.3%
PACE RANGE	31 - 41	25	1	◆	1.3%
PERCENTAGE IN PACE	83.1%	24	0		0.0%
TOTAL # OF AUTOS	77	23	0		0.0%
		22	0		0.0%
		21	0		0.0%
		20	0		0.0%
		19	0		0.0%

RADAR SPEED SURVEY

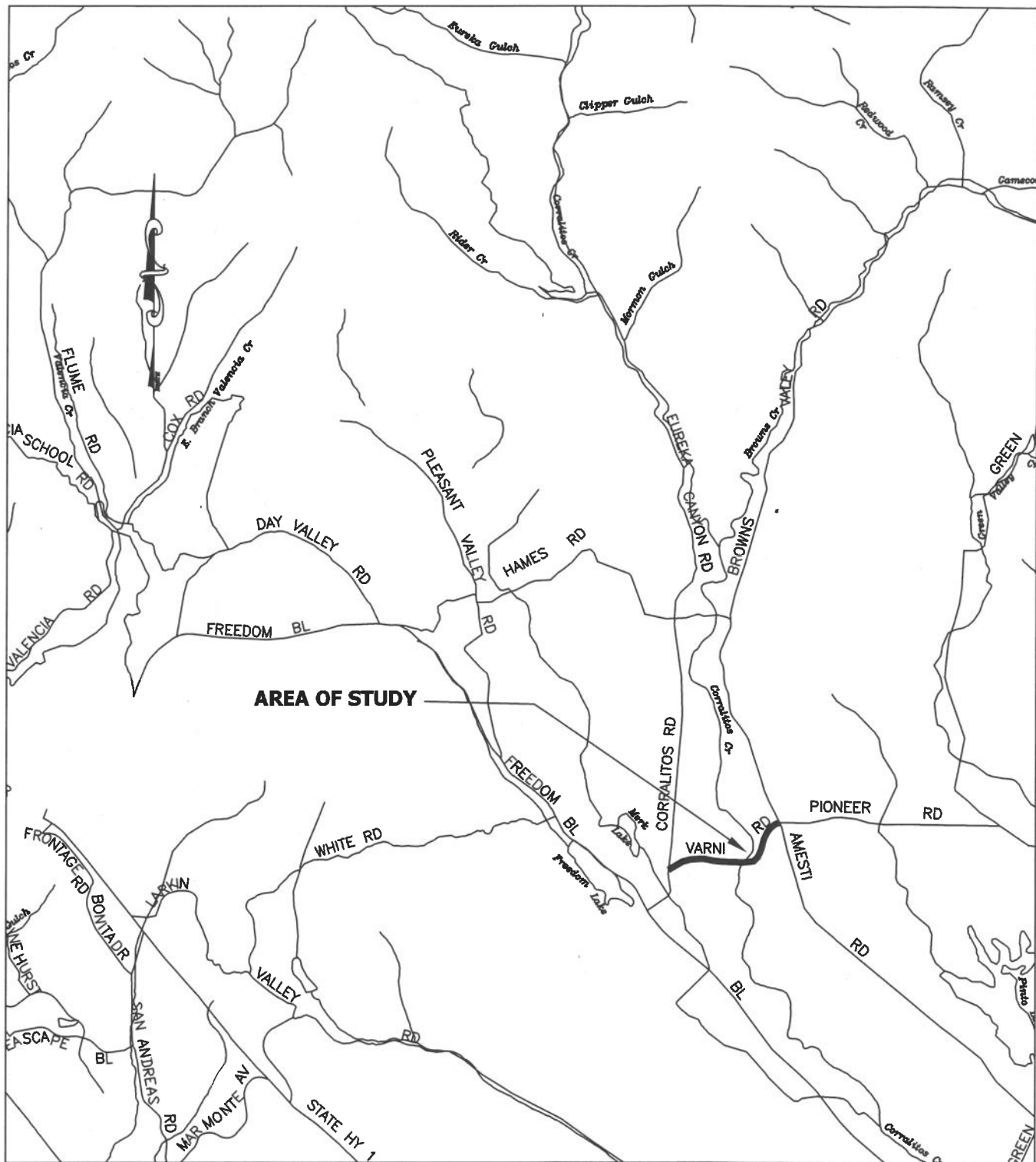
		<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
Route:	Soquel Avenue			
From:	Chanticleer Avenue	47	0	100.0%
To:	Gross Road	46	1 ♦	100.0%
Direction:	WB	45	1 ♦	98.4%
Weather:	Sunny	44	1 ♦	96.8%
Posted Speed:	35 MPH	43	1 ♦	95.2%
Begin time:	1:55 PM	42	0	93.5%
End time:	3:00 PM	41	4 ♦♦♦♦	93.5%
		40	3 ♦♦♦	87.1%
		39	4 ♦♦♦♦	82.3%
		38	3 ♦♦♦	75.8%
		37	11 ♦♦♦♦♦♦♦♦♦♦	71.0%
		36	10 ♦♦♦♦♦♦♦♦♦♦	53.2%
		35	8 ♦♦♦♦♦♦♦♦	37.1%
		34	4 ♦♦♦♦	24.2%
		33	3 ♦♦♦	17.7%
CRITICAL SPEED	40	32	4 ♦♦♦♦	12.9%
AVERAGE SPEED	36.45	31	2 ♦♦	6.5%
MEDIAN SPEED	36.0	30	1 ♦	3.2%
STANDARD DEVIATION	3.60	29	0	1.6%
PACE RANGE	32 - 42	28	0	1.6%
PERCENTAGE IN PACE	87.1%	27	0	1.6%
TOTAL # OF AUTOS	62	26	1 ♦	1.6%
		25	0	0.0%
		24	0	0.0%
		23	0	0.0%
		22	0	0.0%

RADAR SPEED SURVEY
 Santa Cruz County
 Department of Public Works

LOCATION SOQUEL AVENUE @ 5940 BY RR
 ROAD NO _____ DATE 6/6/16 DAY TU BEGIN 2:20 END 2:58
 POSTED SPEED 35 MPH WEATHER SUNNY
 NUMBER OF LANES 2 GRADE FLAT CALIBRATED YES

NUMBER OF VEHICLES

MPH	DIRECTION	TOTAL OF EACH SPEED	DIRECTION	TOTAL OF EACH SPEED
	<u>←</u> <u>EB</u>		<u>→</u> <u>WB</u>	
60				
59				
58				
57				
56				
55				
54				
53				
52				
51				
50				
49				
48				
47				
46				1
45				1
44				1
43		1		1
42		1		0
41		2		4
40		4		3
39		7		4
38		7		3
37		4		11
36		14		10
35		11		8
34		4		7
33		8		3
32		5		4
31		6		2
30		0		1
29		2		0
28		3		0
27		3		0
26		0		0
25		1		1
24				
23				
22				
21				
20				
TOTAL		77	TOTAL	
			62	



SANTA CRUZ COUNTY TRAFFIC ENGINEERING
RADAR SPEED SURVEY
VARNI ROAD
AMESTI ROAD TO CORRALITOS ROAD

JUNE 2018

TRAFFIC AND ENGINEERING REPORT
JUNE 2018

PURPOSE:

This survey is performed in accordance with Vehicle Code Section 40803 to allow the use of radar for enforcement purposes.

LOCATION:

Varni Road from Amesti Road to Corralitos Road (Speed Data collected at a location west of #134).

PREVAILING SPEED DATA:

The existing speed limit is not posted.

The prevailing speeds are:

Direction	Westbound	Eastbound
85 th Percentile	43 mph	42 mph
Pace Speed	35-45 mph	35-45 mph
Average Speed	38.81 mph	38.43 mph

ANALYSIS:

The prevailing 85th percentile speeds are 43 MPH and 42 MPH depending on the direction of travel. The safe speed is established at or near the average 85th percentile which is calculated to be 40 MPH. However, in matching existing conditions with the traffic safety needs of the community, engineering judgment as provided for in the California Manual on Uniform Traffic Control Devices indicates a further reduction of five miles per hour to 35 MPH. The factors justifying a further reduction are shoulder conditions with school age pedestrian traffic in the roadway without sidewalks, an agricultural area with farm equipment and produce trucks, and bicycle traffic without bike lanes or shoulders. It is recommended that the speed limit be set to 35 MPH with enforcement activity taking place at speeds above the safe speed.

RADAR SPEED SURVEY

Route: Varni Road
From: Amesti Rd
To: Corralitos Rd
Direction: Westbound
Weather: Sunny
Posted Speed: None
Begin time: 3:16 PM
End time: 3:57 PM

CRITICAL SPEED 43
AVERAGE SPEED 38.81
MEDIAN SPEED 39.0
STANDARD DEVIATION 4.33
PACE RANGE 35 - 45
PERCENTAGE IN PACE 72.9%
TOTAL # OF AUTOS 96

<u>MPH</u>	<u># of Vehicles</u>		<u>Percentage</u>
48	2	◆◆	100.0%
47	3	◆◆◆	97.9%
46	1	◆	94.8%
45	4	◆◆◆◆	93.8%
44	4	◆◆◆◆	89.6%
43	5	◆◆◆◆◆	85.4%
42	5	◆◆◆◆◆	80.2%
41	12	◆◆◆◆◆◆◆◆◆◆◆◆	75.0%
40	8	◆◆◆◆◆◆◆◆	62.5%
39	8	◆◆◆◆◆◆◆◆	54.2%
38	6	◆◆◆◆◆◆	45.8%
37	8	◆◆◆◆◆◆◆◆	39.6%
36	8	◆◆◆◆◆◆◆◆	31.3%
35	6	◆◆◆◆◆◆	22.9%
34	3	◆◆◆	16.7%
33	4	◆◆◆◆	13.5%
32	3	◆◆◆	9.4%
31	6	◆◆◆◆◆◆	6.3%
30			0.0%
29			0.0%
28			0.0%
27			0.0%
26			0.0%
25			0.0%
24			0.0%
23			0.0%
22			0.0%
21			0.0%
20			0.0%
19			0.0%
18			0.0%
17			0.0%
16			0.0%
15			0.0%

RADAR SPEED SURVEY

Route: Varni Road
From: Amesti Rd
To: Corralitos Rd
Direction: Eastbound
Weather: Sunny
Posted Speed: None
Begin time: 3:16 PM
End time: 3:57 PM

	<u>MPH</u>	<u># of Vehicles</u>	<u>Percentage</u>
	48		100.0%
	47		100.0%
	46	1	100.0%
	45	2	98.6%
	44	5	95.7%
	43	2	88.6%
	42	5	85.7%
	41	4	78.6%
	40	9	72.9%
	39	7	60.0%
	38	9	50.0%
	37	5	37.1%
	36	3	30.0%
	35	6	25.7%
	34	5	17.1%
	33	2	10.0%
	32	5	7.1%
CRITICAL SPEED	42		
AVERAGE SPEED	38.43		
MEDIAN SPEED	38.5		
STANDARD DEVIATION	3.65		
PACE RANGE	35 - 45		
PERCENTAGE IN PACE	78.6%		
TOTAL # OF AUTOS	70		
	27		0.0%
	26		0.0%
	25		0.0%
	24		0.0%
	23		0.0%
	22		0.0%
	21		0.0%
	20		0.0%
	19		0.0%
	18		0.0%
	17		0.0%
	16		0.0%
	15		0.0%

RADAR SPEED SURVEY
 Santa Cruz County
 Department of Public Works

LOCATION Varni Rd @ #134 (Corralito Rd - Amesti) BY JGL
 ROAD NO _____ DATE 5/14/18 DAY Monday BEGIN 3:16 END 3:57
 POSTED SPEED NONE WEATHER Sunny
 NUMBER OF LANES 2 GRADE _____ CALIBRATED

NUMBER OF VEHICLES

MPH	DIRECTION		TOTAL OF EACH SPEED	DIRECTION		TOTAL OF EACH SPEED
	WB ↓ AMESTI			EB ↑ CORRALITOS		
60						
59						
58						
57						
56						
55						
54						
53						
52						
51						
50						
49						
48			2			
47			3			
46			1			
45			4			1
44			4			2
43			5			5
42			5			2
41			12			5
40			8			4
39			8			9
38			6			7
37			8			9
36			8			5
35			6			3
34			3			6
33			4			5
32			3			2
31			6			5
30						
29						
28						
27						
26						
25						
24						
23						
22						
21						
20						
			TOTAL 96			TOTAL 70