



**CITY OF REDDING  
ENGINEERING AND TRAFFIC SURVEY  
OF  
BECHELLI LANE**


**JULY 31, 2010**

**For the determination of safe and reasonable speed zoning as required by Sections 22358 and 40802 of the California Vehicle Code (CVC), as defined by Section 627 of the CVC and in accordance with Section 2B. 13 of the California Manual on Uniform Traffic Control Devices, this Engineering and Traffic Survey (ETS) was initiated to verify or modify speed zones on Bechelli Lane.**

**Based on the results of this ETS (attached) and adoption of Ordinance Number 2465 by the City Council of the City of Redding amending Redding Municipal Code Section 11.12.010, the following speed zones on Bechelli Lane are established;**

- **25 MPH from North of Cypress Avenue (CVC 22352, ETS not required).**
- **35 MPH from Cypress Avenue to Third Street.**
- **40 MPH from Third Street to Woodacre Drive.**
- **45 MPH from Woodacre Drive to South Bonnyview Road.**

**In accordance with Redding Municipal Code 11.08.010, appropriate signs giving notice of the above speed zoning shall be placed and the stated speed limit(s) shall be effective upon the placement of such signs.**

  
3/26/2012  
**Brian Crane, P. E.**  
**Director of Public Works**

**ATTEST:**

  
3/26/12  
**PAMELA MIZE, City Clerk**

**City of Redding  
Bechelli Lane  
Engineering and Traffic Survey (ETS) for Speed Zoning**

	Speed Zone Limits	Speed Zone Limits	Speed Zone Limits
	CYPRESS AVE TO THIRD STREET	THIRD STREET TO CURVE (WOODACRE DR)	CURVE (WOODACRE DR) TO SO. BONNYVIEW ROAD

**ROADSIDE CONDITIONS**

LAND USE DISTRICT	BUSINESS	RESIDENTIAL	RESIDENTIAL - BUSINESS
PEDESTRIANS USE	SOME	NUMEROUS	FEW
PERCENT SIDEWALKS	90%	60%	60%
BIKE LANE or ROUTE	YES	YES	YES
DRIVEWAYS PRESENT	NUMEROUS	NUMEROUS	FEW

**ROADWAY GEOMETRY**

LENGTH OF ROADWAY SEGMENT (FEET)	4,750	4,100	3,750
NUMBER OF THRU LANES	4 (2 NB, 2 SB)	2 (1 NB, 1 SB)	2 (1 NB, 1 SB)
WIDTH (FEET)	64	40	VARIES 40 - 60
MEDIAN TYPE	TURN LANE	TURN LANE	VARIES
HORIZONTAL ALIGNMENT	STRAIGHT	STRAIGHT	STRAIGHT
VISIBILITY	GOOD	GOOD	GOOD
VERTICAL ALIGNMENT	FLAT	FLAT	FLAT

**OBSERVED TRAFFIC CONDITIONS**

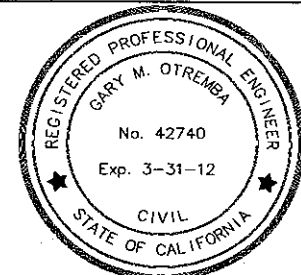
DATE OF RADAR SURVEY	May 28, 2009	December 17, 2009	December 17, 2009
AVERAGE DAILY TRAFFIC (ADT)	18,700	15,700	8,600
EXISTING POSTED SPEED	35 MPH	35 MPH	45 MPH
CRITICAL SPEED (85th PERCENTILE)	41 MPH	43 MPH	46 MPH
MEDIAN SPEED (50th PERCENTILE)	37 MPH	39 MPH	43 MPH
10 MPH PACE RANGE	32 - 42 MPH	35-45 MPH	38-48 MPH
TOTAL COLLISIONS IN 2 YEARS	34	8	6
COLLISIONS PER MILLION VEHICLE MILES (MVM)	2.76 PER MVM	0.91 PER MVM	1.35 PER MVM
ROUNDING APPLIED TO OBSERVED CRITICAL SPEED (85th PERCENTILE) PER GUIDANCE OF MUTCD SECTION 2B.13	40 MPH	45 MPH	45 MPH

**RECOMMENDATION**

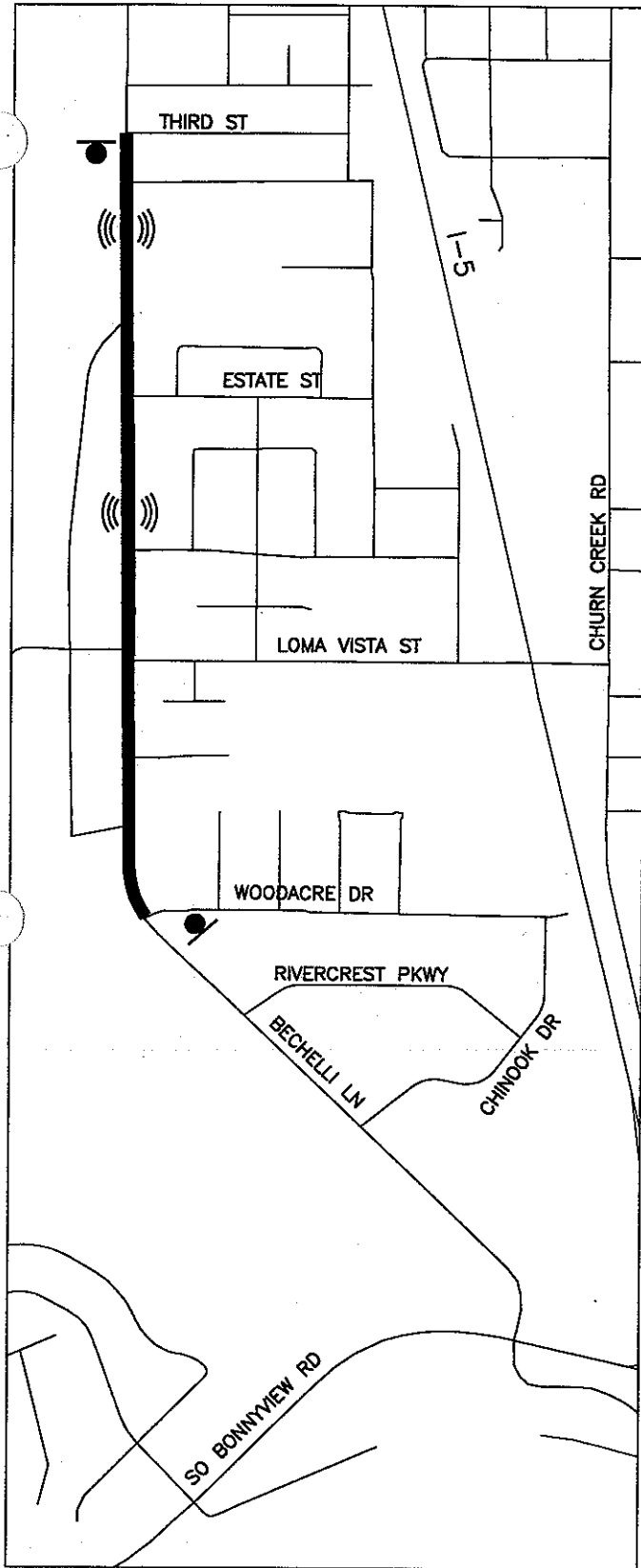
POST SPEED LIMIT	35 MPH	40 MPH	45 MPH
JUSTIFICATION FOR ESTABLISHING SPEED LIMIT 5 MPH BELOW CRITICAL SPEED (85th PERCENTILE)	THE COLLISION RATE AND NUMBER OF COLLISIONS INDICATE THAT THE CONDITIONS OF THE ROADWAY ARE NOT READILY APPARENT TO THE DRIVER. FREQUENT USE BY BICYCLIST AND PEDESTRIANS HAS BEEN OBSERVED ON THIS SEGMENT OF ROADWAY. POSTING THE SPEED LIMIT 5 MPH LOWER IS JUSTIFIED.	THE COLLISION RATE AND NUMBER OF COLLISIONS INDICATE THAT THE CONDITIONS OF THE ROADWAY ARE NOT READILY APPARENT TO THE DRIVER. A SCHOOL ZONE AND PEDESTRIAN CROSSWALK ON BECHELLI LANE AT LOMA VISTA EXISTS WITHIN THIS SEGMENT OF ROADWAY. POSTING THE SPEED LIMIT 5 MPH LOWER IS JUSTIFIED.	N/A

*Gary Otremba*  
REGISTERED CIVIL ENGINEER

7/7/10  
DATE










Posted Speed : 35		Day: Wed & Thurs
Weather: Overcast & Dry		Date: 5/27/09 & 12/17/09
Observer: Hogue & Lackey		Time: 09:20 - 10:52 AM
		Calcs: Oremba
Critical Speed :	43	mph
Average Speed :	38.6	mph
Median Speed :	39	mph
Standard Deviation:	4.4	mph
Pace Range :	35 - 45	mph
Percent in Pace :	78.6%	
Total # Vehicles :	238	

MPH	# of Veh.	Both Directions	%
59			100.0%
58			100.0%
57			100.0%
56	1	◆	100.0%
55			99.6%
54			99.6%
53			99.6%
52			99.6%
51	1	◆	99.6%
50	2	◆◆	99.2%
49	1	◆	98.3%
48	3	◆◆◆	97.9%
47	4	◆◆◆◆	96.6%
46	4	◆◆◆◆	95.0%
45	2	◆◆	93.3%
44	8	◆◆◆◆◆◆◆◆	92.4%
43	14	◆◆◆◆◆◆◆◆◆◆	89.1%
42	18	◆◆◆◆◆◆◆◆◆◆◆◆	83.2%
41	13	◆◆◆◆◆◆◆◆◆◆	75.6%
40	21	◆◆◆◆◆◆◆◆◆◆◆◆◆◆	70.2%
39	22	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	50.0%
38	23	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	40.8%
37	20	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	31.1%
36	21	◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆	22.7%
35	7	◆◆◆◆◆◆◆	13.9%
34	11	◆◆◆◆◆◆◆◆◆◆	10.9%
33	6	◆◆◆◆◆◆◆	6.3%
32	1	◆	3.8%
31	4	◆◆◆◆	3.4%
30	1	◆	1.7%
29	2	◆◆	1.3%
28	1	◆	0.4%
27			0.0%
26			0.0%
25			0.0%

**LEGEND**

-  SPEED LIMIT SIGN
-  RADAR LOCATION
-  40 MPH SPEED ZONE

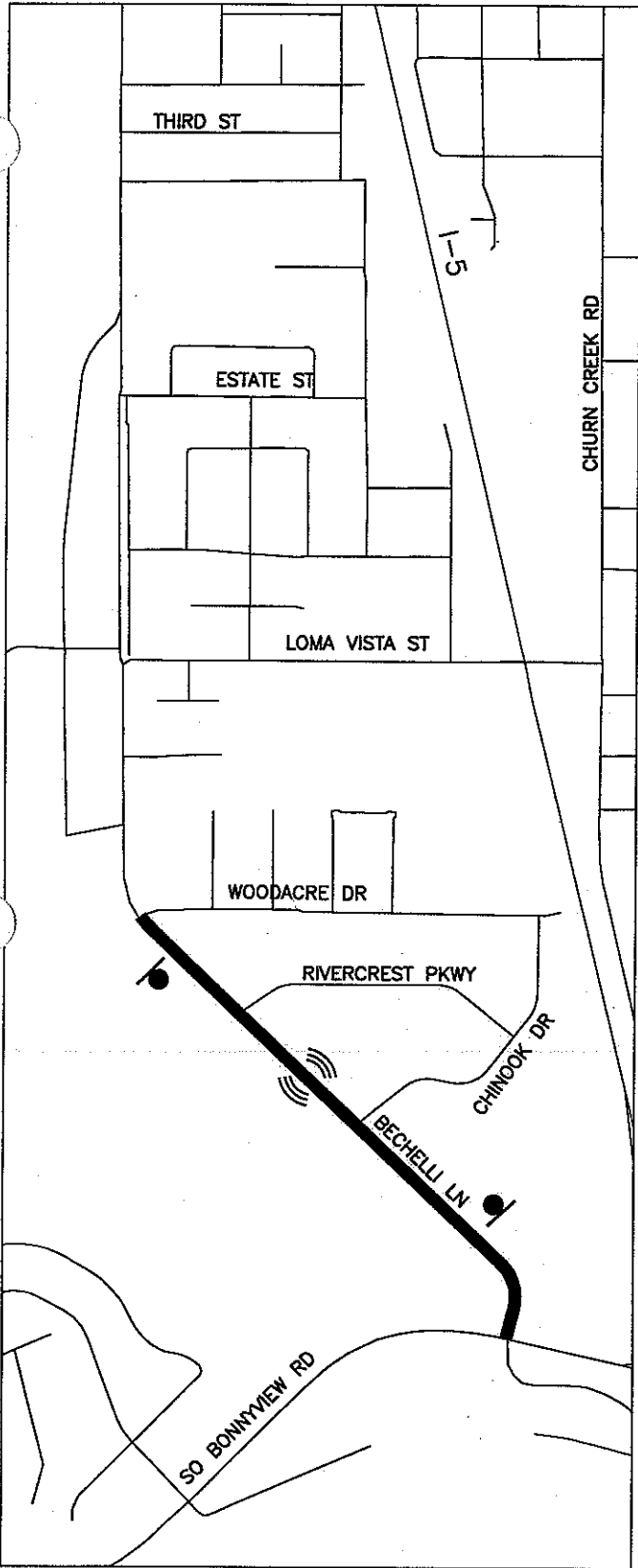
CITY OF REDDING PUBLIC WORKS DEPARTMENT

MAY 2010

**BECHELLI LN SPEED STUDY**

THIRD ST TO WOODACRE DR








		Day	Thursday
Posted Speed:	45	Date:	12/17/09
Weather:	Overcast & Dry	Time:	09:45 - 10:00 AM
Observer:	Lori Lackey	Calcs:	Otremba
Critical Speed :	46	mph	
Average Speed :	43.4	mph	
Median Speed :	43	mph	
Standard Deviation:	3.4	mph	
Pace Range :	38 - 48	mph	
Percent In Pace :	87.0%		
Total # Vehicles :	100		

MPH	# of Veh.	Both Directions	%
54			100.0%
53	1	◆	100.0%
52			99.0%
51	4	◆◆◆◆	99.0%
50	1	◆	95.0%
49	5	◆◆◆◆◆	94.0%
48			89.0%
47	3	◆◆◆	89.0%
46	8	◆◆◆◆◆◆◆◆	86.0%
45	11	◆◆◆◆◆◆◆◆◆◆	78.0%
44	15	◆◆◆◆◆◆◆◆◆◆◆◆	67.0%
43			52.0%
42	12	◆◆◆◆◆◆◆◆◆◆◆◆	41.0%
41	12	◆◆◆◆◆◆◆◆◆◆◆◆	29.0%
40	4	◆◆◆◆	17.0%
39	7	◆◆◆◆◆◆◆	13.0%
38	4	◆◆◆◆	6.0%
37	1	◆	2.0%
36	1	◆	1.0%
35			0.0%

**LEGEND**

-  SPEED LIMIT SIGN
-  RADAR LOCATION
-  45 MPH SPEED ZONE

CITY OF REDDING PUBLIC WORKS DEPARTMENT

MAY 2010

**BECHELLI LN SPEED STUDY**  
WOODACRE DR TO SO BONNYVIEW RD

