



**CITY OF REDDING
ENGINEERING AND TRAFFIC SURVEY
OF
BROWNING STREET**

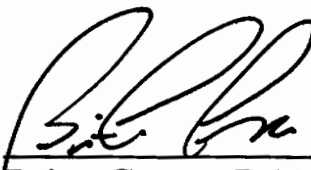
JULY 31, 2010

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 Browning Street.

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 Browning Street are established;

- **35 MPH from Hilltop Drive to Churn Creek Road.**
- **40 MPH from Churn Creek Road to Old Alturas 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:



PAMELA MIZE, City Clerk

**City of Redding
Browning Street
Engineering and Traffic Survey (ETS) for Speed Zoning**

	Speed Zone Limits	Speed Zone Limits
	HILLTOP DRIVE TO CHURN CREEK ROAD	CHURN CREEK ROAD TO OLD ALTURAS ROAD

ROADSIDE CONDITIONS

LAND USE DISTRICT	BUSINESS / RESIDENTIAL	RESIDENTIAL
PEDESTRIANS USE	FEW	FEW
PERCENT SIDEWALKS	70%	80%
BIKE LANE or ROUTE	YES	YES
DRIVEWAYS PRESENT	FEW	NONE

ROADWAY GEOMETRY

LENGTH OF ROADWAY SEGMENT (FEET)	1,900	3,400
NUMBER OF THRU LANES	VARIES	2 (1 EB, 1 WB)
WIDTH (FEET)	64	40
MEDIAN TYPE	MEDIAN & DBL YELLOW STRIPE	DBL YELLOW STRIPE
HORIZONTAL ALIGNMENT	STRAIGHT	GENTLE CURVES
VISIBILITY	GOOD	OK
VERTICAL ALIGNMENT	GENTLE SLOPE	GENTLE SLOPE

OBSERVED TRAFFIC CONDITIONS

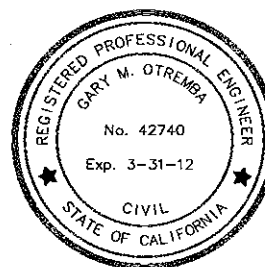
DATE OF RADAR SURVEY	June 3, 2009	November 3, 2009
AVERAGE DAILY TRAFFIC (ADT)	7,800	7,300
EXISTING POSTED SPEED	30 MPH	35 MPH
CRITICAL SPEED (85th PERCENTILE)	36 MPH	43 MPH
MEDIAN SPEED (50th PERCENTILE)	32 MPH	40 MPH
10 MPH PACE RANGE	28 - 38 MPH	35 - 45 MPH
TOTAL COLLISIONS IN 2 YEARS	8	12
COLLISIONS PER MILLION VEHICLE MILES (MVM)	3.85 PER MVM	3.47 PER MVM
ROUNDING APPLIED TO OBSERVED CRITICAL SPEED (85th PERCENTILE) PER GUIDANCE OF MUTCD SECTION 2B.13	35 MPH	45 MPH

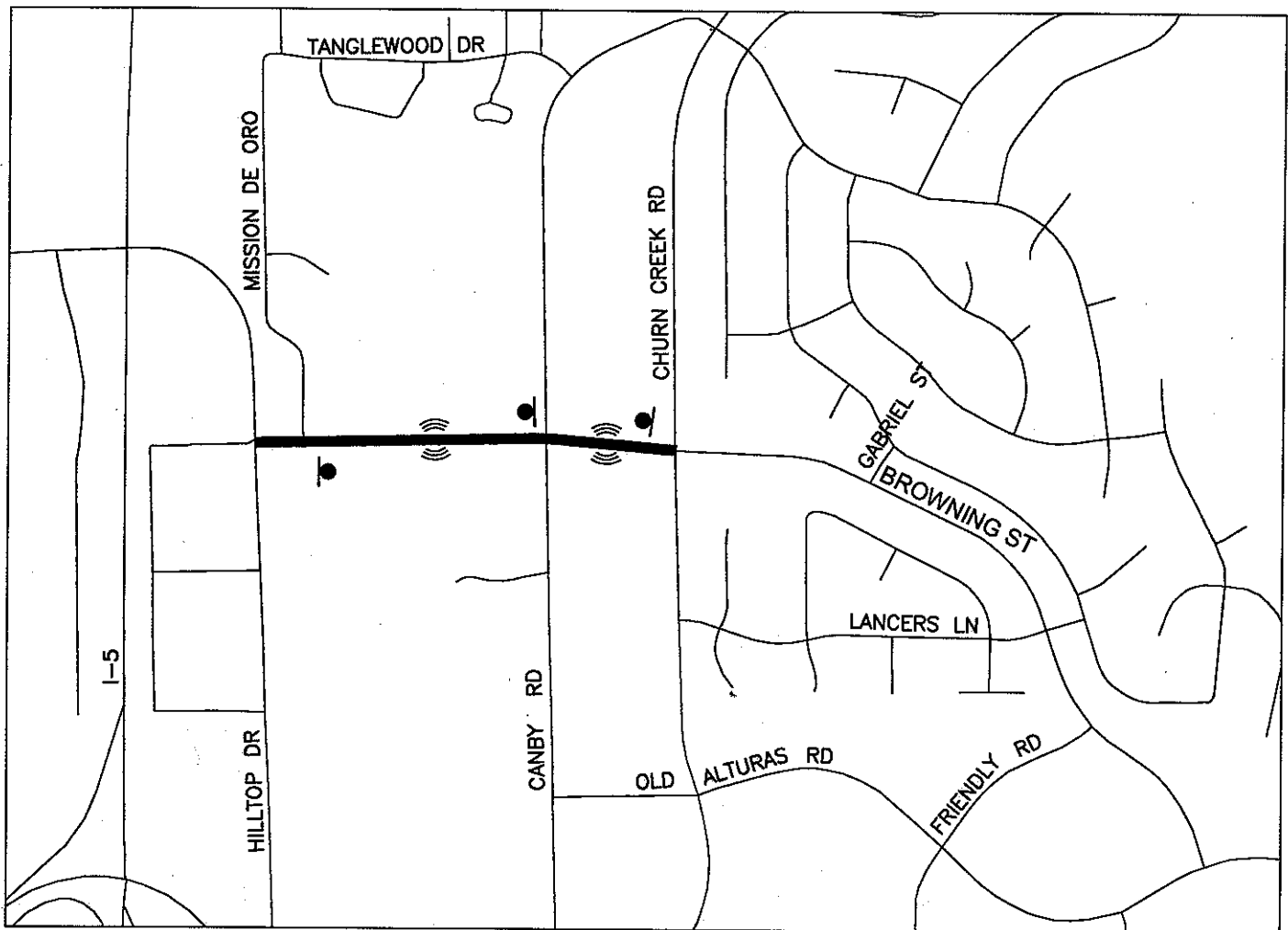
RECOMMENDATION

POST SPEED LIMIT	35 MPH	40 MPH
JUSTIFICATION FOR ESTABLISHING SPEED LIMIT 5 MPH BELOW CRITICAL SPEED (85th PERCENTILE)	N/A	THE COLLISION RATE AND NUMBER OF COLLISIONS INDICATE THAT THE CONDITIONS OF THE ROADWAY ARE NOT READILY APPARENT TO THE DRIVER. FREQUENT USE BY BICYCLISTS AND PEDESTRIANS HAS BEEN OBSERVED ON THIS SEGMENT OF ROADWAY. POSTING THE SPEED LIMIT 5 MPH LOWER IS JUSTIFIED.

Gary M. Otremba
REGISTERED CIVIL ENGINEER




7/7/10
DATE





Posted Speed: 30		Day: Thursday		
Weather: Sunny & Dry		Date: 6/3/09		
Observer: Lori Lackey		Time: 09:35 - 10:28		
Critical Speed: 36 mph		Calcs: Otremba		
Average Speed: 32.3 mph				
Median Speed: 32 mph				
Standard Deviation: 4.1 mph				
Pace Range: 28 - 38 mph				
Percent in Pace: 80.5%				
Total # Vehicles: 231				
MPH	# of Veh.	Both Directions		%
48				100.0%
45				100.0%
44	2	♦♦		100.0%
43	2	♦♦		99.1%
42	2	♦♦		98.3%
41	3	♦♦♦		97.4%
40	3	♦♦♦		96.1%
39	6	♦♦♦♦♦♦		94.8%
38	7	♦♦♦♦♦♦♦		92.2%
37	9	♦♦♦♦♦♦♦♦		89.2%
36	14	♦♦♦♦♦♦♦♦♦♦		85.3%
35	15	♦♦♦♦♦♦♦♦♦♦♦		79.2%
34	18	♦♦♦♦♦♦♦♦♦♦♦♦		72.7%
33	24	♦♦♦♦♦♦♦♦♦♦♦♦♦♦		64.9%
31	19	♦♦♦♦♦♦♦♦♦♦♦♦♦		44.2%
30	28	♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦		35.9%
29	17	♦♦♦♦♦♦♦♦♦♦♦♦♦		23.8%
28	18	♦♦♦♦♦♦♦♦♦♦♦♦♦♦		16.5%
27	6	♦♦♦♦♦♦		8.7%
26	6	♦♦♦♦♦♦		6.1%
25	4	♦♦♦♦		3.5%
24	1	♦		1.7%
23	1	♦		1.3%
22				0.9%
21	2	♦♦		0.9%
20				0.0%

LEGEND

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

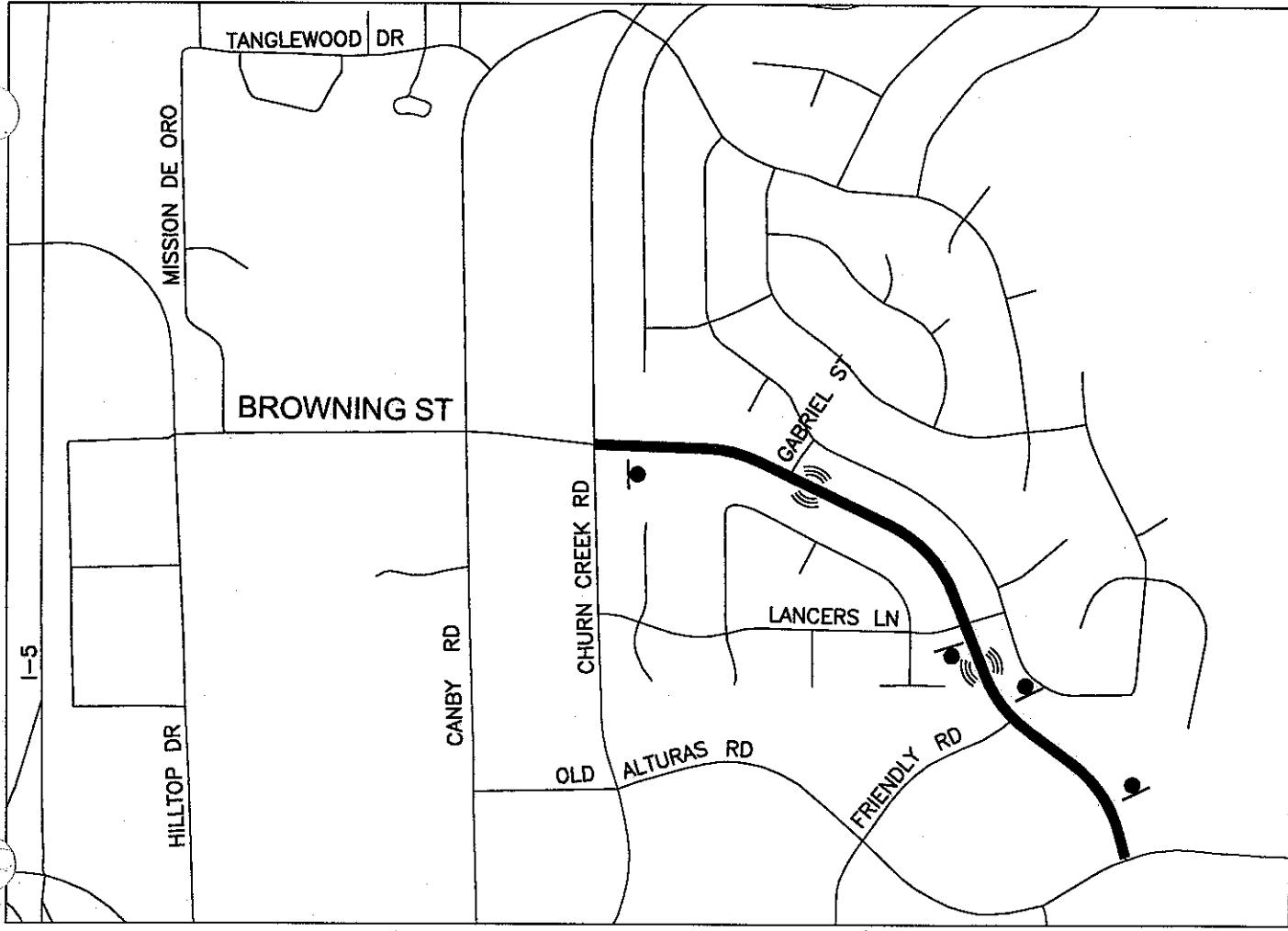
CITY OF REDDING PUBLIC WORKS DEPARTMENT

MAY 2010

BROWNING SPEED STUDY
HILLTOP DR TO CHURN CREEK RD



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MPH		# of Veh.	Both Directions	%
50				100.0%
49				100.0%
48		3	***	100.0%
47				98.5%
46		7	*****	98.5%
45		4	****	95.1%
44		10	*****	93.2%
43		16	*****	88.3%
42		17	*****	80.5%
41		19	*****	72.2%
40		28	*****	62.9%
39				3.3%
38		21	*****	41.5%
37		29	*****	31.2%
36		12	*****	17.1%
35		7	*****	11.2%
34		7	*****	7.8%
33		6	*****	4.4%
32		1	*	1.5%
31		1	*	1.0%
30				0.5%
29				0.5%
28		1	*	0.5%
27				0.0%

Day: Tuesday
 Date: 11/3/09
 Time: 1:30 - 2:45 PM
 Posted Speed: 30
 Weather: Sunny & Dry
 Observer: Lindstrom
 Calcs: Otremba

Critical Speed : 43 mph
 Average Speed : 39.4 mph
 Median Speed : 40 mph
 Standard Deviation: 3.4 mph
 Pace Range : 35 - 45 mph
 Percent in Pace : 85.4%
 Total # Vehicles : 205

LEGEND

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

CITY OF REDDING PUBLIC WORKS DEPARTMENT

MAY 2010

BROWNING SPEED STUDY
 CHURN CREEK RD TO OLD ALTURAS RD

