REPORT TO CITY COUNCIL

DATE: OCTOBER 12, 2011

TO: HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

FROM: GREG RAMIREZ, CITY MANAGER

BY: RAMIRO ADEVA, CITY ENGINEER

SUBJECT: APPROVE RESOLUTION NO. 11-1650, ADOPTING THE 2011

ENGINEERING AND TRAFFIC SURVEY

California Vehicle Code (CVC) Section 40802(b) requires that *prima facie* posted speed limits be justified by an engineering and traffic survey. The last engineering and traffic survey was adopted by City Council on February 28, 2007, by Resolution No. 07-1441. The 25 segments in the new survey include all arterial and collector streets in the City. Local streets are exempted from the survey requirements by the CVC, and have a set *prima facie* speed limit of 25MPH.

The Engineering and Traffic Survey (Survey) for the City was conducted in accordance with procedures outlined in the California Manual on Uniform Traffic Control Devices (MUTCD), and as required by Section 627 of the CVC. The three elements of a survey include the measurement of prevailing speed, accident history, and roadway characteristics not readily apparent to the motorist.

Posted speed limits are established to protect the general public and provide law enforcement with a clearly understood method to identify and apprehend violators of the basic speed law. As can be seen from the attached table, all segments are proposed to remain the same speed limit with the exception of Kanan Road, between the southern City limit and Agoura Road. It is recommended the speed limit be raised from 35 mph to 45 mph to match that of the southbound traffic within the same segment. The Sheriff's Department reviewed the report and is supportive of the recommendations. If adopted by the City Council, the new speed limit would take effect upon posting.

If approved by the City Council, a copy of the Survey will be made available to the public for review on the City's website, or by contacting either the City Clerk or Public Works Department.

RECOMMENDATION

Staff respectfully recommends the City Council approve the attached Resolution No. 11-1650, adopting the 2011 Engineering and Traffic Survey.

Attachment: Speed Survey Recommendation Table

Resolution No. 11-1650

RESOLUTION NO. 11-1650

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AGOURA HILLS, CALIFORNIA, DETERMINING AND DECLARING PRIMA FACIE SPEED LIMITS ON VARIOUS STREETS WITHIN THE CITY

RECITALS:

WHEREAS, engineering and traffic surveys have been conducted on various streets within the City as required by provisions of the California Vehicle Code; and

WHEREAS, on the basis of those surveys, staff has determined that the adoption of the following recommended speed limits are reasonable and safe and will facilitate the orderly movement of vehicular traffic;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF AGOURA HILLS, CALIFORNIA, DOES HEREBY RESOLVE, DETERMINE AND ORDER AS FOLLOWS:

- Section 1. Recitals. The above recitals, and each of them, are true and correct.
- Section 2. This resolution reaffirms all other previous resolutions establishing speed limits within the City of Agoura Hills, and enacts new speed limits as recommended in Table 3 of the 2011 Engineering and Traffic Survey, which is made a part hereto.
- Section 3. The City Clerk is hereby ordered to file certified copies of this resolution with the Los Angeles County Sheriff's Office.
- Section 4. The speed limits established in Section 2 of this resolution shall become effective upon posting of the speed limit signs.

PASSED, APPROVED, AND ADOPTED, this 12th day of October, 2011, by the following vote to wit:

	Harry Schwarz, Mayor
ATTEST:	
Kimberly M. Rodrigues, City Clerk	

AYES:

NOES:

ABSENT:

ABSTAIN:

(0)

(0)

(0)

(0)



Table 3: Speed Survey Recommendations

	Table 5. speed but vey Recommendations												
Location Number	Location Name	Limits (From)	Limits (To)	Existing Speed Limit (mph)	85th Percentile Speed (mph)	10 mph pace	Average Daily Traffic (ADT)	Miles	Expected Accidents per Million Vehicle Miles (ACC/MVM)*	Recommended Speed Limit — (mph)	Justification 4		
1	Agoura Road	West City Limits	Reyes Adobe Road	45	49	41 - 50	9,445	1.12	1,30	45	85th Percentile speed downgraded due to restricted sight distance from horizontal and vertical road curvature and no sidewalks on south side of segment		
2	Agoura Road	Reyes Adobe Road	Ladyface Circle	45	46	37 - 46	9,308	0.52	1.60	45	85th Percentile Speed		
3	Agoura Road	Ladyface Circle	Kanan Road	45	45	37 - 46	9,316	0.87	1.55	45	85th Percentile Speed		
4	Agoura Road	Kanan Road	Palo Comado Canyon Road	45	43	36 - 45	4,719	1.33	1.55	45	85th Percentile Speed		
5	Agoura Road	Palo Comado Canyon Road	Liberty Canyon	45	47	40 - 49	5,039	0.38	1.55	45	85th Percentile Speed		
6	Canwood Street	West City Limits	Reyes Adobe Road	35	39	30 - 39	5,517	1.02	2,55	35	85 th Percentile Speed downgraded due to restricted sight distance from vertical and horizontal road curvature and no sidewalks on south side of segment		
7	Canwood Street	Reyes Adobe Road	Kanan Road	40	39	31 - 40	3,166	1.74	2.55	40	85th Percentile Speed		
8	Canwood Street	Kanan Road	Derry Avenue	40	39	30 - 39	9,845	1.16	2.55	40	85th Percentile Speed		
9	Canwood Street	Derry Avenue	Chesebro Road	40	41	30 - 39	5,224	0.53	2.55	40	85th Percentile Speed		
10	Driver Ave/Palo Comado Canyon Road	Argos Street	Ventura Freeway	35/30	36	27 - 36	7,909	1.85	2.55	30	85th Percentile Speed downgraded due to fronting residential area and restricted sight distance due horizontal and vertical road curvature		
11	Kanan Road	North City Limits	Laro Drive	45	46	37 - 46	24,420	0.48	1.60	45	85 ^տ Percentile Speed		
12	Kanan Road		Thousand Oaks Boulevard	40	42	34 - 43	30,208	2.13	1.60	40	85th Percentile Speed		
13	Kanan Road	Thousand Oaks Boulevard	Hillrise Drive	40	41	32 - 41	31,513	1.91	1.60	40	85 th Percentile Speed		



	- 1			Existing Speed	85th Percentile	10 mph	Average Dally	Accidents per Million vehicle		scommended Speed Limit	Justification
Location Number	Location Name	Limits (From)	Limits (To)	Limit : (mph)	Speed (mph)	#pace	Trafflet (ADT)	Miles	Vehicle Miles (ACQ/MVM)*	: (wbp)	rusingalon
14	Kanan Road	Hillrise Drive	Canwood Street	40	41	34 - 43	25,691	0.90	1.15	40	85 th Percentile Speed
15	Kanan Road	Canwood Street	Agoura Road	35	41	34 - 43	25,443	3.90	1.15	35	85th Percentile Speed downgraded due to high collision rate
16	Kanan Road	Agoura Road	South City Limits	. 35NB 45SB	49	41 - 50	16,390	0.40	2.55	45	85th Percentile Speed downgraded due to restricted sight distance from horizontal and vertical road curvature
17	Liberty Canyon Road	Agoura Road	Country Glen Road	40	40	32 - 41	4,161	0.00	2.55	40	85th Percentile Speed
18	Palo Comado Canyon Road/ Chesebro Road	Agoura Road	Ventura Freeway	35	33	24-33	4,114	6.76	2,55	35	85 TH Percentile Speed
19	Reyes Adobe Road	North City Limits	Thousand Oaks Boulevard	40	40	32-41	6,772	1.17	2.00	40	85th Percentile Speed
20	Reyes Adobe Road	Thousand Oaks Boulevard	Agoura Road	40	42	34-43	12,120	0.51	2.00	40	85th Percentile Speed
21	Roadside Drive	Kanan Road	Lewis Street	40	46	37 - 46	6,081	1.57	2.55	40	85th Percentile Speed downgraded due to restricted sight distance from vertical road curvature and no sidewalks on north side of segment
22	Thousand Oaks Boulevard	MAGIT IN LIMITE	Reyes Adobe Road	45	46	38 - 47	12,751	0.61	1.60	45	85th Percentile Speed
23	Doulevaru	Reyes Adobe Road	Buffwood Place	40	46	38 - 47	13,406	0.32	1.60	40	85 th Percentile Speed downgraded due to restricted sight distance from horizontal road curvature
1 7/1 1	Thousand Oaks Boulevard	Buffwood Place	Kanan Road	35	37	27 - 36	13,942	4.35	1.60	35	85th Percentile Speed
	Thousand Oaks Boulevard the 2010 Collision Do		Carell Avenue	35	35	27 - 36	2,465	3.68	1.30	35	85 th Percentile Speed

^{*} Based on the 2010 Collision Data on California State Highways Manual



FINAL REPORT

FOR THE

2011 ENGINEERING AND TRAFFIC SURVEY TO ESTABLISH SPEED LIMITS

September 2011

Prepared by:



CERTIFICATION

I, Srikanth Chakravarthy, do hereby certify that this Engineering and Traffic Survey for the	ne
City of Agoura Hills 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 and Traffic Engineer.	

Srikanth Chakravarthy September 27, 2011 RCE# 73629 RTE# 2531



TRAFFIC RADAR CERTIFICATION TESTED TO NHTSA SPECIFICATIONS / IACP CRITICAL PERFORMANCE STANDARDS

TESTED TO NHTSA SPECIFICATIONS / IACP CRITICAL PERFORMANCE STANDARDS (NHTSA) National Highway and Traffic Safety Administration.

(IACP) International Association of Chiefs of Police.

16202 Keats Circle Westminster, Calif. 92683

R.H.F. is a certified independent testing and repair facility.

1	TEST ID	Date Received 4-3-09 Certification Number 55654									
2	DEVICE ID	Manufacturer	- T	Model:	- &	Тур	e (1-IV)		Directional radar H Yes No	Same directi	on No
		Counting unit S/N 36		Antenna-1	N	/A			Antenna-2 S/N	N/A	
	§ 2.4 / § 5.4	Low speed fork S/N		ate calib.	Freq. (Hz)	Speed (m	ph)	Measured (Hz)		
3	TUNING FORK CALIBRATION	High speed fork S/N		ate calib.	Freq. (Hz)	Speed (m	(mph) Measured (Hz)		—PAS	FAIL
		A. Complete Complete	Carries 1 ja	and the same of the same	I	o for	ζ		High fork		
		Stationary mode	Fork sp	eed (mph)		35			65		
	§ 2.5 / § 5.5	Stationary mode	Disp. Sp	eed (mph)	0	35			65		
4	RADAR DEVICE TUNING FORK TESTS	Moving mode Opposite Direction	TARGET (Hi fork -		Expected (mph)		/A	Displ (mpl	ayed.	PASS	FAIL
		Moving mode Same Direction	TARGET Hi fork + Ho fork -	Lo fork	Expected (mph)	N	/A	Displ (mph	ayed.		
	624148641	Standard supply	Α	ntenna 1	2/1 /	,	Anteni				
_	§ 2.6.1. / § 5.6.1 TRANSMISSION	Voltage (V) 13 Standard supply		req. GHz 2	24.15		Freq. (N/A	-	5.47
5	FREQUENCY STABILITY	Voltage - 20% (V) 10	.8 V F	reg. GHz 🙎	24.15	/	Freq. (3Hz	N/A	PASS	FAIL
	STABILITY	Standard supply voltage + 20% (V) 16		intenna 1 req. GHz	24.1:	51	Antenr Freq. (N/A		
6	§ 2.6.5 / § 5.6.5 POWER DENSITY	Mfg. Spec. (max mW/cm) ≤	intenna 1 ower (mW/cn	1) ,		Anteni Power		m) N/A	PASS	FAIL	
7	§ 2.8 / § 5.8 LOW VOLTAGE	Mfg spec I.VA activates I.VA deactivates						10.4	PASS	FAIL	
8	§ 2.9.1 / § 5.9.1 DOPPLER AUDIO	A. Audio tone correla B. Functioning audio					Y Y		No No	PASS	FAIL
9	§ 2.12.4 / § 5.12.4 INTERNAL CIRCUIT	Mfg. Spec.	6	4	Test re	sults		6		PASS	FAIL
10	§ 2.12.6.5 / § 5.12.6.5 DIRECTIONAL	A. Selects only target B. Selects only target			n.	Ye			N.A. N.A.	PASS	FAIL
wi.		Stationary mode:	L	ow speed spee	c. 20		Lo spe	ed disp	20		
	62127/62128/	target channel (mph)	Н	li speed spec.	199		Hi spe	ed disp	199		
11	§ 2.12.7 / § 2.12.8 / 5.12.7 / 5.12.8 LOW AND HIGH	Moving Mode	L	ow speed spee	. N/A		Lo spe	ed disp	. N/A	(PASS)	FAIL
	SPEED DISPLAY TEST	target channel (mph)	Н	li speed spec.	N/A		Hi spe	ed disp	N/A		,,,,,
	1651	Moving Mode:	L	ow speed spee	. N/A		Lo spe	ed disp	. N/A		
		patrol channel (mph)	н	li speed spec.	N/A		Hi spe	ed disp	N/A		н
12	§ 2.13 / § 5.13 RFI TEST							N	VA	PASS	FAIL
13	LABORATORY COMMENTS										
14	NHTSA/IACP CERTIFICATION	This radar device in Highway Safety Address Certified by:		tion. Calif Been					40802 E	onal Traffic SPASS ロ ·3-09	
15	INVENTORY	NAME OF TAXABLE PARTY OF TAXABLE PARTY.	anual Other: (plea:	2 nd Ant. se list)	: Re	mote	Ci B	at.			



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1.0 Introduction

This Engineering and Traffic Survey is intended to serve as the basis for the establishment and enforcement of speed limits for street segments within the City Agoura Hills. This survey was authorized by the City and independently conducted by the private consulting firm Kimley-Horn and Associates, Inc (Kimley-Horn). The existing speed limits were established based upon the 2006 Engineering and Traffic Survey which expires in December 2011.

Engineering and traffic surveys for speed limits are conducted once every five (5) years by governing municipalities in order to comply 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 or every ten (10) 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 <u>2011 California Vehicle Code</u> 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 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"

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¹ California Department of Motor Vehicles, <u>California Vehicle Code</u>, Division 1, Section 235, 2011.

² California Department of Motor Vehicles, <u>California Vehicle Code</u>, Division 1, Section 515, 2011.

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 or established by ordinance are not valid. 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 ten years as specified in Section 40802(c), of the date of the preceding survey. A survey allowed to expire past the valid duration of the previous survey would constitute a speed trap as defined in Sections 40802(a) and 40802(b) of the CVC:

- "(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) A particular section of a highway with a prima facie speed limit that is provided by this code or by local ordinance under subparagraph (A) of paragraph (2) of subdivision (a) 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, or school zone.
- (b) (1) For purposes of this section, a local street or road is defined by the latest functional usage and federal-aid system maps submitted to the federal Highway Administration, except that when these maps have not been submitted, or when the street or road is not shown on the maps, a "local street or road" means a street or road that primarily provides access to abutting residential property and meets the following three conditions:
 - (A) Roadway width of not more than 40 feet.

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³ California Department of Motor Vehicles, <u>California Vehicle Code</u>, Division 11. Chapter 7, Section 22357(a), 2011.



- (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"

1.2 Requirements and Methodology of an Engineering and Traffic Survey

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 85th 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, and 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 2010 California MUTCD. The statistical factors used to analyze the collected speed survey data and additional factors as noted in the 2010 California MUTCD to consider are defined in the following section.

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⁴ California Department of Motor Vehicles, <u>California Vehicle Code</u>, Division 17. Chapter 2, Section 40802, 2011.



2.0 **SPEED SURVEY EVALUATION**

Twenty five (25) locations were evaluated by Kimley-Horn and included in this report. These roadway sections and limits of the sections are listed in Table 1.

Table 1: Survey Locations and Limits

Location Number	Location Name	Limits (From)	Limits (To)	
1	Agoura Road	West City Limits	Reyes Adobe Road	
2	Agoura Road	Reyes Adobe Road	Ladyface Circle	
3	Agoura Road	Ladyface Circle	Kanan Road	
4	Agoura Road	Kanan Road	Palo Comado Canyon Road	
5	Agoura Road	Palo Comado Canyon Road	Liberty Canyon Road	
6	Canwood Street	West City Limits	Reyes Adobe Road	
7	Canwood Street	Reyes Adobe Road	Kanan Road	
8	Canwood Street	Kanan Road	Derry Avenue	
9	Canwood Street	Derry Avenue	Chesebro Road	
10	Driver Ave/Palo Comado Canyon Road	Argos Street	Ventura Freeway	
11	Kanan Road	North City Limits	Laro Drive	
12	Kanan Road	Laro Drive	Thousand Oaks Boulevard	
13	Kanan Road	Thousand Oaks Boulevard	Hillrise Drive	
14	Kanan Road	Hillrise Drive	Canwood Street	
15	Kanan Road	Canwood Street	Agoura Road	
16	Kanan Road	Agoura Road	South City Limits	
17	Liberty Canyon Road	Agoura Road	Country Glen Road	
18	Palo Comado Canyon Road/Chesebro Road	Agoura Road	Ventura Freeway	
19	Reyes Adobe Road	North City Limits	Thousand Oaks Boulevard	
20	Reyes Adobe Road	Thousand Oaks Boulevard	Agoura Road	
21	Roadside Drive	Kanan Road	Lewis Street	
22	Thousand Oaks Boulevard	West City Limits	Reyes Adobe Road	
23	Thousand Oaks Boulevard	Reyes Adobe Road	Buffwood Place	
24	Thousand Oaks Boulevard	Buffwood Place	Kanan Road	
25	Thousand Oaks Boulevard	Kanan Road	Carell Avenue	

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2.1 Field Review

Speed data was collected using manual radar surveys and were performed by a sub-consultant to Kimley-Horn, The Traffic Solution, at 25 locations during a weekday (Monday through Friday). ADT data was collected by another sub-consultant to Kimley-Horn, National Data and Surveying Services (NDS) for the 25 project locations during a Weekday (Tuesday, Wednesday or Thursday).

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 spreadsheet based software for analysis purposes. Chapter 2B of the 2010 California MUTCD 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, and therefore speed samples were collected during a maximum period of 2 hours for low volume roadways.

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

- 1. Segment length, width and alignment;
- 2. Level of pedestrian and bicycle activity;
- 3. Traffic flow characteristics;
- 4. Number of lanes and other channelization/striping factors;
- 5. Frequency of intersections, driveways, on-street parking, bike lanes;
- 6. Locations of stop signs, traffic signals, and other regulatory traffic control devices;
- 7. Roadway condition, bumps and dips;
- 8. Land use and proximity of schools, parks/recreation areas and senior centers;
- 9. Uniformity with existing speed zones; and,
- 10. Any other unusual conditions or hazards not readily apparent to the driver.

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

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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. **50**th **Percentile Speed**. The Median Speed, or 50th Percentile Speed, represents the midpoint 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. **15**th **Percentile Speed**. The 15th Percentile Speed is that speed at or below which 15 percent of the vehicles are traveling. This value is important in determining the minimum allowable speed limit, given that the vehicles traveling below this speed tend to obstruct the flow of traffic, thereby increasing the collision potential.
- 5. **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 vehicles within the 10-mph pace is often between 60 and 90 percent.

2.3 2010 California MUTCD Guidance between Adjacent Segments

The <u>State of California Traffic Manual</u> previously published by the California Department of Transportation previously set guidance on the preparation of Engineering and Traffic Surveys. Section 8-3.3 contained the guidance for establishing speed limits using an Engineering and Traffic Survey, and indicated that the speed limit should normally be established at the first five mile per hour increment below the 85th percentile speed⁵. However, with the change to the <u>2006 and 2010 California MUTCD</u>, the guidance for establishing speed limits has been modified and the new requirements indicate that "the speed limit shall be established at the nearest 10 km/h (5 mph) increment to the 85th percentile speed of free-flowing traffic.⁶" This change in the guidance for establishing speed limits was incorporated into the analysis and recommendation of speed limits for this study. Both texts note that in matching existing conditions with the traffic safety needs of the community, engineering judgment may indicate the need for a reduction of the posted speed limit by 5 mph due to specific factors such as road characteristics, the pace speed, roadside development and environment, parking practices and pedestrian activity, and collision history. The following are two factors as noted in the 2010 California MUTCD to consider when establishing speed limits between adjacent street segments:

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⁵ California Department of Transportation, Traffic Manual, Chapter 8, Section 03, Dec 1988.

⁶ California Department of Transportation, 2010 California MUTCD, Chapter 2B, page 2B-7, January 21, 2010.



- 1. Avoid Short Segments. Short speed zones of less than ½ mile should be avoided, except in transition areas.
- 2. Change in Roadway Conditions or Roadside Development. Speed zone changes should be coordinated with changes in roadway conditions or roadside development.

2.4 **Collision History**

The Engineering and Traffic Survey forms summarize the recent collision information for each of the street segments. The collision information was obtained from the California Statewide Integrated Traffic Records System (SWITRS) Report by the City of Agoura Hills from April 1st, 2008 to March 31, 2011. The collisions were reviewed and corridor related collisions (those not related to signalized intersections) were summarized for each segment by Kimley-Horn. Based upon 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 2009 Collision Data on California State Highways as listed in Table 2 (road miles, travel, collisions, collision rates) as listed in Table 2.

Table 2: 2010 California State Highways Collision Rates Based on Accident Data for the years 2008 through 2011

Highway Type	Area	Design Speed	Base Rate
Conventional 2 Lanes or Less	Suburban	<45 mph	2.55
Conventional 2 Lanes or Less	Suburban	45-55 mph	1.55
Conventional 3 Lanes	Suburban	-	1.30
Undivided 4 Lanes	Suburban	≤55	2.00
Divided 4 Lanes	Suburban	≤55	1.60

City of Agoura Hills Page 7 September 2011



3.0 RESULTS AND RECOMMENDATIONS

The recommendations contained in this report are intended to establish prima facie speed limits. Prima facie limits attempt to advise the motorist and enforcement officers of the reasonable speed for a particular section of roadway for the prevailing conditions. In many cases, the recommendations made produce a uniform speed limit along the road. As a result, the speed limits in adjacent jurisdictions were considered as well as along the various street segments surveyed within the City of Agoura Hills.

The Engineering and Traffic Survey Sheets, presented in the **Appendix**, illustrate the results of an 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** followed by descriptions of the recommendations for each roadway segment with special conditions.

Table 3: Speed Survey Recommendations

					F	10 th 1 t J		iciiaatioii			
Location Number	Location Name	Limits (From)	Limits (To)	Existing Speed Limit (mph)	85th Percentile Speed (mph)	10 mph pace	Average Daily Traffic (ADT)	Accidents per Million vehicle Miles (AMVM)	Expected Accidents per Million Vehicle Miles (ACC/MVM)*	Recommended Speed Limit (mph)	Justification
1	Agoura Road	West City Limits	Reyes Adobe Road	45	49	41 - 50	9,445	1.12	1.30	45	85th Percentile speed downgraded due to restricted sight distance from horizontal and vertical road curvature and no sidewalks on south side of segment
2	Agoura Road	Reyes Adobe Road	Ladyface Circle	45	46	37 - 46	9,308	0.52	1.60	45	85th Percentile Speed
3	Agoura Road	Ladyface Circle	Kanan Road	45	45	37 - 46	9,316	0.87	1.55	45	85th Percentile Speed
4	Agoura Road	Kanan Road	Palo Comado Canyon Road	45	43	36 - 45	4,719	1.33	1.55	45	85th Percentile Speed
5	Agoura Road	Palo Comado Canyon Road	Liberty Canyon	45	47	40 - 49	5,039	0.38	1.55	45	85th Percentile Speed
6	Canwood Street	West City Limits	Reyes Adobe Road	35	39	30 - 39	5,517	1.02	2.55	35	85 th Percentile Speed downgraded due to restricted sight distance from vertical and horizontal road curvature and no sidewalks on south side of segment
7	Canwood Street	Reyes Adobe Road	Kanan Road	40	39	31 - 40	3,166	1.74	2.55	40	85th Percentile Speed
8	Canwood Street	Kanan Road	Derry Avenue	40	39	30 - 39	9,845	1.16	2.55	40	85th Percentile Speed
9	Canwood Street	Derry Avenue	Chesebro Road	40	41	30 - 39	5,224	0.53	2.55	40	85th Percentile Speed
10	Driver Ave/Palo Comado Canyon Road	Argos Street	Ventura Freeway	35/30	36	27 - 36	7,909	1.85	2.55	30	85 th Percentile Speed downgraded due to fronting residential area and restricted sight distance due horizontal and vertical road curvature
11	Kanan Road	North City Limits	Laro Drive	45	46	37 - 46	24,420	0.48	1.60	45	85th Percentile Speed
12	Kanan Road	Laro Drive	Thousand Oaks Boulevard	40	42	34 - 43	30,208	2.13	1.60	40	85 th Percentile Speed
13	Kanan Road	Thousand Oaks Boulevard	Hillrise Drive	40	41	32 - 41	31,513	1.91	1.60	40	85 th Percentile Speed



Location Number	Location Name	Limits (From)	Limits (To)	Existing Speed Limit (mph)	85th Percentile Speed (mph)	10 mph pace	Average Daily Traffic (ADT)		Expected Accidents per Million Vehicle Miles (ACC/MVM)*	Recommended Speed Limit (mph)	Justification
14	Kanan Road	Hillrise Drive	Canwood Street	40	41	34 - 43	25,691	0.90	1.15	40	85th Percentile Speed
15	Kanan Road	Canwood Street	Agoura Road	35	41	34 - 43	25,443	3.90	1.15	35	85 th Percentile Speed downgraded due to high collision rate
16	Kanan Road	Agoura Road	South City Limits	35NB 45SB	49	41 - 50	16,390	0.40	2.55	45	85 th Percentile Speed downgraded due to restricted sight distance from horizontal and vertical road curvature
17	Liberty Canyon Road	Agoura Road	Country Glen Road	40	40	32 - 41	4,161	0.00	2.55	40	85 th Percentile Speed
	Palo Comado Canyon Road/ Chesebro Road		Ventura Freeway	35	33	24-33	4,114	6.76	2.55	35	85 [™] Percentile Speed
19	Reyes Adobe Road	North City Limits	Thousand Oaks Boulevard	40	40	32-41	6,772	1.17	2.00	40	85 th Percentile Speed
20	Reyes Adobe Road	Thousand Oaks Boulevard	Agoura Road	40	42	34-43	12,120	0.51	2.00	40	85 th Percentile Speed
21		Kanan Road	Lewis Street	40	46	37 - 46	6,081	1.57	2.55	40	85th Percentile Speed downgraded due to restricted sight distance from vertical road curvature and no sidewalks on north side of segment
22	Thousand Oaks Boulevard	West City Limits	Reyes Adobe Road	45	46	38 - 47	12,751	0.61	1.60	45	85 th Percentile Speed
	Thousand Oaks Boulevard	Reyes Adobe Road	Buffwood Place	40	46	38 - 47	13,406	0.32	1.60	40	85th Percentile Speed downgraded due to restricted sight distance from horizontal road curvature
24	Thousand Oaks Boulevard	Buffwood Place	Kanan Road	35	37	27 - 36	13,942	4.35	1.60	35	85 th Percentile Speed
25	Thousand Oaks Boulevard	Kanan Road	Carell Avenue	35	35	27 - 36	2,465	3.68	1.30	35	85 th Percentile Speed

^{*} Based on the 2010 Collision Data on California State Highways Manual



3.1 Segments with Special Conditions

Pursuant to the 2010 California Manual on Uniform Traffic Control Devices (MUTCD) and the California Vehicle Code (CVC), the speed limit should be established at the first five-mile nearest to the 85th Percentile. The following segments surveyed have recommended speed limits that were below the first five-mile nearest to the 85th Percentile speed due to conditions not readily apparent to the driver.

- 1. Location 1 Agoura Road from West City limit to Reyes Adobe Road: The existing posted speed limit is 45 mph with 2 through lanes in the westbound direction and 1 lane in the eastbound direction and a daily ADT of 9,445 vehicles. The adjacent land use consists of business office buildings. The 85th percentile is 49 mph, which indicates a speed limit of 50 mph. Due to restricted sight distance from the vertical and horizontal road curvature, light to moderate pedestrian traffic, and no sidewalks on the south side of the segment that may be readily apparent to unfamiliar drivers, a reduction of 5 mph is justified, therefore a speed limit of 45 mph is recommended.
- 2. Location 6 Canwood Street from West City limit to Reyes Adobe Road: The existing posted speed limit is 35 mph with 1 through lane in each direction and a daily ADT of 5,517 vehicles. The adjacent land use consists of commercial, fronting single family residential and proximity to the freeway. The 85th percentile is 39 mph, which indicates a speed limit of 40 mph. Due to restricted sight distance from vertical and horizontal road curvature, and no sidewalks on the south side of the segment that may not be readily apparent to unfamiliar drivers, a reduction of 5 mph is justified, therefore a speed limit of 35 mph is recommended.
- 3. Location 10 Driver Avenue/Palo Comado Canyon Road from Argos Street to US 101 Freeway: The existing posted speed limit is 35 MPH from 101 Freeway to Palo Comado Canyon Road and 30 MPH from Palo Comado Canyon Road to Colodny Drive with 1 through lane in each direction and a daily ADT of 7,909 vehicles. The adjacent land use consists of commercial, fronting single family residential and proximity to school. The 85th percentile speed is 36 mph, which indicates a speed limit of 35 mph. Due to restricted sight distance from vertical and horizontal road curvature that may not be readily apparent to unfamiliar drivers, higher than expected collision rate (1.85 compared to the expected collision rate of 1.56) and fronting single family residential, a reduction of 5 mph is justified, therefore a speed limit of 30 mph is being recommended.
- 4. Location 15 Kanan Road from Canwood Street to Agoura Road: The existing posted speed limit is 35 mph with 3 through lanes in the southbound direction and 2 through lanes in the northbound direction and a daily ADT of 25,443 vehicles. The adjacent land use consists of commercial area. The 85th percentile is 41 mph, which indicates a speed limit of 40 mph. Due to higher than expected collision rate (3.90 compared to the expected collision rate of 2.51), a reduction of 5 mph is justified therefore a speed limit of 35 mph is recommended.

City of Agoura Hills
Page 11



- 5. Location 16 Kanan Road from Agoura Road to South City Limit: The existing posted speed limit is 35 mph in the northbound direction and 45 mph in the southbound direction with 1 through lane in each direction and an ADT of 16,390 vehicles. The adjacent land use consists of empty lots and single family residential. The 85th percentile is 49 mph, which indicates a speed limit of 50 mph. Due to restricted sight distance from vertical and horizontal road curvature that may not be readily apparent to unfamiliar drivers and no sidewalks on either side of the street, a reduction of 5 mph is justified, therefore a speed limit of 45 mph is recommended.
- 6. Location 21 Roadside Drive from Kanan Road to Lewis Street: The existing posted speed limit is 40 mph with 1 through lane in each direction and a daily ADT of 6,081 vehicles. The adjacent land use consists of commercial area. The 85th percentile is 46 mph, which indicates a speed limit of 45 mph. Due to restricted sight distance from vertical road curvature that may not be readily apparent to unfamiliar drivers and no sidewalks on the north side of segment, a reduction of 5 mph is justified, therefore a speed limit of 40 mph is recommended.
- 7. Location 23 Thousand Oaks Boulevard from Reyes Adobe Road to Buffwood Place: The existing posted speed limit is 40 mph with 2 through lanes in each direction and a daily ADT of 13,406 vehicles. The adjacent land use consists of single family residential. The 85th percentile speed is 46 mph, which indicates a speed limit of 45 mph. Due to restricted sight distance from horizontal road curvature, a reduction of 5 mph is justified, therefore a speed limit of 40 mph is recommended.

CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

1

STREETAgoura RoadCERTIFICATION DATE:FROMWest City LimitsTOReyes Adobe Road

SPEED FACTORS

Date of Speed Survey4/19/2011Posted Speed Limit45 MPHTime of Speed Survey9:00 AM TO 10:00 AMSpeed Justification

50th Percentile Speed (Mean Speed)
45 MPH
85th Percentile Speed downgraded due to restricted sight distance from vetical and horizontal road curvature and no sidewalks on south side of segment

Percentage of Vehicles in Pace 87.1% Recommended Speed Limit 45 MPH Number of Survey Samples 170

COLLISION HISTORY

Number of Years Studied3Total Collisions18Collision Rate (ACC/MVM)1.12Expected Collisions (ACC/MVM)1.30

TRAFFIC FACTORS

Average Daily Traffic 9,445 Date Counted 4/12/2011

Number of Lanes

Type of Traffic Control Signalized at Reyes Adobe Road and Lindero Canyon Road

Crosswalks? At signalized intersections

Pedestrian Traffic Minimal
Truck Traffic Minimal

On-Street Parking
Sidewalks?

No on-street parking
At north side of street only

Driveways? Moderate on north side of street only

ROADWAY FACTORS

Length of Segment 7,575' Width 52'

Vertical Curve Yes Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Good. Raised median.

Lighting No

Adjacent Land Use Business Office

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

Sri Chakravarthy Date State Registration Number

			CITY (DE ACA					
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Client: Street:			ORN AND ASSO	CIATES	i, INC.				=
Street: Spt.Spd. Lo	action.	Agoura Road	mits to Reyes Ad	oho					Ref. # 01
spi.spa. Lo	cation:	West City Li				4/10/2011	D	T1	Kej. # 01
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CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

STREET **CERTIFICATION DATE:** Agoura Road

FROM Reyes Adobe Road Ladyface Circle

SPEED FACTORS

Date of Speed Survey **Posted Speed Limit** 45 MPH 4/19/2011

Time of Speed Survey **Speed Justification** 10:00 AM TO 11:00 AM 50th Percentile Speed (Mean Speed) 85th percentile speed 41 MPH

85th Percentile Speed 46 MPH 10 mph Pace Speed 37 TO 46

Percentage of Vehicles in Pace 74.7% **Recommended Speed Limit** 45 MPH

Number of Survey Samples 162

COLLISION HISTORY

Number of Years Studied 3 Total Collisions 8 Collision Rate (ACC/MVM) 0.52 1.60

Expected Collisions (ACC/MVM)

TRAFFIC FACTORS

Date Counted Average Daily Traffic 9,308 4/12/2011

Number of Lanes

Signalized at Reyes Adobe Road and Ladyface Circle Type of Traffic Control

Crosswalks? At signalized intersections

Pedestrian Traffic Minimal Truck Traffic Minimal

On-Street Parking No on-street parking Sidewalks? Yes, on both sides of street

Driveways? Moderate on north side, minimal on south side of street

ROADWAY FACTORS

Length of Segment 5,960' Width 65'

Vertical Curve Yes **Horizontal Curve** Yes Visibility Good

Roadway Conditions Good. Raised median.

Lighting Only near signalized intersections

Adjacent Land Use Business Office

> Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

Sri Chakravarthy Date **State Registration Number**

			CITY (DE ACOUDA III			
Cli 4		VIMI EV HO		OF AGOURA HIL	LLS		
Client: Street:			ORN AND ASSO	CIATES, INC.			=
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CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

STREET Agoura Road CERTIFICATION DATE:

FROM Ladyface Circle TO Kanan Road

SPEED FACTORS

Date of Speed Survey 4/19/2011 Posted Speed Limit 45 MPH

Time of Speed Survey 10:00 AM TO 11:00 AM Speed Justification 50th Percentile Speed (Mean Speed) 42 MPH 85th percentile speed

85th Percentile Speed 45 MPH **10 mph Pace Speed** 37 TO 46

Percentage of Vehicles in Pace 88.1% Recommended Speed Limit 45 MPH

Number of Survey Samples 168

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 22
Collision Rate (ACC/MVM) 0.87
Expected Collisions (ACC/MVM) 1.55

TRAFFIC FACTORS

Average Daily Traffic 9,316 Date Counted 4/12/2011

Number of Lanes 2

Type of Traffic Control Signalized at Ladyface Circle and Kanan Road

Crosswalks? At signalized intersections. School crossing sign - no crosswalk

Pedestrian Traffic Minimal
Truck Traffic Moderate
On-Street Parking No

Sidewalks? Sidewalk only for approximately 1500' on north side of street and 295' on south side.

Driveways? Moderate

ROADWAY FACTORS

Length of Segment 4,159'
Width 38' (Varies)

Width 38' (Varies)
Vertical Curve Yes

Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Good Lighting No

Adjacent Land Use Business Office and empty land

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

Sri Chakravarthy Date State Registration Number

3

				CITY	OF AGOURA HI	11 1 C		
Client:			KIMI EV HO	RN AND ASSO		ILLS		
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2	6	0	0.00%		85th Percentile:		4	5
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3		6	3.57%	8.93%				
3		9	5.36%	14.29%	60%			
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CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

4

STREET Agoura Road CERTIFICATION DATE:

FROM Kanan Road TO Palo Comado Canyon Road

SPEED FACTORS

Date of Speed Survey 4/19/2011 Posted Speed Limit 45 MPH

Time of Speed Survey
11:00 AM TO 12:00 PM
Speed Justification
40 MPH
85th percentile speed

85th Percentile Speed 43 MPH **10 mph Pace Speed** 36 TO 45

Percentage of Vehicles in Pace 90.7% Recommended Speed Limit 45 MPH

Number of Survey Samples 151

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 17
Collision Rate (ACC/MVM) 1.33
Expected Collisions (ACC/MVM) 1.55

TRAFFIC FACTORS

Average Daily Traffic 4,719 Date Counted 4/12/2011

Number of Lanes

Type of Traffic Control

Signalized at Kanan Road; 2-way stop at Lewis Place and Vejar Drive; 4-way stop at Cornell Road

Crosswalks? At Kanan Road and Chesebro Road/Palo Comado Canyon Road

Pedestrian Traffic Minimal
Truck Traffic Moderate
On-Street Parking Yes

Sidewalks? On south side of street only. No sidewalk east of Kanan Road

Driveways? Multiple

ROADWAY FACTORS

Length of Segment 6,897'
Width 36' (Varies

Vertical Curve Yes Horizontal Curve Yes

VisibilitySome restriction due to road curvature **Roadway Conditions**Good; rough road in some areas

Lighting No

Adjacent Land Use Business on north side and residential on south side

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

Sri Chakravarthy Date State Registration Number

				CITY ()F AC	OURA	шп	<i>T</i> C										
Client:			VIMI EV HO				пісі	LS										
Street:			KIMLEY HORN AND ASSOCIATES, INC. Agoura Road															
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CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

5

STREET Agoura Road CERTIFICATION DATE:

FROM Palo Comado Canyon Road TO Liberty Canyon Road

SPEED FACTORS

Date of Speed Survey 4/19/2011 Posted Speed Limit 45 MPH

Time of Speed Survey 12:00 PM TO 1:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 44 MPH 85th percentile speed

85th Percentile Speed 47 MPH **10 mph Pace Speed** 40 TO 49

Percentage of Vehicles in Pace 80.2% Recommended Speed Limit 45 MPH

Number of Survey Samples 187

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 4
Collision Rate (ACC/MVM) 0.38
Expected Collisions (ACC/MVM) 1.55

TRAFFIC FACTORS

Average Daily Traffic 5,039 Date Counted 4/12/2011

Number of Lanes

Type of Traffic Control

Crosswalks?

Signalized at Palo Comado and Liberty Canyon; 1-way stop at Calle Montecillo

At Palo Comado Canyon Road/Chesebro Road and Liberty Canyon Road

Pedestrian Traffic No
Truck Traffic Minimal
On-Street Parking No

Sidewalks? Only for a portion of segment

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 5,026'
Width 54' (Varies)

Vertical Curve Yes Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway ConditionsGood. Raised median at eas end of Liberty Canyon Road. No median to Palo Comado.

Lighting Only near Liberty Canyon Road

Adjacent Land Use Residential

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

Sri Chakravarthy Date State Registration Number

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Agoura Road Spt.Spd. Location: Palo Comado Canyon Road to Liberty Canyon Road Ref. # 05 Cumulative Date: 4/19/2011 Day: Tuesday Percent Speed Percent Weather: Frequency Dry, clear Hours: 12:00 PM 13 0.00% 0.00% To 1:00 PM 0 0.00% 0.00% Recorder: DB 14 15 0 0.00% 0.00% Posted Speed: 45 mph 0 0.00% 0.00% **Channelization:** Skip dash 2 way traffic 16 17 0 0.00% 0.00% Street Width: N/A 18 0 0.00% 0.00% Comm./Resid.: Residential 0 **DIRECTION:** 19 0.00% 0.00% Eastbound / Westbound combined 0 DATA ANALYSIS: 20 0.00% 0.00% 0 Mean Speed: 21 0.00% 0.00% N/A 22 0 0.00% Standard Deviation: N/A 0.00% 23 0 0.00% 0.00% Standard error of the mean: N/A 0 0.00% 0.00% 15th Percentile: 40 24 0 50th Percentile: 44 25 0.00% 0.00% 26 0 0.00% 0.00% 85th Percentile: 47 0 0.00% 0.00% 10 Mile Pace: 40 49 27 to % of Samples in 10-Mile Pace: 80.21% 28 0.53% 0.53% # in 10 MPH pace: 29 0.53% 1.07% 150 30 2 1.07% 2.14% **Comments:** 1 0.53% 2.67% 31 2 Cumulative 32 1.07% 3.74% **Cumulative Frequency Distribution** Frequency 3 33 1.60% 5.35% 120% 2 34 1.07% 6.42% 2 100% 35 1.07% 7.49% 2 36 1.07% 8.56% 80% 2 37 1.07% 9.63% 38 4 2.14% 11.76% 60% 6 39 3.21% 14.97% 40% 13 6.95% 21.93% 40 41 16 8.56% 30.48% 20% 17 9.09% 39.57% 42 0% 43 19 10.16% 49.73% z Ó ďρ 2 Q 44 17 9.09% 58.82% Spot Speed, mph 17 9.09% 67.91% 45 18 77.54% 46 9.63% **Frequency Distribution** 47 16 8.56% 86.10% 25 10 91.44% 48 5.35% 49 7 3.74% 95.19% 20 4 50 2.14% 97.33% Frequency 10 2 1.07% 98.40% 51 52 0.53% 98.93% 53 99.47% 0.53% 100.00% 54 0.53% 5 0 0.00% 100.00% 55 56 0 0.00% 100.00% 3ª B ON ď 57 0.00% 100.00% Spot Speed, mph Total: 187 100%

CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

6

STREET	Canwood Street	CERTIFICATION DATE:
FDOM	144 (0): 11 1:	TO 5 411 5 1

FROM West City Limit TO Reyes Adobe Road

SPEED FACTORS

Date of Speed Survey **Posted Speed Limit** 35 MPH 4/19/2011 Time of Speed Survey Speed Justification 1:00 PM TO 2:00 PM 85th percentile speed downgraded due to restricted sight 50th Percentile Speed (Mean Speed) 35 MPH distance from vertical and horizontal road curvature, multiple 85th Percentile Speed 39 MPH driveways and no sidewalks on south side of segment 10 mph Pace Speed 30 TO 39 **Recommended Speed Limit** 75.9% 35 MPH

Percentage of Vehicles in Pace 75.9% Reco

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 7
Collision Rate (ACC/MVM) 1.02
Expected Collisions (ACC/MVM) 2.55

TRAFFIC FACTORS

Average Daily Traffic 5,517 Date Counted 4/12/2011

Number of Lanes 2

Type of Traffic Control Signalized at Reyes Adobe Road

Crosswalks? At Reves Adobe Road

Pedestrian Traffic Moderate

Truck Traffic None present

On-Street Parking Yes. On both sides of street

Sidewalks? On north side only.

Driveways? Multiple on north side only

ROADWAY FACTORS

Length of Segment 3,440'
Width 43'

Vertical Curve Yes Horizontal Curve Yes

Visibility Restriction due to road curvature

Roadway Conditions Good Lighting Good

Adjacent Land Use Residential, commercial, freeway adjacent

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

Sri Chakravarthy Date State Registration Number

Client:				ORN AND ASSO	CIATE	S, INC.				_	
Street:		_	Canwood Str								
Spt.Spd. Lo	<u>c</u> ation:	_	West City Limits to Reyes Adobe Road								
				Cumulative	Date:		4/19/2011	Day:	Tuesday	_	
Speed	Frequency		Percent	Percent	Weath	ner:	Dry, clear			_	
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CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

STREETCanwood StreetCERTIFICATION DATE:FROMReyes Adobe RoadTOKanan Road

SPEED FACTORS

Date of Speed Survey 4/19/2011 Posted Speed Limit 40 MPH

Time of Speed Survey2:00 PM TO 3:00 PMSpeed Justification50th Percentile Speed (Mean Speed)36 MPH85th percentile speed

85th Percentile Speed 39 MPH **10 mph Pace Speed** 31 TO 40

Percentage of Vehicles in Pace 90.7% Recommended Speed Limit 40 MPH

Number of Survey Samples 162

COLLISION HISTORY

Number of Years Studied3Total Collisions12Collision Rate (ACC/MVM)1.74Expected Collisions (ACC/MVM)2.55

TRAFFIC FACTORS

Average Daily Traffic 3,166 Date Counted 4/13/2011

Number of Lanes

Type of Traffic Control Signalized at Reyes Adobe Road and Kanan Road; 3-way stop at Forest Cove Lane

Crosswalks? At Reyes Adobe Road and Kanan Road

Pedestrian Traffic None present
Truck Traffic None present

On-Street Parking On both sides east of Forest Cove Lane

Sidewalks? Yes, on both sides of street

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 6,138'
Width 36'

Vertical Curve Yes Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Good Lighting Good

Adjacent Land Use Residential, commercial

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

Sri Chakravarthy Date State Registration Number

7

				CITY	DE AC	OIID A	1111	I C						
Cliant.			VIMI EV HO	CITY (ПП	LS						
Client: Street:			Canwood Str	ORN AND ASSO	CIATES	, INC.							_	
Street: Spt.Spd. I	0001	tions		Road to Kanan I	Pood								-	f. # 07
Spt.Spa. 1	Locat	ion:	Reyes Adobe					4/10/	2011	D.		-	кеј	. # 0/
G 1			D		Date:			4/19/2		_ Day:	Tu	esday	_	
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	15	0	0.00%		Posted	-		40 mph					_	
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CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

STREET Canwood Street CERTIFICATION DATE:

FROM Kanan Road TO Derry Avenue

SPEED FACTORS

Date of Speed Survey 4/19/2011 Posted Speed Limit 40 MPH

Time of Speed Survey 2:00 PM TO 3:00 PM Speed Justification

50th Percentile Speed (Mean Speed) 34 MPH 85th percentile speed 85th Percentile Speed 39 MPH

10 mph Pace Speed 30 TO 39

Percentage of Vehicles in Pace 76.1% Recommended Speed Limit 40 MPH

Number of Survey Samples 201

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 14
Collision Rate (ACC/MVM) 1.16
Expected Collisions (ACC/MVM) 2.55

TRAFFIC FACTORS

Average Daily Traffic 9,845 Date Counted 4/12/2011

Number of Lanes

Type of Traffic Control Signalized at Kanan Road; 1-way stop at Derry Avenue

Crosswalks? At Kanan Road
Pedestrian Traffic None present
Truck Traffic Minimal
On-Street Parking No

Sidewalks? On south side of street only

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 4,226'
Width 28'

Vertical Curve Yes Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Some rough road areas

Lighting Yes

Adjacent Land Use Commercial, freeway adjacent

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

Sri Chakravarthy Date State Registration Number

8

				CITY (OF ACOUNT HILLS
G11 /					OF AGOURA HILLS
Client:				OCIATES, INC.	
Street:	т	- 4.º	Canwood Str		D C #00
Spt.Spd.	Loc	ation:	Kanan Road	to Derry Avenue	v
G 1		T-1	D 4	Cumulative	Date: 4/19/2011 Day: Tuesday
Speed		Frequency	Percent	Percent	Weather: Dry, clear
	13	0	0.00%		6 Hours: 2:00 PM To 3:00 PM
	14	0	0.00%		Recorder: DB
	15	0	0.00%		Posted Speed: 40 mph
	16	0	0.00%		Channelization: Skip dash 2 way traffic Street Width: N/A
	17	0	0.00% 0.00%		6 Comm./Resid.: N/A Commercial
	18 19	0	0.00%		b Comm./Resid.: Commercial b DIRECTION: Eastbound / Westbound combined
		,	0.00%		DATA ANALYSIS:
	20 21	0	0.00%		6 Mean Speed: N/A
	22	$0 \\ 0$	0.00%		6 Standard Deviation: N/A
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	24	0	0.00%		5 Standard error of the mean: N/A 30
	25	2	1.00%		50th Percentile: 34
	26	1	0.50%		85th Percentile: 39
	27	2	1.00%		10 Mile Pace: 30 to 39
	28	4	1.99%		% of Samples in 10-Mile Pace: 76.12%
	29	9	4.48%		# in 10 MPH pace: 153
	30	15	7.46%		Comments:
	31	18	8.96%	25.37%	
	32	20	9.95%	35.32%	á la
	33	22	10.95%	46.27%	Frequency Cumulative Frequency Distribution
	34	19	9.45%	55.72%	1/1/10% ¬
	35	18	8.96%	64.68%	
	36	8	3.98%	68.66%	6
	37	11	5.47%	74.13%	80%
	38	12	5.97%	80.10%	6 60%
	39	10	4.98%	85.07%	6
	40	11	5.47%	90.55%	6 40%
	41	8	3.98%	94.53%	6 20%
	42	2	1.00%	95.52%	6
	43	2 2 2 2	1.00%	96.52%	6 0% 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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	47	1	0.50%	99.50%	0
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	49	1	0.50%	100.00%	
	50	0	0.00%	100.00%	
	51	0	0.00%	100.00%	
	52	0	0.00%	100.00%	
	53	0	0.00%	100.00%	
	54	0	0.00%	100.00%	
	55	0	0.00%	100.00%	
	56	0	0.00%	100.00%	6
Tr-4 2	57	0	0.00%	100.00%	Spot Speed, mph
Total:		201	100%		

9

STREET Canwood Street CERTIFICATION DATE:

FROM Derry Avenue TO Chesebro Road

SPEED FACTORS

Date of Speed Survey 4/19/2011 Posted Speed Limit 40 MPH

Time of Speed Survey3:00 PM TO 4:00 PMSpeed Justification50th Percentile Speed (Mean Speed)36 MPH85th percentile speed

85th Percentile Speed41 MPH **10 mph Pace Speed**30 TO 39

Percentage of Vehicles in Pace 66.5% Recommended Speed Limit 40 MPH

Number of Survey Samples 215

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 7
Collision Rate (ACC/MVM) 0.53
Expected Collisions (ACC/MVM) 2.55

TRAFFIC FACTORS

Average Daily Traffic 5,224 Date Counted 4/13/2011

Number of Lanes

Type of Traffic Control Stop-controlled at Chesebro Road and Derry Avenue

Crosswalks? At Colodny Drive only

Pedestrian Traffic Minimal
Truck Traffic None present

On-Street Parking Yes, on both sides of street Yes, on both sides of street

Driveways? Multiple

ROADWAY FACTORS

Length of Segment 3,467'
Width 36'

Vertical Curve No Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Good Lighting Good

Adjacent Land Use Residential, vacant land, adjacent to freeway and commercail east of Lewist Street

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

			CITY (DE ACQUIDA HU				
C1! 4 -		ZIMI EX HO		OF AGOURA HIL	LLS			
Client:			ORN AND ASSO	CIATES, INC.				-
Street:	aatians	Canwood Str	eet e to Chesebro Ro	a d				Ref. # 09
Spt.Spd. Lo	cation:	Derry Avenu			4/10/2011	D	Т1	Kej. # 09
Connad	E	Percent	Cumulative Percent	Date:	4/19/2011	_ Day: _	Tuesday	=
Speed	Frequency			Weather:	Dry, clear		4 00 P) f	•
13				Hours:	3:00 PM	То	4:00 PM	-
14				Recorder:	DB			-
15				Posted Speed: Channelization:	40 mph	4 CC		=
1 <i>6</i> 17				Street Width:	Skip dash 2 w	ay trannc		
18				Comm./Resid.:	Commercial /	Docidonti	o1	
19		0.00%		DIRECTION:	Eastbound / W			
20		0.00%		DATA ANALYSIS		Cstoouna	Combined	
21		0.00%		Mean Speed:	'•		N/A	
22		0.00%		Standard Deviation	·•		N/A	
23		0.00%		Standard Deviation Standard error of the			N/A	
24		0.47%		15th Percentile:	and mount		30	
25		0.93%		50th Percentile:			36	
26				85th Percentile:			41	
27				10 Mile Pace:		30	to	39
28				% of Samples in 10	-Mile Pace:		66.51%	
29		4.19%		# in 10 MPH pace:			143	
30	15	6.98%		Comments:				
31	. 12	5.58%	23.26%					
32	11	5.12%	28.37%	Cumulative			Diatalla atla	
33	13	6.05%	34.42%	Frequency CI	umulative Free	quency i	DISTRIBUTIO	n
34	15	6.98%	41.40%	120%				
35	14	6.51%	47.91%	100%				
36		7.91%	55.81%	80%				
37			63.26%	3070				
38		7.91%	71.16%	60%		-/		
39		6.05%	77.21%	40%		_/_		
4(6.05%	83.26%					
41			87.91%	20%				
42		5.12%	93.02%	0% +++++++				
43		2.33%	95.35%	13 10 19 19		3× 3\	10 13 16	\$ 8 8 8
44		1.40%	96.74%			ot Speed,		
45		0.93% 0.93%	97.67%					ī
46 47		0.93%	98.60% 99.07%		Frequenc	y Distrib	ution	
48		0.47%	99.07%	25				
49		0.47%	100.00%					
5(100.00%	20				
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52			100.00%	<u>e</u>	1.,	. 1	lII .	
53			100.00%	9 10	,11			
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56			100.00%	0 1		▀▗▀▗▀▗▀▗▀▗ ▘	▊ ▗█▗█▗█▗█▗█▗▊ ▗ ▗ ▗ ▗ ▗ ▗ ▗ ▗ ▗ ▗ ▗ ▗ ▗ ▗	
57			100.00%	13 16 19 1	ν ν ν ν· •	გ^ გ\ ∙ S nood m	KO K3 K6	\$ ₀ 83 82
Total:	215				Spo	t Speed, m	ıbu	
			·					,,,

10

STREET Driver Avenue/Palo Comado Canyon Road CERTIFICATION DATE:

FROM Argos Street TO US 101 Freeway

SPEED FACTORS

Date of Speed Survey 4/20/2011

Time of Speed Survey 9:00 AM TO 10:00 AM

50th Percentile Speed (Mean Speed) 31 MPH

50th Percentile Speed (Mean Speed) 31 MPH 85th Percentile Speed 36 MPH

10 mph Pace Speed 27 TO 36

Percentage of Vehicles in Pace 69.4%

Number of Survey Samples 170

Posted Speed Limit 35 MPH From Fwy to Palo Comado

30 MPH from P.Comado to Colodny Drive

Speed Justification

85th percentile speed downgraded due to fronting residential

area and vertical and horizontal road curvature

Recommended Speed Limit 30 MPH

COLLISION HISTORY

Number of Years Studied 3

Total Collisions 39
Collision Rate (ACC/MVM) 1.85

Expected Collisions (ACC/MVM)

TRAFFIC FACTORS

Average Daily Traffic 7,909 Date Counted 4/12/2011

2.55

Number of Lanes

Type of Traffic Control Stop controlled at Chesebro Road

Crosswalks? At Conejo View Drive and Freeway; horse-crossing sign at crosswalk.

Pedestrian Traffic Minimal Truck Traffic Yes

On-Street Parking

No parking at Palo Comado Road; parking allowed on Driver Avenue

Sidewalks?

No parking at Palo Comado Road; parking allowed on Driver Avenue; No sidewalk along Palo Comado Road

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 6,271'
Width 38'

Vertical Curve Yes Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Some rough road areas

Lighting N

Adjacent Land Use Residential, commercial, school, freeway, and empty land

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Driver Avenue / Palo Comado Canyon Road Spt.Spd. Location: Argos Street to US 101 Freeway Ref. # 10 Cumulative Date: 4/20/2011 Wednesday Day: Weather: Speed Percent Percent Frequency Dry, clear Hours: 0.00% 13 0 0.00% 9:00 AM To 10:00 AM 0 0.00% 0.00% Recorder: DB 14 15 0 0.00% 0.00% Posted Speed: 30 mph 0 0.00% 0.00% **Channelization:** Skip dash 2 way traffic 16 17 0 0.00% 0.00% Street Width: 18 0.00% 0.00% Comm./Resid.: Commercial / Residential 0 **DIRECTION:** 19 0.00% 0.00% Northbound / Southbound combined 5 DATA ANALYSIS: 20 2.94% 2.94% 6 Mean Speed: 21 3.53% 6.47% N/A 7 10.59% Standard Deviation: N/A 22 4.12% 3 23 1.76% 12.35% Standard error of the mean: N/A 5 2.94% 15.29% 15th Percentile: 24 24 31 2.35% 17.65% 50th Percentile: 25 4 2.35% 26 4 20.00% 85th Percentile: 36 11 6.47% 26.47% 10 Mile Pace: 36 27 27 to 32.94% % of Samples in 10-Mile Pace: 69.41% 28 11 6.47% # in 10 MPH pace: 29 15 8.82% 41.76% 118 30 13 7.65% 49.41% **Comments:** 10 5.88% 55.29% 31 32 12 7.06% 62.35% Cumulative **Cumulative Frequency Distribution** Frequency 33 17 10.00% 72.35% 120% 10 34 5.88% 78.24% 100% 35 6.47% 84.71% 11 36 8 4.71% 89.41% 80% 37 6 3.53% 92.94% 95.29% 38 2.35% 60% 39 2.35% 97.65% 40% 0.59% 98.24% 40 41 0.59% 98.82% 20% 98.82% 42 0.00% 0% 43 0 0.00% 98.82% Ś ďρ n.A જી Q 44 0.59% 99.41% Spot Speed, mph 0 0.00% 99.41% 45 0.59% 100.00% 46 **Frequency Distribution** 47 0.00% 100.00% 25 0 48 0.00% 100.00% 49 0 0.00% 100.00% 20 50 0 0.00% 100.00% Frequency 10 0 0.00% 51 100.00% 52 0 0.00% 100.00% 53 0.00% 100.00% 54 0.00% 100.00% 5 55 0.00% 100.00% 56 0 0.00% 100.00% r ďζ 57 0.00% 100.00% Spot Speed, mph Total: 170 100%

11

STREET Kanan Road CERTIFICATION DATE:

FROM North City Limit TO Laro Drive

SPEED FACTORS

Date of Speed Survey 4/20/2011 Posted Speed Limit 45 MPH

Time of Speed Survey
10:00 AM TO 11:00 AM
Speed Justification
50th Percentile Speed (Mean Speed)
41 MPH
85th percentile speed limit

85th Percentile Speed 46 MPH 10 mph Pace Speed 37 TO 46

Percentage of Vehicles in Pace 75.6% Recommended Speed Limit 45 MPH

Number of Survey Samples 180

COLLISION HISTORY

Number of Years Studied3Total Collisions17Collision Rate (ACC/MVM)0.48Expected Collisions (ACC/MVM)1.60

TRAFFIC FACTORS

Average Daily Traffic 24,420 Date Counted 4/12/2011

Number of Lanes 4

Type of Traffic Control Signalized at Fountainwood Street, Eagleton Street, and Laro Drive

Crosswalks? At signalized intersections

Pedestrian Traffic Moderate
Truck Traffic Minimal
On-Street Parking No

Sidewalks? Yes, on both sides of street

Driveways? Multiple

ROADWAY FACTORS

Length of Segment 2,459'
Width 78'

Vertical Curve Slight vertical curvature

Horizontal Curve No Visibility Good

Roadway Conditions Good. Raised median.

Lighting Good

Adjacent Land Use Residential, school, park

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

			CITY	DE AC	OURA HI	II I C			
Client:		KIMI EV HO	ORN AND ASSO			ILLS			
Street:		Kanan Road	JKN AND ASSO	CIAIL	3, INC.				•
Spt.Spd. Loc	ration:		imits to Laro Dri	ve					Ref. # 11
Spuspui Loc		T torus City 2	Cumulative	Date:		4/20/2011	Dav	Wednesday	110j. // 11
Speed	Frequency	Percent	Percent	Weath	er:	Dry, clear	_ Day.	wednesday	-
13	0			Hours		10:00 AM	To	11:00 AM	Ī
14				Record		DB	- 10	11.00 7111	•
15					Speed:	45 mph			-
16					elization:	Skip dash 2 w	ay traffi	c	•
17	C			Street	Width:	N/A			
18	C	0.00%	0.00%	Comm	./Resid.:	Residential			
19	C	0.00%	0.00%	DIREC	CTION:	Northbound /	Southbo	und combined	
20	C	0.00%	0.00%	DATA	ANALYSI	S:			
21	C	0.00%	0.00%	Mean	Speed:			N/A	
22	C	0.00%	0.00%	Standa	rd Deviatio	on:		N/A	
23	C				ard error of	the mean:		N/A	
24	C				ercentile:			37	
25	C	0.00,0			ercentile:			41	
26	C				ercentile:			46	
27	C			10 Mil			37	75.56%	46
28	0				Samples in 1				
29	0				MPH pace	:		136	
30	2			Comm	ents:				
31		0.56%							
32	2			Cumulati Frequen	cy C	Sumulative Fred	quency	Distribution	า
33 34	3			120% -					
35	4		7.78%	100%					
36	10			100%					
37	10			80% -					
38	13			60%					
39	20			=					
40	15		45.56%	40%					
41	12		52.22%	20%					
42	11	6.11%	58.33%	-					
43	13		65.56%	0% -			\sqcap		
44	13	7.22%	72.78%	ζ.	0 6 6	δ φ φ γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ	್ಯ∿್ನ್ ot Speed	Muh	\$ 8 8 8
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47	6		92.22%	25 -					
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49	5 2 3	2.78%	96.67%	20 -					
50	2	1.11%	97.78%	<u>දි</u> 15 -					
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52 52	C		99.44%	je 10 -				╢╂╂╂╂╂	
53		0.56%	100.00%						
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50 57			100.00% 100.00%	"	6 VO	v v v v	_જ 4 જી		\$ 8 8 8
Total:	180		100.00%			Spo	t Speed,	mph	
100011	100	100/0							

12

STREET Kanan Road CERTIFICATION DATE:

FROM Laro Drive TO Thousand Oaks Boulevard

SPEED FACTORS

Date of Speed Survey 4/20/2011 Posted Speed Limit 40 MPH

Time of Speed Survey 11:00 AM TO 12:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 39 MPH 85th percentile speed

85th Percentile Speed 42 MPH **10 mph Pace Speed** 34 TO 43

Percentage of Vehicles in Pace 81.5% Recommended Speed Limit 40 MPH

Number of Survey Samples 178

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 45
Collision Rate (ACC/MVM) 2.13
Expected Collisions (ACC/MVM) 1.60

TRAFFIC FACTORS

Average Daily Traffic 30,208 Date Counted 4/12/2011

Number of Lanes 4

Type of Traffic Control Signalized at Laro Drive and Thousand Oaks Boulevard

Crosswalks? At signalized intersections

Pedestrian Traffic Moderate

Truck Traffic None present

On-Street Parking No

Sidewalks? Yes, on both sides of street

Driveways? Multiple drives on west side only

ROADWAY FACTORS

Length of Segment 2,024' Width 78'

Vertical Curve No Horizontal Curve No Visibility Good

Roadway Conditions Good. Raised median.

Lighting Good

Adjacent Land Use Residential, commercial

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

Client: KIMLEY HORN AND ASSOCIATES, INC. Kanan Road Laro Drive to Thousand Oaks Boulevard Ref.	
Name	
Spt.Spd. Location: Laro Drive to Thousand Oaks Boulevard Boulevard A/20/2011 Day: Wednesday Speed Frequency Percent Percent Weather: Dry, clear 13 0 0.00% 0.00% Hours: 11:00 AM To 12:00 PM 14 0 0.00% 0.00% Recorder: DB DB 15 0 0.00% 0.00% Posted Speed: 40 mph Channelization: Skip dash 2 way traffic Street Width: N/A 17 0 0.00% 0.00% Street Width: N/A 18 0 0.00% 0.00% Comm./Resid.: Commercial / Residential 19 0 0.00% 0.00% DIRECTION: Northbound / Southbound combined 20 0 0.00% 0.00% DATA ANALYSIS: 21 0 0.00% 0.00% Mean Speed: N/A 22 0 0.00% 0.00% Standard Deviation: N/A	
Speed Frequency Percent Percent Percent Weather: Dry, clear Dry, cl	<i>4</i> 12
Speed Frequency Percent Weather: Dry, clear 13 0 0.00% 0.00% Hours: 11:00 AM To 12:00 PM 14 0 0.00% 0.00% Recorder: DB DB 15 0 0.00% 0.00% Posted Speed: 40 mph 16 0 0.00% 0.00% Channelization: Skip dash 2 way traffic 17 0 0.00% 0.00% N/A 18 0 0.00% Comm./Resid.: Commercial / Residential 19 0 0.00% DIRECTION: Northbound / Southbound combined 20 0 0.00% 0.00% DATA ANALYSIS: 21 0 0.00% 0.00% Mean Speed: N/A 22 0 0.00% Standard Deviation: N/A	# 12
13	
14 0 0.00% 0.00% Recorder: DB 15 0 0.00% 0.00% 40 mph 16 0 0.00% 0.00% Skip dash 2 way traffic 17 0 0.00% 0.00% N/A 18 0 0.00% 0.00% Comm./Resid.: Commercial / Residential 19 0 0.00% 0.00% DIRECTION: Northbound / Southbound combined 20 0 0.00% 0.00% DATA ANALYSIS: 21 0 0.00% 0.00% Mean Speed: N/A 22 0 0.00% Standard Deviation: N/A	
15	
16 0 0.00% 0.00% Channelization: Skip dash 2 way traffic 17 0 0.00% 0.00% N/A 18 0 0.00% 0.00% Comm./Resid.: Commercial / Residential 19 0 0.00% DIRECTION: Northbound / Southbound combined 20 0 0.00% DATA ANALYSIS: 21 0 0.00% Mean Speed: N/A 22 0 0.00% Standard Deviation: N/A	
17 0 0.00% 0.00% Street Width: N/A 18 0 0.00% 0.00% Comm./Resid.: Commercial / Residential 19 0 0.00% 0.00% DIRECTION: Northbound / Southbound combined 20 0 0.00% 0.00% DATA ANALYSIS: 21 0 0.00% 0.00% Mean Speed: N/A 22 0 0.00% Standard Deviation: N/A	
18 0 0.00% 0.00% Comm./Resid.: Commercial / Residential 19 0 0.00% DIRECTION: Northbound / Southbound combined 20 0 0.00% DATA ANALYSIS: 21 0 0.00% D.00% Mean Speed: N/A 22 0 0.00% Standard Deviation: N/A	
19 0 0.00% 0.00% DIRECTION: Northbound / Southbound combined 20 0 0.00% 0.00% DATA ANALYSIS: 21 0 0.00% 0.00% Mean Speed: N/A 22 0 0.00% Standard Deviation: N/A	
20 0 0.00% 0.00% DATA ANALYSIS: 21 0 0.00% 0.00% Mean Speed: N/A 22 0 0.00% Standard Deviation: N/A	
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22 0 0.00% Standard Deviation: N/A	
TO THE TOTAL CONTROL OF A CONTR	
23 0 0.00% 0.00% Standard error of the mean: N/A 24 0 0.00% 15th Percentile: 35	
24 0 0.00% 15th Percentile: 35 25 0 0.00% 50th Percentile: 39	
26 0 0.00% Soft Percentile: 39 26 0 0.00% 85th Percentile: 42	
27 0 0.00% 0.00% 10 Mile Pace: 34 to	43
28 0 0.00% 0.00% 10 Mile Face: 34 to 0.00% 0.00% of Samples in 10-Mile Pace: 81.46%	43
29 2 1.12% # in 10 MPH pace: 145	
30 3 1.69% 2.81% Comments:	
31 4 2.25% 5.06%	
32 6 3.37% 8.43% Cumulative	
33 3 1 60% 10 11% Frequency Cumulative Frequency Distribution	
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36 7 3 93% 20 22% 1	
37 9 5.06% 25.28% 80%	
38 19 10.67% 35.96% 60%	
39 27 15.17% 51.12%	
40 37 20.79% 71.91% 40%	
41 19 10.67% 82.58% 20%	
42 10 5.62% 88.20%	
42 6 2.270/ 01.570/ 0%	++++++++++++++++++++++++++++++++++++++
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45 4 2.25% 97.19%	<u></u>
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Ⅰ	
56 0 0.00% 100.00% 3, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	85 85
57 0 0.00% 100.00% Spot Speed, mph	
Total: 178 100%	

13

STREET Kanan Road CERTIFICATION DATE:

FROM Thousand Oaks Boulevard TO Hillrise Drive

SPEED FACTORS

Date of Speed Survey 4/20/2011 Posted Speed Limit 40 MPH

Time of Speed Survey 11:00 AM TO 12:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 37 MPH 85th percentile speed

85th Percentile Speed41 MPH **10 mph Pace Speed**32 TO 41

Percentage of Vehicles in Pace 76.5% Recommended Speed Limit 40 MPH

Number of Survey Samples 179

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 31
Collision Rate (ACC/MVM) 1.91
Expected Collisions (ACC/MVM) 1.60

TRAFFIC FACTORS

Average Daily Traffic 31,513 Date Counted 4/12/2011

Number of Lanes 4

Type of Traffic Control Signalized at Thousand Oaks Boulevard and Hillrise Drive

Crosswalks? At signalized intersections

Pedestrian Traffic Minimal
Truck Traffic None present

On-Street Parking No.

Sidewalks? Yes, on both sides of street

Driveways? Multiple driveways on west side of street. None on east side

ROADWAY FACTORS

Length of Segment 1,364'

Width 78'

Vertical Curve Minimal
Horizontal Curve Minimal
Visibility Good

Roadway Conditions Good. Raised median.

Lighting Good

Adjacent Land Use Residential on east side, commercial on west side

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Kanan Road Spt.Spd. Location: Thousand Oaks Boulevard to Hillrise Drive Ref. # 13 Cumulative Date: 4/20/2011 Wednesday Day: Percent Speed Percent Weather: Frequency Dry, clear Hours: 13 0.00% 0.00% 11:00 AM To 12:00 PM 0 0.00% 0.00% Recorder: DB 14 0 0.00% 0.00% Posted Speed: 40 mph 15 0 0.00% 0.00% **Channelization:** Skip dash 2 way traffic 16 17 0 0.00% 0.00% Street Width: N/A 18 0 0.00% 0.00% Comm./Resid.: Commercial / Residential 0 **DIRECTION:** 19 0.00% Northbound / Southbound combined 0.00% 0 DATA ANALYSIS: 20 0.00% 0.00% 0 Mean Speed: 21 0.00% 0.00% N/A 0 0.00% Standard Deviation: N/A 22 0.00% 23 0 0.00% 0.00% Standard error of the mean: N/A 0 0.00% 0.00% 15th Percentile: 33 24 0 50th Percentile: 37 25 0.00% 0.00% 26 0 0.00% 0.00% 85th Percentile: 41 2 1.12% 1.12% 10 Mile Pace: 32 41 27 to 3 % of Samples in 10-Mile Pace: 2.79% 76.54% 28 1.68% # in 10 MPH pace: 29 4 2.23% 5.03% 137 30 2.23% 7.26% **Comments:** 5 2.79% 10.06% 31 7 13.97% 32 3.91% Cumulative **Cumulative Frequency Distribution** Frequency 33 6 3.35% 17.32% 120% 8 21.79% 34 4.47% 35 18 31.84% 100% 10.06% 25 36 13.97% 45.81% 80% 23 37 12.85% 58.66% 38 20 11.17% 69.83% 60% 39 15 8.38% 78.21% 40% 8 4.47% 82.68% 40 41 7 3.91% 86.59% 20% 2.79% 89.39% 42 0% 43 6 3.35% 92.74% z Ó ďρ P 3 2 00 44 6 3.35% 96.09% Spot Speed, mph 4 2.23% 98.32% 45 3 100.00% 46 1.68% **Frequency Distribution** 0 47 0.00% 100.00% 0 0.00% 48 100.00% 25 49 0 0.00% 100.00% 20 15 10 50 0 0.00% 100.00% 0 0.00% 51 100.00% 52 0 0.00% 100.00% 53 0.00% 100.00% 54 0.00% 100.00% 5 0.00% 100.00% 55 56 0 0.00% 100.00% J. BA 57 0.00% 100.00% Spot Speed, mph Total: 179 100%

14

STREET Kanan Road CERTIFICATION DATE:

FROM Hillrise Drive TO Canwood Street

SPEED FACTORS

Date of Speed Survey 4/20/2011 Posted Speed Limit 40 MPH

Time of Speed Survey 12:00 PM TO 1:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 38 MPH 85th percentile speed

85th Percentile Speed41 MPH **10 mph Pace Speed**34 TO 43

Percentage of Vehicles in Pace 85.1% Recommended Speed Limit 45 MPH

Number of Survey Samples 154

COLLISION HISTORY

Number of Years Studied3Total Collisions26Collision Rate (ACC/MVM)0.90Expected Collisions (ACC/MVM)1.15

TRAFFIC FACTORS

Average Daily Traffic 25,691 Date Counted 4/12/2011

Number of Lanes 5

Type of Traffic Control Signalized at Hillrise Drive and Canwood Street

Crosswalks? At signalized intersections

Pedestrian Traffic Minimal
Truck Traffic Moderate

On-Street Parking 2-hour parking from Canwood Street to Hillrise Drive on east side only

Sidewalks? Yes, on both sides of street

Driveways? No

ROADWAY FACTORS

Length of Segment 1,467'
Width 78'

Vertical Curve Yes Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Good. Raised median.

Lighting Good

Adjacent Land Use Commercial, residential, freeway

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

				CITY	DE AC	OURA HI	11 1 5			
Client:			KIMI EV HO	ORN AND ASSO			LLS			
Street:			Kanan Road	UKIN AND ASSO	CIATE	3, INC.				•
Spt.Spd. I	ocation			e to Canwood Str	reet					Ref. # 14
ориори. 1	Joeation.		Thin ise Direct	Cumulative	Date:		4/20/2011	Dov	Wednesday	Кеј. // 14
Speed	Freque	encv	Percent	Percent	Weath	er•	Dry, clear	_ Day.	wednesday	-
•	13	0			Hours		12:00 PM	To	1:00 PM	•
	14	0			Record		DB	_ 10	1.00 1 101	=
	15	0	0.00%			Speed:	40 mph			
	16	0	0.00%			elization:	Skip dash 2 w	av traffic	?	•
	17	0	0.00%			Width:	N/A	uj trumi		
	18	0	0.00%			./Resid.:	Residential			
	19	0	0.00%			CTION:	Northbound /	Southbo	und combined	
/	20	0	0.00%	0.00%	DATA	ANALYSI	S:			
2	21	0	0.00%	0.00%	Mean	Speed:			N/A	
,	22	0	0.00%			rd Deviatio	n:		N/A	
,	23	0	0.00%	0.00%	Standa	rd error of	the mean:		N/A	
,	24	0	0.00%			ercentile:			34	
2	25	0	0.00%			ercentile:			38	
2	26	0	0.00%			ercentile:			41	
,	27	0	0.00%		10 Mil			34	to	43
	28	1	0.65%			_	0-Mile Pace:		85.06%	
	29	2	1.30%			MPH pace	::		131	
	30	3	1.95%		Comm	ents:				
	31	4	2.60%	6.49%						
	32	4	2.60%	9.09%	Cumulati Frequen	ve cv C	cumulative Free	guency	Distribution	n
	33	4	2.60%	11.69%	120%	Ly -		44067	2.01	•
	34	7	4.55%	16.23%						
	35	5	3.25%	19.48%	100%					
	36	11	7.14%	26.62%	80%					
	37	19	12.34%	38.96%	000/					
	38	24	15.58%	54.55%	60%				/	
	39	23	14.94%	69.48%	40%				/	
	40 41	19 12	12.34% 7.79%	81.82% 89.61%	000/					
					20% -					
	42 43	5 6	3.25% 3.90%	92.86% 96.75%	0%					
	44	3	1.95%	98.70%	ζ:	· 10 10	Ŷ \$ \$ \$\d	3ª 3¹	10 13 10	\$ 63 65
	45	1	0.65%	99.35%			Sp	ot Speed,	, mph	
	46	1	0.65%	100.00%			F	D!: "	L4! c	Ī
	47	0	0.00%	100.00%			Frequenc	y Distri	noitua	
	48	0	0.00%	100.00%	25 -				I -	
	49	0	0.00%	100.00%	20 -					
	50	0	0.00%	100.00%				1		
	51	0	0.00%	100.00%	Frequency = 01				H	
	52	0	0.00%	100.00%	ne de 10 -			,I	Ші	
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	57	0	0.00%	100.00%				t Speed,		, ., .,
Total:		154	100%						•	

15

STREET Kanan Road CERTIFICATION DATE:

FROM Canwood Street TO Agoura Road

SPEED FACTORS

Date of Speed Survey 4/20/2011 Posted Speed Limit 35 MPH

Time of Speed Survey 1:00 PM TO 2:00 PM Speed Justification

50th Percentile Speed (Mean Speed) 38 MPH 85th percentile speed downgraded due to high collison rate

85th Percentile Speed 41 MPH **10 mph Pace Speed** 34 TO 43

Percentage of Vehicles in Pace 85.1% Recommended Speed Limit 35 MPH

Number of Survey Samples 154

COLLISION HISTORY

Number of Years Studied 3 Total Collisions 64

Collision Rate (ACC/MVM) 3.90 Expected Collisions (ACC/MVM) 1.15

TRAFFIC FACTORS

Average Daily Traffic 25,443 Date Counted 4/12/2011

Number of Lanes 5

Type of Traffic ControlSignalized at Canwood Street, Roadside Road, Agoura Road and Freeway

Crosswalks? At Roadside Road, Agoura Road and Canwood Street

Pedestrian TrafficModerateTruck TrafficModerateOn-Street ParkingNo

Sidewalks? Yes, on both sides of street

Driveways? Multiple

ROADWAY FACTORS

Length of Segment 1,265'
Width 78'

Width Vertical Curve No

Horizontal Curve No
Visibility Good

Roadway Conditions Good. Raised median. Striped median between Agoura Road and Roadside Drive

Lighting Good

Adjacent Land Use Commercial, freeway

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

			CITY	OF AGOURA HI	IIC		
Client:		VIMI EV U	ORN AND ASSO		LLS		
Street:		Kanan Road	DKIN AND ASSO	CIATES, INC.			-
Spt.Spd. Lo	cation•		eet to Agoura Ro	ad			Ref. # 15
Spt.Spt. Lo	Tation.	Canwood Bu	Cumulative	Date:	4/20/2011	Day: Wednesday	Rej. 11 13
Speed	Frequency	Percent	Percent	Weather:	Dry, clear	Day. Wednesday	_
13	- •			Hours:	1:00 PM	To 2:00 PM	
14				Recorder:	DB		-
15				Posted Speed:	40 mph		-
16	-			Channelization:	Skip dash 2 w	av traffic	-
17		0.00%		Street Width:	N/A	,	
18	0	0.00%	0.00%	Comm./Resid.:	Commercial		
19	0	0.00%	0.00%	DIRECTION:	Northbound /	Southbound combined	
20	0	0.00%	0.00%	DATA ANALYSIS	:		
21	0	0.00%	0.00%	Mean Speed:		N/A	
22	0	0.00%	0.00%	Standard Deviation	n:	N/A	
23	0	0.00%		Standard error of	the mean:	N/A	
24		0.00%		15th Percentile:		34	
25		0.00%		50th Percentile:		38	
26		0.00%		85th Percentile:		41	
27		0.00%		10 Mile Pace:		34 to	43
28		0.65%		% of Samples in 10		85.06%	
29				# in 10 MPH pace:		131	
30		1.95%		Comments:			
31		2.60%	6.49%				
32 33		2.60% 2.60%	9.09% 11.69%	Cumulative Frequency CI	umulative Free	quency Distribution	n
34		4.55%	16.23%	120% -			
35		3.25%	19.48%	100%			
36		7.14%	26.62%				
37		12.34%	38.96%	80%			
38		15.58%	54.55%	60%		/	
39		14.94%	69.48%	1		/	
40		12.34%	81.82%	40%			
41	12	7.79%	89.61%	20%			
42	5	3.25%	92.86%			/	
43	6	3.90%	96.75%	0% 1)	3 ^k 3 ^l k ⁰ k ³ k ⁶	\$ \$ \$ \$
44		1.95%	98.70%	\ \s\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		ot Speed, mph	γ , φ, φ,
45		0.65%	99.35%		<u> </u>		H
46		0.65%	100.00%		Frequenc	y Distribution	
47		0.00%	100.00%	25 —			
48			100.00%			lı .	
49			100.00%	20			
50			100.00%	<u>ව</u> 15			
51 52			100.00% 100.00%	en		_IIII.	
52			100.00%	2 10		1111111	
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55			100.00%		.,11		
56			100.00%	0 1			
57			100.00%	3 6 6 6	0 6 6 3	3 3 6 6 6	\$ 83 85 B
Total:	154		- 3.3370		Spo	t Speed, mph	

16

STREETKanan RoadCERTIFICATION DATE:FROMAgoura RoadTOSouth City Limit

SPEED FACTORS

Date of Speed Survey 4/20/2011 Posted Speed Limit 35 NB 45 SB

Time of Speed Survey 2:00 PM TO 3:00 PM Speed Justification

50th Percentile Speed (Mean Speed) 45 MPH 85th percentile downgraded due restricted sight distance from

85th Percentile Speed 49 MPH horizontal and vertical road curvature

10 mph Pace Speed 41 TO 50

Percentage of Vehicles in Pace 88.0% Recommended Speed Limit 45 MPH

Number of Survey Samples 158

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 23

Collision Rate (ACC/MVM) 0.40

Expected Collisions (ACC/MVM) 2.55

TRAFFIC FACTORS

Average Daily Traffic 16,390 Date Counted 4/12/2011

Number of Lanes 2

Type of Traffic Control Signalized at Agoura Road, 1-way stop at Cornell Road

Crosswalks? At Agoura Road
Pedestrian Traffic None present

Truck Traffic Yes
On-Street Parking No
Sidewalks? No
Driveways? No

ROADWAY FACTORS

Length of Segment 1,455'
Width 36'

Vertical Curve Yes Horizontal Curve Yes

Visibility Restriction due to road curvature

Roadway Conditions Rough road in some areas. Striped median.

Lighting None

Adjacent Land Use Empty lots, residential

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

					CITY C	DF AG	OURA	НІІ	IS						
Client:				KIMI FY HO	ORN AND ASSO										
Street:				Kanan Road	JKI TAND ASSO	CIAIL	5, II (C.							_	
Spt.Spd.	Loc	eation:	_		to South City Li	mits									16
~ F F			Ī	8	Cumulative	Date:			4/20	0/2011	Day	. ,	Wednesday		
Speed		Frequency		Percent	Percent	Weath	er:		Dry, o		_ <i>Duy</i>	• –	** canesaay	_	
~p***	13	_ •	0	0.00%		Hours				00 PM	То	_	3:00 PM	-	
	14		0	0.00%		Record			DB	70 1 141	_ 10	_	3.00 T IVI	_	
	15		0	0.00%			Speed:		45 M	PH				_	
	16		0	0.00%			elizatio			dash 2 w	av traft	fic		_	
	17		0	0.00%			Width:		N/A		uj trur				
	18	(0	0.00%			./Resid		N/A						
	19	(0	0.00%	0.00%	DIRE	CTION	:		bound /	Southb	oun	nd combined	d	
	20	(0	0.00%	0.00%	DATA	ANAL	YSIS	:						
	21	(0	0.00%		Mean							N/A		
	22	(0	0.00%			ard Dev	iation	:		-		N/A		
	23	(0	0.00%	0.00%	Standa	ard erro	or of t	he mea	ın:	-		N/A		
	24	(0	0.00%	0.00%	15th P	ercenti	le:					42	,	
	25	(0	0.00%	0.00%	50th P	ercentil	le:					45	i	
	26	(0	0.00%	0.00%	85th P	ercentil	le:					49)	
	27	(0	0.00%	0.00%	10 Mil	e Pace:				41		to		50
	28	(0	0.00%	0.00%	% of S	Samples	in 10	-Mile l	Pace:			87.97%		
	29	(0	0.00%	0.00%	# in 10	MPH 1	pace:					139		
	30	(0	0.00%	0.00%	Comm	ents:								
	31	(0	0.00%	0.00%										
	32	(0	0.00%	0.00%	Cumulati		C	ımıılat	ivo Ero	allone	D	Distributio	n	
	33	(0	0.00%	0.00%	Frequen	cy	Cu	iiiiuiai	IVEFIE	quenc	у	nsuibulio		
	34	(0	0.00%	0.00%	12070									
	35	1	1	0.63%	0.63%	100%									
	36	1	1	0.63%	1.27%	80%								-/-	
	37		2	1.27%	2.53%										
	38		2	1.27%	3.80%	60%								/	
	39		3	1.90%	5.70%	40%							/_		
	40		2	1.27%	6.96%	1070									
	41	-	9	5.70%	12.66%	20% -							-/-		
	42		9	5.70%	18.35%	0%									
	43	13		8.23%	26.58%	, v	, 6	′્રે જે	\ \fo	2° 3'	ngN n	3\	N & ON	, ko	69 65 1
	44	18		11.39%	37.97%	`	•	. ,	V		ot Spee	d, n		-	
	45	22		13.92%	51.90%										
	46	19		12.03%	63.92%				Fre	equenc	y Dist	ribu	ution		
	47	18		11.39%	75.32%	25 -									
	48	13		8.23% 6.33%	83.54%										
	49 50	10	0 8	5.06%	89.87% 94.94%	20 -								l .	
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	52		6 2	1.27%	100.00%	ank									
	53		0	0.00%	100.00%	<u>ğ</u> 10 -									
	54		0	0.00%	100.00%	5 -								¦∦∦∦ <mark>∦</mark>	
	55		0	0.00%	100.00%								1.[[[[]]]		
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Total:	<i>.</i> 1	158		100%	100.0070					Spo	t Speed	I, m	ph		
		100		_ 5570	ļ										

17

STREET Liberty Canyon Road CERTIFICATION DATE:

FROM Agoura Road TO Country Glen Road

SPEED FACTORS

Date of Speed Survey 4/20/2011 Posted Speed Limit 40 MPH

Time of Speed Survey2:00 PM TO 3:00 PMSpeed Justification50th Percentile Speed (Mean Speed)37 MPH85th percentile speed

85th Percentile Speed 40 MPH **10 mph Pace Speed** 32 TO 41

Percentage of Vehicles in Pace 83.0% Recommended Speed Limit 40 MPH

Number of Survey Samples 176

COLLISION HISTORY

Number of Years Studied 3

Total Collisions

Collision Rate (ACC/MVM)

Expected Collisions (ACC/MVM) 2.55

TRAFFIC FACTORS

Average Daily Traffic 4,161 Date Counted 4/12/2011

Number of Lanes

Type of Traffic Control Signalized at Agoura Road, 4-way Stop at Country Glen Road

Crosswalks? At Agoura Road and Country Glen Road

Pedestrian Traffic Minimal
Truck Traffic None present

On-Street Parking On west side of street only Sidewalks? Yes, on both sides of street

Driveways? No

ROADWAY FACTORS

Length of Segment 1,217'

Width 84'

Vertical CurveSlight road curvature downhill in the southbound direction **Horizontal Curve**No

Visibility Good
Roadway Conditions Good
Lighting Good
Adjacent Land Use Residential

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

Client:				CITY	OF AGOURA HILLS	
iv Heili:			KIMLEY HO	ORN AND ASSO		
Street:			Liberty Cany		VEHTLES, IIVC.	
Spt.Spd. 1	Loc	ation:		to Country Glen	n Road Re	f. # 17
				Cumulative	Date: 4/20/2011 Day: Wednesday	,
Speed		Frequency	Percent	Percent	Weather: Dry, clear	
	13	0	0.00%	0.00%	Hours: 2:00 PM To 3:00 PM	
	14	0			Recorder: DB	
	15	0		0.00%	Posted Speed: 40 mph	
	16	0			Channelization: Skip dash 2 way traffic	
	17	0	0.00%	0.00%	Street Width: N/A	
	18	0	0.00%	0.00%	Comm./Resid.: Residential	
	19	0	0.00%	0.00%	DIRECTION: Northbound / Southbound combined	
	20	0	0.00%	0.00%	DATA ANALYSIS:	
	21	0	0.00%	0.00%	Mean Speed: N/A	
	22	0	0.00%	0.00%	Standard Deviation: N/A	
	23	0	0.00%	0.00%	Standard error of the mean: N/A	
	24	0	0.00%		15th Percentile: 32	
	25	0	0.00%		50th Percentile: 37	
	26	2	1.14%		85th Percentile: 40	
	27	1	0.57%		10 Mile Pace: 32 to	41
	28	2	1.14%		% of Samples in 10-Mile Pace: 82.95%	
	29	4	2.27%		# in 10 MPH pace: 146	
	30	5	2.84%		Comments:	
	31	6	3.41%	11.36%		
	32	9	5.11%	16.48%	II - (*IIMIII3tiVA FradilancV i listriniitian	
	33	10	5.68%	22.16%	120% -	
	34	13	7.39%	29.55%		
	35	16		38.64%	100%	
	36	18	10.23%	48.86%	80%	
	37	19	10.80%	59.66%	II 1	
	38	18	10.23%	69.89%	60%	
	39	20	11.36%	81.25% 89.77%	40%	
	40 41	15 8	8.52% 4.55%	94.32%	000/	
					II 1	
	42 43	5 3	2.84% 1.70%	97.16% 98.86%	 0% 	
	44	2	1.70%	100.00%		\$ 63 65 \$
	45	0		100.00%	Spot Speed, mph	
	46	0	0.00%	100.00%		
	47	0	0.00%	100.00%	Frequency Distribution	
	48	0	0.00%	100.00%	25	
	49	0	0.00%	100.00%		
	50	0	0.00%	100.00%	-1.1	
	51	0		100.00%	ြို့ 15 	
	52	0		100.00%		
	53	0		100.00%		
	54	0		100.00%	5	
	55	0		100.00%		
	56	0		100.00%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$? 67 65
	57	0	0.00%	100.00%	Spot Speed, mph	2 W. W.
Total:		176	100%		Spot Speed, Ilipii	

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STREET Palo Comado Canyon Road/Chesebro Road CERTIFICATION DATE:

FROM Agoura Road TO US 101 Freeway

SPEED FACTORS

Date of Speed Survey 7/28/2011 Posted Speed Limit 35 MPH

Time of Speed Survey 12:00 PM TO 1:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 30 MPH 85th percentile speed

85th Percentile Speed 33 MPH **10 mph Pace Speed** 24 TO 33

Percentage of Vehicles in Pace 75.5% Recommended Speed Limit 35 MPH

Number of Survey Samples 163

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 16
Collision Rate (ACC/MVM) 6.76
Expected Collisions (ACC/MVM) 2.55

TRAFFIC FACTORS

Average Daily Traffic 4,114 Date Counted 4/12/2011

Number of Lanes

Type of Traffic Control 4-way Stop at Agoura Road, 1-way Stop at Dorothy Drive

Crosswalks? At Agoura Road

Pedestrian Traffic Minimal
Truck Traffic None present

On-Street Parking On the east side of street only

Sidewalks? On east side of street from Agoura Road to Freeway only

Driveways? Minimal on east side of street

ROADWAY FACTORS

Length of Segment 1,040'
Width 40' (Varies)

Vertical Curve No Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Good Lighting Minimal

Adjacent Land Use Residential, freeway

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

				CITY	OF AGOURA HI	LIS			
Client:			KIMLEY HO	ORN AND ASSO		LLS			
Street:				Canyon Road /					_
Spt.Spd.	Loc	ation:		to US 101 Freev					Ref. # 18A
- P P				Cumulative	Date:	7/28/2011	Day:	Thursday	-1-9
Speed		Frequency	Percent	Percent	Weather:	Dry, clear		Thursday	_
- F	13	0			Hours:	12:00 PM	To	1:00 PM	_
	14	0	0.00%		Recorder:	DB	_ 10	1.00 1 141	_
	15	0	0.00%		Posted Speed:	35 mph			_
	16	0	0.00%		Channelization:	Skip dash 2 w	av traffic	<u> </u>	_
	17	0	0.00%	0.00%	Street Width:	N/A			
	18	1	0.61%	0.61%	Comm./Resid.:	Commercial /	Resident	ial	
	19	1	0.61%	1.23%	DIRECTION:	Northbound /	Southbou	and combined	d
	20	3	1.84%	3.07%	DATA ANALYSIS	S:			
	21	4	2.45%	5.52%	Mean Speed:			N/A	
	22	3	1.84%		Standard Deviatio	n:		N/A	
	23	4	2.45%	9.82%	Standard error of	the mean:		N/A	
	24	5	3.07%	12.88%	15th Percentile:			25	5
	25	12	7.36%	20.25%	50th Percentile:			30)
	26	9	5.52%	25.77%	85th Percentile:			33	3
	27	10	6.13%	31.90%	10 Mile Pace:		24	to	33
	28	8	4.91%	36.81%	% of Samples in 1	0-Mile Pace:		75.46%	ı
	29	14	8.59%		# in 10 MPH pace	:		152	
	30	18	11.04%	56.44%	Comments:				
	31	23	14.11%	70.55%					
	32	15	9.20%	79.75%	Cumulative Frequency C	umulative Fre	allency	Distributio	n
	33	9	5.52%	85.28%	120% ¬	umulative i ie	quericy	Distributio	••
	34	5	3.07%	88.34%	1				
	35	7	4.29%	92.64%	100%				
	36	6	3.68%	96.32%	80%				
	37	2	1.23%	97.55%]		•		
	38	3	1.84%	99.39%	60%				
	39	1	0.61%	100.00%	40%				
	40	0	0.00%	100.00%					
	41	0	0.00%	100.00%	20%				
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Total:	51	163	100%	100.0070		Spo	t Speed,	mph	

19

CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

STREET Reyes Adobe Road CERTIFICATION DATE:

FROM North City Limit TO Thousand Oaks Boulevard

SPEED FACTORS

Date of Speed Survey 7/28/2011 Posted Speed Limit 40 MPH

Time of Speed Survey 1:00 PM TO 2:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 37 MPH 85th percentile speed

85th Percentile Speed40 MPH **10 mph Pace Speed**32 TO 41

Percentage of Vehicles in Pace 77.9% Recommended Speed Limit 40 MPH

Number of Survey Samples 172

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 8
Collision Rate (ACC/MVM) 1.17
Expected Collisions (ACC/MVM) 2.00

TRAFFIC FACTORS

Average Daily Traffic 6,772 Date Counted 4/12/2011

Number of Lanes 4

Type of Traffic Control

4-way stop at Lindero Canyon, 1-way stop at Rainbow Hill Road, 2-way stop at Stonecrest Drive, signalized at Thousand Oaks Roulevard

at Thousand Oaks Boulevard

Crosswalks?

At signalized intersections

Pedestrian Traffic None present

Truck Traffic Yes

On-Street Parking None present

Sidewalks? Yes, on both sides of street

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 3,660'
Width 60'

Vertical Curve Minimal
Horizontal Curve Minimal
Visibility Good

Roadway Conditions Good. Striped median.

Lighting Good

Adjacent Land Use Residential, school

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

				CITY	OF AGOURA HILLS
Client:			VIMI EV U	ORN AND ASSO	
Street:			Reyes Adobe		SCIATES, INC.
Spt.Spd.	Loc	ation•			nd Oaks Boulevard Ref. # 19A
opuopu.	Loc	ation.	I TOTAL CITY E	Cumulative	Date: 7/28/2011 Day: Thursday
Speed		Frequency	Percent	Percent	Weather: Dry, clear
Specu	13	O			6 Hours: 1:00 PM To 2:00 PM
	13	0			1:00 PM
	15	0			Posted Speed: 40 mph
	16	0			Channelization: Skip dash 2 way traffic
	17	0			Street Width: N/A
	18	0			Comm./Resid.: Residential
	19	0			b DIRECTION: Northbound / Southbound combined
	20	0			DATA ANALYSIS:
	20	0			Mean Speed: N/A
	21				Standard Deviation: N/A
	23	0	0.00%		Standard Deviation: N/A Standard error of the mean: N/A
	23 24	1			5 Standard error of the mean: N/A 31
	25	2 3	1.74%		5 50th Percentile: 37
	26	3			85th Percentile: 40
	27	3			
	28	3	0.58%		6 10 Mile Pace: 32 to 41 6 % of Samples in 10-Mile Pace: 77.91%
	29	1			# in 10 MPH pace: 115
	30	5 5			Comments:
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	43	3 2	1.74%		
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	47	0		100.00%	
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	49	0		100.00%	75
	50	0		100.00%	4 20 1
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	55 55	0		100.00%	
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	50 57	0		100.00%	
Total:	31	172		100.00%	Spot Speed, mph
เบเสเ		1/2	100%		

20

STREET Reyes Adobe Road CERTIFICATION DATE:

FROM Thousand Oaks Boulevard TO Agoura Road

SPEED FACTORS

Date of Speed Survey 7/28/2011 Posted Speed Limit 40 MPH

Time of Speed Survey2:00 PM TO 3:00 PMSpeed Justification50th Percentile Speed (Mean Speed)38 MPH85th percentile speed

85th Percentile Speed 42 MPH **10 mph Pace Speed** 34 TO 43

Percentage of Vehicles in Pace 63.4% Recommended Speed Limit 40 MPH

Number of Survey Samples 164

COLLISION HISTORY

Number of Years Studied3Total Collisions52Collision Rate (ACC/MVM)0.51Expected Collisions (ACC/MVM)2.00

TRAFFIC FACTORS

Average Daily Traffic 12,120 Date Counted 4/12/2011

Number of Lanes 4

Type of Traffic Control Signalized at Thousand Oaks Boulevard and Agoura Road

Crosswalks? At signalized intersections

Pedestrian Traffic Minimal
Truck Traffic Moderate
On-Street Parking No

Sidewalks? Yes, on both sides of street

Driveways? No

ROADWAY FACTORS

Length of Segment 3,875'
Width 60'

Vertical CurveNoHorizontal CurveNoVisibilityGoodRoadway ConditionsGoodLightingGood

Adjacent Land Use Residential, Park

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

				CITY	OF AGOU	D 4 1111	I C			
Cliant			ZIMI EX HO				LS			
Client: Street:				DRN AND ASSO	CIATES, IN	C.				_
Spt.Spd.	Τ	otion.	Reyes Adobe	iks Boulevard to	A gourg Pood	1				Pof # 201
spr.spa.	Loc	auon:	Thousand Oa			1	7/00/0011	- D	TD1 1	Ref. # 20A
C 1		T	D4		Date:		7/28/2011	_ Day:	Thursday	_
Speed		Frequency	Percent	Percent	Weather:		Dry, clear			_
	13	0			Hours:		2:00 PM	To	3:00 PM	_
	14	0	0.00%		Recorder:	_	DB			_
	15	0	0.00%		Posted Spec		40 mph			_
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	17	0	0.00%		Street Wid		N/A			
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	25	2	1.22%		50th Percer				38	
	26	4	2.44%		85th Percei				42	
	27	5	3.05%		10 Mile Pa		Mar D	34	to	43
	28	8	4.88%		% of Samp		-Mile Pace:		63.41%)
	29	7	4.27%		# in 10 MP				103	
	30	4	2.44%		Comments:					
	31	6	3.66%	21.95%						
	32 33	4 5	2.44% 3.05%	24.39% 27.44%	Cumulative Frequency	Cu	mulative Free	quency	Distributio	n
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	35	6 8	4.88%	35.98%	100%					
	36	10	6.10%	42.07%	10070					
	37	11	6.71%	48.78%	80%					
	38	11	6.71%	55.49%	60%					
	39	15	9.15%	64.63%						
	40	17	10.37%	75.00%	40%					
	41	11	6.71%	81.71%	20%					
	42	8	4.88%	86.59%						
	43	7	4.27%	90.85%	0% 1					
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m ()	57	0	0.00%	100.00%	' '	· <i>V</i>		t Speed,		
Total:		164	100%				<u> </u>	- /	-	

21

STREET Roadside Drive CERTIFICATION DATE:

FROM Kanan Road TO Lewis Street

SPEED FACTORS

Date of Speed Survey 4/21/2011 Posted Speed Limit 40 MPH

Time of Speed Survey 11:00 AM TO 12:00 PM Speed Justification

50th Percentile Speed (Mean Speed)41 MPH85th percentile speed downgraded due to sight restriction from85th Percentile Speed46 MPHvertical road curvature, rough road conditions, and no sidewalks

10 mph Pace Speed 37 TO 46 on north side of road segment

Percentage of Vehicles in Pace 80.1% Recommended Speed Limit 40 MPH

Number of Survey Samples 151

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 13

Collision Rate (ACC/MVM) 1.57 Expected Collisions (ACC/MVM) 2.55

TRAFFIC FACTORS

Average Daily Traffic 6,081 Date Counted 4/12/2011

Number of Lanes 2

Type of Traffic Control Signalized at Kanan Road, 3-way stop at Cornell Road Crosswalks? At Kanan Road only. Horse crossing sign-no crosswalk.

Pedestrian Traffic Moderate
Truck Traffic Yes

On-Street Parking 2-hour parking on south side of street for portion of segment

Sidewalks? On south side of street for portion of segment only

Driveways? Multiple

ROADWAY FACTORS

Length of Segment 5,560'
Width 42'

Vertical Curve Yes Horizontal Curve No

Visibility Restriction due to road curvature Roadway Conditions Rough road in some areas

Lighting On south side of street only and for a portion of the segment only

Adjacent Land Use Commercial

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Roadside Drive Spt.Spd. Location: Kanan Road to Lewis Street Ref. # 21 Cumulative Date: 4/21/2011 Day: Thursday Percent Speed Percent Weather: Frequency Dry, clear Hours: 13 0.00% 0.00% 11:00 AM To 12:00 PM 0 0.00% 0.00% Recorder: DB 14 15 0 0.00% 0.00% Posted Speed: 40 mph 0 0.00% 0.00% **Channelization:** Skip dash 2 way traffic 16 17 0 0.00% 0.00% Street Width: N/A 18 0.00% 0.00% Comm./Resid.: Commercial 0 **DIRECTION:** 19 0.00% 0.00% Eastbound / Westbound Combined 0 DATA ANALYSIS: 20 0.00% 0.00% 0 Mean Speed: 21 0.00% 0.00% N/A 22 0 0.00% Standard Deviation: N/A 0.00% 23 0 0.00% 0.00% Standard error of the mean: N/A 0 0.00% 0.00% 15th Percentile: 37 24 0 50th Percentile: 41 25 0.00% 0.00% 26 0 0.00% 0.00% 85th Percentile: 46 0 0.00% 0.00% 10 Mile Pace: 37 46 27 to % of Samples in 10-Mile Pace: 0 80.13% 28 0.00% 0.00% # in 10 MPH pace: 29 0.00% 0.00% 121 30 0.00% 0.00% **Comments:** 0.66% 0.66% 31 Cumulative 32 0.66% 1.32% **Cumulative Frequency Distribution** Frequency 33 2 1.32% 2.65% 120% 2 34 1.32% 3.97% 3 100% 35 1.99% 5.96% 36 6 3.97% 9.93% 80% 9 37 5.96% 15.89% 9 38 5.96% 21.85% 60% 15 39 9.93% 31.79% 40% 21 13.91% 45.70% 40 41 16 10.60% 56.29% 20% 64.90% 42 13 8.61% 0% 43 10 6.62% 71.52% n.A z ď, ďρ Q 44 5.30% 76.82% 8 Spot Speed, mph 10 6.62% 83.44% 45 6.62% 10 90.07% 46 **Frequency Distribution** 47 8 5.30% 95.36% 25 5 48 3.31% 98.68% 49 2 1.32% 100.00% 20 0 50 0.00% 100.00% Frequency 10 0 0.00% 51 100.00% 52 0 0.00% 100.00% 53 0.00% 100.00% 0.00% 54 100.00% 5 0.00% 100.00% 55 56 0 0.00% 100.00% BA š 57 0.00% 100.00% Spot Speed, mph Total: 151 100%

22

STREET Thousand Oaks Bouelvard CERTIFICATION DATE:

FROM West City Limit TO Reyes Adobe Road

SPEED FACTORS

Date of Speed Survey 4/21/2011 Posted Speed Limit 45 MPH

Time of Speed Survey 12:00 PM TO 1:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 43 MPH 85th percentile speed

85th Percentile Speed 46 MPH **10 mph Pace Speed** 38 TO 47

Percentage of Vehicles in Pace 89.2% Recommended Speed Limit 45 MPH

Number of Survey Samples 166

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 6
Collision Rate (ACC/MVM) 0.61
Expected Collisions (ACC/MVM) 1.60

TRAFFIC FACTORS

Average Daily Traffic 12,751 Date Counted 4/13/2011

Number of Lanes 4

Type of Traffic Control Signalized at Lake Lindero Road and Reyes Adobe Road

Crosswalks? At signalized intersections

Pedestrian Traffic Minimal
Truck Traffic None present

On-Street Parking No

Sidewalks? Yes, on both sides of street

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 2,465'
Width 80'

Vertical Curve Minimal Horizontal Curve Yes

Visibility Some restriction due to road curvature

Roadway Conditions Good. Raised median.

Lighting Good

Adjacent Land Use Residential, some commercial

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Thousand Oaks Boulevard Spt.Spd. Location: West City Limits to Reyes Adobe Road Ref. # 22 Cumulative Date: 4/21/2011 Day: Thursday Percent Speed Percent Weather: Frequency Dry, clear Hours: 13 0.00% 0.00% 12:00 PM To 1:00 PM 0 0.00% 0.00% Recorder: DB 14 15 0 0.00% 0.00% Posted Speed: 45 mph 0 0.00% 0.00% **Channelization:** Skip dash 2 way traffic 16 17 0 0.00% 0.00% Street Width: N/A 18 0 0.00% 0.00% Comm./Resid.: Residential 0 **DIRECTION:** 19 0.00% 0.00% Eastbound / Westbound Combined 0 DATA ANALYSIS: 20 0.00% 0.00% 0 Mean Speed: 21 0.00% 0.00% N/A 0 0.00% Standard Deviation: N/A 22 0.00% 23 0 0.00% 0.00% Standard error of the mean: N/A 0 0.00% 0.00% 15th Percentile: 39 24 0 50th Percentile: 43 25 0.00% 0.00% 26 0 0.00% 0.00% 85th Percentile: 46 0 0.00% 0.00% 10 Mile Pace: 38 47 27 to 0 % of Samples in 10-Mile Pace: 89.16% 28 0.00% 0.00% # in 10 MPH pace: 29 0 0.00% 0.00% 148 30 0 0.00% 0.00% **Comments:** 31 0 0.00% 0.00% 0 0.00% 32 0.00% Cumulative **Cumulative Frequency Distribution** Frequency 33 0.00% 0.00% 120% 34 0.60% 0.60% 100% 35 0.60% 1.20% 2 36 1.20% 2.41% 80% 5 37 3.01% 5.42% 7 38 4.22% 9.64% 60% 10 39 6.02% 15.66% 40% 14 8.43% 24.10% 40 41 10 6.02% 30.12% 20% 17 40.36% 42 10.24% 0% 43 22 13.25% 53.61% z Ó ďρ nA Q_{A} 25 44 15.06% 68.67% Spot Speed, mph 19 11.45% 80.12% 45 16 9.64% 89.76% 46 **Frequency Distribution** 47 8 4.82% 94.58% 6 48 3.61% 98.19% 25 49 2 1.20% 99.40% 20 50 0.60% 100.00% **Frequency** 10 0 0.00% 51 100.00% 52 0 0.00% 100.00% 53 0.00% 100.00% 0.00% 54 100.00% 5 0.00% 100.00% 55 56 0 0.00% 100.00% 5 zΔ B PO ď 57 0.00% 100.00% Spot Speed, mph Total: 166 100%

23

CITY OF AGOURA HILLS ENGINEERING AND TRAFFIC SURVEY

STREET Thousand Oaks Boulevard CERTIFICATION DATE:
FROM Reves Adobe Road TO Buffwood Place

SPEED FACTORS

Date of Speed Survey
4/21/2011
Posted Speed Limit
40 MPH
Time of Speed Survey
1:00 PM TO 2:00 PM
Speed Justification
85th Percentile Speed (Mean Speed)
42
85th Percentile Speed
46
Speed Limit
40 MPH
Speed Justification
85th percentile speed downgraded due to sight restriction from horizontal road curvature and residential density

10 mph Pace Speed 38 TO 47

Percentage of Vehicles in Pace 85.6% Recommended Speed Limit 40 MPH Number of Survey Samples 167

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 19
Collision Rate (ACC/MVM) 0.32
Expected Collisions (ACC/MVM) 1.60

TRAFFIC FACTORS

Average Daily Traffic 13,406 Date Counted 4/13/2011

Number of Lanes 4

Type of Traffic Control

Signalized at Kanan Road, Forest Cove Lane, Grey Rock Road; 2-way stop at Middle Crest Drive, 1-way

stop at Rista Drive, Ironwood Drive, Tenneyson Drive, and Buffwood Place

Crosswalks? At signalized intersections

Pedestrian Traffic None present Truck Traffic None present

On-Street Parking No

Sidewalks? Yes, on both sides of street

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 6,710' Width 80'

Vertical Curve Minimal Horizontal Curve Yes

Visibility Restriction due to road curvature

Roadway Conditions Good. Raised median.

Lighting Good
Adjacent Land Use Residential

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Thousand Oaks Boulevard Spt.Spd. Location: Reyes Adobe Road to Buffwood Place Ref. # 23 Cumulative Date: 4/21/2011 Day: Thursday Percent Speed Percent Weather: Frequency Dry, clear Hours: 0.00% 1:00 PM 13 0.00% To 2:00 PM 0 0.00% 0.00% Recorder: DB 14 15 0 0.00% 0.00% Posted Speed: 45 mph 0 0.00% 0.00% **Channelization:** Skip dash 2 way traffic 16 17 0 0.00% 0.00% Street Width: N/A 18 0.00% 0.00% Comm./Resid.: Residential 0 **DIRECTION:** 19 0.00% 0.00% Eastbound / Westbound Combined 0 DATA ANALYSIS: 20 0.00% 0.00% 0 Mean Speed: 21 0.00% 0.00% N/A 22 0 0.00% Standard Deviation: N/A 0.00% 23 0 0.00% 0.00% Standard error of the mean: N/A 0 0.00% 0.00% 15th Percentile: 39 24 0 50th Percentile: 42 25 0.00% 0.00% 26 0 0.00% 0.00% 85th Percentile: 46 0 0.00% 0.00% 10 Mile Pace: 38 47 27 to % of Samples in 10-Mile Pace: 0 85.63% 28 0.00% 0.00% # in 10 MPH pace: 29 0 0.00% 0.00% 143 30 0 0.00% 0.00% **Comments:** 31 0 0.00% 0.00% Cumulative 0 0.00% 32 0.00% **Cumulative Frequency Distribution** Frequency 33 0.00% 0.00% 120% 0 34 0.00% 0.00% 100% 35 3 1.80% 1.80% 5 36 2.99% 4.79% 80% 37 2.99% 7.78% 38 11 6.59% 14.37% 60% 20 39 11.98% 26.35% 40% 21 12.57% 38.92% 40 41 14 8.38% 47.31% 20% 8.98% 56.29% 42 15 0% 43 15 8.98% 65.27% જી Ó ďρ 2p Q 44 13 7.78% 73.05% Spot Speed, mph 16 9.58% 82.63% 45 4.79% 8 87.43% 46 **Frequency Distribution** 10 47 5.99% 93.41% 25 2.99% 48 5 96.41% 49 3 1.80% 98.20% 20 50 0.60% 98.80% Frequency 10 0.60% 99.40% 51 52 0.60% 100.00% 53 0.00% 100.00% 54 0.00% 100.00% 5 0.00% 100.00% 55 56 0 0.00% 100.00% zΔ B PO 5 57 0.00% 100.00% Spot Speed, mph Total: 167 100%

24

STREET Thousand Oaks Boulevard CERTIFICATION DATE:

FROM Buffwood Place TO Kanan Road

SPEED FACTORS

Date of Speed Survey 4/21/2011 Posted Speed Limit 35 MPH

Time of Speed Survey 2:00 PM TO 3:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 32 Sth percentile speed

50th Percentile Speed (Mean Speed) 32 85th Percentile Speed 37

10 mph Pace Speed 27 TO 36

Percentage of Vehicles in Pace 76.2% Recommended Speed Limit 35 MPH

Number of Survey Samples 164

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 19
Collision Rate (ACC/MVM) 4.35

Expected Collisions (ACC/MVM) 1.60

TRAFFIC FACTORS

Average Daily Traffic 13,942 Date Counted 4/13/2011

Number of Lanes

Type of Traffic Control 1-way stop at Buffwood Place; Signalized at Kanan Road

Crosswalks? At Kanan Road
Pedestrian Traffic Minimal

Truck Traffic None present
On-Street Parking No

Sidewalks? Yes, on both sides of street

Driveways? Minimal

ROADWAY FACTORS

Length of Segment 875'

Width 80'

Vertical Curve No Horizontal Curve No Visibility Good

Roadway Conditions Good. Raised median.

Lighting Yes

Adjacent Land Use Residential

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

CERTIFICATION: I Sri Chakravarthy do hereby certify that this Engineering and Traffic Survey within the City of Agoura Hills was performed under my supervision and is accurate and complete. I certify that City staff is experienced in performing surveys of this type. I am duly registered in the State of California as a Professional Engineer (Traffic).

TE 2531

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Thousand Oaks Boulevard Spt.Spd. Location: Buffwood Place to Kanan Road Ref. # 24 Cumulative Date: 4/21/2011 Day: Thursday Percent Speed Percent Weather: Frequency Dry, clear Hours: 0.00% 2:00 PM 13 0.00% To 3:00 PM 0 0.00% 0.00% Recorder: DB 14 0 0.00% 0.00% Posted Speed: 35 mph 15 0 0.00% **Channelization:** Skip dash 2 way traffic 16 0.00% 17 0 0.00% 0.00% Street Width: 18 0 0.00% 0.00% Comm./Resid.: Commercial / Residential 0 19 0.00% **DIRECTION:** Eastbound / Westbound Combined 0.00% 0 DATA ANALYSIS: 20 0.00% 0.00% 0 21 0.00% 0.00% Mean Speed: N/A 0 0.00% Standard Deviation: N/A 22 0.00% 23 0 0.00% 0.00% Standard error of the mean: N/A 0 0.00% 0.00% 15th Percentile: 24 28 50th Percentile: 32 25 4 2.44% 2.44% 26 8 4.88% 7.32% 85th Percentile: 37 10 6.10% 13.41% 10 Mile Pace: 36 27 27 to 76.22% 20.12% % of Samples in 10-Mile Pace: 28 11 6.71% # in 10 MPH pace: 29 14 8.54% 28.66% 125 30 15 9.15% 37.80% **Comments:** 13 7.93% 45.73% 31 54.27% Cumulative 32 14 8.54% **Cumulative Frequency Distribution** Frequency 6.71% 33 11 60.98% 120% 34 14 8.54% 69.51% 35 11 76.22% 100% 6.71% 36 12 7.32% 83.54% 80% 37 8 4.88% 88.41% 38 7 4.27% 92.68% 60% 39 2.44% 95.12% 40% 2 1.22% 96.34% 40 2 41 1.22% 97.56% 20% 42 0.61% 98.17% 0% 43 2 1.22% 99.39% ďρ an at 3 Q 44 0.61% 100.00% Spot Speed, mph 0 0.00% 100.00% 45 0 0.00% 100.00% 46 **Frequency Distribution** 47 0.00% 100.00% 25 0 48 0.00% 100.00% 49 0 0.00% 100.00% 20 50 0 0.00% 100.00% Frequency 10 0 0.00% 51 100.00% 52 0 0.00% 100.00% 53 0.00% 100.00% 54 0.00% 100.00% 5 0.00% 100.00% 55 56 0 0.00% 100.00% r ďζ 57 0.00% 100.00% Spot Speed, mph Total: 164 100%

25

STREET Thousand Oaks Boulevard CERTIFICATION DATE:

FROM Kanan Road TO Carell Avenue

SPEED FACTORS

Date of Speed Survey 4/21/2011 Posted Speed Limit 35 MPH

Time of Speed Survey 3:00 PM TO 4:00 PM Speed Justification 50th Percentile Speed (Mean Speed) 32 MPH 85th percentile speed

85th Percentile Speed 35 MPH **10 mph Pace Speed** 27 TO 36

Percentage of Vehicles in Pace 89.0% Recommended Speed Limit 35 MPH

Number of Survey Samples 155

COLLISION HISTORY

Number of Years Studied 3
Total Collisions 7
Collision Rate (ACC/MVM) 3.68

Expected Collisions (ACC/MVM) 1.30

TRAFFIC FACTORS

Average Daily Traffic 2,465 Date Counted 4/13/2011

Number of Lanes

Type of Traffic Control Signalized at Kanan Road, 3-way stop at Argos Street, 2-way stop at Carell

Crosswalks? At Kanan Road and Argos Street

Pedestrian Traffic Moderate
Truck Traffic None present

On-Street Parking On-street parking available from Kanan Road to Carell Avenue on north side of street; off-street parallel

Sidewalks? Driveways?

ROADWAY FACTORS

Length of Segment 1,596'
Width 62'

Vertical Curve Slight vertical road curvature

Horizontal Curve No Visibility Good

Roadway Conditions Good. Raised median.

Lighting Yes

Adjacent Land Use Residential, school

Field Study By Rossina Chichiri Checked By Srikanth Chakravarthy

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TE 2531

CITY OF AGOURA HILLS Client: KIMLEY HORN AND ASSOCIATES, INC. Street: Thousand Oaks Boulevard Spt.Spd. Location: Kanan Road to Carall Avenue Ref. # 25 Cumulative Date: 4/21/2011 Day: Thursday Percent Speed Percent Weather: Frequency Dry, clear 0.00% Hours: 3:00 PM 13 0.00% To 4:00 PM 0 0.00% 0.00% Recorder: DB 14 0 0.00% 0.00% Posted Speed: 35 mph 15 0 0.00% **Channelization:** Skip dash 2 way traffic 16 0.00% 17 0 0.00% 0.00% Street Width: N/A 18 0 0.00% 0.00% Comm./Resid.: Residential 0 **DIRECTION:** 19 0.00% Eastbound / Westbound Combined 0.00% 0 DATA ANALYSIS: 20 0.00% 0.00% 0 Mean Speed: 21 0.00% 0.00% N/A 0 0.00% Standard Deviation: N/A 22 0.00% 23 0 0.00% 0.00% Standard error of the mean: N/A 0 0.00% 0.00% 15th Percentile: 24 0 50th Percentile: 32 25 0.00% 0.00% 26 3 1.94% 1.94% 85th Percentile: 35 4.52% 6.45% 10 Mile Pace: 36 27 27 to 10 89.03% 12.90% % of Samples in 10-Mile Pace: 28 6.45% # in 10 MPH pace: 29 12 7.74% 20.65% 138 30 19 12.26% 32.90% **Comments:** 21 13.55% 46.45% 31 10.97% 57.42% 32 17 Cumulative **Cumulative Frequency Distribution** Frequency 33 17 10.97% 68.39% 120% 17 34 10.97% 79.35% 100% 35 12 87.10% 7.74% 36 6 3.87% 90.97% 80% 37 6 3.87% 94.84% 38 3 1.94% 96.77% 60% 3 39 1.94% 98.71% 40% 99.35% 40 0.65% 41 0.65% 100.00% 20% 0 0.00% 42 100.00% 0% 43 0 0.00% 100.00% ďρ on of 3 Q 44 0 0.00% 100.00% Spot Speed, mph 0 0.00% 100.00% 45 0 0.00% 100.00% 46 **Frequency Distribution** 47 0.00% 100.00% 25 0 48 0.00% 100.00% 49 0 0.00% 100.00% 20 50 0 0.00% 100.00% Frequency 10 0 0.00% 51 100.00% 52 0 0.00% 100.00% 53 0.00% 100.00% 54 0.00% 100.00% 5 0.00% 100.00% 55 56 0 0.00% 100.00% r ďζ b 3 BA 57 0.00% 100.00% Spot Speed, mph Total: 155 100%