ENGINEERING AND TRAFFIC SURVEY
FOR THE
CITY OF ROLLING HILLS ESTATES

FEBRUARY 2014

CITY OF
ROLLING HILLS ESTATES
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March 12, 2014

County of Los Angeles Superior Courts
Southwest District
Torrance Courthouse
825 Maple Avenue
Torrance, CA 90503

SUBJECT: Engineering and Traffic Survey Update and Extension
City of Rolling Hills Estates

Dear Torrance Courthouse,

California Vehicle Code Sections 40801 and 40802 require Engineering and Traffic Surveys (ETS) to establish or revise prima facie speed limits on certain streets within a local jurisdiction before law enforcement can utilize radar or other electronic speed measuring devices for speed enforcement. These surveys must be updated every five, seven, or ten years to ensure the speeds reflect current conditions as dictated by the California Vehicle Code. The surveys can be extended from 5 to 7 years provided the law enforcement officer(s) have completed a 24-hour radar operator course [CVC 40802(c)(2)(B)(i)(I)]. Additionally, some surveys may be extended to ten years if the City Traffic Engineer certifies there have been no significant changes to the roadway segment(s) or traffic conditions [CVC 40802(c)(2)(B)(i)(II)]. These provisions assure that posted speed limits are kept reasonably current.

On February 25, 2014, the City Council of the City of Rolling Hills Estates approved the 2014 Engineering and Traffic Survey, which is enclosed with this letter. Ordinance No. 2317 certified the current speed limits on 22 street segments, and revised the speed limit on two additional street segments, as follows:

- Palos Verdes Drive North between Hawthorne Bl. and Silver Spur Rd. 35 miles per hour
- Palos Verdes Drive North between Silver Spur Rd. and North City Limit 35 miles per hour

I certify that I am the licensed and duly designated Traffic Engineer for the City of Rolling Hills Estates. I have evaluated the 24 street segments that were part of the 2014 ETS and verified the study findings. If you have any questions, you may contact Mr. Greg Grammer, Assistant City Manager, or myself, at (310) 377-1577.

Sincerely,

Erik Zandvliet, T.E. (TR 1775)
City Traffic Engineer

Attachments: Engineering & Traffic Survey for the City of Rolling Hills Estates
City Clerk Certification of Resolution No. 2317

Cc: Don Davis, City Attorney
City Clerk
LA County Sheriff Department

CERTIFICATION

I HEREBY CERTIFY that the attached Resolution No. 2317 is a true and correct copy of said Resolution as contained in the permanent record of Resolutions adopted by the City Council of the City of Rolling Hills Estates on the date and by the vote so stated under the Certification of said Resolutions.

HOPE J. NOLAN, DEPUTY CITY CLERK

DATE FEBRUARY 27, 2014

CITY OF ROLLING HILLS ESTATES

CITY OF ROLLING HILLS ESTATES
LOS ANGELES COUNTY, CALIFORNIA
RESOLUTION NO. 2317

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS ESTATES ESTABLISHING SPECIAL SPEED ZONES ON CERTAIN STREETS WITHIN THE CITY

WHEREAS, Section 40802 of the California Vehicle Code (CVC) states that a section of a highway or street is a "speed trap" if the prima facie speed limits are not justified by an engineering and traffic survey conducted within specified time periods, and the speed limit is enforced by the use of radar or any other electronic device for measuring the speed of moving objects; and,

WHEREAS, evidence of a speeding violation based on a speed trap is inadmissible in court (CVC § 40803); and,

WHEREAS, the most recent Engineering and Traffic Surveys for the City were last completed in 2004 and 2006 and are set to expire in 2014 and 2016, respectively; and,

WHEREAS, the City Council of the City of Rolling Hills Estates wishes to ensure that traffic speeds throughout the community are kept at a safe level given the conditions that exist on certain streets; and,

WHEREAS, the City Council of the City of Rolling Hills Estates wishes to use electronic speed measurement equipment for speed enforcement on these certain streets; and,

WHEREAS, pursuant to Vehicle Code sections 32, 22357 and 22358 the City may increase or decrease local prima facie speed limits by ordinance or resolution; and,

WHEREAS, pursuant to Chapter 10.12 of the Municipal Code, a resolution establishing speed limits must be adopted if any increases or decreases in speed limits are to be established following the completion of the Engineering and Traffic Survey; and,

WHEREAS, the California Manual of Traffic Control Devices describes the policy to be used in the State of California for setting speed limits, which requires that the posted speed be established at the nearest 5 miles per hour (mph) increment of the 85th-percentile speed of free-flowing traffic; and,

WHEREAS, the City Council of the City of Rolling Hills Estates recognizes that the California Manual of Traffic Control Devices also allows the posted speed limit to be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with Vehicle Code sections 627 and 22358.5, if the Engineering and Traffic Survey documents the special conditions and justification for the lower speed limit and is approved by a registered Civil or Traffic Engineer; and,

WHEREAS, the enforcement of speed limits by the use of radar is necessary in order to protect the safety of the residents of the City of Rolling Hills Estates;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ROLLING HILLS ESTATES DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The City Council of the City of Rolling Hills Estates, pursuant to sections 10.12.010, 10.12.020 and 10.12.030 of the Rolling Hills Estates Municipal Code and applicable State law, finds that the speed permitted by State law upon certain streets is greater than is necessary for safe operation of vehicles thereon as determined on the basis of an engineering and traffic survey.

Section 2. The City Council does hereby determine and declare that the prima facie speed limit will be established on those streets or parts of streets designated when signs are erected giving notice as follows:

No.	Street	From	To	Speed Limit	Critical Speed
1	CRENSHAW BLVD	PALOS VERDES DR N	NORTH CITY LIMIT	45	50
2	CRENSHAW BLVD	INDIAN PEAK ROAD	SILVER SPUR ROAD	45	36
3	DEEP VALLEY DRIVE	DRY BANK DRIVE	ROXCOVE DRIVE	25	26
4	DEEP VALLEY DRIVE	ROXCOVE DRIVE	SILVER SPUR ROAD	25	27
5	HAWTHORNE BLVD	INDIAN PEAK ROAD	SILVER SPUR ROAD	35/25**	38
6	HAWTHORNE BLVD	SOUTH CITY LIMIT	PALOS VERDES DR N	45	41
7	HAWTHORNE BLVD	PALOS VERDES DR N	NORTH CITY LIMIT	45	48
8	HIGHRIDGE ROAD	CREST ROAD	CRESTRIDGE ROAD	35	38
9	HIGHRIDGE ROAD	CRESTRIDGE ROAD	NORTH CITY LIMIT	35	37
10	INDIAN PEAK ROAD	CRENSHAW BLVD	NORRIS CENTER DRIVE	40	42
11	INDIAN PEAK ROAD	NORRIS CENTER DRIVE	HAWTHORNE BLVD	40	38
12	PALOS VERDES DR E	SOUTH CITY LIMIT	PALOS VERDES DR N	40	46
13	PALOS VERDES DR E	PALOS VERDES DR N	NORTH CITY LIMIT	40	39
14	PALOS VERDES DR N	EAST CITY LIMIT	PALOS VERDES DR E	45	50
15	PALOS VERDES DR N	PALOS VERDES DR E	ROLLING HILLS RD	40/25**	35
16	PALOS VERDES DR N	ROLLING HILLS RD	CRENSHAW BLVD	40/25**	40
17	PALOS VERDES DR N	CRENSHAW BLVD	HAWTHORNE BLVD	40/25**	41
18	PALOS VERDES DR N	HAWTHORNE BLVD	SILVER SPUR RD	35	38
19	PALOS VERDES DR N	SILVER SPUR RD	NORTH CITY LIMIT	35	38
20	ROLLING HILLS RD	PALOS VERDES DR N	NORTH CITY LIMIT	35/25**	41
21	SILVER SPUR ROAD	PALOS VERDES DR N	KINGSPINE RD	35	42
22	SILVER SPUR ROAD	KINGSPINE RD	ELKMONT RD	40	42
23	SILVER SPUR ROAD	HAWTHORNE BLVD	DRY BANK DRIVE	35	38
24	SILVER SPUR ROAD	DRY BANK DRIVE	CRENSHAW BLVD	35	41

** 25 MPH School Zone When Children are Present

Section 3. The "2014 Citywide Engineering and Traffic Survey" report, dated February 2014, containing the findings and determinations of the Registered Engineer, incorporated by this reference and on file in the Office of the City Clerk, will be the official Engineering and Traffic Survey of the City, a certified copy of which will be disseminated to the County of Los Angeles Municipal and Superior Courts.

Section 4. This resolution will take effect on February 25, 2014.

Section 5. The establishment and enforcement of the speed limits listed in Section 2 of this Resolution will not become effective until speed limit signs have been posted to provide proper public notice.

Section 6. The City Manager will cause to be installed and maintained the necessary speed limit sign(s) for the controlling of traffic as provided in Section 1 of this Resolution.

Section 7. The City Clerk is directed to certify to the passage of this Resolution and enter it into the book of original resolutions.

APPROVED AND ADOPTED this 25th day of February 2014.

JUDITH M. MITCHELL, MAYOR

ATTEST:

DOUGLAS R. PRICHARD, CITY CLERK

I HEREBY CERTIFY that the foregoing Resolution No. 2317 was duly and regularly adopted by the City Council of the City of Rolling Hills Estates at a regular meeting held thereof on the 25th day of February 2014, by the following vote:

AYES: ADDLEMAN, HUFF, MITCHELL, ZERUNYAN, ZUCKERMAN

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

DOUGLAS R. PRICHARD, CITY CLERK

WILLDAN Engineering | extending your reach

February 25, 2014

Mr. Greg Grammer
Assistant City Manager
City of Rolling Hills Estates
4045 Palos Verdes Drive North
Rolling Hills Estates, CA 90274

Subject: 2014 Engineering and Traffic Survey

Dear Mr. Grammer:

As requested, Willdan has completed an Engineering and Traffic Survey to justify and update the posted speed limits along 24 street segments in the City of Rolling Hills Estates. Fifteen (15) of these segments were last surveyed in 2004 and nine (9) were last surveyed in 2004, and require an update to comply with the 7-year limitation set forth in the California Vehicle Code (CVC).

We are pleased to submit the enclosed Report that describes the E&T survey procedures and contains recommendations for posted speed limits on the City's arterial and collector street system. A summary of these recommendations is included in the Analysis. Supporting documentation for each speed zone recommendation is provided in the Appendices.

The Report was conducted in accordance with applicable provisions of the CVC, following procedures outlined in the California Manual on Uniform Traffic Control Devices (California MUTCD) dated January 2012, and as required by Section 627 of the California Vehicle Code. The Report is intended to satisfy the requirements of Section 40802 of the CVC to enable the continued use of radar for traffic speed enforcement.

We appreciate the opportunity to serve the City of Rolling Hills Estates and the assistance and cooperation afforded to us during the course of this study.

Very truly yours,

WILLDAN

Erik Zandvliet, T.E.
City Traffic Engineer

REGISTERED PROFESSIONAL ENGINEER
ERIK H. ZANDVLIET
NO. 1775
Exp.
TRAFFIC
STATE OF CALIFORNIA

Enclosure

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INTRODUCTION

This Engineering and Traffic Survey is intended to be the basis for the establishment, revision, and enforcement of speed limits for selected streets within the City of Rolling Hills Estates. This Engineering and Traffic Survey presents recommended speed limits for 24 street segments in the City of Rolling Hills Estates. Engineering and Traffic Surveys are required by the State of California to establish intermediate speed limits on local streets and to enforce those limits using radar or other speed measuring devices. These surveys must be updated every 5 or 7 years to ensure the speeds reflect current conditions as dictated by the California Vehicle Code (CVC). The CVC also requires that the surveys be conducted based on the methodology required by The California Manual on Uniform Traffic Control Devices (California MUTCD) dated January 2012.

The survey was requested by the City for the proper posting of speed limits and to enable the Sheriff's Department to utilize radar or other electronic speed measuring devices for speed enforcement. CVC Sections 40801 and 40802 require Engineering and Traffic Surveys that verify the prima facie speed limit before enforcement by such a device is legal. The law further specifies that these surveys be conducted every 5 years. The surveys can be extended to 7 years provided the City's police officer(s) have completed a 24-hour radar operator course [CVC 40802(c)(2)(B)(i)(I)]. Additionally, some surveys may be extended to 10 years if a traffic engineer certifies that no changes in roadway or traffic conditions have occurred [CVC 40802 (c)(2)(B)(i)(II)]. These provisions assure that posted speed limits are kept reasonably current.

The Engineering and Traffic Surveys for the City were conducted in accordance with procedures outlined in the California Manual on Uniform Traffic Control Devices (California MUTCD) dated January 2012 and as required by Section 627 of the California Vehicle Code. The Code further describes three elements of an engineering and traffic survey:

1. Measurement of prevailing speed;
2. Accident history; and
3. Roadway characteristics <u>not</u> readily apparent to the motorist.

Posted speed limits are established primarily to protect the general public from the reckless and unpredictable behavior of dangerous drivers. They provide law enforcement with a clearly understood method to identify and apprehend violators of the basic speed law (CVC Section 22350). This law states that "No person shall drive a vehicle on a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of the highway, and in no event at a speed which endangers the safety of persons or property." The posted speed limit gives motorists a clear warning of the maximum speed that is reasonable and prudent under typical driving conditions.

The basic fundamentals for establishing speed limits recognize that the majority of drivers behave in a safe and reasonable manner, and therefore, the normally careful and competent actions of a reasonable driver should be considered legal. Speed limits established on these fundamentals conform to the consensus that those who drive the highway determine what speed is reasonable and safe, not on the judgment of one or a few individuals. A radar speed study is usually used to record the prevailing speed of reasonable drivers.

Speed limits are also established to advise drivers of conditions which may not be readily apparent to a reasonable driver. For this reason, accident history, roadway conditions, traffic characteristics, and land use must also be analyzed before determining speed limits. Speed limit changes are usually made in coordination with physical changes in roadway conditions or roadside developments. Unusually short zones of less than one-half mile in length should be avoided to reduce driver confusion.

Additionally, it is generally accepted that speed limits cannot be successfully enforced without voluntary compliance by a majority of drivers. Consequently, only the driver whose behavior is clearly out of line with the normal flow of traffic is usually targeted for enforcement.

ELEMENTS OF THE ENGINEERING AND TRAFFIC SURVEY

The California Manual on Uniform Traffic Control Devices (California MUTCD) dated January 2012 specifies the methodology to be used for completing Engineering and Traffic Surveys. This methodology includes an evaluation of current vehicle speeds, accident history and conditions not readily apparent to motorists. The basic elements of the Engineering and Traffic Survey are discussed in more detail as follows:

Speed Sampling

Existing vehicle speeds are surveyed by a certified radar operator with a calibrated radar unit in an unmarked vehicle. Speed samples are taken for each segment representing a statistically significant sample of current traffic. This data is then evaluated to identify the distribution of speeds. A key element in the evaluation is the identification of the 85th percentile speed. The 85th percentile speed is the speed at or below which 85 percent of the traffic travels. This threshold represents what is historically found to be a safe and reasonable speed for most drivers based on common roadway conditions. Therefore, a speed limit is established at the nearest 5-mile per hour (mph) increment to the 85th percentile speed, except as shown in the two options below.

Options:

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Section 627 and 22358.5.
2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(f).

If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit. The reasons for the lower speed limit shall be in compliance with CVC Section 627 and 22358.5

The following examples are provided to explain the application of these speed limit criteria:

A. Using Option 1 above and first step is to round down: If the 85th percentile speed in a speed survey for a location was 37 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 37 mph speed. As indicated by the option, this 35 mph established speed limit could be reduced by 5 mph to 30 mph if conditions and justification for using this lower speed limit are documented in the E&TS.
B. Using Option 1 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 33 mph speed. As indicated by the option, this 35 mph speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS.
C. Using Option 2 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, instead of rounding up to 35 mph, the speed limit can be established at 30 mph, but no further reduction can be applied.

Collision History

Reported collisions are reviewed for each street segment to determine if there is a higher than average rate of collisions. A segment that has an above-average collision rate typically suggests conditions that are not readily apparent to motorists.

A summary of the collision rates for the 24 surveyed street segments is provided in Appendix B.

Conditions Not Readily Apparent To Motorists

Each street segment is field inspected to identify roadway conditions that may not be readily apparent to motorists. A determination is made whether any conditions are significant and warrant the recommendation of the speed limit 5 mph or more below the basic speed limit. It is important to note that The California Manual on Uniform Traffic Control Devices (California MUTCD) dated January 2012 recommends exercising great care when establishing speed limits 5 mph or more below the basic speed limit.

SURVEY CONDITIONS

SURVEY LOCATIONS

The procedures described below describe the criteria and methods used to survey selected streets within the City of Rolling Hills Estates. The specific location of the radar speed survey for each street segment was selected after considering the following:

1. Minimum stop sign and traffic signal influence.
2. Minimum visibility restrictions.
3. Non-congested traffic flow away from intersections and driveways.
4. Minimum influence from curves or other roadway conditions that would affect the normal operation of a vehicle.

DATA COLLECTION

Data of existing conditions was obtained including prevailing speed of vehicles, traffic collisions, visibility restrictions, and roadway conditions within the community. Speed data and field reviews were conducted at 24 locations during the months of September and October 2013.

Speed Data

Radar speed measurements were conducted at 24 locations during the months of September and October 2013. All surveys were conducted in good weather conditions, during off-peak hours on weekdays. The radar unit was operated from an unmarked vehicle to minimize any influence on driver behavior. Typically, a minimum sample size of 100 vehicles or the total samples during a maximum period of 2 hours were obtained for each segment. Traffic speeds in both directions were recorded for individual segments.

Collision Data

Collision data was obtained from the City's SWITRS electronic collision database. For this study, collision data was used from the latest 3 years of reported accidents from January 1, 2007 to December 31, 2009. The collision rates for the 24 segments are expressed in accidents per million vehicle miles (A/MVM). To calculate these rates, 24-hour traffic volumes were collected for each street segment. This information was then entered into the following formula to determine the collision rate:

$$R = \frac{Ax1{,}000{,}000}{tx365\frac{days}{year}xlxv}$$

A = Number of midblock collisions over time period
R = Collision Rate (accidents/million vehicle miles)
t = Time Period Covered (in years)
l = Length of Segment (miles)
v = Traffic Volume (average daily traffic)

The segment collision rate was then compared to the average statewide collision rate. The average statewide collision rates were obtained from 2009 Collision Data on California State Highways published by Caltrans.

Field Review Data

A field review was conducted for each of the selected street segments in the City with consideration for the following factors:

1. Street width and alignment (design speed);
2. Pedestrian activity and traffic flow characteristics;
3. Number of lanes and other channelization and striping patterns;
4. Frequency of intersections, driveways, and on-street parking;
5. Location of stop signs and other regulatory traffic control devices;
6. Visibility obstructions;
7. Land use and proximity to schools;
8. Pedestrian and bicycle usage;
9. Uniformity with existing speed zones and those in adjacent jurisdictions; and
10. Any other unusual condition not readily apparent to the driver.

ANALYSIS

CRITERIA

Survey data was complied and analyzed to determine the recommended speed limit in accordance with several criteria contained in The California Manual on Uniform Traffic Control Devices (California MUTCD) dated January 2012. Some of the criteria used are:

A. The critical speed or 85th percentile speed is that speed at or below which 85 percent of the traffic is moving. This speed is the baseline value in determining what the majority of drivers believe is safe and reasonable. Speed limits set higher than the critical speed are not considered reasonable and safe. Speed limits set lower than the critical speed make a large number of reasonable drivers "unlawful," and do not facilitate the orderly flow of traffic. The "basic speed limit" is the nearest 5 mph increment to the 85th percentile speed.

B. The 10 mile per hour (mph) pace speed is the 10 mph increment that contains the highest percentage of vehicles. It is a measure of the dispersion of speeds across the range of the samples surveyed. An accepted practice is to keep the speed limit within the 10 mph pace while considering the critical speed and other factors that might require a speed lower than the critical speed.

C. The collision rate for each street segment is compared to average collision rates that can be reasonably expected to occur on streets and highways in other jurisdictions, in proportion to the volume of traffic per lane mile. These average collision rates have been developed by the State of California and are considered reasonable for use in the City of Rolling Hills Estates.

RESULTS AND RECOMMENDATIONS

The Engineering and Traffic Survey Forms, presented in Appendix A, illustrate results of a thorough evaluation of the available data and recommend a speed limit for each street segment surveyed. A complete summary of all recommendations is shown in Table 2. In each case, the recommended speed limit was consistent with the prevailing behavior as demonstrated by the radar speed measurements. Typically, a speed limit in the upper range of the 10-mile pace was selected unless an collision rate significantly higher than expected was discovered or roadway conditions not readily apparent to the driver were identified. Any segments with recommended speed limits 5 mph or more below the basic speed limit are fully explained later in this report.

The Legislature, in adopting Section 22358.5 of the California Vehicle Code (CVC), has made it clear that physical conditions, such as width, curvature, grade and surface conditions, or any other condition readily apparent to a driver, in the absence of other factors, would not be the basis for special downward speed zoning. In these cases, the basic speed law (CVC Section 22350) is sufficient to regulate such conditions.

The recommendations contained in this Report are intended to establish prima facie speed limits. <u>They are not intended to be absolute for all prevailing conditions.</u> All prima facie

speed violations are actually violations of the basic speed law (Section 22350 of California Vehicle Code). This statute states that a person shall not drive a vehicle at a speed greater than is safe having regard for traffic, roadway, and weather conditions. A prima facie limit is intended to establish a maximum safe speed under normal conditions.

Table 1 identifies the street segments with recommended changes in posted speed limits and Table 2 summarizes the recommendations for all surveyed segments.

TABLE 1
STREET SEGMENTS WITH RECOMMENDED SPEED CHANGES

No	STREET	FROM	TO	EXISTING	NEW	CHANGE
18	Palos Verdes Dr N	Hawthorne Blvd	Silver Spur Rd	40	35	5
19	Palos Verdes Dr N	Silver Spur Rd	North City Limit	40	35	5

Table 2
Summary of Recommendations

No.	Street	From	To	Posted Speed Limit	Critical Speed	Recommended Speed Limit	Comments
1	CRENSHAW BLVD	PALOS VERDES DR N	NORTH CITY LIMIT	45	50	45	CALIFORNIA MUTCD OPTION 2
2	CRENSHAW BLVD	INDIAN PEAK ROAD	SILVER SPUR ROAD	45	36	45	*
3	DEEP VALLEY DRIVE	DRY BANK DRIVE	ROXCOVE DRIVE	25	26	25	CLOSEST TO 85
4	DEEP VALLEY DRIVE	ROXCOVE DRIVE	SILVER SPUR ROAD	25	27	25	CLOSEST TO 85TH SPEED
5	HAWTHORNE BLVD	INDIAN PEAK ROAD	SILVER SPUR ROAD	35/25**	38	35/25**	CALIFORNIA MUTCD OPTION 2
6	HAWTHORNE BLVD	SOUTH CITY LIMIT	PALOS VERDES DR N	45	41	45	*
7	HAWTHORNE BLVD	PALOS VERDES DR N	NORTH CITY LIMIT	45	48	45	CALIFORNIA MUTCD OPTION 2
8	HIGHRIDGE ROAD	CREST ROAD	CRESTRIDGE ROAD	35	38	35	CALIFORNIA MUTCD OPTION 2
9	HIGHRIDGE ROAD	CRESTRIDGE ROAD	NORTH CITY LIMIT	35	37	35	CLOSEST TO 85TH SPEED
10	INDIAN PEAK ROAD	CRENSHAW BLVD	NORRIS CENTER DRIVE	40	42	40	CLOSEST TO 85TH SPEED
11	INDIAN PEAK ROAD	NORRIS CENTER DRIVE	HAWTHORNE BLVD	40	38	40	CLOSEST TO 85TH SPEED
12	PALOS VERDES DR E	SOUTH CITY LIMIT	PALOS VERDES DR N	40	46	40	*
13	PALOS VERDES DR E	PALOS VERDES DR N	NORTH CITY LIMIT	40	39	40	CLOSEST TO 85TH SPEED
14	PALOS VERDES DR N	EAST CITY LIMIT	PALOS VERDES DR E	45	50	45	CALIFORNIA MUTCD OPTION 2
15	PALOS VERDES DR N	PALOS VERDES DR E	ROLLING HILLS RD	40/25**	35	40/25**	*
16	PALOS VERDES DR N	ROLLING HILLS RD	CRENSHAW BLVD	40/25**	40	40/25**	CLOSEST TO 85TH SPEED
17	PALOS VERDES DR N	CRENSHAW BLVD	HAWTHORNE BLVD	40/25**	41	40/25**	CLOSEST TO 85TH SPEED
18	PALOS VERDES DR N	HAWTHORNE BLVD	SILVER SPUR RD	40	38	35	CALIFORNIA MUTCD OPTION 2
19	PALOS VERDES DR N	SILVER SPUR RD	NORTH CITY LIMIT	40	38	35	CALIFORNIA MUTCD OPTION 2
20	ROLLING HILLS RD	PALOS VERDES DR N	NORTH CITY LIMIT	35/25**	41	35/25**	*

* See "Segments with Special Conditions" Section for Comments
** = 25 mph when children are present

Table 2						
Summary of Recommendations						
No.	Street	From	To	Posted Speed Limit	Critical Speed	Recommended Speed Limit	Comments
21	SILVER SPUR ROAD	PALOS VERDES DR N	KINGSPINE RD	35	42	35	*
22	SILVER SPUR ROAD	KINGSPINE RD	ELKMONT RD	40	42	40	CLOSEST TO 85TH SPEED
23	SILVER SPUR ROAD	HAWTHORNE BLVD	DRY BANK DRIVE	35	38	35	CALIFORNIA MUTCD OPTION 2
24	SILVER SPUR ROAD	DRY BANK DRIVE	CRENSHAW BLVD	35	41	35	*

* See "Segments with Special Conditions" Section for Comments
** = 25 mph when children are present

SEGMENTS WITH SPECIAL CONDITIONS

The following segments surveyed had recommended speed limits that were 5 miles per hour (mph) or more below the critical speed due to conditions not readily apparent to the driver. Each segment is discussed below.

Segment #2 – Crenshaw Blvd – Indian Peak Rd to Silver Spur Rd

This segment currently posted at 45 mph and has two through lanes in each direction with an ADT of 21,638 vehicles per day. The adjacent land use is undeveloped & non-fronting residential properties. The critical speed is 36 mph and would normally justify a 35 mph speed limit. However, in order to maintain uniformity among adjacent street segments, a higher speed limit is prudent. It is recommended that the speed limit remain posted at 45 mph for the above reasons.

Segment #6 – Hawthorne Blvd - South City Limit to Palos Verdes Dr North

This segment currently posted at 45 mph and has two through lanes in each direction with an ADT of 26,183 vehicles per day. The adjacent land use is undeveloped & non-fronting residential properties. During the field review, a steep downgrade with a runaway truck ramp was observed. The critical speed is 41 mph and would normally justify a 40 mph posted speed limit. However, in order to maintain uniformity among adjacent street segments, a higher speed limit is prudent. It is recommended that the speed limit remain posted at 45 mph for the above reasons.

Segment #12 - Palos Verdes Dr East - South City Limit to Palos Verdes Dr North

This segment currently posted at 40 mph and has one to two through lanes in each direction with an ADT of 13,612 vehicles per day. The adjacent land use is rural with fronting residential properties. During the field review, a winding roadway with dirt shoulders, and blind driveways were observed that may not be readily apparent to the driver. The critical speed is 46 mph and would normally justify a 45 mph posted speed limit. However, due to the blind driveways, pedestrian and bicycle use on the shoulders, and the narrow road with reduced visibility that may not be apparent to unfamiliar drivers, the lower speed limit is prudent. It is recommended that the speed limit remain posted at 40 mph for the above reasons.

Segment #15 - Palos Verdes Dr North - Palos Verdes Dr East to Rolling Hills Rd

This segment currently posted at 40 mph and has two through lanes in each direction east of Dapplegray Lane and 1 lane in each direction west of Dapplegray Lane with an ADT of 36,073 vehicles per day. The adjacent land use is residential within the vicinity of a school. The critical speed is 35 mph and would normally justify a 35 mph speed limit. However, in order to maintain uniformity among adjacent street segments, a higher speed limit is prudent. It is recommended that the speed limit remain posted at 40 mph for the above reasons. In addition, a 25 mph school zone is recommended per Section 22352 of the California Vehicle Code.

Segment #20 - Rolling Hills Rd - Palos Verdes Dr North to North City Limit

This segment currently posted at 35 mph and has one through lane in each direction with an ADT of 9,266 vehicles per day. The adjacent land use is residential within the vicinity of a school. The critical speed is 41 mph and would normally justify a 40 mph posted speed limit. However, due to the uncontrolled crosswalk north of Palos Verdes Drive North, combination of horizontal and vertical curves as well as moderate equestrian and pedestrian activity that may not be apparent to unfamiliar drivers, a lower speed limit is prudent. It is recommended that the speed limit remain posted at 35 mph for the above reasons.

Segment #21 - Silver Spur Rd - Palos Verdes Dr North to Kingspine Rd

This segment is currently posted 35 mph and has one through lane in each direction with ADT of 14,855 vehicles per day. The adjacent land use is residential. The critical speed is 42 mph and would normally justify a 40 mph posted speed limit. However, due to numerous blind driveways, bike and pedestrian activity in the street, absence of sidewalks combined with tight horizontal and vertical curves that may not be apparent to unfamiliar drivers, a lower speed limit is prudent. It is recommended that the speed limit remain posted at 35 mph for the above reasons.

Segment #24 - Silver Spur Rd - Dry Bank Dr to Crenshaw Blvd

This segment currently posted at 35 mph and has two through lanes in each direction with an ADT of 13,509 vehicles per day. The adjacent land use is commercial property. During the field review, a moderate pedestrian traffic, the existence of a landscaped divider, and several driveways were observed. The critical speed is 41 mph and would normally justify a 40 mph posted speed limit. However, due to high pedestrian use, numerous blind driveways, uncontrolled turning movements as well as to maintain consistency with the posted speed limit in the adjacent segment, the lower speed limit is prudent. It is recommended that the speed limit remain posted at 35 mph for the above reasons.

LEGISLATIVE REFERENCES

APPLICABLE SECTIONS OF CALIFORNIA VEHICLE CODE

SECTION 1. Section 627 of the Vehicle Code:

Section 627.

(a) *"Engineering and traffic survey,"* as used in this code, means a survey of highway and traffic conditions in accordance with methods determined by the Department of Transportation for use by state and local authorities.

(b) An engineering and traffic survey shall include, among other requirements deemed necessary by the department, consideration of all of the following:

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

(c) When conducting an engineering and traffic survey, local authorities, in addition to the factors set forth in paragraphs (1) to (3), inclusive, of subdivision (b) may consider all of the following:

(1) Residential density, if any of the following conditions exist on the particular portion of highway and the property contiguous thereto, other than a business district:
   a. Upon one side of the highway, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses of business structures.
   b. Upon both sides of the 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.
   c. The portion of highway is longer than one-quarter of a mile but has the ratio of separate dwelling houses or business structures to the length of the highway described in either subparagraph (A) or (B).
(2) Pedestrian and bicyclist safety.

Basic Speed Law

22350. No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property.

Speed Law Violations

Section 22351.

(a) The speed of any vehicle upon a highway not in excess of the limits specified in Section 22352 or established as authorized in this code is lawful unless clearly proved to be in violation of the basic speed law.

(b) The speed of any vehicle upon a highway in excess of the prima facie speed limits in Section 22352 or established as authorized in this code is prima facie unlawful unless the defendant

establishes by competent evidence that the speed in excess of said limits did not constitute a violation of the basic speed law at the time, place and under the conditions then existing.

Prima Facie Speed Limits

Section 22352.

(a) The prima facie limits are as follows and shall be applicable unless changed as authorized in this code and, if so changed, only when signs have been erected giving notice thereof:

(1) Fifteen miles per hour:

A) When traversing a railway grade crossing, if during the last 100 feet of the approach to the crossing the driver does not have a clear and unobstructed view of the crossing and of any traffic on the railway for a distance of 400 feet in both directions along such railway. This subdivision does not apply in the case of any railway grade crossing where a human flagman is on duty or a clearly visible electrical or mechanical railway crossing signal device is installed but does not then indicate the immediate approach of a railway train or car.

B) When traversing any intersection of highways, if during the last 100 feet of the driver's approach to the intersection, the driver does not have a clear and unobstructed view of the intersection and of any traffic upon all of the highways entering the intersection for a distance of 100 feet along all those highways, except at an intersection protected by stop signs or yield right-of-way signs or controlled by official traffic control signals.

C) On any alley.

(2) Twenty-five miles per hour:

A) On any highway other than a state highway, in any business or residence district unless a different speed is determined by local authority under procedures set forth in this code.

(B) When approaching or passing a school building or the grounds thereof, contiguous to a highway and posted with a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. The prima facie limit shall also apply when approaching or passing any school grounds which are not separated from the highway by a fence, gate or other physical barrier while the grounds are in use by children and the highway is posted with a standard "SCHOOL" warning sign. For purposes of this subparagraph, standard "SCHOOL" warning signs may be placed at any distance up to 500 feet away from school grounds.

(C) When passing a senior center or other facility primarily used by senior citizens, contiguous to a street other than a state highway and posted with a standard "SENIOR" warning sign. A local authority is not required to erect any sign pursuant to this paragraph until donations from private sources covering those costs are received and the local agency makes a determination that the proposed signing should be implemented. A local authority may, however, utilize any other funds available to it to pay for the erection of those signs.

(b) This section shall become operative on March 1, 2001.

Increase of Local Speed Limits to 65 Miles Per Hour

Section 22357.

(a) 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. The declared prima facie or maximum speed limit shall be effective when appropriate signs giving notice thereof are erected upon the street and shall not thereafter be revised except upon the basis of an engineering and traffic survey. This section does not apply to any 25 mile per hour prima facie limit, which is applicable when passing a school building or the grounds thereof or when passing a senior center or other facility primarily used by senior citizens.

(b) This section shall become operative on the date specified in subdivision (c) of Section 22366.

Downward Speed Zoning

Section 22358.5.

It is the intent of the Legislature that physical conditions such as width, curvature, grade and surface conditions, or any other condition readily apparent to a driver, in the absence of other factors, would not require special downward speed zoning, as the basic rule of Section 22350 is sufficient regulation as to such conditions.

Boundary Line Streets

Section 22359.

With respect to boundary line streets and highways where portions thereof are within different jurisdictions, no ordinance adopted under Sections 22357 and 22358 shall be effective as to any such portion until all authorities having jurisdiction of the portions of the street concerned have approved the same. This section shall not apply in the case of boundary line streets consisting of separate roadways within different jurisdictions.

Speed Trap Prohibition

Section 40801.

No peace officer or other person shall use a speedtrap in arresting, or participating or assisting in the arrest of, any person for any alleged violation of this code nor shall any speed trap be used in securing evidence as to the speed of any vehicle for the purpose of an arrest or prosecution under this code.

Speed Trap

Section 40802.

(a) A "speed trap" is either of the following:

(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 object. 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.

(B) Not more than one-half mile of a uninterrupted length. Interruptions shall include official traffic control devices 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.

(c)(1) When all the following criteria are met, paragraph (2) of this subdivision shall be applicable and subdivision (a) shall not be applicable:

(A) When radar is used, the arresting officer has successfully completed a radar operator course of not less than 24 hours on the use of police traffic radar, and the course was approved and certified by the Commission on Peace Officer Standards and Training.

(B) When laser or any other electronic device is used to measure the speed of moving objects, the arresting officer has successfully completed the training required in subparagraph (A) and an additional training course of not less than two hours approved and certified by the Commission on Peace Officer Standards and Training.

(C)(i) The prosecution proved that the arresting officer complied with subparagraphs (A) and (B) and that an engineering and traffic survey has been conducted in accordance with subparagraph (B) of paragraph (2). The prosecution proved that, prior to the officer issuing the notice to appear, the arresting officer established that the radar, laser, or other electronic device conformed to the requirements of subparagraph (D).

(ii) The prosecution proved the speed of the accused was unsafe for the conditions present at the time of alleged violation unless the citation was for a violation of Section 22349, 22356, or 22406.

(D) The radar, laser, or other electronic device used to measure the speed of the accused meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration, and has been calibrated within the three years prior to the date of the alleged violation by an independent certified laser or radar repair and testing or calibration facility.

(2) A "speed trap" is either of the following:

(A) 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.

(B)(i) A particular section of a highway or state 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 one of the following time periods, prior to the date of the alleged violation, and enforcement of speed limit involves the use of radar or any other electronic device that measures the speed of moving objects:

(I) Except as specified in subclause (II), seven years.

(II) If an engineering and traffic survey was conducted more than seven years prior to the date of the alleged violation, and a registered engineer evaluates the section of the highway and determines that no significant changes in roadway or traffic conditions have occurred including, but not limited to, changes in adjoining property or land use, roadway width, or traffic volume, 10 years.

(ii) This subparagraph does not apply to a local street, road, or school zone.

Speed Trap Evidence

Section 40803.

(a) No evidence as to the speed of a vehicle upon a highway shall be admitted in any court upon the trial of any person in any prosecution under this code upon a charge involving the speed of a vehicle when the evidence is based upon or obtained from or by the maintenance or use of a speedtrap.

(b) In any prosecution under this code of a charge involving the speed of a vehicle, where enforcement involves the use of radar or other electronic devices which measure the speed of moving objects, the prosecution shall establish, as part of its prima facie case, that the evidence or testimony presented is not based upon a speed trap as defined in paragraph (2) of subdivision (a) of Section 40802.

(c) When a traffic and engineering survey is required pursuant to paragraph (2) of subdivision (a) of Section 40802, evidence that a traffic and engineering survey has been conducted within five years of the date of the alleged violation or evidence that the offense was committed on a local street or road as defined in paragraph (2) of subdivision (a) of Section 40802 shall constitute a prima facie case that the evidence or testimony is not based upon a speed trap as defined in paragraph (2) subdivision (a) of Section 40802.

APPENDIX A

Street Segment Data

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET CRENSHAW BLVD **CERTIFICATION DATE** 2/25/2014
FROM PALOS VERDES DR N **TO** NORTH CITY LIMIT

SPEED FACTORS

Date of Speed Survey	9/20/2013	**Posted Speed Limit**	45 mph
Time of Speed Survey	9:00 AM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	44 mph	FIRST 5 MPH INCREMENT BELOW 85TH PERCENTILE	
85th Percentile Speed	50 mph		
Average Speed	45 mph		
10 mph Pace Speed	41-50		
Percentage of Vehicles in Pace	60	**Recommended Speed Limit**	45 mph
Number of Survey Samples	397		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	5
Annual Collision Rate	1.67 accidents/year
Collisions per Million Vehicle Miles	0.242

TRAFFIC FACTORS

Average Daily Traffic	25,879	**Date Counted**	9/24/2013
Number of Lanes	6 LANES, +LT LANES, SOME MEDIANS		
Type of Traffic Control	T.S. @ ROLLING HILLS RD, PVDN		
Crosswalks?	@ ALL T.S.		
Pedestrian Traffic	LIGHT		
Truck Traffic	MODERATE		
On-Street Parking	NSAT, BOTH SIDES		
Sidewalks?	BOTH SIDES PORTIONS		
Driveways?	SOME		

ROADWAY FACTORS

Length of Segment	0.730 miles
Width	83.5 feet
Vertical Curve?	STEEP DOWNGRADE N/B
Horizontal Curve?	LARGE RADIUS CURVES
Visibility	FAIR, EXCEPT SOME BLIND DRIVEWAYS
Roadway Conditions	GOOD
Lighting	E/S,N/O & W/S,S/O HID. LN
Adjacent Land Use	COMM'L, UNDEV, FRONT'G & NON-FRONT'G RES, SCHOOL

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET CRENSHAW BLVD **CERTIFICATION DATE** 2/25/2014
FROM INDIAN PEAK ROAD **TO** SILVER SPUR ROAD

SPEED FACTORS

Date of Speed Survey	9/20/2013	**Posted Speed Limit**	45 mph
Time of Speed Survey	10:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	29 mph	CONSISTENCY WITH SPEED LIMITS OF ADJACENT STREET SECTIONS	
85th Percentile Speed	36 mph		
Average Speed	30 mph		
10 mph Pace Speed	29-38		
Percentage of Vehicles in Pace	55	**Recommended Speed Limit**	45 mph
Number of Survey Samples	306		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	21,638	**Date Counted**	9/26/2013
Number of Lanes	4 LANES, DIVIDED BY GUARDRAIL		
Type of Traffic Control	T.S. @ INDIAN PEAK, SILVER SPUR		
Crosswalks?	@ SILVER SPUR RD.		
Pedestrian Traffic	LIGHT		
Truck Traffic	LIGHT		
On-Street Parking	NSAT W/S, NPAT E/S		
Sidewalks?	E/S ONLY, NONE W/S		
Driveways?	NONE		

ROADWAY FACTORS

Length of Segment	0.380 miles
Width	83.5 feet
Vertical Curve?	STEEP DOWNGRADE N/B
Horizontal Curve?	MODERATE RADIUS CURVES
Visibility	FAIR
Roadway Conditions	GOOD
Lighting	@ ONLY TS INTS
Adjacent Land Use	UNDEVELOPED, NON-FRONT'G RESIDENTIAL, NURSERY SCHO

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET DEEP VALLEY DRIVE **CERTIFICATION DATE** 2/25/2014
FROM DRYBANK DRIVE **TO** ROXCOVE DRIVE

SPEED FACTORS

Date of Speed Survey	9/24/2013	**Posted Speed Limit**	25 mph
Time of Speed Survey	9:15 AM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	22 mph	FIRST 5 MPH INCREMENT CLOSEST TO 85TH PERCENTILE	
85th Percentile Speed	26 mph		
Average Speed	23 mph		
10 mph Pace Speed	18-27		
Percentage of Vehicles in Pace	85	**Recommended Speed Limit**	25 mph
Number of Survey Samples	157		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	1
Annual Collision Rate	0.33 accidents/year
Collisions per Million Vehicle Miles	1.402

TRAFFIC FACTORS

Average Daily Traffic	2,506	**Date Counted**	9/26/2013
Number of Lanes	2 LANES, UNDIVIDED		
Type of Traffic Control	YIELD @ DRY BANK		
Crosswalks?	@ ROXCOVE, MIDWAY, DRY BANK		
Pedestrian Traffic	HEAVY		
Truck Traffic	NONE		
On-Street Parking	ON STREET, 2HR TIME LIMIT		
Sidewalks?	BOTH SIDES		
Driveways?	MANY		

ROADWAY FACTORS

Length of Segment	0.260 miles
Width	34-40 feet
Vertical Curve?	MODERATE DOWNGRADE E/B
Horizontal Curve?	SLIGHT CURVE
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	AT INTERSECTION, MIDBLOCK
Adjacent Land Use	COMMERCIAL BOTH SIDES

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET DEEP VALLEY DRIVE **CERTIFICATION DATE** 2/25/2014
FROM ROXCOVE DRIVE **TO** SILVER SPUR ROAD

SPEED FACTORS

Date of Speed Survey	9/26/2013	**Posted Speed Limit**	25 mph
Time of Speed Survey	9:00 AM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	22 mph	FIRST 5 MPH INCREMENT CLOSEST TO 85TH PERCENTILE	
85th Percentile Speed	27 mph		
Average Speed	23 mph		
10 mph Pace Speed	18-27		
Percentage of Vehicles in Pace	70	**Recommended Speed Limit**	25 mph
Number of Survey Samples	200		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	3,217	**Date Counted**	9/26/2013
Number of Lanes	2 LANES, UNDIVIDED		
Type of Traffic Control	NONE		
Crosswalks?	@ ROXCOVE		
Pedestrian Traffic	HEAVY		
Truck Traffic	NONE		
On-Street Parking	ON STREET, 2HR TIME LIMIT		
Sidewalks?	BOTH SIDES		
Driveways?	MANY		

ROADWAY FACTORS

Length of Segment	0.240 miles
Width	40 feet
Vertical Curve?	NONE
Horizontal Curve?	SHARP CURVE EAST END
Visibility	GOOD
Roadway Conditions	FAIR
Lighting	AT INTERSECTION, MIDBLOCK
Adjacent Land Use	COMMERCIAL BOTH SIDES

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET HAWTHORNE BLVD **CERTIFICATION DATE** 2/25/2014
FROM INDIAN PEAK ROAD **TO** SILVER SPUR ROAD

SPEED FACTORS

Date of Speed Survey	9/24/2013	**Posted Speed Limit**	35/25* mph
Time of Speed Survey	10:15 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	32 mph	*25 MPH SCHOOL ZONE; FIRST 5 MPH INCREMENT BELOW 85TH PERCENTILE	
85th Percentile Speed	38 mph		
Average Speed	32 mph		
10 mph Pace Speed	29-38		
Percentage of Vehicles in Pace	56	**Recommended Speed Limit**	35/25* mph
Number of Survey Samples	438		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	5
Annual Collision Rate	1.67 accidents/year
Collisions per Million Vehicle Miles	0.689

TRAFFIC FACTORS

Average Daily Traffic	30,126	**Date Counted**	9/26/2013
Number of Lanes	5 LANES, WITH MEDIAN AND LT LANES		
Type of Traffic Control	T.S. @ INDIAN PEAK, SILVER SPUR		
Crosswalks?	@ ALL T.S.		
Pedestrian Traffic	HEAVY		
Truck Traffic	MODERATE		
On-Street Parking	TIME LIMIT W/S; NSAT E/S		
Sidewalks?	BOTH SIDES		
Driveways?	MANY		

ROADWAY FACTORS

Length of Segment	0.220 miles
Width	80 feet
Vertical Curve?	NONE
Horizontal Curve?	LARGE RADIUS CURVE
Visibility	GOOD
Roadway Conditions	GOOD NEW OVERLAY
Lighting	ON EAST SIDE ONLY
Adjacent Land Use	COMMERCIAL, HIGH SCHOOL NEARBY

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET HAWTHORNE BLVD **CERTIFICATION DATE** 2/25/2014
FROM SOUTH CITY LIMIT **TO** PALOS VERDES DR N

SPEED FACTORS

Date of Speed Survey	9/24/2013	**Posted Speed Limit**	45 mph
Time of Speed Survey	11:15 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	35 mph	CONSISTENCY WITH SPEED LIMITS OF ADJACENT STREET SECTIONS	
85th Percentile Speed	41 mph		
Average Speed	35 mph		
10 mph Pace Speed	33-42		
Percentage of Vehicles in Pace	55	**Recommended Speed Limit**	45 mph
Number of Survey Samples	621		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	5
Annual Collision Rate	1.67 accidents/year
Collisions per Million Vehicle Miles	0.286

TRAFFIC FACTORS

Average Daily Traffic	26,183	**Date Counted**	9/24/2013
Number of Lanes	4 LANES, WITH MEDIAN AND LT LANES		
Type of Traffic Control	T.S. @ PALOS VERDES DR N		
Crosswalks?	@ PALOS VERDES DR N		
Pedestrian Traffic	NONE		
Truck Traffic	MODERATE; 25MPH NB TRUCKS		
On-Street Parking	ON STREET, TIME LIMIT, RED CB		
Sidewalks?	NONE		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.610 miles
Width	80 feet
Vertical Curve?	STEEP DOWNGRADE N/B
Horizontal Curve?	LARGE RADIUS CURVES
Visibility	GOOD
Roadway Conditions	GOOD
Lighting	AT PVDN INTERSECTION ONLY
Adjacent Land Use	UNDEVELOPED SUBURBAN

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET HAWTHORNE BLVD **CERTIFICATION DATE** 2/25/2014
FROM PALOS VERDES DR N **TO** NORTH CITY LIMIT

SPEED FACTORS

Date of Speed Survey	9/24/2013	**Posted Speed Limit**	45 mph
Time of Speed Survey	1:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	41 mph	FIRST INCREMENT BELOW 85TH; CONSIST. W/ ADJ. SEGMENTS; HIGH COLL. RATE	
85th Percentile Speed	48 mph		
Average Speed	42 mph		
10 mph Pace Speed	34-43		
Percentage of Vehicles in Pace	57	**Recommended Speed Limit**	45 mph
Number of Survey Samples	471		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	4
Annual Collision Rate	1.33 accidents/year
Collisions per Million Vehicle Miles	0.198

TRAFFIC FACTORS

Average Daily Traffic	28,878	**Date Counted**	9/24/2013
Number of Lanes	4 LANES, WITH MEDIAN AND LT LANES		
Type of Traffic Control	T.S. @ ROLLING HILLS RD, PVDN		
Crosswalks?	@ ALL T.S.		
Pedestrian Traffic	LIGHT		
Truck Traffic	MODERATE, 25MPH SPD LIMIT		
On-Street Parking	ON STREET		
Sidewalks?	W/S N OF HOWLETT PARK		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.640 miles
Width	80 feet
Vertical Curve?	STEEP DOWNGRADE N/B
Horizontal Curve?	SLIGHT
Visibility	GOOD
Roadway Conditions	GOOD; NEW OVERLAY
Lighting	AT INTERSECTIONS ONLY
Adjacent Land Use	SUBURB, NON-FRONTING RESIDENTIAL

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET HIGHRIDGE ROAD **CERTIFICATION DATE** 2/25/2014
FROM CREST ROAD **TO** CRESTRIDGE ROAD

SPEED FACTORS

Date of Speed Survey	9/25/2013	**Posted Speed Limit**	35/25* mph
Time of Speed Survey	9:00 AM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	32 mph	*25 MPH SCHOOL ZONE; FIRST INCREMENT BELOW 85TH PERCENTILE	
85th Percentile Speed	38 mph		
Average Speed	33 mph		
10 mph Pace Speed	28-37		
Percentage of Vehicles in Pace	62	**Recommended Speed Limit**	35/25* mph
Number of Survey Samples	166		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	3,059	**Date Counted**	9/26/2013
Number of Lanes	2 LANES, UNDIVIDED, LT LANES, TWLT		
Type of Traffic Control	T.S. @ CREST; STOP: CRESTRIDGE, WHITLEY COLLINS DR		
Crosswalks?	@ ALL T.S. AND STOPS		
Pedestrian Traffic	HEAVY		
Truck Traffic	NONE		
On-Street Parking	SCHL LOAD'G NEAR SCHOOL N/S		
Sidewalks?	Y E/S; W/S CONC BIKE PATH		
Driveways?	NONE		

ROADWAY FACTORS

Length of Segment	0.640 miles
Width	54 feet
Vertical Curve?	MODERATE DOWNGRADES N-S/B
Horizontal Curve?	SLIGHT
Visibility	GOOD
Roadway Conditions	GOOD
Lighting	@ INTER'S
Adjacent Land Use	NON-FRONTING RESIDENTIAL, SCHOOL, PARK

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET HIGHRIDGE ROAD **CERTIFICATION DATE** 2/25/2014
FROM CRESTRIDGE ROAD **TO** NORTH CITY LIMIT

SPEED FACTORS

Date of Speed Survey	9/25/2013	**Posted Speed Limit**	35 mph
Time of Speed Survey	10:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	32 mph	FIRST 5 MPH INCREMENT BELOW 85TH PERCENTILE	
85th Percentile Speed	37 mph		
Average Speed	32 mph		
10 mph Pace Speed	29-38		
Percentage of Vehicles in Pace	66	**Recommended Speed Limit**	35 mph
Number of Survey Samples	145		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	1
Annual Collision Rate	0.33 accidents/year
Collisions per Million Vehicle Miles	0.468

TRAFFIC FACTORS

Average Daily Traffic	4,648	**Date Counted**	9/26/2013
Number of Lanes	2 LANES, UNDIVIDED, LT LANES, TWLT		
Type of Traffic Control	STOP @ TERRACE DR, CRESTRIDGE		
Crosswalks?	@ ALL STOPS		
Pedestrian Traffic	MODERATE		
Truck Traffic	NONE		
On-Street Parking	NSAT E/S & W/S; SOME STRT PKNG		
Sidewalks?	Y E/S; W/S CONC BIKE PATH		
Driveways?	NONE		

ROADWAY FACTORS

Length of Segment	0.420 miles
Width	54-82 feet
Vertical Curve?	MODERATE DOWNGRADE S/B
Horizontal Curve?	LARGE RADIUS CURVES
Visibility	GOOD
Roadway Conditions	GOOD
Lighting	@ INTER'S
Adjacent Land Use	NON-FRONTING RESIDENTIAL

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET INDIAN PEAK ROAD **CERTIFICATION DATE** 2/25/2014
FROM CRENSHAW BLVD **TO** NORRIS CENTER DRIVE

SPEED FACTORS

Date of Speed Survey	9/26/2013	**Posted Speed Limit**	40 mph
Time of Speed Survey	10:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	37 mph	FIRST 5 MPH INCREMENT BELOW 85TH PERCENTILE	
85th Percentile Speed	42 mph		
Average Speed	38 mph		
10 mph Pace Speed	33-42		
Percentage of Vehicles in Pace	77	**Recommended Speed Limit**	40 mph
Number of Survey Samples	200		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	8,909	**Date Counted**	9/26/2013
Number of Lanes	2 LANES, + 2WY LT LANES, SOME MEDIANS		
Type of Traffic Control	T.S. @ CRENSHAW, NORRIS CTR, PROMENADE PKNG		
Crosswalks?	@ ALL T.S.		
Pedestrian Traffic	MODERATE		
Truck Traffic	MODERATE		
On-Street Parking	NSAT SS; ANGL N/S,E/O NOR CTR		
Sidewalks?	S/S PCC BIKE; N/S W/O PKG		
Driveways?	(1) EACH SIDE		

ROADWAY FACTORS

Length of Segment	0.420 miles
Width	38-60 feet
Vertical Curve?	STEEP DOWNGRADE W/B
Horizontal Curve?	LARGE RADIUS CURVE
Visibility	GOOD
Roadway Conditions	GOOD
Lighting	AT INTERSECTIONS ONLY
Adjacent Land Use	UNDEVELOPED S/S, COMMERCIAL N/S, NURSERY SCHOOL

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET INDIAN PEAK ROAD **CERTIFICATION DATE** 2/25/2014
FROM NORRIS CENTER DRIVE **TO** HAWTHORNE BLVD

SPEED FACTORS

Date of Speed Survey	9/26/2013	**Posted Speed Limit**	40 mph
Time of Speed Survey	11:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	33 mph	CLOSEST 5 MPH INCREMENT TO 85TH PERCENTILE	
85th Percentile Speed	38 mph		
Average Speed	34 mph		
10 mph Pace Speed	30-39		
Percentage of Vehicles in Pace	74	**Recommended Speed Limit**	40 mph
Number of Survey Samples	217		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	2
Annual Collision Rate	0.67 accidents/year
Collisions per Million Vehicle Miles	0.613

TRAFFIC FACTORS

Average Daily Traffic	7,443	**Date Counted**	9/26/2013
Number of Lanes	4 LANES, + 2WY LT LANES		
Type of Traffic Control	T.S. @ NORRIS CTR, HAWTHORNE		
Crosswalks?	@ ALL T.S.		
Pedestrian Traffic	MODERATE		
Truck Traffic	LIGHT		
On-Street Parking	N/S TIME LMT, NSAT; S/S NSAT		
Sidewalks?	YES N/S; 500' EO HWTH S/S		
Driveways?	FEW S/S; SEVERAL N/S		

ROADWAY FACTORS

Length of Segment	0.400 miles
Width	60 feet
Vertical Curve?	SLIGHT DOWNGRADE E/B
Horizontal Curve?	MODERATE
Visibility	GOOD
Roadway Conditions	GOOD
Lighting	S/S ONLY
Adjacent Land Use	UNDEVELOPED S/S, COMMERCIAL N/S

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR E **CERTIFICATION DATE** 2/25/2014
FROM SOUTH CITY LIMIT **TO** PALOS VERDES DR N

SPEED FACTORS

Date of Speed Survey	9/25/2013	**Posted Speed Limit**	40 mph
Time of Speed Survey	11:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	40 mph	BLIND DWYS; PEDS & BIKES ON SHOULDER; RESTRICTED CORNER SIGHT DISTANCE	
85th Percentile Speed	46 mph		
Average Speed	41 mph		
10 mph Pace Speed	36-45		
Percentage of Vehicles in Pace	70	**Recommended Speed Limit**	40 mph
Number of Survey Samples	447		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	1
Annual Collision Rate	0.33 accidents/year
Collisions per Million Vehicle Miles	0.108

TRAFFIC FACTORS

Average Daily Traffic	13,612	**Date Counted**	9/24/2013
Number of Lanes	4 LANES TO 2 LANES, UND., MED @ PVDN		
Type of Traffic Control	T.S. @ PVDN		
Crosswalks?	@ T.S		
Pedestrian Traffic	LIGHT		
Truck Traffic	LIGHT		
On-Street Parking	B/S ON DIRT SHOULDERS		
Sidewalks?	DIRT SHOULDERS		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.620 miles
Width	30-99 feet
Vertical Curve?	MODERATE DOWNGRADE N/B
Horizontal Curve?	LARGE RADIUS CURVES
Visibility	FAIR
Roadway Conditions	GOOD
Lighting	AT PVDN INTERSECTION ONLY
Adjacent Land Use	SUBURBAN, FRONTING RESIDENTIAL, EQUESTRIAN

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR E **CERTIFICATION DATE** 2/25/2014
FROM PALOS VERDES DR N **TO** NORTH CITY LIMIT

SPEED FACTORS

Date of Speed Survey	9/25/2013	**Posted Speed Limit**	40 mph
Time of Speed Survey	1:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	34 mph	CLOSEST 5 MPH INCREMENT TO 85TH PERCENTILE	
85th Percentile Speed	39 mph		
Average Speed	35 mph		
10 mph Pace Speed	31-40		
Percentage of Vehicles in Pace	74	**Recommended Speed Limit**	40 mph
Number of Survey Samples	424		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	2
Annual Collision Rate	0.67 accidents/year
Collisions per Million Vehicle Miles	0.185

TRAFFIC FACTORS

Average Daily Traffic	9,793	**Date Counted**	9/24/2013
Number of Lanes	2 TO 4 LANES, UNDVD , MEDIAN AT PVDN		
Type of Traffic Control	T.S. @ PVDN		
Crosswalks?	@ T.S., EQUES. XING S/O CLUB VIEW		
Pedestrian Traffic	LIGHT		
Truck Traffic	MODERATE AT NORTH END		
On-Street Parking	NPAT		
Sidewalks?	DIRT SHOULDERS		
Driveways?	SEVERAL		

ROADWAY FACTORS

Length of Segment	1.010 miles
Width	33-66 feet
Vertical Curve?	MODERATE DOWNGRADE N/B
Horizontal Curve?	SHARP @ N END; MOD RADIUS
Visibility	FAIR
Roadway Conditions	GOOD
Lighting	AT PVDN INTERSECTION ONLY
Adjacent Land Use	SUBURB, NON-FRONTING RESIDENTIAL, COMMERCIAL, GOLF

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR N **CERTIFICATION DATE** 2/25/2014
FROM EAST CITY LIMITS **TO** PALOS VERDES DR E

SPEED FACTORS

Date of Speed Survey	9/26/2013	**Posted Speed Limit**	45 mph
Time of Speed Survey	1:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	44 mph	FIRST 5 MPH INCREMENT BELOW 85TH PERCENTILE; HIGH COLLISION RATE	
85th Percentile Speed	50 mph		
Average Speed	45 mph		
10 mph Pace Speed	40-49		
Percentage of Vehicles in Pace	63	**Recommended Speed Limit**	45 mph
Number of Survey Samples	537		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	4
Annual Collision Rate	1.33 accidents/year
Collisions per Million Vehicle Miles	0.217

TRAFFIC FACTORS

Average Daily Traffic	33,647	**Date Counted**	9/24/2013
Number of Lanes	4 LANES DIVIDED, BIKE LANES		
Type of Traffic Control	TS @ PALOS VERDES DR E		
Crosswalks?	@ TS		
Pedestrian Traffic	MODERATE+HORSES		
Truck Traffic	LIGHT		
On-Street Parking	NPAT BOTH SIDES		
Sidewalks?	PATH ON N/S		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.500 miles
Width	104 feet
Vertical Curve?	SLIGHT DOWNGRADE EB
Horizontal Curve?	E/O PVDE
Visibility	FAIR
Roadway Conditions	GOOD
Lighting	NONE EXCEPT @ INTS
Adjacent Land Use	RESIDENTIAL, CHURCH

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR N **CERTIFICATION DATE** 2/25/2014
FROM PALOS VERDES DR E **TO** ROLLING HILLS RD

SPEED FACTORS

Date of Speed Survey	9/26/2013	**Posted Speed Limit**	40/25* mph
Time of Speed Survey	2:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	28 mph	*25 MPH SCHOOL ZONE; CONSIST. W/ SPEED LIMITS OF ADJ. STREET SECTIONS	
85th Percentile Speed	35 mph		
Average Speed	30 mph		
10 mph Pace Speed	23-32		
Percentage of Vehicles in Pace	64	**Recommended Speed Limit**	40/25* mph
Number of Survey Samples	606		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	17
Annual Collision Rate	5.67 accidents/year
Collisions per Million Vehicle Miles	0.388

TRAFFIC FACTORS

Average Daily Traffic	36,073	**Date Counted**	9/24/2013
Number of Lanes	4 LANES TO 2 LANES, DIVIDED, BIKE LANES		
Type of Traffic Control	TS @ PVDE, DAPPLEGRAY, ROLLING HILLS		
Crosswalks?	@ TS INTS		
Pedestrian Traffic	MODERATE+HORSES		
Truck Traffic	LIGHT		
On-Street Parking	NPAT BOTH SIDE		
Sidewalks?	PATH ON N/S		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	1.110 miles
Width	46 feet
Vertical Curve?	E/O OF ROLLING HILLS
Horizontal Curve?	THROUGHOUT SEGMENT
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	@ INTS
Adjacent Land Use	RESIDENTIAL, SCHOOL AT DAPPLEGRAY

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR N **CERTIFICATION DATE** 2/25/2014
FROM ROLLING HILLS RD **TO** CRENSHAW BLVD

SPEED FACTORS

Date of Speed Survey	9/26/2013	**Posted Speed Limit**	40/25* mph
Time of Speed Survey	3:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	35 mph	*25 MPH SCHOOL ZONE; FIRST 5 MPH CLOSEST TO 85TH PERCENTILE	
85th Percentile Speed	40 mph		
Average Speed	35 mph		
10 mph Pace Speed	30-39		
Percentage of Vehicles in Pace	62	**Recommended Speed Limit**	40/25* mph
Number of Survey Samples	645		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	8
Annual Collision Rate	2.67 accidents/year
Collisions per Million Vehicle Miles	0.433

TRAFFIC FACTORS

Average Daily Traffic	26,336	**Date Counted**	9/24/2013
Number of Lanes	2 LANES DIVIDED, LT/RT LANES, BIKE LANES		
Type of Traffic Control	TS@ ROLLING HILLS, CRENSHAW		
Crosswalks?	@ TS INTS		
Pedestrian Traffic	MODERATE+HORSES		
Truck Traffic	LIGHT		
On-Street Parking	NPAT BOTH SIDES		
Sidewalks?	PATH ON NORTH SIDE		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.640 miles
Width	46 feet
Vertical Curve?	THROUGHOUT SEGMENT
Horizontal Curve?	THROUGHOUT SEGMENT
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	@ INTS
Adjacent Land Use	RESIDENTIAL

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR N **CERTIFICATION DATE** 2/25/2014
FROM CRENSHAW BLVD **TO** HAWTHORNE BLVD

SPEED FACTORS

Date of Speed Survey	10/31/2013	**Posted Speed Limit**	40/25* mph
Time of Speed Survey	11:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	37 mph	*25 MPH SCHOOL ZONE; FIRST 5 MPH BELOW THE 85TH PERCENTILE	
85th Percentile Speed	41 mph		
Average Speed	37 mph		
10 mph Pace Speed	34-43		
Percentage of Vehicles in Pace	80	**Recommended Speed Limit**	40/25* mph
Number of Survey Samples	306		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	2
Annual Collision Rate	0.67 accidents/year
Collisions per Million Vehicle Miles	0.175

TRAFFIC FACTORS

Average Daily Traffic	20,846	**Date Counted**	10/30/2013
Number of Lanes	2-4 LANES DIVIDED WITH BIKE LANES		
Type of Traffic Control	TS @ CRENSHAW, HAWTHORNE		
Crosswalks?	@ TS INT, IRWL SILVER SADDLE, CITY HALL		
Pedestrian Traffic	MODERATE+HORSES		
Truck Traffic	LIGHT		
On-Street Parking	NPAT BOTH SIDES		
Sidewalks?	PATH ON N/S		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.500 miles
Width	45-88 feet
Vertical Curve?	THROUGHOUT SEGMENT
Horizontal Curve?	THROUGHOUT SEGMENT
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	@ INTS
Adjacent Land Use	RESIDENTIAL, SCHOOL

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR N **CERTIFICATION DATE** 2/25/2014
FROM HAWTHORNE BLVD **TO** SILVER SPUR RD

SPEED FACTORS

Date of Speed Survey	10/31/2013	**Posted Speed Limit**	40 mph
Time of Speed Survey	10:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	35 mph	FIRST 5 MPH CLOSEST TO 85TH PERCENTILE	
85th Percentile Speed	38 mph		
Average Speed	35 mph		
10 mph Pace Speed	31-40		
Percentage of Vehicles in Pace	86	**Recommended Speed Limit**	35 mph
Number of Survey Samples	299		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	17,499	**Date Counted**	10/30/2013
Number of Lanes	2 LANES DIVIDED, W/ TURN LANES, BIKE LANES		
Type of Traffic Control	TS @ HAWTHORNE, STOP @ SILVER SPUR		
Crosswalks?	@ HAWTHORNE, SILVERSPUR		
Pedestrian Traffic	MODERATE		
Truck Traffic	NONE		
On-Street Parking	NPAT BOTH SIDES		
Sidewalks?	PATH ON N/S		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.390 miles
Width	45-88 feet
Vertical Curve?	THROUGHOUT SEGMENT
Horizontal Curve?	THROUGHOUT SEGMENT
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	@ INTS
Adjacent Land Use	RESIDENTIAL

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET PALOS VERDES DR N **CERTIFICATION DATE** 2/25/2014
FROM SILVER SPUR RD **TO** NORTH CITY LIMIT

SPEED FACTORS

Date of Speed Survey	10/31/2013	**Posted Speed Limit**	40 mph
Time of Speed Survey	9:00 AM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	35 mph	FIRST 5 MPH BELOW THE 85TH PERCENTILE	
85th Percentile Speed	38 mph		
Average Speed	36 mph		
10 mph Pace Speed	31-40		
Percentage of Vehicles in Pace	65	**Recommended Speed Limit**	35 mph
Number of Survey Samples	271		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	1
Annual Collision Rate	0.33 accidents/year
Collisions per Million Vehicle Miles	0.152

TRAFFIC FACTORS

Average Daily Traffic	14,677	**Date Counted**	10/30/2013
Number of Lanes	2 LANES W/ RAISED AND STRIPED MEDIAN, BIKE LANES		
Type of Traffic Control	STOP @ SILVER SPUR		
Crosswalks?	@ SILVER SPUR		
Pedestrian Traffic	LIGHT		
Truck Traffic	NONE		
On-Street Parking	NPAT BOTH SIDES		
Sidewalks?	PATH ON NORTH SIDE		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.410 miles
Width	60 feet
Vertical Curve?	THROUGHOUT SEGMENT
Horizontal Curve?	THROUGHOUT SEGMENT
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	AT INTS
Adjacent Land Use	RESIDENTIAL

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET ROLLING HILLS RD **CERTIFICATION DATE** 2/25/2014
FROM PALOS VERDES DR N **TO** NORTH CITY LIMITS

SPEED FACTORS

Date of Speed Survey	9/27/2013	**Posted Speed Limit**	35/25* mph
Time of Speed Survey	1:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	36 mph	*25 MPH SCH. ZONE; PED & HORSE ON STREET; BLIND DWYS; UNCONT. XWALKS	
85th Percentile Speed	41 mph		
Average Speed	37 mph		
10 mph Pace Speed	33-42		
Percentage of Vehicles in Pace	75	**Recommended Speed Limit**	35/25* mph
Number of Survey Samples	459		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	2
Annual Collision Rate	0.67 accidents/year
Collisions per Million Vehicle Miles	0.394

TRAFFIC FACTORS

Average Daily Traffic	9,266	**Date Counted**	9/24/2013
Number of Lanes	2 LANES UNDIVIDED, BIKE LANES		
Type of Traffic Control	TS @ PVDN		
Crosswalks?	@ TS, UNCONTR. XWALK		
Pedestrian Traffic	LIGHT+HORSES		
Truck Traffic	NONE		
On-Street Parking	NPAT BOTH SIDES		
Sidewalks?	PATH E/S PVDN TO PALAMINO		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.500 miles
Width	32 feet
Vertical Curve?	DOWNHILL NB
Horizontal Curve?	ROLLING CURVES
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	AT INTS
Adjacent Land Use	RESIDENTIAL, SCHOOL AT PVDN

Field Study By BB **Checked By** EHZ

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Erik Zandvliet 2/25/2014 TE 1775

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CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET SILVER SPUR ROAD **CERTIFICATION DATE** 2/25/2014
FROM PALOS VERDES DR N **TO** KINGSPINE ROAD

SPEED FACTORS

Date of Speed Survey	9/27/2013	**Posted Speed Limit**	35 mph
Time of Speed Survey	2:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	37 mph	BLIND INTS; PED & BIKE ON STREET; NO SIDEWALKS; TIGHT CURVES	
85th Percentile Speed	42 mph		
Average Speed	37 mph		
10 mph Pace Speed	32-41		
Percentage of Vehicles in Pace	68	**Recommended Speed Limit**	35 mph
Number of Survey Samples	418		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	14,855	**Date Counted**	9/24/2013
Number of Lanes	2 LANES UNDIVIDED, TWLT, LT/RT LANES		
Type of Traffic Control	STOP @ PVDN		
Crosswalks?	@ STOP		
Pedestrian Traffic	MODERATE+HORSES		
Truck Traffic	NONE		
On-Street Parking	NPAT BOTH SIDES		
Sidewalks?	PARTIAL PATHS		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.390 miles
Width	50 feet
Vertical Curve?	DOWNHILL NB
Horizontal Curve?	ROLLING CURVES
Visibility	LIMITED AT TIMES, SHARP CURVES
Roadway Conditions	FAIR
Lighting	@ KINGSPINE
Adjacent Land Use	RESIDENTIAL

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET SILVER SPUR ROAD **CERTIFICATION DATE** 2/25/2014
FROM KINGSPINE RD **TO** ELKMONT RD

SPEED FACTORS

Date of Speed Survey	9/20/2013	**Posted Speed Limit**	40 mph
Time of Speed Survey	1:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	37 mph	FIRST 5 MPH BELOW THE 85TH PERCENTILE; CONSISTENT W/ ADJ. SECTIONS	
85th Percentile Speed	42 mph		
Average Speed	37 mph		
10 mph Pace Speed	32-41		
Percentage of Vehicles in Pace	70	**Recommended Speed Limit**	40 mph
Number of Survey Samples	263		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	12,634	**Date Counted**	9/24/2013
Number of Lanes	3 LANES UNDIVIDED, LT/RT LANES		
Type of Traffic Control	TS @ MONTEMALAGA		
Crosswalks?	@ TS		
Pedestrian Traffic	MODERATE		
Truck Traffic	NONE		
On-Street Parking	NPAT ON BOTH SIDES		
Sidewalks?	E/S ELKMONT TO KINGSPINE		
Driveways?	FEW		

ROADWAY FACTORS

Length of Segment	0.700 miles
Width	40 feet
Vertical Curve?	DOWNHILL NB
Horizontal Curve?	ROLLING CURVES
Visibility	FAIR
Roadway Conditions	FAIR
Lighting	AT INTS
Adjacent Land Use	RESIDENTIAL

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET SILVER SPUR ROAD **CERTIFICATION DATE** 2/25/2014
FROM HAWTHORNE BLVD **TO** DRY BANK DRIVE

SPEED FACTORS

Date of Speed Survey	9/27/2013	**Posted Speed Limit**	35 mph
Time of Speed Survey	3:00 PM	**Speed Justification**	
50th Percentile Speed (Mean Speed)	33 mph	FIRST 5 MPH BELOW THE 85TH PERCENTILE	
85th Percentile Speed	38 mph		
Average Speed	33 mph		
10 mph Pace Speed	30-39		
Percentage of Vehicles in Pace	67	**Recommended Speed Limit**	35 mph
Number of Survey Samples	373		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	2
Annual Collision Rate	0.67 accidents/year
Collisions per Million Vehicle Miles	0.294

TRAFFIC FACTORS

Average Daily Traffic	16,367	**Date Counted**	9/26/2013
Number of Lanes	4 LANES, WITH MEDIAN AND LT LANES		
Type of Traffic Control	T.S. @ NOR CTR, PENN CTR., HAWTHORNE, DRY BANK		
Crosswalks?	@ ALL T.S.		
Pedestrian Traffic	MODERATE		
Truck Traffic	LIGHT		
On-Street Parking	TIME LIMIT S/S NORRIS TO DB		
Sidewalks?	BOTH SIDES		
Driveways?	SEVERAL		

ROADWAY FACTORS

Length of Segment	0.380 miles
Width	79 feet
Vertical Curve?	MODERATE DOWNGRADE E/B
Horizontal Curve?	LARGE RADIUS CURVE
Visibility	GOOD
Roadway Conditions	GOOD
Lighting	ON CENTER DIVIDER MEDIAN
Adjacent Land Use	COMMERCIAL BOTH SIDES, HIGH SCHOOL NEARBY

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 TE 1775

Erik Zandvliet **Date** **State Registration Number**

CITY OF ROLLING HILLS ESTATES
ENGINEERING AND TRAFFIC SURVEY

STREET SILVER SPUR ROAD **CERTIFICATION DATE** 2/25/2014
FROM DRY BANK DRIVE **TO** CRENSHAW BLVD

SPEED FACTORS

Date of Speed Survey	9/27/2013	**Posted Speed Limit**	35 mph
Time of Speed Survey	11:00 A	**Speed Justification**	
50th Percentile Speed (Mean Speed)	36 mph	BLIND DWYS; HEAVY CURB PKNG; BIKES ON STREET; UNCONT. XWALK	
85th Percentile Speed	41 mph		
Average Speed	36 mph		
10 mph Pace Speed	31-40		
Percentage of Vehicles in Pace	67	**Recommended Speed Limit**	35 mph
Number of Survey Samples	387		

COLLISION HISTORY

Number of Years Studied	3 years
Total Collisions	0
Annual Collision Rate	0 accidents/year
Collisions per Million Vehicle Miles	0.000

TRAFFIC FACTORS

Average Daily Traffic	13,509	**Date Counted**	9/26/2013
Number of Lanes	4 LANES, WITH MEDIAN AND LT LANES		
Type of Traffic Control	T.S. @ CRENSHAW, BEECHGATE, DRY BANK		
Crosswalks?	@ ALL T.S.		
Pedestrian Traffic	MODERATE		
Truck Traffic	MODERATE		
On-Street Parking	ON STREET, SOME TIME LIMIT		
Sidewalks?	BOTH SIDES		
Driveways?	SEVERAL		

ROADWAY FACTORS

Length of Segment	0.510 miles
Width	78 feet
Vertical Curve?	SLIGHT DOWNGRADE E/B
Horizontal Curve?	SLIGHT CURVE
Visibility	GOOD
Roadway Conditions	GOOD
Lighting	ON CENTER DIVIDER MEDIAN
Adjacent Land Use	COMMERCIAL BOTH SIDES

Field Study By BB **Checked By** EHZ

CERTIFICATION: I, Erik Zandvliet, do hereby certify that this Engineering and Traffic Survey within the City of Rolling Hills Estates was performed under my supervision and is accurate and complete. I am duly registered in the State of California as a Professional Engineer (Traffic).

Erik Zandvliet 2/25/2014 **TE 1775**

Erik Zandvliet **Date** **State Registration Number**

Radar Speed Distribution Forms

CITY OF ROLLING HILLS ESTATES

DATE: 9-20-13 TIME START: 9:00AM TIME STOP: 10:00AM

FOR ROADWAY: CRENSHAW BOULEVARD

SPEED (MPH)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58		XXX	3
57	X	XXX	4
56		XXX	3
55	XXXX	XXXXXX	10
54	XXX	XXXXXXXX	12
53	XXXXXX	XXXXXXX	14
52	XX	XXXXXX	9
51	XXXX	XXXXXXXXXX	15
50	XXXX	XXXXXXXXXXXXXX	22
49	XXXXXX	XXXXXXXXXXXX	19
48	XXXXX	XXXXXXXXXXXXXX	20
47	XXXXXXX	XXXXXXXXXXXXXX	26
46	XXXXXXXXX	XXXXXXXXXX	21
45	XXXXXXXXXXXX	XXXXXXXXXXXXXX	35
44	XXXXXXXXXXX	XXXXXXXXXXX	24
43	XXXXXXXXXXXXXXX	XXXXXXXXXXX	26
42	XXXXXXXXXX	XXXXXXXXXXX	23
41	XXXXXXXXXX	XXXXXXXXX	21
40	XXXXX	XXXXX	10
39	XXXXXX	XXXXXXXX	15
38	XXXXXXX	XXXXXX	15
37	XXXXXXX	XXXX	12
36	XXXXXXXXXX		11
35	XXXXX	XXX	8
34	XX	X	3
33	XXXX	XX	6
32	XXX	XX	5
31			0
30	X		1
29			0
28	X		1
27			0
26			0
25	X		1
24		X	1
23			0
22			0
21			0
20			0
19			0
18			0
17	X		1
16			0
15			0
		GRAND TOTALS	397

PACE

LOCATION: PALOS VERDES DRIVE NORTH TO NORTH CITY LIMITS

ROAD DESCRIPTION: 6 LANES WITH RAISED AND PAINTED MEDIAN

ACCIDENT HISTORY: 5

ACCIDENT RATE: 0.242 **EXPECTED RATE:** 1.95

ROADWAY CONDITIONS: GOOD

WEATHER: CLOUDY

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

AVERAGE DAILY TRAFFIC: 25,879 **SEGMENT LENGTH:** 0.73

85TH %:	**50**	**M.P.H.**
50TH %:	44	M.P.H.
15TH %:	37	M.P.H.
AVERAGE SPEED:	45	M.P.H.
10 MPH PACE:	41 - 50	M.P.H.
% IN PACE:	60%	
% OVER PACE:	18%	
% UNDER PACE:	23%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-20-13 TIME START: 10:00AM TIME STOP: 11:00AM

FOR ROADWAY: CRENSHAW BOULEVARD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47			0
46			0
45	X		1
44			0
43	X	XXX	4
42			0
41			0
40	XX	XXX	5
39	X	XXX	4
38	XX	XXXXXXXX	10
37	XXXXXXXXXXXXXX	XXXXXXX	21
36	XXXX	XXXXXXXXXXXXXXX	19
35	XXXXXX	XXXXXXXXX	15
34	XXXXXX	XXXXXX	12
33	XXXXXXX	XXXXXXXXXX	16
32	XXXXXXXXXXXXXXX	XXXXXXXXXXXXX	28
31	XXXXXXXXX	XXXX	13
30	XXXXXXXXXXXXXXX	XXX	18
29	XXXXXXXXX	XXXXXX	15
28	XXX	XXXXXXX	10
27	XXXXXXX	XXXXXXX	14
26	XXXXXXXXXX	XXXXXXXXXX	19
25	XXXXXXX	XXXXXXX	14
24	XXXXXXXXXXXX	XXX	15
23	XXXXXXXXXXXXXX	XX	16
22	XXXXX	XX	7
21	XXX	XXXX	7
20	XXXXXX	XX	8
19	XXXX	XXXXX	9
18	X		1
17	XX	XX	4
16			0
15		X	1
		GRAND TOTALS	306

LOCATION: INDIAN PEAK ROAD TO SILVER SPUR ROAD

ROAD DESCRIPTION: 4 LANES, DIVIDED BY GUARDRAIL

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 2.10

ROADWAY CONDITIONS: GOOD

WEATHER: CLOUDY

EXISTING SPEED LIMIT: 45 PROPOSED SPEED LIMIT: 45

AVERAGE DAILY TRAFFIC: 21,638 SEGMENT LENGTH: 0.38

PACE

85TH %:	36	M.P.H.
50TH %:	29	M.P.H.
15TH %:	22	M.P.H.
AVERAGE SPEED:	30	M.P.H.
10 MPH PACE:	29 - 38	M.P.H.
% IN PACE:	55%	
% OVER PACE:	5%	
% UNDER PACE:	41%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-24-13 TIME START: 9:15AM TIME STOP: 10:15AM

FOR ROADWAY: DEEP VALLEY DRIVE

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47			0
46			0
45			0
44			0
43			0
42			0
41			0
40			0
39	X		1
38			0
37		X	1
36			0
35			0
34			0
33	XX		2
32			0
31		X	1
30		XX	2
29	X	XX	3
28	X	XX	3
27	XXXXXXXX	XXXXXXX	15
26	XXXXXXXXXX	XXXX	14
25	XXXXXX	XXXXX	12
24	XXXXXXXXX	XXXX	13
23	XXXXXXX	XXXX	11
22	XXXXXXX	XXXXXXX	15
21	XXXXXXXXXX	XXXXXX	18
20	XXXXXXX	XXXX	12
19	XXXXXXXXXXXX	XXX	15
18	XXXXXX	XX	9
17	XXXXX	X	7
16		XX	2
15	X		1
		GRAND TOTALS	157

PACE

LOCATION: DRYBANK DRIVE TO ROXCOVE DRIVE

ROAD DESCRIPTION: 2 LANES, UNDIVIDED WITH SKIP YELLOW

ACCIDENT HISTORY: 1

ACCIDENT RATE: 0.33 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 25 PROPOSED SPEED LIMIT: 25

AVERAGE DAILY TRAFFIC: 2,506 SEGMENT LENGTH: 0.26

85TH %:	26	M.P.H.
50TH %:	22	M.P.H.
15TH %:	18	M.P.H.
AVERAGE SPEED:	23	M.P.H.
10 MPH PACE:	18 - 27	M.P.H.
% IN PACE:	85%	
% OVER PACE:	8%	
% UNDER PACE:	6%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-26-13 TIME START: 9:00AM TIME STOP: 10:00AM

FOR ROADWAY: DEEP VALLEY DRIVE

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47			0
46			0
45			0
44			0
43			0
42			0
41			0
40			0
39			0
38	X		1
37			0
36			0
35			0
34	X		1
33			0
32	XXXXX		5
31	XXXXXX	X	7
30	XXX		3
29	XXXXXX	XX	8
28	XXXXXXXX	X	9
27	XXXXX	XXX	8
26	XXXXXXXXXX	XXXXXXXXX	21
25	XXXXXX	XXXXXXXXX	16
24	XXXXXXX	XXXXXXXXX	17
23	XXXXXXX	XXXXXXX	15
22	XXXXX	XXXXXXXXXXXXX	19
21	XXXXX	XXXXXX	11
20	XXXXX	XXXXXX	11
19	XXX	XXXXX	8
18	XXX	XXXXXXXXXX	14
17	XXXX	XXXX	8
16	XXX	XXXX	7
15	XXX	XXXXXXX	11
		GRAND TOTALS	200

PACE

LOCATION: ROXCOVE DRIVE TO SILVER SPUR ROAD

ROAD DESCRIPTION: 2 LANES, UNDIIVIDED WITH SKIP YELLOW

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 25 PROPOSED SPEED LIMIT: 25

AVERAGE DAILY TRAFFIC: 3,217 SEGMENT LENGTH: 0.24

85TH %:	27	M.P.H.
50TH %:	22	M.P.H.
15TH %:	17	M.P.H.
AVERAGE SPEED:	23	M.P.H.
10 MPH PACE:	18 - 27	M.P.H.
% IN PACE:	70%	
% OVER PACE:	17%	
% UNDER PACE:	13%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-24-13 TIME START: 10:15AM TIME STOP: 11:15AM

FOR ROADWAY: HAWTHORNE BOULEVARD

SPEED (MPH)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48	X		1
47	X		1
46		X	1
45		XXX	3
44		XXX	3
43		XXXXXX	6
42		XXXXX	5
41	XXXXXXX	XXXXXXX	14
40	XXX	XXXXXXXXXXXX	15
39	XXXXX	XXXXXXXXXXXXXXXX	20
38	XXXXXX	XXXXXXXXXXXX	19
37	XXXXXXXXXX	XXXXXXXXXXXX	24
36	XXXXXXXXX	XXXXXXXXXXX	21
35	XXXXXXXXXX	XXXXXXXXXXXX	24
34	XXXXXXXXXXXX	XXXXXXXXXXXXXXX	33
33	XXXXXXXXXXXXXX	XXXXXXXXX	28
32	XXXXXXXXXXXXXX	XXXXXXXX	31
31	XXXXXXXX	XXXXXX	15
30	XXXXXXXXXXXXXX	XXXXXXXXXX	31
29	XXXXXXXXXXXXXX	XXXX	21
28	XXXXXXXXXXX	XXXXXX	19
27	XXXXXXXX	XXXXXX	16
26	XXXXXXXX	XXXX	13
25	XXXXXXXXXXXX	X	14
24	XXXXX	XX	7
23	XXXX		4
22	XXXXXXX	XXXX	12
21	XXXX		4
20	XXXXXXXXXXXX	X	14
19	XXXXXXXXXXXXX	XXX	17
18	X		1
17		X	1
16			0
15			0
		GRAND TOTALS	438

LOCATION: INDIAN PEAK ROAD TO SILVER SPUR ROAD

ROAD DESCRIPTION: 5 LANES WITH RAISED MEDIAN

ACCIDENT HISTORY: 5

ACCIDENT RATE: 0.69 EXPECTED RATE: 3.35

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

AVERAGE DAILY TRAFFIC: 30,126 SEGMENT LENGTH: 0.22

PACE

85TH %:	38	M.P.H.
50TH %:	32	M.P.H.
15TH %:	24	M.P.H.
AVERAGE SPEED:	32	M.P.H.
10 MPH PACE:	29 - 38	M.P.H.
% IN PACE:	56%	
% OVER PACE:	16%	
% UNDER PACE:	28%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 05 HAWTHORNE-INDIAN PEAK TO SILVER SPUR.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-24-13 TIME START: 11:15AM TIME STOP: 12:00PM

FOR ROADWAY: HAWTHORNE BOULEVARD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56	X		1
55			0
54	X		1
53	XXXX		4
52	X		1
51	X		1
50	XXXX		4
49			0
48	XX		2
47	XXXXXXXXXXXXXXX	X	15
46	XXXX		4
45	XXXXXXXXXXXXX	XXXX	17
44	XXXXXXXXXXXXX	XXXX	17
43	XXXXXXXXXXXXXXX		16
42	XXXXXXXXXXX	XXXXXXXXXXXX	22
41	XXXXXXXXXXXXXX	XXXXXXXXXXXXX	26
40	XXXXXXXXXXXXXXX	XXXXX	20
39	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	48
38	XXXXXXXXXXXXXXX	XXXXXXXXXXXXX	30
37	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	52
36	XXXXXXX	XXXXXXXXXXXXXXX	31
35	XXXXXXX	XXXXXXXXXXXXXXX	37
34	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	40
33	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	35
32	XXX	XXXXXXXXXXXXXXX	21
31	XXXXXX	XXXX	10
30	XXXXXXXXXXXXX	XXXXXXXXXX	21
29	XXXXXX	XXX	9
28	XXXXXXXXX	XXXXXXXXX	18
27	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXX	28
26	XXXXXXXX	XXXXXXXXXX	18
25	XXXXXXX	XXXXXXX	14
24	XXXXXXXXXXXXXXX	XXXXXXXXXXXXX	35
23	XXXXXXXX		9
22	XXXX	X	5
21	X		1
20	XX		2
19			0
18	XXXX		4
17			0
16	X		1
15	X		1
		GRAND TOTALS	621

LOCATION: SOUTH CITY LIMITS TO PALOS VERDES DRIVE NORTH

ROAD DESCRIPTION: 4 LANES WITH RAISED MEDIAN

ACCIDENT HISTORY: 5

ACCIDENT RATE: 0.286 EXPECTED RATE: 1.85

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 45 PROPOSED SPEED LIMIT: 45

AVERAGE DAILY TRAFFIC: 26,183 SEGMENT LENGTH: 0.61

PACE

85TH %:	41	M.P.H.
50TH %:	35	M.P.H.
15TH %:	26	M.P.H.
AVERAGE SPEED:	35	M.P.H.
10 MPH PACE:	33 - 42	M.P.H.
% IN PACE:	55%	
% OVER PACE:	13%	
% UNDER PACE:	32%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 06 HAWTHORNE-SCL TO PVD-N.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-24-13 TIME START: 1:00PM TIME STOP: 2:00PM

FOR ROADWAY: HAWTHORNE BOULEVARD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60		XXXX	4
59	X		1
58	XX	X	3
57	X	XXX	4
56	XXX	X	4
55	X	XXXX	5
54	XXXXXXX	XXX	10
53		XXXX	4
52	X	X	2
51	XXXXXXX	XXXXXXX	14
50	XXXXXXX	XXXX	11
49	XXXX	XXXXXXXX	12
48	XXXXXXX	XXXXXXXX	15
47	XXXXXXXXXX	XXXXXXXXXXXXXXX	37
46	XXX	XXXXXXXX	12
45	XXXXX	XXXXXXXXXXXXXX	21
44	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	35
43	XXXXXXX	XXXXXXXXXXXXXX	27
42	XXXXXXXXXXXXX	XXXXXXXXXXXXXX	28
41	XXXXXXXXXXX	XXXXXXXXXXXXXX	36
40	XXXXXXXXXXXXXX	XXXXXXXX	29
39	XXXXXXXXXXXXXX	XXXXX	20
38	XXXXXXX	XXXXXXXXXX	19
37	XXXXXXXXX	XXXX	14
36	XXXXXXX	XXXXX	13
35	XXXXXXXXXXXXX	XXXXXXXXXXXXXX	31
34	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	51
33	XXXXXX	X	7
32			0
31	X		1
30			0
29			0
28			0
27			0
26			0
25			0
24			0
23			0
22			0
21		X	1
20			0
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	471

LOCATION: PALOS VERDES DRIVE NORTH TO NORTH CITY LIMITS

ROAD DESCRIPTION: 4 LANES WITH RAISED MEDIAN

ACCIDENT HISTORY: 4

ACCIDENT RATE: 1.98 EXPECTED RATE: 1.85

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 45 PROPOSED SPEED LIMIT: 45

AVERAGE DAILY TRAFFIC: 28,878 SEGMENT LENGTH: 0.64

PACE

85TH %:	48	M.P.H.
50TH %:	41	M.P.H.
15TH %:	34	M.P.H.
AVERAGE SPEED:	42	M.P.H.
10 MPH PACE:	34 - 43	M.P.H.
% IN PACE:	57%	
% OVER PACE:	41%	
% UNDER PACE:	2%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-25-13 TIME START: 9:00AM TIME STOP: 10:00AM

FOR ROADWAY: HIGHRIDGE ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54		X	1
53			0
52			0
51			0
50			0
49			0
48			0
47		X	1
46			0
45			0
44	X	X	2
43	X		1
42		XX	2
41		XXXXX	5
40	XXXX	XXXXX	9
39	XX	XXXXX	7
38	XXXX	XXXX	8
37	XXX	XXXXXXX	10
36	XXXX	XXXXX	9
35	X	XXXXX	6
34	XXXX	XXXXXXX	10
33	XXXXXXX	XXXXX	12
32	XXXXXXXX	XXXXX	13
31	XXXXXX	XXXXX	11
30	XXXXX	XXXXXX	11
29	XXXXXX	XXXXXX	12
28	XXXXXXX	XX	9
27	XXX	X	4
26	XXXX		4
25	XXXXX		5
24	XXX		3
23	XXX		3
22	XX		2
21	XX		2
20			0
19			0
18			0
17			0
16			0
15	XXXX		4
		GRAND TOTALS	166

PACE

LOCATION: CREST ROAD TO CRESTRIDGE ROAD

ROAD DESCRIPTION: 2 LANES, TWO-WAY LEFT TURN LANE

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 2.55

ROADWAY CONDITIONS: GOOD

WEATHER: CLOUDY

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

AVERAGE DAILY TRAFFIC: 3,059 SEGMENT LENGTH: 0.64

85TH %:	38	M.P.H.
50TH %:	32	M.P.H.
15TH %:	26	M.P.H.
AVERAGE SPEED:	33	M.P.H.
10 MPH PACE:	28 - 37	M.P.H.
% IN PACE:	62%	
% OVER PACE:	22%	
% UNDER PACE:	16%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-25-13 TIME START: 10:00AM TIME STOP: 11:00AM

FOR ROADWAY: HIGHRIDGE ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48	X		1
47			0
46			0
45			0
44		X	1
43			0
42		X	1
41		XX	2
40	XX	XX	4
39	XXXXX	X	6
38	XXXXX	XXX	8
37	XXX	XX	5
36	XXXXXXX	X	8
35	XXXXXXXXXXX	XXXX	15
34	XXXXX	XXXXXXX	12
33	XXXX	XXXXXXX	12
32	XXXXXXXX	XXXX	13
31	XXXXX	X	6
30	XXXX	XXXXX	9
29	XXXXX	XX	7
28		XXXXX	5
27	XX		2
26	XXX	X	4
25	XX	XXX	5
24	X	XX	3
23	X		1
22		XX	2
21	X	XXX	4
20	XXX		3
19		XXX	3
18		XX	2
17		X	1
16			0
15			0
		GRAND TOTALS	145

LOCATION: CRESTRIDGE ROAD TO NORTH CITY LIMITS

ROAD DESCRIPTION: 2 LANES, TWO-WAY LEFT TURN LANE

ACCIDENT HISTORY: 1

ACCIDENT RATE: 0.47 EXPECTED RATE: 2.55

ROADWAY CONDITIONS: GOOD

WEATHER: CLOUDY

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

AVERAGE DAILY TRAFFIC: 4,648 SEGMENT LENGTH: 0.42

PACE

85TH %:	37	M.P.H.
50TH %:	32	M.P.H.
15TH %:	24	M.P.H.
AVERAGE SPEED:	32	M.P.H.
10 MPH PACE:	29 - 38	M.P.H.
% IN PACE:	66%	
% OVER PACE:	10%	
% UNDER PACE:	24%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-26-13 TIME START: 10:00AM TIME STOP: 11:00AM

FOR ROADWAY: INDIAN PEAK ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50	X		1
49	X		1
48		X	1
47	X		1
46		XX	2
45	XXXX	XXX	7
44	XXXX	XXXXXX	10
43	XXX	XXX	6
42	XXXXXXXXX	XXXXXXXXX	17
41	XXXXXXXX	XXXXXX	14
40	XXXX	XXXXXX	10
39	XXXXXXX	XXXXXXXXX	16
38	XXXXXXX	XXXXXXXXXX	17
37	XXXXXXX	XXXXXXXXXXXXXXX	23
36	XXXXXXXXX	XXXXXXXX	19
35	XXXXXXXX	XXXXXXXXX	19
34	XXXXXXXX		9
33	XXXXXXX	XXX	10
32	XXX	XXXX	7
31	XXXX	X	5
30	X		1
29	X		1
28	XX		2
27			0
26	X		1
25			0
24			0
23			0
22			0
21			0
20			0
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	200

LOCATION: CRENSHAW BOULEVARD TO NORRIS CENTER DRIVE

ROAD DESCRIPTION: 2 LANES, TWO-WAY LEFT TURN LANE, SOME RAISED MEDIANS

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 8,909 SEGMENT LENGTH: 0.42

PACE

85TH %:	42	M.P.H.
50TH %:	37	M.P.H.
15TH %:	33	M.P.H.
AVERAGE SPEED:	38	M.P.H.
10 MPH PACE:	33 - 42	M.P.H.
% IN PACE:	77%	
% OVER PACE:	15%	
% UNDER PACE:	9%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 10 INDIAN PEAK-CRENSHAW TO NORRIS CENTER.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-26-13 TIME START: 11:00AM TIME STOP: 12:00PM

FOR ROADWAY: INDIAN PEAK ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48	X		1
47		X	1
46			0
45			0
44	XXX		3
43	XXX		3
42	XXXX	X	5
41	XXXX	XX	6
40	XX	XXXXXXXX	10
39	XXXXX	XX	7
38	XXXXXXXX	XXXXXX	14
37	XXXXXXXXXX	XXXXXXX	17
36	XXXXX	XXXXX	10
35	XXXXXXXXXXX	XXXXXXX	18
34	XXXXXXXXX	XXXXXXXXXXXXXXXX	24
33	XXXXXXXXXX	XXXXXX	16
32	XXXXXXX	XXXXXXXXX	16
31	XXXXXX	XXXXXXX	13
30	XXXXXXXXXXXXXXX	XXXXXXXXXXX	25
29	XX	X	3
28	XXXXX	X	6
27	XX	X	3
26	X	XXXX	5
25	XXX	X	4
24	X	X	2
23	X		1
22		X	1
21		X	1
20	X		1
19			0
18			0
17			0
16			0
15	X		1
		GRAND TOTALS	217

LOCATION: NORRIS CENTER DRIVE TO HAWTHORNE BOULEVARD

ROAD DESCRIPTION: 4 LANES, TWO-WAY LEFT TURN LANE

ACCIDENT HISTORY: 2

ACCIDENT RATE: 0.613 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 7,443 SEGMENT LENGTH: 0.40

*** PACE ***

85TH %:	38	M.P.H.
50TH %:	33	M.P.H.
15TH %:	29	M.P.H.
AVERAGE SPEED:	34	M.P.H.
10 MPH PACE:	30 - 39	M.P.H.
% IN PACE:	74%	
% OVER PACE:	13%	
% UNDER PACE:	13%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 11 INDIAN PEAK-NORRIS CENTER TO HAWTHORNE.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-25-13 TIME START: 11:00AM TIME STOP: 12:00PM

FOR ROADWAY: PALOS VERDES DRIVE EAST

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57	XX		2
56			0
55			0
54	X	XX	3
53	XXXXX		5
52	X	XX	3
51	XXXX	XX	6
50	XXXXXXX	XXXX	11
49	XXXXXXXX	X	9
48	XXXXXXXXXXXX	X	13
47	XXXXXXXXXXXXXX	XXXX	18
46	XXXXXXXXXXX	XXXX	15
45	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	35
44	XXXXXXXXXXXXXXXX	XXXXXXXXXX	26
43	XXXXXXXXXXXX	XXXXXXXXXX	22
42	XXXXXXXXXXXXX	XXXXXXXXXXX	24
41	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	48
40	XXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	53
39	XXXXXXXXXXXX	XXXXXXXXXXXXXXX	38
38	XXXXXXXXXX	XXXXXXXXXXXXXXX	25
37	XXXXXXXXX	XXXXXXXXXXXXXX	23
36	XXXX	XXXXXXXXXXXXX	17
35	XXXXXXXXXX	XXXXXXXXXXXXXXX	25
34	XX		2
33	X	XXXXXXXX	9
32	XXXX	X	5
31	X	X	2
30	XXX		3
29		XXXX	4
28			0
27		X	1
26			0
25			0
24			0
23			0
22			0
21			0
20			0
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	447

****PACE***

LOCATION: SOUTH CITY LIMITS TO PALOS VERDES DRIVE NORTH

ROAD DESCRIPTION: 4 LANES WITH RAISED AND PAINTED MEDIANS

ACCIDENT HISTORY: 1

ACCIDENT RATE: 0.108 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 13,612 SEGMENT LENGTH: 0.62

85TH %:	46	M.P.H.
50TH %:	40	M.P.H.
15TH %:	36	M.P.H.
AVERAGE SPEED:	41	M.P.H.
10 MPH PACE:	36 - 45	M.P.H.
% IN PACE:	70%	
% OVER PACE:	19%	
% UNDER PACE:	11%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-25-13 TIME START: 1:00PM TIME STOP: 2:00PM

FOR ROADWAY: PALOS VERDES DRIVE EAST

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50	X		1
49			0
48	XXX		3
47		X	1
46	XXX	XXXXX	8
45	XXXXXXXX		8
44	X	XXX	4
43	XXXX	X	5
42	XXXXX	XX	7
41	XXXXXXXX	XXXXX	13
40	XXXXXXXXXXXXXX	XXXXXXXXXXXXX	26
39	XXXXXXXXXXXXXXX	XXX	20
38	XXXXXXXXXXXXXXX	XXXXXXXX	22
37	XXXXXXXXXXXXXXX	XXXXXX	27
36	XXXXXXXXXXXXXXX	XXXXXXXX	32
35	XXXXXXXXXXXXXXX	XXXXXXXXXXX	31
34	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	47
33	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	42
32	XXXXXXXXXXX	XXXXXXXXXXXXXXX	30
31	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	36
30	XXXXXXXXXX	XXXXXXXXX	19
29	XXXXXX	XXXXXXX	13
28	XXXXXXXXXX	XXX	13
27	XXXX	XXX	7
26	X	XXXX	5
25		X	1
24		X	1
23			0
22			0
21			0
20			0
19		X	1
18		X	1
17			0
16			0
15			0
		GRAND TOTALS	424

LOCATION: PALOS VERDES DRIVE NORTH TO NORTH CITY LIMITS

ROAD DESCRIPTION: 2-4 LANES, TWO-WAY LEFT TURN LANES, RAISED MEDIANS

ACCIDENT HISTORY: 2

ACCIDENT RATE: 0.185 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 9,793 SEGMENT LENGTH: 1.01

PACE

85TH %:	39	M.P.H.
50TH %:	34	M.P.H.
15TH %:	30	M.P.H.
AVERAGE SPEED:	35	M.P.H.
10 MPH PACE:	31 - 40	M.P.H.
% IN PACE:	74%	
% OVER PACE:	12%	
% UNDER PACE:	14%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 13 PVD-E-PVD-N TO NCL.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-26-13 TIME START: 1:00PM TIME STOP: 2:00PM

FOR ROADWAY: PALOS VERDES DRIVE NORTH

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60	XXXX	XXXX	8
59			0
58		X	1
57	X	XXX	4
56	XXXXXX	XXXXX	11
55	XXX	XXXXXXXXX	13
54	XXXX	XX	6
53	XXXXXXXX	XXX	11
52	XXXXXXXXXXXXX	XXX	17
51	XXXXXX	XXXXX	13
50	XXXXXXX	XXXXX	13
49	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	47
48	XXXXXXXXXXXXXXX	XXXXXXXXXXX	40
47	XXXXXXXXXXXXXXX	XXXXXX	31
46	XXXXXXXXXXXXXXX	XXXXXXXXX	33
45	XXXXXXXXXXXXX	XXXXXXXXXXXXX	27
44	XXXXXXXXXXXX	XXXXXXXXXXXXXXX	28
43	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	42
42	XXXXXXXXXXXXXXX	XXXXXXXXX	27
41	XXXXXXXXXX	XXXXXXXXXXXXXXX	29
40	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	35
39	XXXXXXX	XXXXXXXXXXXXX	21
38	XXXXXXXXXXX	XXXXXXXXXXXXXXX	26
37	XXXXX	XXXXXX	12
36	XX	XXXXXXXXXXX	14
35	XXXXXXXXXXX	X	12
34	X	X	2
33	XXXXXX		6
32		XXXXXX	6
31		X	1
30			0
29			0
28			0
27			0
26			0
25			0
24			0
23			0
22			0
21			0
20	X		1
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	537

PACE

LOCATION: EAST CITY LIMITS TO PALOS VERDES DRIVE EAST

ROAD DESCRIPTION: 4 LANES WITH RAISED MEDIANS, BIKE LANES

ACCIDENT HISTORY: 4

ACCIDENT RATE: 0.217 EXPECTED RATE: 2.10

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 45 PROPOSED SPEED LIMIT: 45

AVERAGE DAILY TRAFFIC: 33,647 SEGMENT LENGTH: 0.50

85TH %:	50	M.P.H.
50TH %:	44	M.P.H.
15TH %:	38	M.P.H.
AVERAGE SPEED:	45	M.P.H.
10 MPH PACE:	40 - 49	M.P.H.
% IN PACE:	63%	
% OVER PACE:	18%	
% UNDER PACE:	19%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 14 PVD-N-ECL TO PVD-E.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-26-13 TIME START: 2:00PM TIME STOP: 3:00PM

FOR ROADWAY: PALOS VERDES DRIVE NORTH

SPEED (MPH)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47		X	1
46			0
45			0
44		XXXXX	5
43			0
42		XXXXX	5
41	XXXXXXX	XXXXXXX	14
40	XXXXXXXXXX	X	11
39	XXXXXXX	XXXXXXXXXXXXXXXXX	23
38	XXXXXX	X	7
37	XXXXXX	X	7
36	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	34
35	XXXXXXXX	XXXXXXXXXX	17
34	XXXXXXXXXXXX	XXXXXXXXXXXXXX	26
33	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	31
32	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	39
31	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	31
30	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	45
29	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	48
28	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	39
27	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	50
26	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	31
25	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	39
24	XXXXXXXXXX	XXXXXXXXXXXXXXXX	30
23	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	35
22	X	XXXXXXXXXXXX	13
21	XXXXX	XXXXXX	11
20		X	1
19	XXXX		4
18		X	1
17	XXXX		4
16			0
15	XXXX		4
		GRAND TOTALS	606

LOCATION: PALOS VERDES DRIVE EAST TO ROLLING HILLS ROAD

ROAD DESCRIPTION: 2-4 LANES WITH RAISED MEDIAN, BIKE LANES

ACCIDENT HISTORY: 17

ACCIDENT RATE: 0.388 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 36,073 SEGMENT LENGTH: 1.11

PACE

85TH %:	35	M.P.H.
50TH %:	28	M.P.H.
15TH %:	23	M.P.H.
AVERAGE SPEED:	30	M.P.H.
10 MPH PACE:	23 - 32	M.P.H.
% IN PACE:	64%	
% OVER PACE:	30%	
% UNDER PACE:	6%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-26-13 TIME START: 3:00PM TIME STOP: 4:00PM

FOR ROADWAY: PALOS VERDES DRIVE NORTH

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55	X		1
54			0
53			0
52			0
51	X		1
50	XX	X	3
49		X	1
48	X	X	2
47	XXXX	X	5
46	XXXXXX		6
45	XXXXXXXXXXXXXX	XXXXXXXXXXX	25
44	XXXXX	XXXXX	10
43	XXXXXXXXXXXX	XXXX	16
42	XXXXXX	XXXXXXXXXXXX	18
41	XXXXXXXXXXX	XXXXXX	17
40	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	33
39	XXXXXXXXXXXXXXX	XXXXXXXXXXXX	33
38	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	47
37	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	58
36	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	56
35	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	48
34	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	40
33	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	37
32	XXXXXXXXXXXXXXX	XXXXXXX	23
31	XXXXXXXXXX	XXXXXXXX	19
30	XXXXXXXXX	XXXXXXXXXXXXXXX	37
29	XXXXXXX	XXXXXX	13
28	XXXXXX	XXXXX	11
27	XXXXXX	XXXXXX	12
26		XXXX	4
25		XXX	3
24	XX	XXXXXXXXX	11
23			0
22		XXXXXXXXXXXXXX	14
21			0
20			0
19			0
18			0
17		X	1
16		XXXXXXXXXX	10
15		XXXXXXXXXXXXXXX	30
		GRAND TOTALS	645

LOCATION: ROLLING HILLS ROAD TO CRENSHAW BOULEVARD

ROAD DESCRIPTION: 2 LANES WITH RAISED MEDIAN, BIKE LANES

ACCIDENT HISTORY: 8

ACCIDENT RATE: 0.433 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 26,336 SEGMENT LENGTH: 0.64

*** PACE ***

85TH %:	40	M.P.H.
50TH %:	35	M.P.H.
15TH %:	28	M.P.H.
AVERAGE SPEED:	35	M.P.H.
10 MPH PACE:	30 - 39	M.P.H.
% IN PACE:	62%	
% OVER PACE:	21%	
% UNDER PACE:	17%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 10-31-13 TIME START: 11:00AM TIME STOP: 12:00AM

FOR ROADWAY: PALOS VERDES DRIVE NORTH

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47		X	1
46			0
45		XX	2
44	XX	XXXXX	7
43	XXXXXX	XXXXXXXXXXX	16
42	XXXXXXX	XXXXXXXXXXXXX	19
41	XXXXXXXXX	XXXXXXXXXXXXXXX	23
40	XXXXXXXXXXXX	XXXXXXXXXXXXXX	26
39	XXXXXXXXXXXXX	XXXXXXXXXXXXXXX	27
38	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	29
37	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	29
36	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXX	28
35	XXXXXXXXXXXXX	XXXXXXXXXXXX	24
34	XXXXXXXXXXXXX	XXXXXXXXXXXX	23
33	XXXXXXXXXX	XXXX	15
32	XXXXXXX	XXX	11
31	XXXXXXX	X	8
30	XXXXXX		6
29	XXXXX		5
28	XXXX		4
27	XXX		3
26			0
25			0
24			0
23			0
22			0
21			0
20			0
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	306

LOCATION: CRENSHAW BOULEVARD TO HAWTHORNE BOULEVARD

ROAD DESCRIPTION: 2-4 LANES WITH RAISED MEDIANS, BIKE LANES

ACCIDENT HISTORY: 2

ACCIDENT RATE: 0.175 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: GOOD

WEATHER: SUNNY

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 20,846 SEGMENT LENGTH: 0.50

PACE

85TH %:	41	M.P.H.
50TH %:	37	M.P.H.
15TH %:	32	M.P.H.
AVERAGE SPEED:	37	M.P.H.
10 MPH PACE:	34 - 43	M.P.H.
% IN PACE:	80%	
% OVER PACE:	3%	
% UNDER PACE:	17%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 17 PALOS VERDES N. - CRENSHAW TO HAWTHORNE1.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 10-31-13 TIME START: 10:00AM TIME STOP: 11:00AM

FOR ROADWAY: PALOS VERDES DRIVE NORTH

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47			0
46			0
45			0
44			0
43	X	XX	3
42	X	XXX	4
41	XXXXX	XXXXXXX	12
40	XXXXXXX	XXXXXXXX	15
39	XXXXXXXXXXXXXXX	XXXXXXXXXXXXX	27
38	XXXXXXXXXXXXXXX	XXXXXXXXXXXX	28
37	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	31
36	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	32
35	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	33
34	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXX	31
33	XXXXXXXXXXXXXXX	XXXXXXXXXXXXX	26
32	XXXXXXXXXXXXX	XXXXXXXX	20
31	XXXXXXXX	XXXXX	13
30	XXXXX	XXXXX	10
29	XXX	XXXX	7
28	XX	XXX	5
27		XX	2
26			0
25			0
24			0
23			0
22			0
21			0
20			0
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	299

LOCATION: HAWTHOREN BOULEVARD TO SILVER SPUR ROAD

ROAD DESCRIPTION: 2 LANES WITH RAISED MEDIANS, BIKE LANES

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: GOOD

WEATHER: SUNNY

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 17,499 SEGMENT LENGTH: 0.39

PACE

85TH %:	38	M.P.H.
50TH %:	35	M.P.H.
15TH %:	31	M.P.H.
AVERAGE SPEED:	35	M.P.H.
10 MPH PACE:	31 - 40	M.P.H.
% IN PACE:	86%	
% OVER PACE:	6%	
% UNDER PACE:	8%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 10-31-13 TIME START: 9:00AM TIME STOP: 10:00AM

FOR ROADWAY: PALOS VERDES DRIVE NORTH

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47			0
46			0
45	X		1
44		X	1
43	X	X	2
42		XXX	3
41	XXXXXXXX	XXXX	12
40	XXXXXXXXXXXX	XXXXXX	18
39	XXXXXXXXXXXXX	XXXXXXXXXXXX	24
38	XXXXXXXXXXXXX	XXXXXXXXXXXXXX	26
37	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	27
36	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	27
35	XXXXXXXXXXXXX	XXXXXXXXXXXXXXX	27
34	XXXXXXXXXXX	XXXXXXXXXXXXXXX	25
33	XXXXXXXX	XXXXXXXXXXXX	20
32	XXXXXXXX	XXXXXXXXXXXX	19
31	XXXXXXXX	XXXXXXXX	16
30	XXXXX	XXXX	9
29	XXX	XXX	6
28	XX	XXX	5
27		XX	2
26		X	1
25			0
24			0
23			0
22			0
21			0
20			0
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	271

LOCATION: SILVER SPUR ROAD TO NORTH CITY LIMITS

ROAD DESCRIPTION: 2 LANES, UNDIVIDED WITH DOUBLE YELLOW, BIKE LANES

ACCIDENT HISTORY: 1

ACCIDENT RATE: 0.152 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: GOOD

WEATHER: SUNNY

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 14,677 SEGMENT LENGTH: 0.41

*** PACE ***

85TH %:	38	M.P.H.
50TH %:	35	M.P.H.
15TH %:	31	M.P.H.
AVERAGE SPEED:	36	M.P.H.
10 MPH PACE:	31 - 40	M.P.H.
% IN PACE:	85%	
% OVER PACE:	7%	
% UNDER PACE:	8%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 19 PALOS VERDES N. - SILVER SPUR ROAD TO NCL1.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-27-13 TIME START: 1:00PM TIME STOP: 2:00PM

FOR ROADWAY: ROLLING HILLS ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48	X		1
47	X		1
46	XX	X	3
45	XXXXX		5
44	XXXXXXXXXX	XX	12
43	XXXXXX	XXXXX	11
42	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	39
41	XXXXXXXXXXXXXXX	XXXXXXXXXXX	38
40	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXX	28
39	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	35
38	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	41
37	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXX	38
36	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	40
35	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	42
34	XXXXXXXXXXX	XXXXXXXXXXX	20
33	XX	XXXXXXXXXXXXXXX	24
32	XXXXXXXX	XXXXXXXX	16
31	XX	XXXXXXXXX	11
30	XXXXX	XXXXXX	12
29	X	XXXXXXXXXXXXX	15
28	XX	XXX	5
27	X	XXXXXXXXXXX	12
26			0
25	X	XXXX	5
24			0
23		XXX	3
22			0
21			0
20			0
19	X		1
18	X		1
17			0
16			0
15			0
		GRAND TOTALS	459

LOCATION: PALOS VERDES DRIVE NORTH TO NORTH CITY LIMITS

ROAD DESCRIPTION: 2 LANES, UNDIVIDED WITH DOUBLE YELLOW

ACCIDENT HISTORY: 2

ACCIDENT RATE: 0.394 EXPECTED RATE: 3.05

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

AVERAGE DAILY TRAFFIC: 9,266 SEGMENT LENGTH: 0.50

PACE

85TH %:	41	M.P.H.
50TH %:	36	M.P.H.
15TH %:	31	M.P.H.
AVERAGE SPEED:	37	M.P.H.
10 MPH PACE:	33 - 42	M.P.H.
% IN PACE:	75%	
% OVER PACE:	7%	
% UNDER PACE:	18%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 20 ROLLING HILLS-PVD-N TO NCL.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-27-13 TIME START: 2:00PM TIME STOP: 3:00PM

FOR ROADWAY: SILVER SPUR ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50	X	X	2
49			0
48			0
47	XXX	XXXXXX	9
46	XXXXXX	X	7
45	XXX	XXXXXXXXXXXXXXX	19
44	XXXXXXX	XXXXXXXXXXX	18
43	XXXXXXXX	XXXX	12
42	XXXXXXXXX	XXX	12
41	XXXXXXXXXXXX	XXXXXXXXXXXXXXX	29
40	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	54
39	XXXXXXXXXXXXXXX	XXXXXXXXXX	26
38	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	28
37	XXXXXXXXXXX	XXXXXXXXXXXXXXX	30
36	XXXXXXXX	XXXXXXXXXXXX	21
35	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	44
34	XXXXXXXX	XXXXXXXXXXX	20
33	XXXXXXX	XXXXX	12
32	XXXXXXXXXXXX	XXXXXXX	19
31	XXXXXX	XXXXXXXX	14
30	XXXXXXX	XXXXXXXX	16
29	XXXXXXX	XX	9
28	XXX	XXXXX	8
27	X		1
26	X		1
25	XXX		3
24	XXXX		4
23			0
22			0
21			0
20			0
19			0
18			0
17			0
16			0
15			0
		GRAND TOTALS	418

LOCATION: PALOS VERDES DRIVE NORTH TO KINGSPINE ROAD

ROAD DESCRIPTION: 2 LANES, TWO-WAY LEFT TURN LANE

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 2.05

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

AVERAGE DAILY TRAFFIC: 14,855 SEGMENT LENGTH: 0.39

*** PACE ***

85TH %:	42	M.P.H.
50TH %:	37	M.P.H.
15TH %:	31	M.P.H.
AVERAGE SPEED:	37	M.P.H.
10 MPH PACE:	32 - 41	M.P.H.
% IN PACE:	68%	
% OVER PACE:	19%	
% UNDER PACE:	13%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

CITY OF ROLLING HILLS ESTATES

DATE: 9-20-13 TIME START: 1:00PM TIME STOP: 2:00PM

FOR ROADWAY: SILVER SPUR ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52	X		1
51	XX	XX	4
50	X	X	2
49	X		1
48	X	X	2
47	X		1
46		X	1
45	XX	XXX	5
44	XXXXX	XXXXXXXXXXX	17
43	XXXXXX	X	7
42	XXXX	XX	6
41	XXXXXXXXX	XXXXXXX	16
40	XXXXX	XXXXXX	11
39	XXXXXXXXXXXXXXX	XXXXXXXXXXXX	30
38	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	29
37	XXXXXXXXXXXXXXX	XXXXXXXXXXXX	29
36	XXXXXXXXXX	XXXXXXX	17
35	XXXXXXXXXX	XXXXX	15
34	XXX	XXXXX	8
33	XXXXXX	XXXXXXXX	15
32	XXXXXXXX	XXXXX	13
31	XX	XXXX	6
30	XXX	XXXXXX	9
29		X	1
28	X	X	2
27	X		1
26	XXX	X	4
25	XXX		3
24	X	X	2
23	XXX		3
22	X		1
21			0
20			0
19		X	1
18			0
17			0
16			0
15			0
		GRAND TOTALS	263

LOCATION: KINGSPINE ROAD TO ELKMONT ROAD

ROAD DESCRIPTION: 3 LANES, UNDIVIDED WITH DOUBLE YELLOW

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 2.05

ROADWAY CONDITIONS: FAIR

WEATHER: CLEAR

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

AVERAGE DAILY TRAFFIC: 12,634 SEGMENT LENGTH: 0.70

*** PACE ***

85TH %:	42	M.P.H.
50TH %:	37	M.P.H.
15TH %:	31	M.P.H.
AVERAGE SPEED:	37	M.P.H.
10 MPH PACE:	32 - 41	M.P.H.
% IN PACE:	70%	
% OVER PACE:	18%	
% UNDER PACE:	13%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 22 SILVER SPUR-KINGSPINE TO ELKMONT.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-27-13 TIME START: 3:00PM TIME STOP: 4:00PM

FOR ROADWAY: SILVER SPUR ROAD

SPEED (MPH)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53			0
52			0
51			0
50			0
49			0
48			0
47			0
46			0
45		XXXXX	5
44			0
43		XXX	3
42	XXXXX	XX	7
41	XXX	XXXXX	8
40	XXXX	XXXXXXXXXXXXX	17
39	XXXXX	XXXXXXXX	13
38	XXXXX	XXXXXXXXXXXXXX	19
37	XXXXXXXXXXX	XXXXXXXXXXXXXXX	31
36	XXXXXX	XXXXXXXXXXXXXX	25
35	XXXXXXXX	XXXXXXXXXXXXXX	36
34	XXXXXXXXXXXXXX	XXXXXXXXXX	28
33	XXXXXXXXXXXX	XXXXXXXXXXXXX	27
32	XXXXXXXXXXX	XXXXXXXXXX	23
31	XXX	XXXXXXXXXXXXX	29
30	XXXXXX	XXXXXXXXXXX	19
29	XX	XXX	5
28	XXXXXX	XXXXXX	13
27	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	34
26	XXXXXXXX	XXXX	13
25	XXXXXXX		7
24	XXXX		4
23		X	1
22		X	1
21	XX		2
20	XX		2
19			0
18			0
17		X	1
16			0
15			0
		GRAND TOTALS	373

LOCATION: HAWTHORNE BOULEVARD TO DRY BANK DRIVE

ROAD DESCRIPTION: 4 LANES WITH RAISED MEDIAN

ACCIDENT HISTORY: 2

ACCIDENT RATE: 0.294 EXPECTED RATE: 3.35

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

AVERAGE DAILY TRAFFIC: 16,367 SEGMENT LENGTH: 0.38

PACE

85TH %:	38	M.P.H.
50TH %:	33	M.P.H.
15TH %:	26	M.P.H.
AVERAGE SPEED:	33	M.P.H.
10 MPH PACE:	30 - 39	M.P.H.
% IN PACE:	67%	
% OVER PACE:	11%	
% UNDER PACE:	22%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 23 SILVER SPUR-HAWTHORNE TO DRY BANK.xls.xls 2/18/2014

CITY OF ROLLING HILLS ESTATES

DATE: 9-27-13 TIME START: 11:00AM TIME STOP: 12:00PM

FOR ROADWAY: SILVER SPUR ROAD

SPEED (MPH)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	TOTAL VEHICLES
65			0
64			0
63			0
62			0
61			0
60			0
59			0
58			0
57			0
56			0
55			0
54			0
53	X		1
52			0
51	X		1
50		X	1
49		X	1
48		XXX	3
47	X	XXXX	5
46	XX		2
45	XXX	XXXXXX	9
44	XXXXXXXXX	XX	11
43	XXXXXXX	XXXXX	12
42	XXXX	XXXXXXX	11
41	XXXXXXX	XXXXXXX	14
40	XXXXXXXXXXX	XXXXXXXXXXXXX	23
39	XXXXXXXXXXXXXXX	XXXXXXXXXX	33
38	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	38
37	XXXXXXXXXXXXXXX	XXXXXXXXXX	32
36	XXXXXXXXX	XXXXXXXXXXXXX	22
35	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	31
34	XXXXXXXXXXXXXX	XXXXXX	26
33	XXX	XXXXX	8
32	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	27
31	XXXX	XXXXXXXXXXXXXXX	20
30	XXXXXXXXXXX	XXX	15
29	XX	XX	4
28	X	XXXXXXX	9
27	XXXXXXXXXX	XXX	13
26	XX		2
25	XXXX	XX	6
24		X	1
23			0
22			0
21		XX	2
20	X		1
19	X		1
18			0
17	X		1
16			0
15	X		1
		GRAND TOTALS	387

LOCATION: DRY BANK DRIVE TO CRENSHAW BOULEVARD

ROAD DESCRIPTION: 4 LANES WITH RAISED MEDIAN

ACCIDENT HISTORY: 0

ACCIDENT RATE: 0.00 EXPECTED RATE: 3.35

ROADWAY CONDITIONS: GOOD

WEATHER: CLEAR

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

AVERAGE DAILY TRAFFIC: 13,509 SEGMENT LENGTH: 0.51

PACE

85TH %:	41	M.P.H.
50TH %:	36	M.P.H.
15TH %:	30	M.P.H.
AVERAGE SPEED:	36	M.P.H.
10 MPH PACE:	31 - 40	M.P.H.
% IN PACE:	67%	
% OVER PACE:	18%	
% UNDER PACE:	14%	

OBSERVED BY: MIKE ALMIR

REVIEWED BY:

DATE

Filename: 24 SILVER SPUR-DRY BANK TO CRENSHAW.xls.xls 2/18/2014

APPENDIX B
Collision Rates

Table 3
Collision Rates

No.	Street	From	To	Midblock Collisions (3 Years)	ADT*	Approx. Length of Segment (mi)	Calculated Accident Rate (Acc/MVM**)	Statewide Accident Rate*** (Acc/MVM)
1	CRENSHAW BLVD	PALOS VERDES DR N	NORTH CITY LIMIT	5	25,879	0.73	0.242	1.95
2	CRENSHAW BLVD	INDIAN PEAK ROAD	SILVER SPUR ROAD	0	21,638	0.38	0.00	2.10
3	DEEP VALLEY DRIVE	DRYBANK DRIVE	ROXCOVE DRIVE	1	2,506	0.26	0.33	3.05
4	DEEP VALLEY DRIVE	ROXCOVE DRIVE	SILVER SPUR ROAD	0	3,217	0.24	0.00	3.05
5	HAWTHORNE BLVD	INDIAN PEAK ROAD	SILVER SPUR ROAD	5	30,126	0.22	0.689	3.35
6	HAWTHORNE BLVD	SOUTH CITY LIMIT	PALOS VERDES DR N	5	26,183	0.61	0.286	1.85
7	HAWTHORNE BLVD	PALOS VERDES DR N	NORTH CITY LIMIT	4	28,878	0.64	0.198	1.85
8	HIGHRIDGE ROAD	CREST ROAD	CRESTRIDGE ROAD	0	3,059	0.64	0.00	2.55
9	HIGHRIDGE ROAD	CRESTRIDGE ROAD	NORTH CITY LIMIT	1	4,648	0.42	0.468	2.55
10	INDIAN PEAK ROAD	CRENSHAW BLVD	NORRIS CENTER DRIVE	0	8,909	0.42	0.00	3.05
11	INDIAN PEAK ROAD	NORRIS CENTER DRIVE	HAWTHORNE BLVD	2	7,443	0.40	0.613	3.05
12	PALOS VERDES DR E	SOUTH CITY LIMIT	PALOS VERDES DR N	1	13,612	0.62	0.108	3.05
13	PALOS VERDES DR E	PALOS VERDES DR N	NORTH CITY LIMIT	2	9,793	1.01	0.185	3.05
14	PALOS VERDES DR N	EAST CITY LIMIT	PALOS VERDES DR E	4	33,647	0.50	0.217	2.10
15	PALOS VERDES DR N	PALOS VERDES DR E	ROLLING HILLS RD	17	36,073	1.11	0.388	3.05
16	PALOS VERDES DR N	ROLLING HILLS RD	CRENSHAW BLVD	8	26,336	0.64	0.433	3.05
17	PALOS VERDES DR N	CRENSHAW BLVD	HAWTHORNE BLVD	2	20,846	0.50	0.175	3.05
18	PALOS VERDES DR N	HAWTHORNE BLVD	SILVER SPUR RD	0	17,499	0.39	0.00	3.05
19	PALOS VERDES DR N	SILVER SPUR RD	NORTH CITY LIMIT	1	14,677	0.41	0.152	3.05
20	ROLLING HILLS RD	PALOS VERDES DR N	NORTH CITY LIMIT	2	9,266	0.50	0.394	3.05

Table 3
Collision Rates

No.	Street	From	To	Midblock Collisions (3 Years)	ADT*	Approx. Length of Segment (mi)	Calculated Accident Rate (Acc/MVM**)	Statewide Accident Rate*** (Acc/MVM)
21	SILVER SPUR ROAD	PALOS VERDES DR N	KINGSPINE RD	0	14,855	0.39	0.00	2.05
22	SILVER SPUR ROAD	KINGSPINE RD	ELKMONT RD	0	12,634	0.70	0.00	2.05
23	SILVER SPUR ROAD	HAWTHORNE BLVD	DRY BANK DRIVE	2	16,367	0.38	0.294	3.35
24	SILVER SPUR ROAD	DRY BANK DRIVE	CRENSHAW BLVD	0	13,509	0.51	0.00	3.35

APPENDIX C

Survey Equipment

SURVEY EQUIPMENT USED

The radar equipment used to collect speed measurements for this survey was a K-15 Model Hand-Held traffic Radar manufactured by MPH Industries of Owensboro, Kentucky. The calibration of the unit was checked before each series of measurements were taken. Tests of the unit were conducted in accordance with the manufacturer's specifications. The K-15 Hand-Held Traffic Radar was last calibrated on June 21, 2013 by RHF Inc.

APPENDIX D

Traffic Volumes

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : CRENSHAW BOULEVARD
Segment : NCL TO PALOS VERDES DRIVE N
Client : WILLDAN

Site: RHE
Date: 09/24/13

Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	5	23	206	770	14	53	167	739	19	76	373	1,509
12:15	9		192		16		204		25		396	
12:30	4		216		10		178		14		394	
12:45	5		156		13		190		18		346	
01:00	6	16	192	772	8	21	184	801	14	37	376	1,573
01:15	2		184		8		195		10		379	
01:30	5		216		1		210		6		426	
01:45	3		180		4		212		7		392	
02:00	2	12	182	784	3	13	216	983	5	25	398	1,767
02:15	2		162		0		219		2		381	
02:30	6		192		7		246		13		438	
02:45	2		248		3		302		5		550	
03:00	0	11	321	1,276	3	20	236	928	3	31	557	2,204
03:15	4		363		3		214		7		577	
03:30	4		336		6		244		10		580	
03:45	3		256		8		234		11		490	
04:00	6	44	210	960	4	30	252	944	10	74	462	1,904
04:15	8		228		3		218		11		446	
04:30	17		266		8		228		25		494	
04:45	13		256		15		246		28		502	
05:00	16	123	246	1,118	15	94	265	1,063	31	217	511	2,181
05:15	19		276		22		268		41		544	
05:30	39		325		19		269		58		594	
05:45	49		271		38		261		87		532	
06:00	48	326	234	744	34	294	284	1,076	82	620	518	1,820
06:15	62		198		46		250		108		448	
06:30	84		164		84		278		168		442	
06:45	132		148		130		264		262		412	
07:00	176	1,227	134	511	103	806	210	739	279	2,033	344	1,250
07:15	232		132		172		188		404		320	
07:30	348		141		273		198		621		339	
07:45	471		104		258		143		729		247	
08:00	378	1,318	89	299	214	827	172	538	592	2,145	261	837
08:15	312		90		252		134		564		224	
08:30	320		68		182		124		502		192	
08:45	308		52		179		108		487		160	
09:00	289	948	87	249	187	651	130	391	476	1,599	217	640
09:15	224		78		168		94		392		172	
09:30	225		40		168		94		393		134	
09:45	210		44		128		73		338		117	
10:00	213	848	48	112	140	591	66	210	353	1,439	114	322
10:15	206		28		154		60		360		88	
10:30	217		22		155		54		372		76	
10:45	212		14		142		30		354		44	
11:00	170	729	18	57	172	685	36	105	342	1,414	54	162
11:15	166		23		142		30		308		53	
11:30	197		10		153		19		350		29	
11:45	196		6		218		20		414		26	
Totals	5,625		7,652		4,085		8,517		9,710		16,169	
Split%	57.9		47.3		42.1		52.7					
Day Totals		13,277				12,602				25,879		
Day Splits		51.3				48.7						
Peak Hour	07:30		03:00		07:30		05:15		07:30		02:45	
Volume	1,509		1,276		997		1,082		2,506		2,264	
Factor	0.80		0.88		0.91		0.95		0.86		0.98	

Data File : D1309023

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : CRENSHAW BOULEVARD
Segment : INDIAN PEAK TO SILVER SPUR RD
Client : WILLDAN

Site: RHE
Date: 09/26/13

Day: Thursday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	9	19	166	596	17	56	162	634	26	75	328	1,230
12:15	3		146		13		164		16		310	
12:30	5		140		13		151		18		291	
12:45	2		144		13		157		15		301	
01:00	5	19	126	517	8	29	163	625	13	48	289	1,142
01:15	4		141		10		148		14		289	
01:30	9		118		4		156		13		274	
01:45	1		132		7		158		8		290	
02:00	1	10	150	697	3	17	164	779	4	27	314	1,476
02:15	2		138		4		174		6		312	
02:30	3		169		6		210		9		379	
02:45	4		240		4		231		8		471	
03:00	3	8	180	758	3	14	246	882	6	22	426	1,640
03:15	0		199		4		208		4		407	
03:30	2		212		2		196		4		408	
03:45	3		167		5		232		8		399	
04:00	5	28	169	677	2	25	202	881	7	53	371	1,558
04:15	2		180		6		215		8		395	
04:30	11		179		3		240		14		419	
04:45	10		149		14		224		24		373	
05:00	18	155	172	653	10	56	254	1,056	28	211	426	1,709
05:15	32		172		12		254		44		426	
05:30	50		154		11		286		61		440	
05:45	55		155		23		262		78		417	
06:00	74	476	140	522	30	258	276	975	104	734	416	1,497
06:15	104		146		50		234		154		380	
06:30	129		116		66		232		195		348	
06:45	169		120		112		233		281		353	
07:00	208	1,180	128	384	112	648	208	766	320	1,828	336	1,150
07:15	236		101		162		212		398		313	
07:30	362		70		205		194		567		264	
07:45	374		85		169		152		543		237	
08:00	242	1,042	61	220	152	620	152	597	394	1,662	213	817
08:15	276		53		156		178		432		231	
08:30	260		60		166		140		426		200	
08:45	264		46		146		127		410		173	
09:00	232	811	62	179	128	506	122	414	360	1,317	184	593
09:15	204		50		122		128		326		178	
09:30	186		47		140		86		326		133	
09:45	189		20		116		78		305		98	
10:00	164	631	32	90	112	511	76	260	276	1,142	108	350
10:15	161		27		118		66		279		93	
10:30	158		14		128		56		286		70	
10:45	148		17		153		62		301		79	
11:00	161	609	24	61	143	552	50	135	304	1,161	74	196
11:15	142		18		134		30		276		48	
11:30	158		14		133		32		291		46	
11:45	148		5		142		23		290		28	
Totals	4,988		5,354		3,292		8,004		8,280		13,358	
Split%	60.2		40.1		39.8		59.9					
Day Totals		10,342				11,296				21,638		
Day Splits		47.8				52.2						
Peak Hour	07:30		02:45		07:15		05:15		07:30		02:45	
Volume	1,254		831		688		1,078		1,936		1,712	
Factor	0.84		0.87		0.84		0.94		0.85		0.91	

Data File : D1309024

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H

Tustin, CA. 92780

Location : DEEP VALLEY DRIVE — Site: RHE

Segment : DRYBANK DR TO ROXCOVE DR — Date: 09/26/13

Client : WILLDAN

Day: Thursday

Interval	SB				NB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	1	3	12	61	0	0	32	111	1	3	44	172
12:15	0		11		0		16		0		27	
12:30	0		20		0		36		0		56	
12:45	2		18		0		27		2		45	
01:00	0	0	33	99	0	0	30	87	0	0	63	186
01:15	0		26		0		18		0		44	
01:30	0		22		0		17		0		39	
01:45	0		18		0		22		0		40	
02:00	0	0	24	86	0	4	30	132	0	4	54	218
02:15	0		23		0		26		0		49	
02:30	0		18		4		30		4		48	
02:45	0		21		0		46		0		67	
03:00	0	0	44	124	0	0	31	118	0	0	75	242
03:15	0		26		0		28		0		54	
03:30	0		32		0		21		0		53	
03:45	0		22		0		38		0		60	
04:00	0	2	27	110	1	1	32	128	1	3	59	238
04:15	0		34		0		34		0		68	
04:30	1		28		0		37		1		65	
04:45	1		21		0		25		1		46	
05:00	0	3	34	131	1	13	24	113	1	16	58	244
05:15	0		25		3		23		3		48	
05:30	3		46		1		30		4		76	
05:45	0		26		8		36		8		62	
06:00	0	6	25	68	6	22	20	85	6	28	45	153
06:15	2		14		6		28		8		42	
06:30	2		13		0		17		2		30	
06:45	2		16		10		20		12		36	
07:00	10	37	16	55	8	52	14	36	18	89	30	91
07:15	8		12		11		10		19		22	
07:30	9		14		9		8		18		22	
07:45	10		13		24		4		34		17	
08:00	11	37	22	55	16	86	9	22	27	123	31	77
08:15	1		15		28		4		29		19	
08:30	15		11		20		4		35		15	
08:45	10		7		22		5		32		12	
09:00	17	69	7	26	26	119	0	2	43	188	7	28
09:15	17		9		36		0		53		9	
09:30	22		5		28		0		50		5	
09:45	13		5		29		2		42		7	
10:00	19	77	2	10	32	118	1	5	51	195	3	15
10:15	20		3		30		1		50		4	
10:30	18		4		28		1		46		5	
10:45	20		1		28		2		48		3	
11:00	25	75	0	0	25	117	0	1	50	192	0	1
11:15	16		0		24		1		40		1	
11:30	14		0		28		0		42		0	
11:45	20		0		40		0		60		0	
Totals	309		825		532		840		841		1,665	
Split%	36.7		49.5		63.3		50.5					
Day Totals		1,134				1,372				2,506		
Day Splits		45.3				54.7						
Peak Hour	10:15		05:00		09:15		03:45		09:15		03:45	
Volume	83		131		125		141		196		252	
Factor	0.83		0.71		0.87		0.93		0.92		0.93	

Data File : D1309025

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H

Tustin, CA. 92780

Location : DEEP VALLEY DRIVE — Site: RHE

Segment : ROXCOVE DR TO SILVER SPUR DR — Date: 09/26/13

Client : WILLDAN

Day: Thursday

Interval	SB				NB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	0	2	30	110	0	1	43	170	0	3	73	280
12:15	0		32		0		35		0		67	
12:30	0		29		0		48		0		77	
12:45	2		19		1		44		3		63	
01:00	0	0	42	132	0	0	42	145	0	0	84	277
01:15	0		32		0		34		0		66	
01:30	0		27		0		33		0		60	
01:45	0		31		0		36		0		67	
02:00	0	0	20	95	0	2	38	162	0	2	58	257
02:15	0		25		0		31		0		56	
02:30	0		20		2		46		2		66	
02:45	0		30		0		47		0		77	
03:00	0	0	34	124	0	0	42	186	0	0	76	310
03:15	0		22		0		52		0		74	
03:30	0		32		0		44		0		76	
03:45	0		36		0		48		0		84	
04:00	0	0	42	156	1	3	55	205	1	3	97	361
04:15	0		42		0		46		0		88	
04:30	0		40		1		54		1		94	
04:45	0		32		1		50		1		82	
05:00	0	5	30	125	0	6	53	183	0	11	83	308
05:15	0		40		2		40		2		80	
05:30	1		23		2		48		3		71	
05:45	4		32		2		42		6		74	
06:00	0	3	29	79	5	20	34	114	5	23	63	193
06:15	0		14		4		34		4		48	
06:30	2		22		4		22		6		44	
06:45	1		14		7		24		8		38	
07:00	5	39	13	57	14	55	21	60	19	94	34	117
07:15	10		16		14		14		24		30	
07:30	8		16		12		18		20		34	
07:45	16		12		15		7		31		19	
08:00	8	48	20	56	19	77	17	38	27	125	37	94
08:15	14		17		19		6		33		23	
08:30	18		7		18		12		36		19	
08:45	8		12		21		3		29		15	
09:00	19	82	2	7	27	112	8	14	46	194	10	21
09:15	14		1		26		3		40		4	
09:30	25		2		34		2		59		4	
09:45	24		2		25		1		49		3	
10:00	24	82	2	4	30	146	2	7	54	228	4	11
10:15	19		1		38		2		57		3	
10:30	18		1		36		0		54		1	
10:45	21		0		42		3		63		3	
11:00	34	125	0	0	47	180	0	0	81	305	0	0
11:15	25		0		38		0		63		0	
11:30	24		0		48		0		72		0	
11:45	42		0		47		0		89		0	
Totals	386		945		602		1,284		988		2,229	
Split%	39.1		42.4		60.9		57.6					
Day Totals		1,331				1,886				3,217		
Day Splits		41.4				58.6						
Peak Hour	11:00		03:45		11:00		04:00		11:00		03:45	
Volume	125		160		180		205		305		363	
Factor	0.74		0.95		0.94		0.93		0.86		0.94	

Data File : D1309026

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : HAWTHORNE BOULEVARD
Segment : INDIAN PEAK RD TO SILVER SPUR
Client : WILLDAN

Site: RHE
Date: 09/26/13

Interval	EB				WB				Combined				Day: Thursday
Begin	AM		PM		AM		PM		AM		PM		
12:00	5	37	218	983	22	66	218	889	27	103	436	1,872	
12:15	8		247		12		242		20		489		
12:30	14		282		17		204		31		486		
12:45	10		236		15		225		25		461		
01:00	7	18	246	913	13	34	231	883	20	52	477	1,796	
01:15	2		206		8		187		10		393		
01:30	3		226		5		218		8		444		
01:45	6		235		8		247		14		482		
02:00	4	13	244	1,073	7	22	265	1,102	11	35	509	2,175	
02:15	1		258		7		267		8		525		
02:30	3		253		4		248		7		501		
02:45	5		318		4		322		9		640		
03:00	3	25	304	1,194	8	29	306	1,144	11	54	610	2,338	
03:15	8		322		14		284		22		606		
03:30	4		274		4		286		8		560		
03:45	10		294		3		268		13		562		
04:00	4	68	278	1,003	2	30	268	1,139	6	98	546	2,142	
04:15	14		231		8		270		22		501		
04:30	23		220		12		293		35		513		
04:45	27		274		8		308		35		582		
05:00	43	278	276	1,064	7	74	331	1,335	50	352	607	2,399	
05:15	67		252		20		358		87		610		
05:30	66		266		25		330		91		596		
05:45	102		270		22		316		124		586		
06:00	121	763	269	907	36	351	334	1,221	157	1,114	603	2,128	
06:15	128		235		49		338		177		573		
06:30	252		231		80		288		332		519		
06:45	262		172		186		261		448		433		
07:00	240	1,185	207	604	124	644	280	1,004	364	1,829	487	1,608	
07:15	291		154		130		222		421		376		
07:30	333		127		162		224		495		351		
07:45	321		116		228		278		549		394		
08:00	326	1,345	140	439	194	843	306	926	520	2,188	446	1,365	
08:15	355		122		226		248		581		370		
08:30	348		93		231		178		579		271		
08:45	316		84		192		194		508		278		
09:00	280	1,014	70	273	170	649	156	515	450	1,663	226	788	
09:15	232		74		166		132		398		206		
09:30	248		66		161		121		409		187		
09:45	254		63		152		106		406		169		
10:00	254	982	58	183	154	643	82	344	408	1,625	140	527	
10:15	230		50		160		116		390		166		
10:30	246		42		164		88		410		130		
10:45	252		33		165		58		417		91		
11:00	242	884	28	85	174	743	48	163	416	1,627	76	248	
11:15	222		24		201		48		423		72		
11:30	204		18		182		43		386		61		
11:45	216		15		186		24		402		39		
Totals	6,612		8,721		4,128		10,665		10,740		19,386		
Split%	61.6		45.0		38.4		55.0						
Day Totals		15,333				14,793				30,126			
Day Splits		50.9				49.1							
Peak Hour	07:45		02:45		07:45		05:15		07:45		02:45		
Volume	1,350		1,218		879		1,338		2,229		2,416		
Factor	0.95		0.95		0.95		0.93		0.96		0.94		

* Data File : D1309027

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H

Tustin, CA. 92780

Location : HAWTHORNE BOULEVARD — Site: RHE

Segment : SCL TO PALOS VERDES DRIVE NORT — Date: 09/24/13

Client : WILLDAN

Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	6	31	212	787	17	56	192	769	23	87	404	1,556
12:15	10		199		13		169		23		368	
12:30	6		185		13		214		19		399	
12:45	9		191		13		194		22		385	
01:00	4	19	186	774	6	22	202	832	10	41	388	1,606
01:15	8		201		6		162		14		363	
01:30	4		196		6		224		10		420	
01:45	3		191		4		244		7		435	
02:00	3	16	210	839	5	18	222	942	8	34	432	1,781
02:15	2		198		1		228		3		426	
02:30	5		188		9		222		14		410	
02:45	6		243		3		270		9		513	
03:00	4	27	230	940	7	24	235	947	11	51	465	1,887
03:15	3		252		8		238		11		490	
03:30	6		249		3		216		9		465	
03:45	14		209		6		258		20		467	
04:00	8	83	209	856	4	35	240	997	12	118	449	1,853
04:15	13		224		10		267		23		491	
04:30	24		196		9		236		33		432	
04:45	38		227		12		254		50		481	
05:00	32	253	224	882	10	83	269	1,178	42	336	493	2,060
05:15	46		231		18		308		64		539	
05:30	72		226		26		266		98		492	
05:45	103		201		29		335		132		536	
06:00	107	638	220	734	34	316	282	1,124	141	954	502	1,858
06:15	130		168		42		278		172		446	
06:30	181		188		104		310		285		498	
06:45	220		158		136		254		356		412	
07:00	241	1,164	140	496	117	651	254	894	358	1,815	394	1,390
07:15	278		146		138		252		416		398	
07:30	283		108		170		210		453		318	
07:45	362		102		226		178		588		280	
08:00	294	1,172	73	321	184	770	165	642	478	1,942	238	963
08:15	294		86		160		180		454		266	
08:30	278		86		236		151		514		237	
08:45	306		76		190		146		496		222	
09:00	264	966	66	236	177	631	128	435	441	1,597	194	671
09:15	233		63		162		113		395		176	
09:30	241		50		154		84		395		134	
09:45	228		57		138		110		366		167	
10:00	219	879	50	126	118	592	90	291	337	1,471	140	417
10:15	244		34		146		81		390		115	
10:30	212		22		146		76		358		98	
10:45	204		20		182		44		386		64	
11:00	198	795	19	54	168	716	33	130	366	1,511	52	184
11:15	208		20		174		33		382		53	
11:30	204		7		186		42		390		49	
11:45	185		8		188		22		373		30	
Totals	6,043		7,045		3,914		9,181		9,957		16,226	
Split%	60.7		43.4		39.3		56.6					
Day Totals		13,088				13,095				26,183		
Day Splits		50.0				50.0						
Peak Hour	07:30		02:45		07:45		05:45		07:45		05:15	
Volume	1,233		974		806		1,205		2,034		2,069	
Factor	0.85		0.97		0.85		0.90		0.86		0.96	

Data File : D1309028

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : HAWTHORNE BOULEVARD
Segment : NCL TO PALOS VERDES DRIVE NORT
Client : WILLDAN

Site: RHE
Date: 09/24/13

Interval	NB				SB				Combined				Day: Tuesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	6	31	256	922	16	53	216	882	22	84	472	1,804	
12:15	7		236		11		202		18		438		
12:30	9		208		18		234		27		442		
12:45	9		222		8		230		17		452		
01:00	4	17	218	866	8	22	218	968	12	39	436	1,834	
01:15	5		238		6		224		11		462		
01:30	4		205		4		264		8		469		
01:45	4		205		4		262		8		467		
02:00	2	11	212	904	6	17	262	1,104	8	28	474	2,008	
02:15	1		226		3		260		4		486		
02:30	4		208		6		260		10		468		
02:45	4		258		2		322		6		580		
03:00	3	28	258	1,101	4	19	236	1,036	7	47	494	2,137	
03:15	3		294		8		254		11		548		
03:30	6		274		3		258		9		532		
03:45	16		275		4		288		20		563		
04:00	8	86	222	918	5	32	270	1,122	13	118	492	2,040	
04:15	12		226		12		290		24		516		
04:30	23		258		7		268		30		526		
04:45	43		212		8		294		51		506		
05:00	36	263	236	911	11	76	309	1,331	47	339	545	2,242	
05:15	51		230		14		340		65		570		
05:30	73		231		28		310		101		541		
05:45	103		214		23		372		126		586		
06:00	97	619	241	769	32	303	322	1,292	129	922	563	2,061	
06:15	127		170		47		344		174		514		
06:30	173		208		96		320		269		528		
06:45	222		150		128		306		350		456		
07:00	262	1,186	140	523	124	703	282	960	386	1,889	422	1,483	
07:15	282		147		163		248		445		395		
07:30	253		132		198		232		451		364		
07:45	389		104		218		198		607		302		
08:00	347	1,369	90	361	196	838	173	678	543	2,207	263	1,039	
08:15	315		89		208		185		523		274		
08:30	373		102		220		162		593		264		
08:45	334		80		214		158		548		238		
09:00	290	1,059	64	255	186	708	133	469	476	1,767	197	724	
09:15	252		80		194		132		446		212		
09:30	256		55		166		98		422		153		
09:45	261		56		162		106		423		162		
10:00	236	1,001	56	145	128	685	102	291	364	1,686	158	436	
10:15	260		41		171		85		431		126		
10:30	256		28		178		60		434		88		
10:45	249		20		208		44		457		64		
11:00	226	904	30	67	210	847	34	126	436	1,751	64	193	
11:15	222		16		196		33		418		49		
11:30	240		10		214		38		454		48		
11:45	216		11		227		21		443		32		
Totals	6,574		7,742		4,303		10,259		10,877		18,001		
Split%	60.4		43.0		39.6		57.0						
Day Totals		14,316				14,562				28,878			
Day Splits		49.6				50.4							
Peak Hour	07:45		03:00		11:00		05:45		07:45		05:15		
Volume	1,424		1,101		847		1,358		2,266		2,260		
Factor	0.92		0.94		0.93		0.91		0.93		0.96		

Data File : D1309029

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : HIGHRIDGE ROAD
Segment : CREST RD TO CRESTRIDGE
Client : WILLDAN

Site: RHE
Date: 09/26/13

Interval	NB				SB				Combined				Day: Thursday
Begin	AM		PM		AM		PM		AM		PM		
12:00	0	0	24	86	2	6	24	94	2	6	48	180	
12:15	0		18		1		25		1		43		
12:30	0		26		2		25		2		51		
12:45	0		18		1		20		1		38		
01:00	0	1	23	87	0	1	16	71	0	2	39	158	
01:15	1		18		0		17		1		35		
01:30	0		24		0		14		0		38		
01:45	0		22		1		24		1		46		
02:00	0	0	20	133	0	0	21	203	0	0	41	336	
02:15	0		36		0		25		0		61		
02:30	0		38		0		38		0		76		
02:45	0		39		0		119		0		158		
03:00	0	0	29	119	0	0	30	120	0	0	59	239	
03:15	0		28		0		32		0		60		
03:30	0		33		0		25		0		58		
03:45	0		29		0		33		0		62		
04:00	0	2	26	109	0	0	28	99	0	2	54	208	
04:15	0		22		0		16		0		38		
04:30	1		30		0		25		1		55		
04:45	1		31		0		30		1		61		
05:00	1	13	16	92	1	7	31	122	2	20	47	214	
05:15	1		21		2		27		3		48		
05:30	5		23		1		34		6		57		
05:45	6		32		3		30		9		62		
06:00	9	52	38	91	1	22	32	96	10	74	70	187	
06:15	7		24		3		22		10		46		
06:30	15		16		9		29		24		45		
06:45	21		13		9		13		30		26		
07:00	15	161	15	50	11	218	20	77	26	379	35	127	
07:15	47		18		26		16		73		34		
07:30	70		11		124		25		194		36		
07:45	29		6		57		16		86		22		
08:00	27	122	11	36	28	103	24	85	55	225	35	121	
08:15	33		7		20		35		53		42		
08:30	33		13		23		14		56		27		
08:45	29		5		32		12		61		17		
09:00	30	90	6	21	20	78	21	45	50	168	27	66	
09:15	24		3		20		11		44		14		
09:30	16		6		19		8		35		14		
09:45	20		6		19		5		39		11		
10:00	24	95	1	10	14	57	5	14	38	152	6	24	
10:15	24		8		15		4		39		12		
10:30	21		0		8		1		29		1		
10:45	26		1		20		4		46		5		
11:00	22	89	1	3	14	72	1	7	36	161	2	10	
11:15	12		2		20		3		32		5		
11:30	25		0		18		2		43		2		
11:45	30		0		20		1		50		1		
Totals	625		837		564		1,033		1,189		1,870		
Split%	52.6		44.8		47.4		55.2						
Day Totals		1,462				1,597				3,059			
Day Splits		47.8				52.2							
Peak Hour	07:15		02:15		07:15		02:30		07:15		02:15		
Volume	173		142		235		219		408		354		
Factor	0.62		0.91		0.47		0.46		0.53		0.56		

* Data File : D1309030

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : HIGHRIDGE ROAD
Segment : CRESTRIDGE RD TO NCL
Client : WILLDAN

Site: RHE
Date: 09/26/13

Interval	NB				SB				Combined				Day: Thursday
Begin	AM		PM		AM		PM		AM		PM		
12:00	4	7	33	151	1	4	38	125	5	11	71	276	
12:15	1		40		0		23		1		63		
12:30	0		40		0		37		0		77		
12:45	2		38		3		27		5		65		
01:00	3	8	30	115	3	7	35	162	6	15	65	277	
01:15	2		25		2		34		4		59		
01:30	2		26		2		38		4		64		
01:45	1		34		0		55		1		89		
02:00	0	0	34	183	0	0	38	170	0	0	72	353	
02:15	0		30		0		47		0		77		
02:30	0		40		0		42		0		82		
02:45	0		79		0		43		0		122		
03:00	0	2	41	177	0	2	39	193	0	4	80	370	
03:15	1		47		2		64		3		111		
03:30	0		41		0		56		0		97		
03:45	1		48		0		34		1		82		
04:00	0	4	50	177	0	4	43	159	0	8	93	336	
04:15	1		40		0		26		1		66		
04:30	1		41		2		58		3		99		
04:45	2		46		2		32		4		78		
05:00	2	14	48	192	1	7	32	160	3	21	80	352	
05:15	2		40		2		58		4		98		
05:30	4		56		3		36		7		92		
05:45	6		48		1		34		7		82		
06:00	6	63	62	192	1	43	30	136	7	106	92	328	
06:15	9		51		5		42		14		93		
06:30	20		43		27		25		47		68		
06:45	28		36		10		39		38		75		
07:00	22	174	37	139	26	229	41	102	48	403	78	241	
07:15	39		36		72		20		111		56		
07:30	64		38		66		15		130		53		
07:45	49		28		65		26		114		54		
08:00	24	122	28	115	65	241	41	91	89	363	69	206	
08:15	29		34		60		15		89		49		
08:30	41		29		62		24		103		53		
08:45	28		24		54		11		82		35		
09:00	25	96	17	72	50	203	8	30	75	299	25	102	
09:15	23		19		39		7		62		26		
09:30	25		18		44		7		69		25		
09:45	23		18		70		8		93		26		
10:00	26	101	14	41	46	122	5	24	72	223	19	65	
10:15	27		12		30		3		57		15		
10:30	22		8		24		6		46		14		
10:45	26		7		22		10		48		17		
11:00	25	112	6	20	24	144	8	13	49	256	14	33	
11:15	27		6		43		5		70		11		
11:30	25		4		34		0		59		4		
11:45	35		4		43		0		78		4		
Totals	703		1,574		1,006		1,365		1,709		2,939		
Split%	41.1		53.6		58.9		46.4						
Day Totals		2,277				2,371				4,648			
Day Splits		49.0				51.0							
Peak Hour	07:15		05:30		07:15		02:45		07:15		02:45		
Volume	176		217		268		202		444		410		
Factor	0.69		0.88		0.93		0.79		0.85		0.84		

* Data File : D1309031

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : INDIAN PEAK ROAD
Segment : CRENSHAW TO NORRIS CENTER
Client : WILLDAN

Site: RHE
Date: 09/26/13

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	9	16	90	332	5	8	53	194	14	24	143	526
12:15	2		102		1		47		3		149	
12:30	4		68		2		38		6		106	
12:45	1		72		0		56		1		128	
01:00	0	8	61	278	0	4	41	166	0	12	102	444
01:15	2		63		0		48		2		111	
01:30	6		82		4		32		10		114	
01:45	0		72		0		45		0		117	
02:00	0	4	96	430	0	2	56	250	0	6	152	680
02:15	2		64		0		52		2		116	
02:30	2		105		1		70		3		175	
02:45	0		165		1		72		1		237	
03:00	0	4	122	430	0	1	56	247	0	5	178	677
03:15	4		89		0		75		4		164	
03:30	0		100		0		66		0		166	
03:45	0		119		1		50		1		169	
04:00	0	17	101	474	1	8	57	241	1	25	158	715
04:15	2		123		2		58		4		181	
04:30	6		116		3		68		9		184	
04:45	9		134		2		58		11		192	
05:00	3	35	112	542	1	31	72	261	4	66	184	803
05:15	10		126		11		63		21		189	
05:30	12		140		10		56		22		196	
05:45	10		164		9		70		19		234	
06:00	24	190	146	492	24	125	53	209	48	315	199	701
06:15	11		137		31		52		42		189	
06:30	46		115		23		53		69		168	
06:45	109		94		47		51		156		145	
07:00	48	441	92	299	63	331	39	172	111	772	131	471
07:15	62		92		67		36		129		128	
07:30	172		70		115		47		287		117	
07:45	159		45		86		50		245		95	
08:00	68	402	43	187	63	262	64	161	131	664	107	348
08:15	116		52		69		40		185		92	
08:30	111		50		61		31		172		81	
08:45	107		42		69		26		176		68	
09:00	84	281	33	144	56	177	20	57	140	458	53	201
09:15	62		35		40		21		102		56	
09:30	72		24		41		12		113		36	
09:45	63		52		40		4		103		56	
10:00	69	297	18	75	30	144	11	36	99	441	29	111
10:15	72		29		45		16		117		45	
10:30	73		18		35		4		108		22	
10:45	83		10		34		5		117		15	
11:00	49	248	18	42	43	146	2	8	92	394	20	50
11:15	72		4		30		1		102		5	
11:30	51		6		34		3		85		9	
11:45	76		14		39		2		115		16	
Totals	1,943		3,725		1,239		2,002		3,182		5,727	
Split%	61.1		65.0		38.9		35.0					
Day Totals		5,668				3,241				8,909		
Day Splits		63.6				36.4						
Peak Hour	07:30		05:30		07:30		02:30		07:30		05:15	
Volume	515		587		333		273		848		818	
Factor	0.75		0.89		0.72		0.91		0.74		0.87	

Data File : D1309032

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : INDIAN PEAK ROAD
Segment : NORRIS CENTER TO HAWTHORNE
Client : WILLDAN

Site: RHE
Date: 09/26/13

Day: Thursday

Interval	SB				NB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	0	1	62	248	4	10	66	245	4	11	128	493
12:15	1		61		3		53		4		114	
12:30	0		62		2		62		2		124	
12:45	0		63		1		64		1		127	
01:00	0	1	56	217	2	5	50	229	2	6	106	446
01:15	0		58		1		59		1		117	
01:30	1		47		2		68		3		115	
01:45	0		56		0		52		0		108	
02:00	0	1	57	284	0	0	54	270	0	1	111	554
02:15	0		79		0		58		0		137	
02:30	0		66		0		70		0		136	
02:45	1		82		0		88		1		170	
03:00	0	1	67	326	0	2	74	276	0	3	141	602
03:15	0		89		2		74		2		163	
03:30	0		90		0		64		0		154	
03:45	1		80		0		64		1		144	
04:00	1	21	81	286	0	2	90	342	1	23	171	628
04:15	5		71		1		71		6		142	
04:30	7		60		0		84		7		144	
04:45	8		74		1		97		9		171	
05:00	3	51	72	293	1	6	98	373	4	57	170	666
05:15	14		79		1		71		15		150	
05:30	16		66		1		104		17		170	
05:45	18		76		3		100		21		176	
06:00	29	128	49	194	5	45	96	314	34	173	145	508
06:15	28		60		4		70		32		130	
06:30	32		40		16		78		48		118	
06:45	39		45		20		70		59		115	
07:00	70	347	39	136	16	133	60	240	86	480	99	376
07:15	63		35		14		61		77		96	
07:30	110		35		49		60		159		95	
07:45	104		27		54		59		158		86	
08:00	70	402	33	102	33	169	44	179	103	571	77	281
08:15	103		24		48		51		151		75	
08:30	108		32		50		50		158		82	
08:45	121		13		38		34		159		47	
09:00	92	286	15	30	26	142	39	124	118	428	54	154
09:15	58		10		40		23		98		33	
09:30	65		3		42		32		107		35	
09:45	71		2		34		30		105		32	
10:00	58	251	6	20	52	196	22	59	110	447	28	79
10:15	70		7		42		18		112		25	
10:30	56		3		50		13		106		16	
10:45	67		4		52		6		119		10	
11:00	60	206	2	4	54	219	11	27	114	425	13	31
11:15	49		1		56		3		105		4	
11:30	52		1		52		3		104		4	
11:45	45		0		57		10		102		10	
Totals	1,696		2,140		929		2,678		2,625		4,818	
Split%	64.6		44.4		35.4		55.6					
Day Totals		3,836				3,607				7,443		
Day Splits		51.5				48.5						
Peak Hour	08:15		03:15		11:00		05:00		08:15		05:00	
Volume	424		340		219		373		586		666	
Factor	0.88		0.94		0.96		0.90		0.92		0.95	

Data File : D1309033

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : PALOS VERDES DRIVE EAST
Segment : SCL TO PALOS VERDES DRIVE N
Client : WILLDAN

Site: RHE
Date: 09/24/13

Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	3	7	105	386	6	16	123	458	9	23	228	844
12:15	2		104		3		121		5		225	
12:30	2		99		3		113		5		212	
12:45	0		78		4		101		4		179	
01:00	1	5	102	379	2	13	92	414	3	18	194	793
01:15	0		73		6		104		6		177	
01:30	3		110		2		100		5		210	
01:45	1		94		3		118		4		212	
02:00	1	2	77	385	1	3	108	551	2	5	185	936
02:15	1		102		1		123		2		225	
02:30	0		94		1		132		1		226	
02:45	0		112		0		188		0		300	
03:00	0	4	123	514	0	2	166	703	0	6	289	1,217
03:15	1		166		0		204		1		370	
03:30	1		133		0		161		1		294	
03:45	2		92		2		172		4		264	
04:00	2	21	110	405	1	8	178	685	3	29	288	1,090
04:15	3		100		2		158		5		258	
04:30	8		111		3		170		11		281	
04:45	8		84		2		179		10		263	
05:00	13	94	102	381	4	17	155	700	17	111	257	1,081
05:15	15		85		4		182		19		267	
05:30	25		92		2		183		27		275	
05:45	41		102		7		180		48		282	
06:00	38	268	102	311	9	72	180	623	47	340	282	934
06:15	54		79		8		173		62		252	
06:30	90		68		21		143		111		211	
06:45	86		62		34		127		120		189	
07:00	116	658	55	229	48	358	108	386	164	1,016	163	615
07:15	174		67		76		114		250		181	
07:30	194		64		104		88		298		152	
07:45	174		43		130		76		304		119	
08:00	190	632	35	107	138	432	89	274	328	1,064	124	381
08:15	182		39		100		75		282		114	
08:30	122		21		108		66		230		87	
08:45	138		12		86		44		224		56	
09:00	122	470	20	74	99	451	46	195	221	921	66	269
09:15	109		17		120		52		229		69	
09:30	104		18		118		56		222		74	
09:45	135		19		114		41		249		60	
10:00	124	435	13	37	104	421	49	123	228	856	62	160
10:15	106		12		102		24		208		36	
10:30	102		6		115		22		217		28	
10:45	103		6		100		28		203		34	
11:00	108	384	8	17	115	436	19	66	223	820	27	83
11:15	94		6		108		27		202		33	
11:30	88		2		109		14		197		16	
11:45	94		1		104		6		198		7	
Totals	2,980		3,225		2,229		5,178		5,209		8,403	
Split%	57.2		38.4		42.8		61.6					
Day Totals		6,205				7,407				13,612		
Day Splits		45.6				54.4						
Peak Hour	07:30		02:45		07:45		05:15		07:30		02:45	
Volume	740		534		476		725		1,212		1,253	
Factor	0.95		0.80		0.86		0.99		0.92		0.85	

Data File : D1309034

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : PALOS VERDES DRIVE EAST
Segment : PALOS VERDES DRIVE N TO NCL
Client : WILLDAN

Site: RHE
Date: 09/24/13

Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	1	6	88	300	3	13	68	295	4	19	156	595
12:15	1		82		2		63		3		145	
12:30	4		61		4		84		8		145	
12:45	0		69		4		80		4		149	
01:00	0	3	85	308	3	9	82	358	3	12	167	666
01:15	1		56		2		102		3		158	
01:30	2		100		0		72		2		172	
01:45	0		67		4		102		4		169	
02:00	2	5	81	355	1	5	95	396	3	10	176	751
02:15	0		98		2		97		2		195	
02:30	2		92		1		84		3		176	
02:45	1		84		1		120		2		204	
03:00	2	6	91	375	0	3	120	472	2	9	211	847
03:15	0		93		0		95		0		188	
03:30	2		99		1		117		3		216	
03:45	2		92		2		140		4		232	
04:00	1	13	76	301	1	13	100	462	2	26	176	763
04:15	3		72		3		115		6		187	
04:30	5		82		4		133		9		215	
04:45	4		71		5		114		9		185	
05:00	3	51	77	274	2	21	102	495	5	72	179	769
05:15	10		61		5		136		15		197	
05:30	17		56		6		141		23		197	
05:45	21		80		8		116		29		196	
06:00	24	140	73	263	13	75	126	440	37	215	199	703
06:15	28		86		10		127		38		213	
06:30	45		52		24		108		69		160	
06:45	43		52		28		79		71		131	
07:00	80	541	51	177	38	213	73	282	118	754	124	459
07:15	131		39		54		82		185		121	
07:30	184		51		67		55		251		106	
07:45	146		36		54		72		200		108	
08:00	106	486	26	100	64	238	62	190	170	724	88	290
08:15	160		29		58		54		218		83	
08:30	122		24		56		35		178		59	
08:45	98		21		60		39		158		60	
09:00	89	369	17	70	60	216	32	129	149	585	49	199
09:15	96		16		50		45		146		61	
09:30	87		15		52		20		139		35	
09:45	97		22		54		32		151		54	
10:00	79	309	8	29	48	230	30	86	127	539	38	115
10:15	86		8		56		25		142		33	
10:30	76		5		68		15		144		20	
10:45	68		8		58		16		126		24	
11:00	97	333	4	17	70	286	8	35	167	619	12	52
11:15	76		5		64		8		140		13	
11:30	84		6		62		11		146		17	
11:45	76		2		90		8		166		10	
Totals	2,262		2,569		1,322		3,640		3,584		6,209	
Split%	63.1		41.4		36.9		58.6					
Day Totals		4,831				4,962				9,793		
Day Splits		49.3				50.7						
Peak Hour	07:30		03:00		11:00		05:15		07:30		03:00	
Volume	596		375		286		519		839		847	
Factor	0.81		0.95		0.79		0.92		0.84		0.91	

Data File : D1309035

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : PALOS VERDES DRIVE NORTH
Segment : ECL TO PALOS VERDES DRIVE E
Client : WILLDAN

Site: RHE
Date: 09/24/13

Interval	EB				WB				Combined				Day: Tuesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	12	37	214	934	14	42	220	967	26	79	434	1,901	
12:15	12		238		5		261		17		499		
12:30	7		240		16		240		23		480		
12:45	6		242		7		246		13		488		
01:00	9	24	246	914	12	28	264	1,021	21	52	510	1,935	
01:15	4		204		7		238		11		442		
01:30	7		216		5		264		12		480		
01:45	4		248		4		255		8		503		
02:00	3	12	262	1,042	6	15	252	1,085	9	27	514	2,127	
02:15	2		278		4		271		6		549		
02:30	4		216		0		290		4		506		
02:45	3		286		5		272		8		558		
03:00	4	17	326	1,312	16	50	306	1,334	20	67	632	2,646	
03:15	5		334		18		354		23		688		
03:30	4		324		4		342		8		666		
03:45	4		328		12		332		16		660		
04:00	10	87	308	1,207	7	75	344	1,349	17	162	652	2,556	
04:15	15		292		8		340		23		632		
04:30	26		320		28		337		54		657		
04:45	36		287		32		328		68		615		
05:00	49	331	274	1,148	50	390	348	1,354	99	721	622	2,502	
05:15	65		276		68		334		133		610		
05:30	89		280		119		331		208		611		
05:45	128		318		153		341		281		659		
06:00	134	853	237	1,079	149	881	352	1,271	283	1,734	589	2,350	
06:15	196		288		192		326		388		614		
06:30	227		280		260		321		487		601		
06:45	296		274		280		272		576		546		
07:00	309	1,200	208	748	318	1,244	230	750	627	2,444	438	1,498	
07:15	277		218		294		178		571		396		
07:30	310		172		326		174		636		346		
07:45	304		150		306		168		610		318		
08:00	290	1,256	130	510	318	1,394	130	511	608	2,650	260	1,021	
08:15	348		139		371		123		719		262		
08:30	326		118		372		143		698		261		
08:45	292		123		333		115		625		238		
09:00	296	1,024	87	374	308	1,123	132	400	604	2,147	219	774	
09:15	268		128		323		84		591		212		
09:30	226		82		254		94		480		176		
09:45	234		77		238		90		472		167		
10:00	238	908	84	229	228	964	62	156	466	1,872	146	385	
10:15	240		58		261		42		501		100		
10:30	214		44		240		28		454		72		
10:45	216		43		235		24		451		67		
11:00	208	855	34	99	278	969	28	74	486	1,824	62	173	
11:15	216		26		256		20		472		46		
11:30	226		32		210		16		436		48		
11:45	205		7		225		10		430		17		
Totals	6,604		9,596		7,175		10,272		13,779		19,868		
Split%	47.9		48.3		52.1		51.7						
Day Totals		16,200				17,447				33,647			
Day Splits		48.1				51.9							
Peak Hour	07:45		03:00		08:00		03:15		08:00		03:15		
Volume	1,268		1,312		1,394		1,372		2,650		2,666		
Factor	0.91		0.98		0.94		0.97		0.92		0.97		

* Data File : D1309036

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : PALOS VERDES DRIVE NORTH
Segment : PALOS VERDES DR E TO ROLLING H
Client : WILLDAN

Site: RHE
Date: 09/24/13

Day: Tuesday

Interval	EB				WB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	12	34	240	986	19	65	230	860	31	99	470	1,846
12:15	9		261		18		206		27		467	
12:30	8		248		18		220		26		468	
12:45	5		237		10		204		15		441	
01:00	6	22	264	947	5	21	184	894	11	43	448	1,841
01:15	5		210		8		213		13		423	
01:30	8		224		8		226		16		450	
01:45	3		249		0		271		3		520	
02:00	2	10	310	1,165	2	22	278	1,397	4	32	588	2,562
02:15	2		269		7		316		9		585	
02:30	4		264		6		373		10		637	
02:45	2		322		7		430		9		752	
03:00	5	21	358	1,396	14	42	360	1,228	19	63	718	2,624
03:15	3		358		2		264		5		622	
03:30	5		342		12		276		17		618	
03:45	8		338		14		328		22		666	
04:00	9	69	314	1,219	6	55	358	1,226	15	124	672	2,445
04:15	8		285		10		256		18		541	
04:30	24		308		14		310		38		618	
04:45	28		312		25		302		53		614	
05:00	41	292	278	1,181	24	164	326	1,623	65	456	604	2,804
05:15	57		294		32		348		89		642	
05:30	86		308		42		448		128		756	
05:45	108		301		66		501		174		802	
06:00	119	801	237	1,116	68	665	434	1,914	187	1,466	671	3,030
06:15	188		293		149		523		337		816	
06:30	228		288		228		506		456		794	
06:45	266		298		220		451		486		749	
07:00	326	1,174	233	807	254	1,695	263	923	580	2,869	496	1,730
07:15	268		217		415		282		683		499	
07:30	290		200		556		212		846		412	
07:45	290		157		470		166		760		323	
08:00	356	1,396	148	560	514	2,214	174	580	870	3,610	322	1,140
08:15	380		145		608		138		988		283	
08:30	358		139		574		142		932		281	
08:45	302		128		518		126		820		254	
09:00	342	1,097	102	431	258	1,009	110	443	600	2,106	212	874
09:15	299		134		226		132		525		266	
09:30	254		107		252		114		506		221	
09:45	202		88		273		87		475		175	
10:00	240	896	86	233	244	936	83	283	484	1,832	169	516
10:15	223		52		188		88		411		140	
10:30	233		47		245		64		478		111	
10:45	200		48		259		48		459		96	
11:00	210	870	38	109	199	848	42	134	409	1,718	80	243
11:15	220		33		198		36		418		69	
11:30	228		33		205		34		433		67	
11:45	212		5		246		22		458		27	
Totals	6,682		10,150		7,736		11,505		14,418		21,655	
Split%	46.3		46.9		53.7		53.1					
Day Totals		16,832				19,241				36,073		
Day Splits		46.7				53.3						
Peak Hour	08:00		03:00		08:00		05:45		08:00		05:45	
Volume	1,396		1,396		2,214		1,964		3,610		3,083	
Factor	0.92		0.97		0.91		0.94		0.91		0.94	

Data File : D1309037

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : PALOS VERDES DRIVE NORTH
Segment : ROLLING HILLS TO CRENSHAW BLVD
Client : WILLDAN

Site: RHE
Date: 09/24/13

Interval	EB				WB				Combined				Day: Tuesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	7	23	226	912	19	63	161	661	26	86	387	1,573	
12:15	7		234		16		168		23		402		
12:30	5		224		18		164		23		388		
12:45	4		228		10		168		14		396		
01:00	5	14	219	875	5	19	142	659	10	33	361	1,534	
01:15	5		191		5		145		10		336		
01:30	3		197		9		176		12		373		
01:45	1		268		0		196		1		464		
02:00	1	9	307	1,146	1	18	183	854	2	27	490	2,000	
02:15	2		252		6		210		8		462		
02:30	3		279		7		221		10		500		
02:45	3		308		4		240		7		548		
03:00	4	18	300	1,204	11	34	210	874	15	52	510	2,078	
03:15	3		264		3		207		6		471		
03:30	5		318		10		218		15		536		
03:45	6		322		10		239		16		561		
04:00	10	67	275	984	5	42	225	873	15	109	500	1,857	
04:15	8		230		9		207		17		437		
04:30	25		232		13		207		38		439		
04:45	24		247		15		234		39		481		
05:00	39	280	218	860	12	99	240	1,004	51	379	458	1,864	
05:15	58		240		20		248		78		488		
05:30	86		208		28		246		114		454		
05:45	97		194		39		270		136		464		
06:00	115	764	143	765	51	500	256	998	166	1,264	399	1,763	
06:15	183		232		97		250		280		482		
06:30	213		200		184		230		397		430		
06:45	253		190		168		262		421		452		
07:00	274	1,020	166	568	164	888	220	790	438	1,908	386	1,358	
07:15	237		168		246		230		483		398		
07:30	259		143		243		180		502		323		
07:45	250		91		235		160		485		251		
08:00	260	971	114	409	184	814	146	482	444	1,785	260	891	
08:15	243		93		178		115		421		208		
08:30	248		119		213		115		461		234		
08:45	220		83		239		106		459		189		
09:00	244	835	81	330	182	718	84	369	426	1,553	165	699	
09:15	216		112		167		118		383		230		
09:30	207		71		164		87		371		158		
09:45	168		66		205		80		373		146		
10:00	223	847	59	163	170	643	74	256	393	1,490	133	419	
10:15	192		37		120		79		312		116		
10:30	234		34		173		58		407		92		
10:45	198		33		180		45		378		78		
11:00	203	801	31	78	128	624	28	111	331	1,425	59	189	
11:15	202		18		170		36		372		54		
11:30	190		25		156		30		346		55		
11:45	206		4		170		17		376		21		
Totals	5,649		8,294		4,462		7,931		10,111		16,225		
Split%	55.9		51.1		44.1		48.9						
Day Totals		13,943				12,393				26,336			
Day Splits		52.9				47.1							
Peak Hour	06:45		03:00		07:15		05:30		07:15		03:00		
Volume	1,023		1,204		908		1,022		1,914		2,078		
Factor	0.93		0.93		0.92		0.95		0.95		0.93		

Data File : D1309038

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location: : PALOS VERDES DRIVE NORTH
Segment: : CRENSHAW TO HAWTHORNE
Client: : WILLDAN

Site: RHE
Date: 10/30/13

Day: Wednesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	22	44	150	592	4	20	130	580	26	64	280	1,172
12:15	11		162		6		150		17		312	
12:30	6		154		6		144		12		298	
12:45	5		126		4		156		9		282	
01:00	8	29	105	548	5	16	166	612	13	45	271	1,160
01:15	8		138		1		144		9		282	
01:30	10		141		6		149		16		290	
01:45	3		164		4		153		7		317	
02:00	1	5	157	701	1	11	184	727	2	16	341	1,428
02:15	1		184		2		158		3		342	
02:30	1		176		2		181		3		357	
02:45	2		184		6		204		8		388	
03:00	6	16	215	874	2	9	248	877	8	25	463	1,751
03:15	4		220		0		222		4		442	
03:30	0		215		3		204		3		419	
03:45	6		224		4		203		10		427	
04:00	4	25	200	804	5	43	178	765	9	68	378	1,569
04:15	2		208		10		192		12		400	
04:30	7		164		9		213		16		377	
04:45	12		232		19		182		31		414	
05:00	14	71	256	925	22	179	210	766	36	250	466	1,691
05:15	11		246		42		197		53		443	
05:30	28		221		55		190		83		411	
05:45	18		202		60		169		78		371	
06:00	30	482	196	717	70	408	206	644	100	890	402	1,361
06:15	76		186		96		178		172		364	
06:30	165		188		116		140		281		328	
06:45	211		147		126		120		337		267	
07:00	120	850	124	511	148	882	113	359	268	1,732	237	870
07:15	218		122		156		85		374		207	
07:30	222		149		293		89		515		238	
07:45	290		116		285		72		575		188	
08:00	284	1,099	90	373	196	810	76	222	480	1,909	166	595
08:15	278		112		193		56		471		168	
08:30	306		73		233		40		539		113	
08:45	231		98		188		50		419		148	
09:00	205	610	100	298	194	646	44	180	399	1,256	144	478
09:15	139		86		146		55		285		141	
09:30	125		54		148		41		273		95	
09:45	141		58		158		40		299		98	
10:00	124	479	52	187	140	554	32	94	264	1,033	84	281
10:15	111		50		131		18		242		68	
10:30	102		35		133		25		235		60	
10:45	142		50		150		19		292		69	
11:00	116	557	30	90	120	497	27	58	236	1,054	57	148
11:15	116		14		134		14		250		28	
11:30	135		26		141		8		276		34	
11:45	190		20		102		9		292		29	
Totals	4,267		6,620		4,075		5,884		8,342		12,504	
Split%	51.2		52.9		48.8		47.1					
Day Totals		10,887				9,959				20,846		
Day Splits		52.2				47.8						
Peak Hour	07:45		04:45		07:30		02:45		07:45		03:00	
Volume	1,158		955		967		878		2,065		1,751	
Factor	0.95		0.93		0.83		0.89		0.90		0.95	

Data File : D1311036

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H

Tustin, CA. 92780

Location: : PALOS VERDES DRIVE NORTH — Site: RHS

Segment: : HAWTHORNE TO SILVER SPUR — Date: 10/30/13

Client: : WILLDAN

Interval	NB				SB				Combined				Day: Wednesday
Begin	AM		PM		AM		PM		AM		PM		
12:00	10	27	135	521	3	12	138	566	13	39	273	1,087	
12:15	7		130		2		156		9		286		
12:30	3		130		1		133		4		263		
12:45	7		126		6		139		13		265		
01:00	3	15	94	473	1	6	141	600	4	21	235	1,073	
01:15	5		112		1		148		6		260		
01:30	3		130		3		161		6		291		
01:45	4		137		1		150		5		287		
02:00	3	11	109	525	0	5	172	663	3	16	281	1,188	
02:15	3		132		1		144		4		276		
02:30	2		136		1		143		3		279		
02:45	3		148		3		204		6		352		
03:00	4	7	161	666	1	4	230	863	5	11	391	1,529	
03:15	0		160		0		218		0		378		
03:30	1		154		2		220		3		374		
03:45	2		191		1		195		3		386		
04:00	2	18	143	637	5	34	204	783	7	52	347	1,420	
04:15	3		166		5		189		8		355		
04:30	6		150		7		208		13		358		
04:45	7		178		17		182		24		360		
05:00	9	39	171	709	20	136	220	707	29	175	391	1,416	
05:15	10		206		31		180		41		386		
05:30	6		172		39		172		45		344		
05:45	14		160		46		135		60		295		
06:00	24	317	164	562	60	361	154	484	84	678	318	1,046	
06:15	51		154		58		116		109		270		
06:30	94		134		105		118		199		252		
06:45	148		110		138		96		286		206		
07:00	78	472	147	472	136	756	92	295	214	1,228	239	767	
07:15	84		104		142		76		226		180		
07:30	120		109		246		64		366		173		
07:45	190		112		232		63		422		175		
08:00	138	554	95	341	208	811	64	188	346	1,365	159	529	
08:15	128		98		193		49		321		147		
08:30	162		66		206		43		368		109		
08:45	126		82		204		32		330		114		
09:00	110	429	73	261	195	695	50	143	305	1,124	123	404	
09:15	97		80		170		33		267		113		
09:30	104		57		162		36		266		93		
09:45	118		51		168		24		286		75		
10:00	109	452	42	144	141	514	34	75	250	966	76	219	
10:15	122		33		120		13		242		46		
10:30	102		35		117		17		219		52		
10:45	119		34		136		11		255		45		
11:00	119	515	28	90	122	496	15	45	241	1,011	43	135	
11:15	104		13		130		16		234		29		
11:30	138		33		130		6		268		39		
11:45	154		16		114		8		268		24		
Totals	2,856		5,401		3,830		5,412		6,686		10,813		
Split%	42.7		49.9		57.3		50.1						
Day Totals		8,257				9,242				17,499			
Day Splits		47.2				52.8							
Peak Hour	07:45		04:45		07:30		02:45		07:45		03:00		
Volume	618		727		879		872		1,457		1,529		
Factor	0.81		0.88		0.89		0.95		0.86		0.98		

* Data File : D1311035

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location: : PALOS VERDES DRIVE NORTH
Segment: : SILVER SPUR TO NCL
Client: : WILLDAN

Site: RHS
Date: 10/30/13

Day: Wednesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	6	20	126	478	4	12	116	467	10	32	242	945
12:15	6		128		0		111		6		239	
12:30	7		122		2		120		9		242	
12:45	1		102		6		120		7		222	
01:00	4	9	88	388	2	6	130	550	6	15	218	938
01:15	4		100		1		136		5		236	
01:30	1		98		3		132		4		230	
01:45	0		102		0		152		0		254	
02:00	1	3	114	506	0	2	162	648	1	5	276	1,154
02:15	1		126		1		152		2		278	
02:30	0		111		0		154		0		265	
02:45	1		155		1		180		2		335	
03:00	1	6	150	618	0	1	184	660	1	7	334	1,278
03:15	1		177		1		154		2		331	
03:30	1		135		0		168		1		303	
03:45	3		156		0		154		3		310	
04:00	2	16	146	571	6	21	159	673	8	37	305	1,244
04:15	1		136		1		165		2		301	
04:30	6		137		3		176		9		313	
04:45	7		152		11		173		18		325	
05:00	10	56	140	602	10	63	183	669	20	119	323	1,271
05:15	8		180		12		162		20		342	
05:30	22		144		23		160		45		304	
05:45	16		138		18		164		34		302	
06:00	26	229	124	393	21	182	133	516	47	411	257	909
06:15	42		103		34		134		76		237	
06:30	72		79		53		134		125		213	
06:45	89		87		74		115		163		202	
07:00	76	415	70	312	55	428	93	316	131	843	163	628
07:15	110		86		80		80		190		166	
07:30	102		92		141		71		243		163	
07:45	127		64		152		72		279		136	
08:00	130	681	62	228	130	578	81	245	260	1,259	143	473
08:15	146		68		198		54		344		122	
08:30	211		47		98		44		309		91	
08:45	194		51		152		66		346		117	
09:00	134	429	39	155	154	496	48	169	288	925	87	324
09:15	119		54		105		51		224		105	
09:30	102		34		108		40		210		74	
09:45	74		28		129		30		203		58	
10:00	95	394	15	61	102	402	37	91	197	796	52	152
10:15	108		16		91		14		199		30	
10:30	95		13		92		20		187		33	
10:45	96		17		117		20		213		37	
11:00	94	447	14	33	104	390	16	42	198	837	30	75
11:15	122		4		94		8		216		12	
11:30	108		11		98		11		206		22	
11:45	123		4		94		7		217		11	
Totals	2,705		4,345		2,581		5,046		5,286		9,391	
Split%	51.2		46.3		48.8		53.7					
Day Totals		7,050				7,627				14,677		
Day Splits		48.0				52.0						
Peak Hour	08:15		03:00		07:30		04:15		08:15		02:45	
Volume	685		618		621		697		1,287		1,303	
Factor	0.81		0.87		0.78		0.95		0.93		0.97	

Data File : D1311034

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : ROLLING HILLS ROAD
Segment : PALOS VERDES DRIVE N TO NCL
Client : WILLDAN

Site: RHE
Date: 09/24/13

Day: Tuesday

Interval	SB				NB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	5	17	88	354	5	6	83	301	10	23	171	655
12:15	5		100		0		74		5		174	
12:30	6		86		1		84		7		170	
12:45	1		80		0		60		1		140	
01:00	1	7	84	348	0	1	56	257	1	8	140	605
01:15	1		72		1		84		2		156	
01:30	4		98		0		56		4		154	
01:45	1		94		0		61		1		155	
02:00	2	3	109	413	0	2	71	303	2	5	180	716
02:15	0		99		1		64		1		163	
02:30	1		93		0		80		1		173	
02:45	0		112		1		88		1		200	
03:00	1	3	123	512	1	8	70	301	2	11	193	813
03:15	0		115		0		91		0		206	
03:30	2		132		4		72		6		204	
03:45	0		142		3		68		3		210	
04:00	0	1	159	549	1	10	26	214	1	11	185	763
04:15	0		170		0		32		0		202	
04:30	0		117		1		91		1		208	
04:45	1		103		8		65		9		168	
05:00	1	16	112	523	7	49	48	250	8	65	160	773
05:15	3		144		13		76		16		220	
05:30	5		143		9		54		14		197	
05:45	7		124		20		72		27		196	
06:00	11	68	122	415	10	122	52	238	21	190	174	653
06:15	9		99		22		73		31		172	
06:30	15		109		42		59		57		168	
06:45	33		85		48		54		81		139	
07:00	41	239	78	258	50	278	48	164	91	517	126	422
07:15	41		61		64		44		105		105	
07:30	63		59		72		38		135		97	
07:45	94		60		92		34		186		94	
08:00	94	296	58	210	62	347	27	91	156	643	85	301
08:15	66		47		68		18		134		65	
08:30	66		59		85		21		151		80	
08:45	70		46		132		25		202		71	
09:00	69	233	37	129	88	339	8	47	157	572	45	176
09:15	48		31		61		23		109		54	
09:30	56		35		94		8		150		43	
09:45	60		26		96		8		156		34	
10:00	54	235	29	76	64	327	9	23	118	562	38	99
10:15	72		12		93		4		165		16	
10:30	54		17		64		8		118		25	
10:45	55		18		106		2		161		20	
11:00	78	301	12	36	82	330	7	16	160	631	19	52
11:15	78		14		76		3		154		17	
11:30	71		8		76		2		147		10	
11:45	74		2		96		4		170		6	
Totals	1,419		3,823		1,819		2,205		3,238		6,028	
Split%	43.8		63.4		56.2		36.6					
Day Totals		5,242				4,024				9,266		
Day Splits		56.6				43.4						
Peak Hour	07:45		03:30		08:45		02:30		08:15		03:00	
Volume	320		603		375		329		644		813	
Factor	0.85		0.89		0.71		0.90		0.80		0.97	

Data File : D1309039

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H

Tustin, CA. 92780

Location : SILVER SPUR ROAD — Site: RHE

Segment : PALOS VERDES NORTH TO KINGSPIN — Date: 09/24/13

Client : WILLDAN — Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	3	9	128	515	9	20	108	399	12	29	236	914
12:15	2		141		4		75		6		216	
12:30	2		112		5		111		7		223	
12:45	2		134		2		105		4		239	
01:00	1	4	109	413	1	9	84	436	2	13	193	849
01:15	1		93		4		97		5		190	
01:30	1		93		0		115		1		208	
01:45	1		118		4		140		5		258	
02:00	1	4	107	509	0	4	160	593	1	8	267	1,102
02:15	1		120		4		124		5		244	
02:30	1		113		0		136		1		249	
02:45	1		169		0		173		1		342	
03:00	0	7	202	698	2	5	124	496	2	12	326	1,194
03:15	2		188		1		123		3		311	
03:30	1		158		0		111		1		269	
03:45	4		150		2		138		6		288	
04:00	3	23	138	512	1	11	122	534	4	34	260	1,046
04:15	4		130		3		127		7		257	
04:30	5		120		3		142		8		262	
04:45	11		124		4		143		15		267	
05:00	23	119	143	507	7	32	156	644	30	151	299	1,151
05:15	23		140		3		155		26		295	
05:30	34		132		8		159		42		291	
05:45	39		92		14		174		53		266	
06:00	49	355	125	405	4	187	170	654	53	542	295	1,059
06:15	71		109		27		178		98		287	
06:30	83		94		56		142		139		236	
06:45	152		77		100		164		252		241	
07:00	112	634	89	304	55	398	142	479	167	1,032	231	783
07:15	115		107		83		127		198		234	
07:30	191		50		110		106		301		156	
07:45	216		58		150		104		366		162	
08:00	175	813	50	187	116	558	80	293	291	1,371	130	480
08:15	208		50		200		80		408		130	
08:30	266		52		104		66		370		118	
08:45	164		35		138		67		302		102	
09:00	141	483	25	138	104	391	58	209	245	874	83	347
09:15	123		39		96		57		219		96	
09:30	104		32		76		51		180		83	
09:45	115		42		115		43		230		85	
10:00	101	394	11	41	107	379	54	122	208	773	65	163
10:15	95		12		88		27		183		39	
10:30	95		11		98		23		193		34	
10:45	103		7		86		18		189		25	
11:00	106	460	7	24	95	397	18	47	201	857	25	71
11:15	116		10		87		15		203		25	
11:30	133		5		92		10		225		15	
11:45	105		2		123		4		228		6	
Totals	3,305		4,253		2,391		4,906		5,696		9,159	
Split%	58.0		46.4		42.0		53.6					
Day Totals		7,558				7,297				14,855		
Day Splits		50.9				49.1						
Peak Hour	07:45		02:45		07:30		05:30		07:45		02:45	
Volume	865		717		576		681		1,435		1,248	
Factor	0.81		0.89		0.72		0.96		0.88		0.91	

* Data File : D1309040

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : SILVER SPUR ROAD
Segment : KINGSPINE RD TO ELKMONT RD
Client : WILLDAN

Site: RHE
Date: 09/24/13

Day: Tuesday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	2	8	120	456	8	15	107	368	10	23	227	824
12:15	4		122		4		71		8		193	
12:30	1		98		2		88		3		186	
12:45	1		116		1		102		2		218	
01:00	1	3	92	363	1	6	65	356	2	9	157	719
01:15	1		81		2		80		3		161	
01:30	0		79		0		92		0		171	
01:45	1		111		3		119		4		230	
02:00	0	1	95	445	1	3	119	459	1	4	214	904
02:15	0		104		2		98		2		202	
02:30	0		94		0		100		0		194	
02:45	1		152		0		142		1		294	
03:00	0	4	164	620	2	5	114	443	2	9	278	1,063
03:15	0		164		1		111		1		275	
03:30	1		154		0		106		1		260	
03:45	3		138		2		112		5		250	
04:00	3	18	120	464	0	9	104	451	3	27	224	915
04:15	3		123		2		117		5		240	
04:30	6		114		4		108		10		222	
04:45	6		107		3		122		9		229	
05:00	17	81	129	456	5	29	133	515	22	110	262	971
05:15	16		128		4		129		20		257	
05:30	24		117		6		128		30		245	
05:45	24		82		14		125		38		207	
06:00	40	281	114	368	4	179	124	524	44	460	238	892
06:15	56		99		18		154		74		253	
06:30	60		91		52		122		112		213	
06:45	125		64		105		124		230		188	
07:00	94	557	80	281	54	370	118	385	148	927	198	666
07:15	89		100		66		106		155		206	
07:30	168		45		98		86		266		131	
07:45	206		56		152		75		358		131	
08:00	138	639	50	182	84	398	61	224	222	1,037	111	406
08:15	154		54		98		68		252		122	
08:30	206		48		100		50		306		98	
08:45	141		30		116		45		257		75	
09:00	113	388	21	121	110	354	45	167	223	742	66	288
09:15	98		37		84		52		182		89	
09:30	84		28		68		40		152		68	
09:45	93		35		92		30		185		65	
10:00	84	348	10	37	110	349	38	87	194	697	48	124
10:15	85		13		79		20		164		33	
10:30	84		8		84		15		168		23	
10:45	95		6		76		14		171		20	
11:00	96	425	6	20	78	333	15	39	174	758	21	59
11:15	110		9		68		13		178		22	
11:30	117		4		80		8		197		12	
11:45	102		1		107		3		209		4	
Totals	2,753		3,813		2,050		4,018		4,803		7,831	
Split%	57.3		48.7		42.7		51.3					
Day Totals		6,566				6,068				12,634		
Day Splits		52.0				48.0						
Peak Hour	07:45		02:45		07:45		05:30		07:45		02:45	
Volume	704		634		434		531		1,138		1,107	
Factor	0.85		0.97		0.71		0.86		0.79		0.94	

* Data File : D1309041

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : SILVER SPUR ROAD
Segment : HAWTHORNE TO DRY BANK DRIVE
Client : WILLDAN

Site: RHE
Date: 09/26/13

Interval	NB				SB				Combined				Day: Thursday
Begin	AM		PM		AM		PM		AM		PM		
12:00	3	9	147	581	1	2	132	549	4	11	279	1,130	
12:15	2		151		0		160		2		311		
12:30	4		146		0		125		4		271		
12:45	0		137		1		132		1		269		
01:00	3	7	156	590	1	4	122	552	4	11	278	1,142	
01:15	0		143		1		122		1		265		
01:30	1		138		0		124		1		262		
01:45	3		153		2		184		5		337		
02:00	0	2	142	663	1	2	151	631	1	4	293	1,294	
02:15	1		159		1		140		2		299		
02:30	0		151		0		148		0		299		
02:45	1		211		0		192		1		403		
03:00	3	14	174	641	4	8	192	762	7	22	366	1,403	
03:15	7		160		0		208		7		368		
03:30	2		155		3		162		5		317		
03:45	2		152		1		200		3		352		
04:00	1	9	174	670	1	23	156	646	2	32	330	1,316	
04:15	2		156		7		186		9		342		
04:30	2		172		7		150		9		322		
04:45	4		168		8		154		12		322		
05:00	6	34	212	827	16	82	174	632	22	116	386	1,459	
05:15	4		197		18		168		22		365		
05:30	12		210		15		140		27		350		
05:45	12		208		33		150		45		358		
06:00	18	215	273	785	30	232	117	493	48	447	390	1,278	
06:15	21		218		38		134		59		352		
06:30	56		156		62		126		118		282		
06:45	120		138		102		116		222		254		
07:00	54	436	138	444	84	532	83	389	138	968	221	833	
07:15	70		98		97		88		167		186		
07:30	156		114		147		98		303		212		
07:45	156		94		204		120		360		214		
08:00	60	315	94	322	137	568	180	421	197	883	274	743	
08:15	72		83		128		132		200		215		
08:30	84		87		145		65		229		152		
08:45	99		58		158		44		257		102		
09:00	71	325	54	163	124	498	33	104	195	823	87	267	
09:15	98		44		114		32		212		76		
09:30	70		42		106		21		176		63		
09:45	86		23		154		18		240		41		
10:00	108	442	25	79	132	516	18	47	240	958	43	126	
10:15	86		28		125		16		211		44		
10:30	132		14		128		4		260		18		
10:45	116		12		131		9		247		21		
11:00	125	497	10	40	140	539	8	25	265	1,036	18	65	
11:15	121		12		126		6		247		18		
11:30	128		13		124		6		252		19		
11:45	123		5		149		5		272		10		
Totals	2,305		5,805		3,006		5,251		5,311		11,056		
Split%	43.4		52.5		56.6		47.5						
Day Totals		8,110				8,257				16,367			
Day Splits		49.6				50.4							
Peak Hour	11:00		05:30		07:30		03:00		07:30		05:15		
Volume	497		909		616		762		1,060		1,463		
Factor	0.97		0.83		0.75		0.92		0.74		0.94		

Data File : D1309042

Transportation Studies, Inc.

2640 Walnut Avenue, Ste H
Tustin, CA. 92780

Location : SILVER SPUR ROAD
Segment : DRY BANK DR TO CRENSHAW BLVD
Client : WILLDAN

Site: RHE
Date: 09/26/13

Day: Thursday

Interval	NB				SB				Combined			
Begin	AM		PM		AM		PM		AM		PM	
12:00	2	7	106	431	1	4	132	540	3	11	238	971
12:15	2		108		1		152		3		260	
12:30	2		109		1		136		3		245	
12:45	1		108		1		120		2		228	
01:00	3	5	119	416	1	4	134	532	4	9	253	948
01:15	0		89		1		124		1		213	
01:30	1		92		0		116		1		208	
01:45	1		116		2		158		3		274	
02:00	0	1	101	491	2	2	148	581	2	3	249	1,072
02:15	0		115		0		139		0		254	
02:30	1		127		0		126		1		253	
02:45	0		148		0		168		0		316	
03:00	2	11	132	489	2	9	208	720	4	20	340	1,209
03:15	4		107		0		176		4		283	
03:30	3		120		3		151		6		271	
03:45	2		130		4		185		6		315	
04:00	1	20	116	469	1	7	157	598	2	27	273	1,067
04:15	5		114		2		150		7		264	
04:30	6		117		2		156		8		273	
04:45	8		122		2		135		10		257	
05:00	7	50	130	543	12	57	159	583	19	107	289	1,126
05:15	6		122		10		164		16		286	
05:30	14		144		13		156		27		300	
05:45	23		147		22		104		45		251	
06:00	18	192	176	528	22	193	117	423	40	385	293	951
06:15	30		157		27		110		57		267	
06:30	53		107		50		116		103		223	
06:45	91		88		94		80		185		168	
07:00	54	419	82	281	76	421	100	381	130	840	182	662
07:15	81		79		74		94		155		173	
07:30	136		64		117		86		253		150	
07:45	148		56		154		101		302		157	
08:00	59	319	48	166	96	384	152	399	155	703	200	565
08:15	78		40		88		118		166		158	
08:30	80		42		98		79		178		121	
08:45	102		36		102		50		204		86	
09:00	87	372	34	109	100	402	40	129	187	774	74	238
09:15	101		34		92		41		193		75	
09:30	82		28		106		22		188		50	
09:45	102		13		104		26		206		39	
10:00	72	314	16	51	104	474	32	77	176	788	48	128
10:15	72		18		117		24		189		42	
10:30	86		10		132		5		218		15	
10:45	84		7		121		16		205		23	
11:00	88	356	9	24	122	496	10	29	210	852	19	53
11:15	80		3		116		8		196		11	
11:30	94		7		136		6		230		13	
11:45	94		5		122		5		216		10	
Totals	2,066		3,998		2,453		4,992		4,519		8,990	
Split%	45.7		44.5		54.3		55.5					
Day Totals		6,064				7,445				13,509		
Day Splits		44.9				55.1						
Peak Hour	07:15		05:30		11:00		03:00		07:30		02:45	
Volume	424		624		496		720		876		1,210	
Factor	0.72		0.89		0.91		0.87		0.73		0.89	

Data File : D1309043

2013 Average Daily Traffic Volumes
Figure 1

2014 Speed Zones
Figure 2

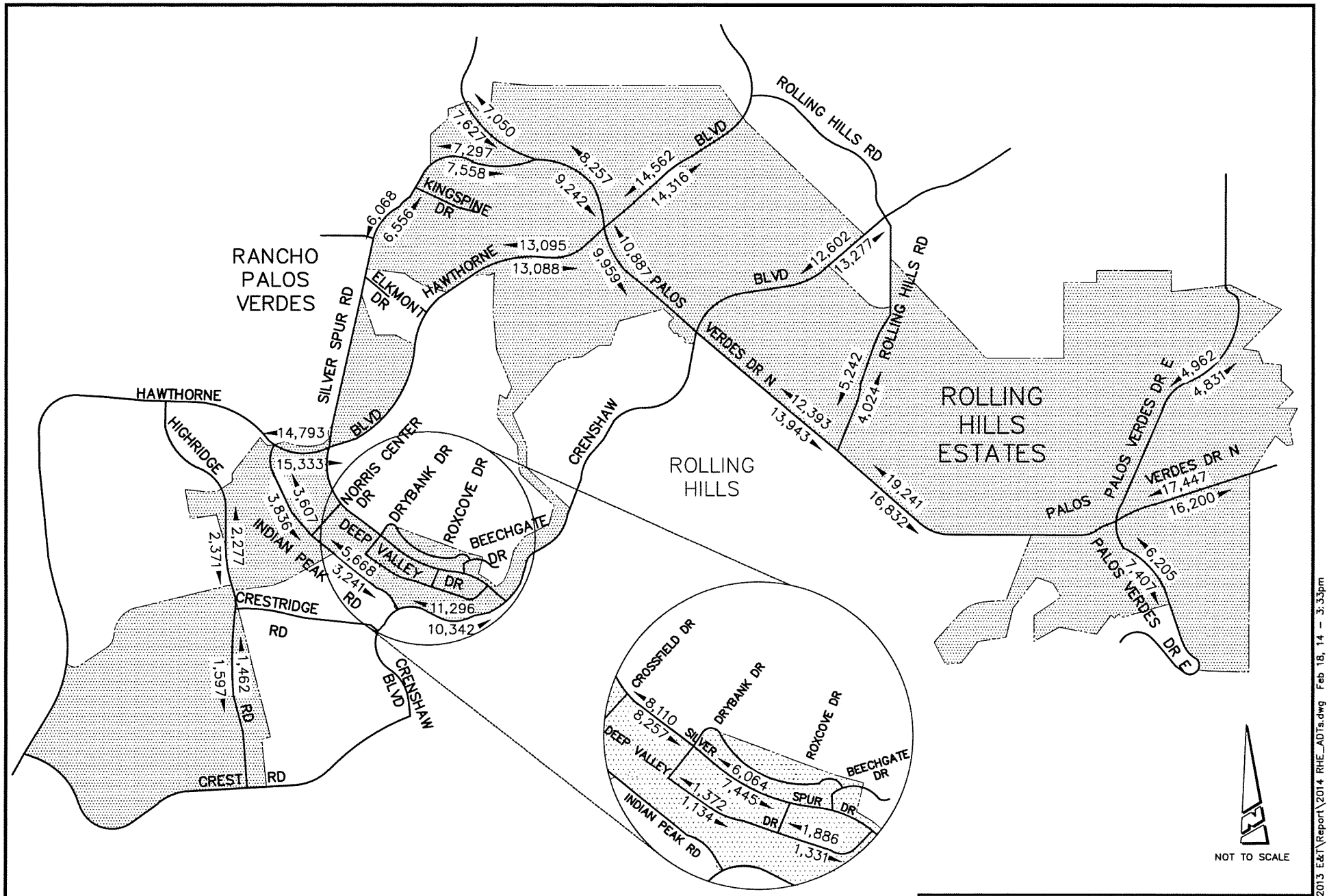

FIGURE 1

WILLDAN
SERVING PUBLIC AGENCIES
13191 CROSSROADS PARKWAY NORTH SUITE 405
INDUSTRY, CA 91746-3497

CITY OF ROLLING HILLS ESTATES

2013 AVERAGE DAILY TRAFFIC

Q:\n102008 RHE-2013 E&T\Report\2014 RHE_ADTs.dwg Feb 18, 14 - 3:33pm

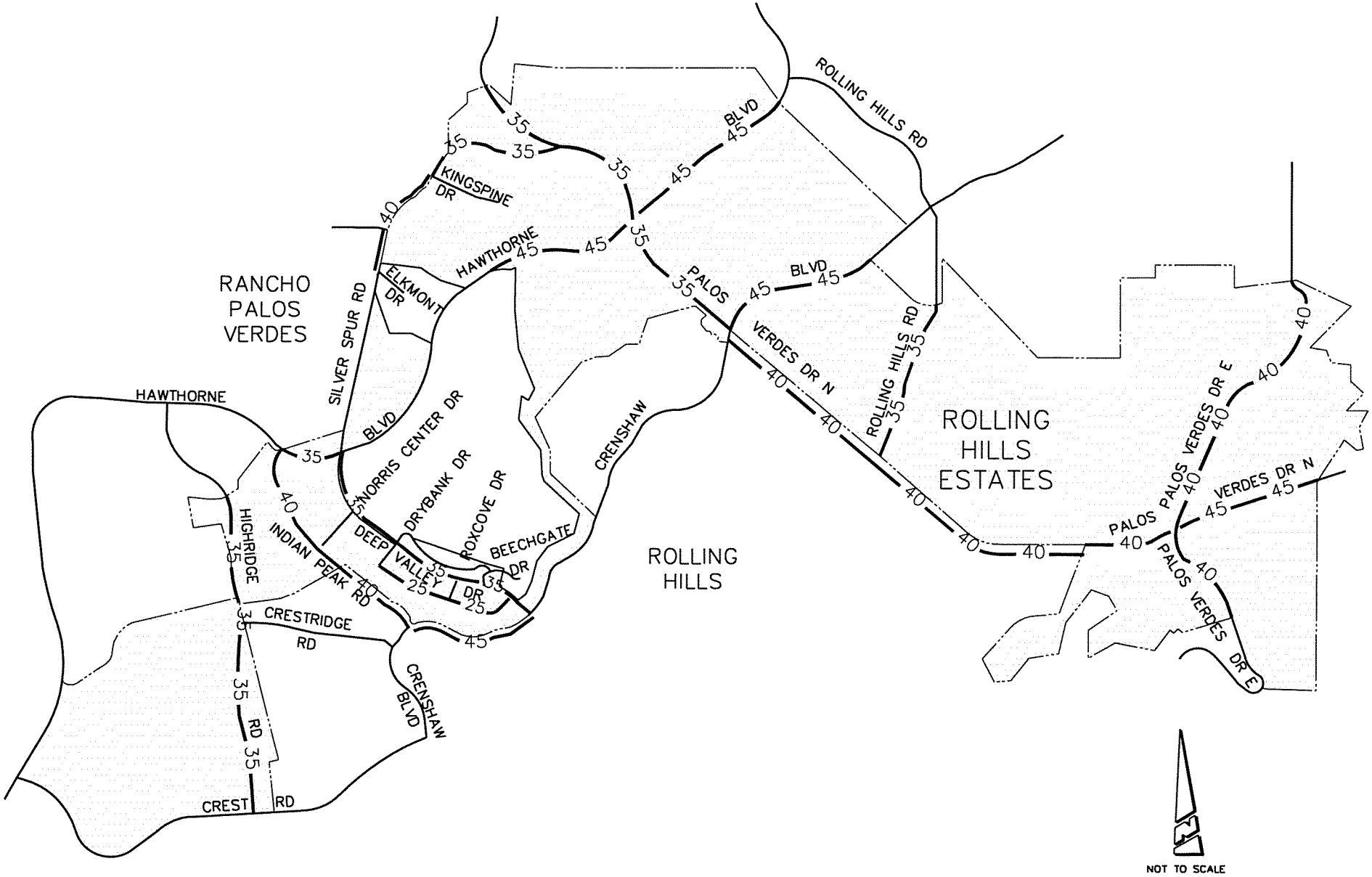

FIGURE 2

WILLDAN
SERVING PUBLIC AGENCIES
13191 CROSSROADS PARKWAY NORTH SUITE 405
INDUSTRY, CA 91746-3497

CITY OF ROLLING HILLS ESTATES
ENGINEERING & TRAFFIC SURVEY
2014 SPEED ZONES

O:\n102008 RHE-2013 E&T\Report\2014 RHE_Speed Zones.dwg Feb 18, 14 - 3:34pm