
**TRAFFIC
COMMISSION
SPECIAL
MEETING**



**NOVEMBER 14, 2012
7:00 PM**

AGENDA

Tim Hillis - Chair

**Ed Rowe - Vice Chair
Pamela Dow - Commissioner**

**Rick Frazier - Commissioner
Donald Froelich - Commissioner**

Location: City Council Chamber, 24035 El Toro Road, Laguna Hills, California 92653

Any person wishing to address the Traffic Commission on any matter, whether or not it appears on this Agenda, is asked to complete a "Request to Speak" form available on the table at the back of the Chamber. The completed form is to be submitted to the Recording Secretary prior to an individual being heard by the Traffic Commission.

Members of the public wishing to address the Traffic Commission can do so during the Public Comments portion of the Agenda with a time limitation of three minutes per person, an overall time limit of ten minutes for any one subject, and a total time limit of thirty minutes for Public Comments. If you are commenting on an Agenda item, your comments will be heard at the time that item is scheduled on the Agenda. If you are addressing the Commission on an item not listed on the Agenda, the Traffic Commission is prohibited by law from discussing or taking any action on that item.

CALL TO ORDER

Resolution No. 96-04-09-1 established rules of decorum for public meetings held by the City of Laguna Hills. Resolution No. 96-04-09-1 is available on the table at the back of the City Council Chamber.

PLEDGE OF ALLEGIANCE

ROLL CALL OF COMMISSION MEMBERS

1. PUBLIC COMMENTS

This is the time to address the Traffic Commission on any matter not listed on this Agenda that is within the subject matter jurisdiction of the Commission. Public Comments are limited to three minutes per person, an overall time limit of ten minutes for any one subject, and a total time limit of thirty minutes.

2. MINUTES**3. PRESENTATIONS****4. ADMINISTRATIVE REPORTS**

- 4.1 STOP SIGN INSTALLATION ANALYSIS AT EL SEGUNDO STREET
AND LINDA FLORA STREET

5. INFORMATIONAL ITEMS

- 5.1 RADAR SPEED TRAILER
- 5.2 SHERIFF'S DEPARTMENT VERBAL REPORT

6. COMMISSIONER COMMENTS**7. ADJOURNMENT**

The November 21, 2012, Regular Traffic Commission meeting will not be held. The next Regular Meeting of the Traffic Commission will be January 16, 2013, at 7:00 p.m., in the City Council Chamber, located at 24035 El Toro Road, Laguna Hills, California.

CERTIFICATION

I, HUMZA JAVED, Associate Civil Engineer of the City of Laguna Hills, do hereby certify that a copy of the foregoing Agenda was posted at Laguna Hills City Hall, Laguna Hills Community Center, and La Paz Center by Friday, November 9, 2012, at 5:00PM.



HUMZA JAVED
ASSOCIATE CIVIL ENGINEER

November 9, 2012

DATE

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, you should contact the office of the City Engineer at (714) 707-2650. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to assure access.

Materials related to an item on this Agenda submitted to the Commission after distribution of the Agenda packet are available for public inspection in the Public Services Department at 24035 El Toro Road, Laguna Hills, California, during normal business hours.

**CITY OF LAGUNA HILLS, CALIFORNIA
TRAFFIC COMMISSION MEETING
MINUTES
SEPTEMBER 19, 2012**

CALL TO ORDER

The Regular Meeting of the Traffic Commission of the City of Laguna Hills, California, was called to order by Chair Tim Hillis at 7:00 p.m. in the Laguna Hills City Council Chamber, 24035 El Toro Road, Laguna Hills.

PLEDGE OF ALLEGIANCE:

Chair Tim Hillis led the Pledge of Allegiance.

ROLL CALL OF COMMISSION MEMBERS:

Present: Tim Hillis, Chair
 Ed Rowe, Vice Chair
 Pamela Dow, Commissioner
 Rick Frazier, Commissioner
 Donald Froelich, Commissioner

Absent:

Staff Present: Humza Javed, Associate Civil Engineer; Tom Behrens, Chief
 of Police Services; Cindy Sands, Administrative Assistant

1. PUBLIC COMMENTS

2. APPROVAL OF MINUTES

IT WAS MOVED BY COMMISSIONER PAMELA DOW, SECONDED BY COMMISSIONER ROWE, TO APPROVE THE MINUTES OF THE JULY 18, 2012, TRAFFIC COMMISSION MEETING.

The motion carried by the following vote:

AYES: Commissioners Dow, Froelich, Vice Chair Rowe, and Chair Hillis
NOES:
ABSTAIN: Commissioner Frazier

3. PRESENTATIONS

None

4. ADMINISTRATIVE REPORTS

4.1 EQUESTRIAN TRAIL CROSSING EVALUATION

Staff stated that this issue was introduced at the Traffic Commission meeting of July 18, 2012, by Ms. Bonnie Adams, a resident of Lost Colt Drive, with regards to equestrian trail crossing issues in the Nellie Gail Ranch community. Ms. Adams listed a number of crossings of concern but focused on two, namely Nellie Gail Road east of Lost Colt Drive and Nottingham Court south of Oso Parkway. She also stated that her main concerns included the speed of traffic and failure of motorists to yield to equestrians at trail crossings. As a result of her concerns, staff met with Ms. Adams in the field to discuss traffic control standards and requested that the City's Consulting Traffic Engineers of Hartzog & Crabill, Inc. perform a traffic analysis and field review of the two locations. Mr. Jerry Stock provided a summary of his report at this meeting. As a result of the findings of Hartzog & Crabill, Inc., and in accordance with the Residential Streets Traffic Management Policy and the California Manual of Uniform Traffic Control Devices (MUTCD), staff is recommending the addition of signage and striping, additional traffic speed enforcement, and establishment of an equestrian ad hoc committee to evaluate and prioritize improvements to equestrian trail crossings in the community.

Mr. Jerry Stock, of Hartzog & Crabill, Inc., discussed the methods used in performing the Equestrian Trail Crossing analysis and summarized the results of the 24-hour, 7-day speed and traffic volume count assessment. Results determined that the 85th percentile speed ranged from 33 to 38 miles per hour indicating speeding is occurring, traffic volumes were low but typical for residential streets, and pedestrian activity was low. Review of accident history revealed no reported traffic collisions over a three-year period. Following the guidelines for the implementation of traffic control devices found in the MUTCD and the results of this analysis, it was determined these equestrian trail crossing locations do not meet the standard requirements for marked crosswalks or in-pavement lights. Mr. Stock stated that in conclusion it is recommended that speeding be addressed through increased enforcement, public education be increased via use of the portable radar trailer, and driver awareness of the equestrian trail crossing be enhanced by implementing the sign package that the community has previously adopted.

Ms. Bonnie Adams, a resident of Lost Colt Drive, voiced her concerns regarding traffic speeds and equestrian trail safety in the Nellie Gail Ranch Community, and provided the Traffic Commission with a PowerPoint presentation entitled "Nellie Gail Trail Crossing Safety Study." The presentation included information on in-pavement signal lights, active warning LED Enhanced Signage, "Smart Crosswalks," and speed humps. Ms. Adams discussed various options available and requested that the Traffic Commission consider the installation of in-pavement lighting systems at three trail crossings as a pilot project.

Ms. Linda Mudd, a resident of Dapple Grey Drive, thanked the Traffic Commission for their time, discussed her experiences using the trail crossings, and requested that the Traffic Commission consider the installation of marked equestrian trail crosswalks and address the traffic speed issues.

Mr. Jim Anderson, a resident of Richspring Circle, thanked the Traffic Commission for their time, discussed his experiences using the equestrian crossings in Nellie Gail, and stated that he is in favor of enhanced crosswalks and the formation of an ad hoc committee to look at alternative options.

Ms. Jean Bland, a resident of Lost Colt Drive, presented the Traffic Commission with a letter and copies of documents dating back to 1997, in review of past speeding issues on Lost Colt Drive and stated that she is in favor of enhanced crosswalks and signage.

Ms. Wendy Fox, a resident of Jasmine Creek Lane, thanked the Traffic Commission for their efforts, discussed her experiences using the trails in Nellie Gail, and stated that she is in favor of working together to make the Nellie Gail trails and equestrian trail crossings safe for everyone.

Mr. James Vaughn, a resident of Dillon Road, thanked the Traffic Commission for their efforts and stated that he is in favor of only the staff recommendation.

Mr. Barry Roa, a resident of Stageline Drive, thanked the Traffic Commission for their service, discussed his experiences using the trails, and stated that he is in favor of enhanced equestrian trail crossings.

Ms. Catherine Buller, a resident of Solano Court, thanked the Traffic Commission for their time, discussed her experience using the equestrian

trail crossings, and stated that she is in support of enhanced crosswalks and speed humps.

The Commission engaged in a discussion with staff, Mr. Stock, and residents regarding the various issues and options available to address equestrian trail crossings. Topics discussed included: (1) marked crosswalks at uncontrolled (mid-block) locations; (2) pavement markings; (3) in-roadway pavement lighting; (4) activated lighting; (5) equestrian trail sign package; (6) site distance analysis; (7) driver awareness; (8) advanced driver notification; (9) speed humps/bumps; and (10) ad hoc committee formation.

MOTION WAS MADE BY COMMISSIONER FROELICH, SECONDED BY COMMISSIONER DOW, TO RECOMMEND TO THE CITY COUNCIL AS A FIRST STEP IN ADDRESSING EQUESTRIAN CROSSING ISSUES: (1) THE ADDITION OF SIGNAGE AND STRIPING AS DEPICTED IN THE ATTACHED VICINITY MAPS AT THE EQUESTRIAN TRAIL CROSSINGS OF NELLIE GAIL ROAD EAST OF LOST COLT DRIVE AND NOTTINGHAM COURT SOUTH OF OSO PARKWAY; (2) IMPLEMENTATION OF ADDITIONAL TRAFFIC SPEED ENFORCEMENT; AND (3) ESTABLISHMENT OF AN EQUESTRIAN AD HOC COMMITTEE TO PRIORITIZE AND EVALUATE EQUESTRIAN TRAIL CROSSINGS IN THE COMMUNITY.

The motion carried by the following vote:

AYES: Commissioners Dow, Frazier, Froelich, Vice Chair
Rowe, Chair Hillis

NOES:
ABSENT:

4.2 SIGHT DISTANCE ANALYSIS AT PASEO DE VALENCIA SOUTH OF ALICIA PARKWAY AT THE "RALPHS" ENTRANCE

Staff stated that a motorist had expressed concerns about sight distance constraints at the Ralph's shopping center drive approach on Paseo de Valencia approximately 230' southerly of Alicia Parkway. As a result of this concern, staff requested that the City's Consulting Traffic Engineers of Hartzog & Crabill, Inc. perform a sight distance evaluation and operational analysis of this location. Results determined that there is adequate sight

distance in both directions. Staff is recommending that the Traffic Commission receive and file this report.

MOTION WAS MADE BY COMMISSIONER FRAZIER,
SECONDED BY COMMISSIONER ROWE, TO RECEIVE AND
FILE THIS REPORT.

The motion carried by the following vote:

AYES: Commissioners Dow, Frazier, Froelich, Vice Chair
Rowe, Chair Hillis

NOES:

ABSENT:

5. INFORMATIONAL ITEMS

5.1 RADAR TRAILER SCHEDULE FOR OCTOBER/NOVEMBER

Staff submitted the schedule for the radar trailer and recommended the addition of two locations of concern relating to Item No. 4.1 Equestrian Trail Crossing Evaluation. Chair Dow requested that Nellie Gail Road east of Lost Colt Drive and Nottingham Court south of Oso Parkway be added to the calendar.

5.2 SHERIFF'S DEPARTMENT VERBAL REPORT

Chief Behrens stated that he had nothing to report in addition to his comments relating to Item No. 4.1 - Equestrian Trail Crossing Evaluation.

6. COMMISSIONER COMMENTS

None.

7. ADJOURNMENT

There being no further business before the Traffic Commission at this session, Chair Hillis declared the meeting adjourned at 9:12 p.m. to the meeting of November 21, 2012.

Prepared by:

Approved by:

Humza Javed, P.E.
Associate Civil Engineer

Tim Hillis
Chair

**CITY OF LAGUNA HILLS
TRAFFIC COMMISSION
AGENDA REPORT
TRAFFIC ENGINEER DEPARTMENT**

**ISSUE: STOP SIGN INSTALLATION ANALYSIS AT EL SEGUNDO STREET
AND LINDA FLORA STREET**

SUMMARY:

City staff received a request from a resident of the community to evaluate the need for a stop sign at the intersection of El Segundo Street and Linda Flora Street. Upon review, it was determined that the sight distance at this intersection is inadequate for vehicles travelling westbound along Linda Flora Street turning southbound onto El Segundo Street. It is recommended that a one-way stop control be installed on Linda Flora Street at El Segundo Street.

BACKGROUND:

El Segundo Street is a residential roadway traversing in the north-south direction. Linda Flora Street is a residential roadway traversing in the east-west direction. Both roadways provide space for one lane in each direction, with on-street parking allowed in both directions, and meet in a "T" intersection. Please see attached Vicinity Map.

Mr. John Misuraca, a resident of 25901 El Segundo Street, contacted City staff regarding a visibility condition at the "T" intersection of El Segundo Street and Linda Flora Street. His concern was that vehicles travelling westbound on Linda Flora Street fail to yield to motorists travelling along El Segundo Street, primarily in the northbound direction, creating a potential conflict. He also opined that due to lack of a stop control on Linda Flora Street at El Segundo Street, motorists travelling along westbound Linda Flora Street enter the "T" intersection unsafely.

Upon receiving the request for a traffic safety evaluation, staff contracted the services of Hartzog and Crabill, Inc. (HCI) to perform a Multi-Way Stop Warrant Analysis. Based on the guidelines of the California Manual on Uniform Traffic Control Devices (MUTCD), HCI reviewed the accident history, traffic volumes, and visibility at the intersection. There was no accident history during the past three-year period, neither was the traffic volume sufficient to trigger the requirement of a multi-way stop sign at the "T" intersection. However, the sight distance review revealed inadequate stopping sight distance for northbound vehicles travelling along El Segundo Street approaching Linda Flora Street. Due to the proximity of Aliso Hills Drive with Linda Flora Street (115'), the minimum stopping sight distance of 200 feet (based on a design speed of 30 MPH) is not met. Please see attached report for details.

Therefore, in order to enhance safety at this "T" Intersection, a one-way stop control is recommended to be installed at the westbound approach of Linda Flora Street at

El Segundo Street.

RECOMMENDATION: THAT THE TRAFFIC COMMISSION RECOMMEND TO THE CITY COUNCIL THE INSTALLATION OF A ONE-WAY STOP CONTROL ALONG WESTBOUND LINDA FLORA STREET AT EL SEGUNDO STREET.

ATTACHMENTS:

- Vicinity Map
- Hartzog & Crabill, Inc. Report dated October 31, 2012



 NORTH
10m
40ft
Date: 11/07/12

Vicinity Map



11/14/2012 ITEM NO. 4.1



Trammell Hartzog, President
Jerry Crabill, P.E. (Retired)
Gerald J. Stock, P.E., Executive
Vice-President

17772 E. 17th Street
Suite 101
Tustin, CA 92780

Phone: (714) 731-9455
FAX: (714) 731-9498

www.hartzog-crabill.com

October 31, 2012

Mr. Kenneth H. Rosenfield, P.E.
Director of Public Services
City of Laguna Hills
24035 El Toro Road
Laguna Hills, CA 92653

**Subject: Results of a Multiway Stop Installation Analysis at the
Intersection of El Segundo Street and Linda Flora Street**

Dear Mr. Rosenfield:

Hartzog & Crabill, Inc. (HCI) has completed a Multi-Way Stop Warrant Analysis at the intersection of El Segundo Street and Linda Flora Street. This analysis was completed in response to the City of Laguna Hills request to verify if a multi-way stop sign installation is warranted and recommended based on meeting standard guidelines. The California Manual of Uniform Traffic Control Devices (*California MUTCD*) was used for defining the requirements for a multi-way stop application.

Based on the findings of the attached study, our recommendation to the City of Laguna Hills is to install a one-way stop at this intersection.

It has been our pleasure preparing this analysis for the City of Laguna Hills. If you have any questions or need additional information, please feel free to call me at (714) 731-9455.

Very truly yours,
HARTZOG & CRABILL, INC.

A handwritten signature in blue ink, appearing to read 'Gerald J. Stock', is written over a faint, larger signature.

Gerald J. Stock, P.E.
Vice President
City & Traffic Engineering Services

Attach: Multi-Way Stop Analysis Report
Community Petition via e-mail

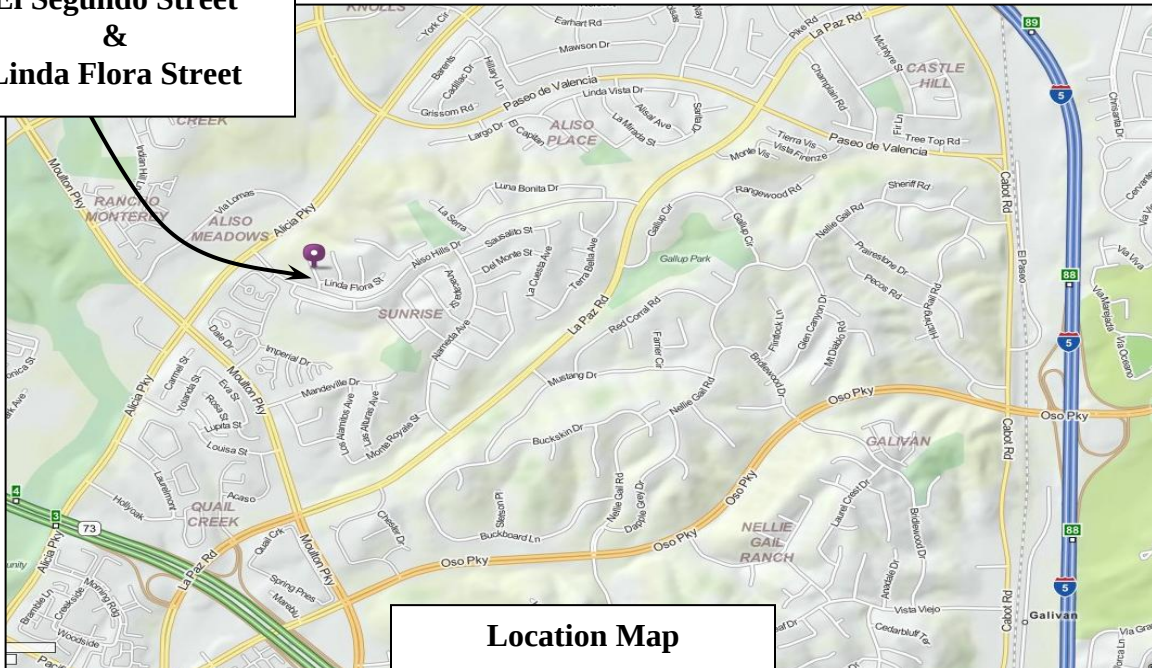
MULTIWAY STOP CONTROL WARRANTS ANALYSIS EL SEGUNDO STREET AT LINDA FLORA STREET IN THE CITY OF LAGUNA HILLS, CA

INTRODUCTION

The City of Laguna Hills requested Hartzog & Crabill, Inc. (HCI) to complete a Multi-Way Stop Warrants Analysis at the intersection of El Segundo Street at Linda Flora Street. This analysis was completed in order to verify if a three-way or one-way stop sign installation is warranted and recommended based on meeting standard guidelines.

The location is a T-intersection with El Segundo Street running in the north-south direction and Linda Flora Street running in the east-west directions, east of El Segundo Street. The intersection is located east of Alicia Parkway and south of Paseo de Valencia (see *Location Map below*). The intersection is entirely within the City of Laguna Hills' jurisdiction. At the present time there is no stop sign controlling any of the approaches of the intersection.

**Intersection of
El Segundo Street
&
Linda Flora Street**



**Location Map
City of Laguna Hills
Orange County**

BACKGROUND

El Segundo Street is a north-south collector roadway with primarily residential frontage on both sides of the road. At the intersection with Linda Flora Street, the roadway is 36 feet wide north of Linda Flora Street and 40 feet wide south of Linda Flora Street. The roadway provides space for at least one lane of traffic in each direction, and is fully-improved with concrete curb, gutter, and sidewalk on both sides. El Segundo Street has no posted speed limit signs. On-street parking is allowed on both sides of El Segundo Street.

See Exhibit 1 (next page) for photo images of El Segundo Street.

Linda Flora Street is a 40 foot wide east-west local roadway with residential frontage on both sides. The bi-directional roadway provides for one lane of traffic in each direction, and is fully-improved with concrete curb, gutter, and sidewalk on both sides. Linda Flora Street has no posted speed limit signs. On-street parking is allowed on both sides of Linda Flora Street.

See Exhibit 2 (following page) for a photo image of Linda Flora Street.

EXHIBIT 1



EL SEGUNDO STREET (LOOKING NORTHBOUND) @ LINDA FLORA STREET



EL SEGUNDO STREET (LOOKING SOUTHBOUND) @ LINDA FLORA STREET

EXHIBIT 2



WARRANT GUIDELINES

As is common practice with many municipal agencies, the City of Laguna Hills follows State guidelines for determining if traffic control devices, such as multi-way stop signs, should be installed. Therefore, the prevailing source used for this analysis is the State of California Manual of Uniform Traffic Control Devices (*California MUTCD, 2012 Edition*). The California MUTCD contains minimum guidelines regarding traffic volumes, collisions, speeds, visibility, and other criteria in order to satisfy the requirements, in this case, for the recommendation and installation of a multi-way stop.

The California MUTCD Multi-Way Stop Applications Guidance criteria are described in the following four main parts:

- 1) As an interim measure where traffic control signals are justified;
- 2) Reported crashes – five or more in a 12-month period that are susceptible to correction;
- 3) Traffic and pedestrian volumes, speeds, and delay; and,
- 4) Where a combination of the above criteria are satisfied to 80 percent.

If any one, or a combination, of these criteria is met, then a multi-way stop application should be considered. If these criteria are not met, the installation of an unwarranted stop sign installation is typically not recommended as it may place the City in a position of potential liability.

The California MUTCD STOP Sign and Multi-Way Stop Applications guidelines are included in Appendix A.

MULTI-WAY STOP ANALYSIS

The California MUTCD Multi-Way Stop Applications section contains guidelines, such as minimum collisions and traffic volumes necessary for the justification of a multi-way stop control. The general guidelines given for a stop sign application begin with using engineering judgment for the installation of a stop sign(s) on a street entering a through highway and where high speeds on the cross street make entry difficult, or due to restricted view, or when crash records indicate a need for control by a stop sign. Further guidance criteria found in the California MUTCD include the following important statements: *“STOP signs should not be used for speed control... STOP signs should be installed in a manner that minimizes the numbers of vehicles having to stop... In most cases, the street carrying the lowest volume of traffic should be stopped... A STOP sign should not be installed on the major street unless justified by a traffic engineering study... Multi-Way stop control is used where the volume of traffic on the intersecting roads is approximately equal.”*

Collision History

The guidelines for Multi-Way Stop Applications contained in the California MUTCD regarding collisions, or crashes, require a minimum of five (5) reported crashes occurring in a 12-month period that are susceptible to correction by a multi-way stop installation in order to satisfy the collision warrant. Such crashes include right- and left-turn collisions, as well as right-angle collisions (i.e., broadside). The available collision history for the subject intersection was gathered from the City of Laguna Hills to determine whether there were collisions susceptible to correction by the installation of a multi-way stop. Table 1 (*next page*) provides the most recent summary of collision history occurring at or near this intersection.

Collision History (continued)

**TABLE 1
COLLISION SUMMARY**

Intersection	2008-2009		2009-2010		2010-2011	
	Date	Type of Coll. / Correctible?	Date	Type of Coll. / Correctible?	Date	Type of Coll. / Correctible?
El Segundo Street at Linda Flora Street		None Reported		None Reported		None Reported

Notes: Information above is derived per a 3-year intersection traffic collision history report provided by the City of Laguna Hills.

- 1) Type of Coll. = Type of Collision (*i.e., broadside, rear-end, etc.*)
- 2) Correctible? = Yes / No.

As shown, there have been no collisions reported at or near the intersection during the past three (3) years. Since this warrant requires a minimum of (5) correctible reported crashes to occur within a 12-month period, the collision warrant is not satisfied.

Traffic Volumes

HCI collected 24-hour intersection approach vehicular counts to determine traffic volumes that use this intersection on a typical day (Tuesday, September 18, 2012). The Average Daily Traffic (ADT) count for El Segundo Street is 285 vehicles per day with the highest AM peak-hour volume of 37 vehicles and the highest PM peak-hour volume of 24 vehicles. The ADT count for the east leg of Linda Flora Street is 192 vehicles per day with the highest AM peak-hour volume of 10 vehicles and the highest PM peak-hour volume of 23 vehicles. Table 2 below provides a breakdown of these approach volumes.

All traffic volume data collected for this intersection is included in Appendix B.

Traffic Volumes (continued)

**TABLE 2
HIGHEST 24-HOUR INTERSECTION APPROACH VEHICLE COUNTS**

Street	Direction	ADT Volume	Directional Split	Highest Hourly Volume
El Segundo Street	Northbound	253	88.8%	37 (8:00–9:00AM)
	Southbound	32	11.2%	8 (5:00–6:00PM)
Linda Flora Street	Westbound	192	100%	23 (3:00–4:00PM)

El Segundo Street is considered the ‘through’ or ‘major’ street, due to the intersection geometry and westbound traffic volumes on Linda Flora Street. It is typical that the traffic volumes on the minor street are considerably less than those on the major street at a T-intersection. As can be seen from the table above, this is the case, as El Segundo Street carries approximately (59.7%) of the entire traffic entering the intersection.

A part of the California MUTCD guideline criteria also calls for a reduction in the required minimum volumes when the critical approach speed (*or 85th-percentile speed*) on the major street exceeds 40 MPH. If this is the case, the minimum vehicular volumes to be met for a multi-way stop installation are reduced to 70%.

Although there are no posted speed limit signs, it is determined that the speed limit should not exceed 30 MPH due to the roadway classification. Consequently, 25 MPH and 30 MPH speeds were used for this analysis. Therefore, the 70% minimum volumes for stop sign analysis are not applicable.

It is important to note that the hourly vehicle traffic counts shown in Table 2 above are given for the highest hour of traffic for each direction, and serve as a good indicator to compare with the required traffic volumes in the California MUTCD multi-way stop

Traffic Volumes (continued)

warrant. However, the average hourly minimum volumes standard for a multi-way stop application [*300 vehicles per from both approaches on the major street*) are to be satisfied for **each** of eight (8) hours of an average day. Table 3 below shows the California MUTCD minimum volume guidelines for a Multi-Way Stop Application in comparison with the highest 8-hour traffic count data. **Both** Parts 1 and 2 of the minimum volume warrants below must be satisfied in order to fulfill either of these traffic volume warrants.

**TABLE 3
MULTI-WAY STOP SIGN WARRANT FOR MINIMUM TRAFFIC VOLUMES
EL SEGUNDO STREET AT LINDA FLORA STREET**

Part 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any (8) hours of an average day, Results: No, average (23) vehicles per hour Meets 8% of required average major street hourly traffic volumes	<i>and</i>	Part 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same (8) hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour, Results: No, average (13) vehicles per hour Meets 6.5% of required minor street hourly traffic volumes	<i>but</i>	Part 3. If the 85 th -percentile approach speed of the major-street traffic exceeds 65 km/h, or exceeds 40 mph, the minimum vehicular volume warrants are (70) percent of the above values. Results: No < 40 MPH
--	-------------------	--	-------------------	---

As shown above, the average hourly intersection approach volumes did not satisfy both Part 1 and 2 required volumes (8% *major street* / 6.5% *minor street*). Consequently, the traffic volume warrant is not considered satisfied at this time.

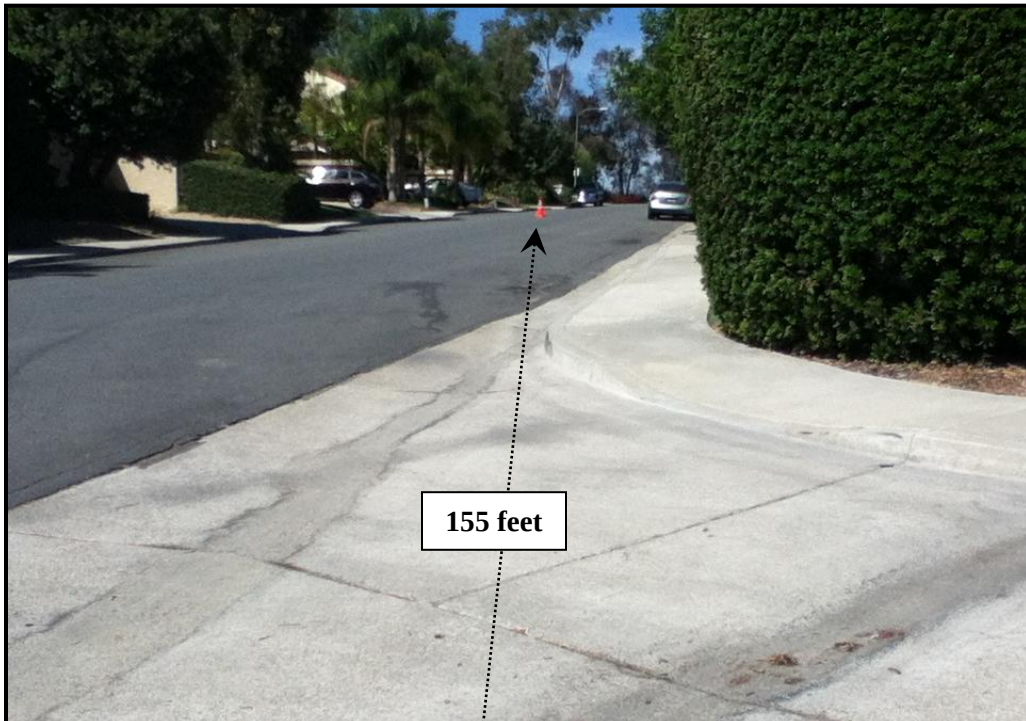
Visibility

A driver's visibility, or sight distance, was measured from a typical stopped-vehicle location on Linda Flora Street. The measured distances were applied to the stopping sight distance guidelines, based on the latest edition of A Policy on Geometric Design of Highways and Streets (American Association of State Highway and Transportation Officials (AASHTO) 2004). In this Policy, a speed of approximately 25 MPH and 30 MPH recommends a minimum Stopping Sight Distance of 155 feet and 200 feet, respectively.

These stopping sight distances were field-measured from a typical 'stopped' vehicle location towards the near-side and far-side lanes of on-coming traffic. An orange cone was set on the lane line at these minimum distances from the side-street vehicle position. A photograph was then taken from a stopped vehicle just passed the limit line. Looking north from the stopped vehicle there was a clear line of sight to the cone and the minimum required stopping sight distances for both 25 MPH and 30 MPH speeds were met. South of Linda Flora Street, El Segundo Street ends at Aliso Hills Drive and its length is only 115 feet; therefore the cone was placed at the right edge of travel way of Aliso Hills Drive at its intersection with El Segundo Street. So, looking south towards the cone placed at the intersection of Aliso Hills Drive and El Segundo Street the line of sight was clear, but since vehicles enter El Segundo Street at the intersecting point the minimum required stopping sight distance is not met.

(See sight distance photos in Exhibit 3 on the following page).

EXHIBIT 3



LINDA FLORA STREET (LOOKING NORTH) @ EL SEGUNDO STREET



LINDA FLORA STREET (LOOKING NORTH) @ EL SEGUNDO STREET



MULTI-WAY STOP ANALYSIS SUMMARY

The analysis of the four (4) main criteria provided in the California MUTCD regarding Multi-Way Stop Applications showed that this intersection did not meet the minimum guidelines to justify stopping the major roadway (El Segundo Street) nor the minor roadway (Linda Flora Street). The four main criteria analyzed were: 1) As an interim measure where traffic control signals are justified; 2) Reported collisions – a correctible crash problem; 3) Traffic and pedestrian volumes, speeds, and delay; and 4) Where a combination of the above criteria are satisfied to 80 percent.

In summary, the collision history at the intersection resulted in zero (0) collisions during the last three (3) years, where the minimum guideline calls for at least five (5) correctible collisions in a 12-month period. The minimum hourly traffic volume guidelines that are to be satisfied for any eight (8) hours in an average day for a multi-way stop were also not satisfied. Excessive delay to the minor roadway was not observed as this is a three-way intersection and westbound traffic was not delayed significantly when waiting for a gap on the major roadway. Therefore, since intersection collision history and traffic volumes do not satisfy the minimum volumes, it can also be derived that a traffic signal is not justified at this intersection. The 80% combined criteria were also not met as both the collision history and the minimum traffic volumes guidelines were not satisfied to this percentage.

CONCLUSION / RECOMMENDATION

In overall consideration of the current non-stop sign condition at the intersection of El Segundo Street and Linda Flora Street, there is not enough adequate stopping sight distance for the northbound vehicles on El Segundo Street to react to the westbound vehicles entering the intersection from Linda Flora Street. Therefore HCI recommends the installation of a one-way stop control on the Linda Flora Street approach.

APPENDIX A

**MULTIWAY STOP APPLICATIONS
GUIDELINES:**

CALIFORNIA MUTCD

Section 2B.06 STOP Sign Applications

Guidance:

01 At intersections where a full stop is not necessary at all times, consideration should first be given to using less restrictive measures such as YIELD signs (see Sections 2B.08 and 2B.09).

02 The use of STOP signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:

- A. The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;*
- B. A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or*
- C. Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.*

Support:

03 The use of STOP signs at grade crossings is described in Sections 8B.04 and 8B.05.

Section 2B.07 Multi-Way Stop Applications

Support:

01 Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.

02 The restrictions on the use of STOP signs described in Section 2B.04 also apply to multi-way stop applications.

Guidance:

03 The decision to install multi-way stop control should be based on an engineering study.

04 The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
- B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
- C. Minimum volumes:*
 - 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
- D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*

Option:

05 Other criteria that may be considered in an engineering study include:

- A. The need to control left-turn conflicts;*
- B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;*
- C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and*
- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.*

APPENDIX B

AVERAGE DAILY TRAFFIC (ADT)
INTERSECTION COUNT DATA
FOR
EL SEGUNDO STREET AT LINDA FLORA STREET

VOLUME

El Segundo St & Linda Flora St

Day: Tuesday
Date: 9/18/2012

City: Laguna Hills
Project #: CA12_1192_001

DAILY TOTALS					NB	SB	EB				WB	Total	
					253	32	0				192	477	
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	0		0	0		12:00	3	1		2	6	
00:15	0	0		0	0		12:15	4	1		2	7	
00:30	0	0		0	0		12:30	3	0		5	8	
00:45	0	0		0	0		12:45	1	11	0	2	3	25
01:00	0	0		1	1		13:00	0	0		1	1	
01:15	0	0		0	0		13:15	4	0		1	5	
01:30	0	0		0	0		13:30	1	1		2	4	
01:45	0	0		0	0	1	13:45	3	8	0	1	0	13
02:00	0	0		0	0		14:00	3	1		1	5	
02:15	0	0		0	0		14:15	2	3		4	9	
02:30	0	0		0	0		14:30	8	0		5	13	
02:45	0	0		0	0		14:45	6	19	1	5	3	37
03:00	0	0		0	0		15:00	1	1		3	5	
03:15	0	0		0	0		15:15	2	0		10	12	
03:30	0	0		0	0		15:30	6	0		6	12	
03:45	0	0		0	0		15:45	2	11	1	2	4	36
04:00	0	0		0	0		16:00	2	1		2	5	
04:15	1	0		0	1		16:15	1	1		3	5	
04:30	1	0		0	1		16:30	4	0		5	9	
04:45	1	3	0	0	1	3	16:45	7	14	0	2	4	30
05:00	0	0		0	0		17:00	6	1		6	13	
05:15	1	0		0	1		17:15	3	0		4	7	
05:30	2	0		0	2		17:30	2	5		4	11	
05:45	1	4	0	2	3	6	17:45	3	14	2	8	1	37
06:00	0	0		0	0		18:00	3	1		4	8	
06:15	0	0		0	0		18:15	6	0		6	12	
06:30	4	0		0	4		18:30	5	0		4	9	
06:45	10	14	0	3	13	17	18:45	6	20	2	3	9	46
07:00	3	0		1	4		19:00	6	2		3	11	
07:15	3	0		0	3		19:15	1	1		6	8	
07:30	10	0		1	11		19:30	1	0		2	3	
07:45	10	26	0	3	13	31	19:45	5	13	0	3	3	30
08:00	6	0		3	9		20:00	4	0		6	10	
08:15	13	0		2	15		20:15	1	1		2	4	
08:30	9	0		1	10		20:30	1	0		2	3	
08:45	9	37	0	2	11	45	20:45	1	7	1	2	3	22
09:00	6	0		3	9		21:00	0	0		3	3	
09:15	2	0		2	4		21:15	2	0		2	4	
09:30	4	0		1	5		21:30	1	1		2	4	
09:45	7	19	0	4	11	29	21:45	1	4	0	1	0	12
10:00	2	0		1	3		22:00	0	0		1	1	
10:15	5	0		2	7		22:15	2	0		1	3	
10:30	2	1		3	6		22:30	0	1		2	3	
10:45	4	13	0	1	5	21	22:45	0	2	0	1	2	9
11:00	4	0		1	5		23:00	0	0		1	1	
11:15	3	1		3	7		23:15	0	0		0	0	
11:30	2	0		2	4		23:30	0	0		1	1	
11:45	4	13	0	4	8	24	23:45	1	1	0	0	2	3
TOTALS	129	2		46	177		TOTALS	124	30		146	300	
SPLIT %	72.9%	1.1%		26.0%	37.1%		SPLIT %	41.3%	10.0%		48.7%	62.9%	

DAILY TOTALS					NB	SB	EB				WB	Total	
					253	32	0				192	477	
AM Peak Hour	07:30	10:30		11:45	07:30		PM Peak Hour	18:15	17:00		15:00	18:15	
AM Pk Volume	39	2		13	48		PM Pk Volume	23	8		23	49	
Pk Hr Factor	0.750	0.500		0.650	0.800		Pk Hr Factor	0.958	0.400		0.575	0.721	
7 - 9 Volume	63	0	0	13	76		4 - 6 Volume	28	10	0	29	67	
7 - 9 Peak Hour	07:30			07:30	07:30		4 - 6 Peak Hour	16:30	17:00		16:30	16:45	
7 - 9 Pk Volume	39	0	0	9	48		4 - 6 Pk Volume	20	8	0	19	42	
Pk Hr Factor	0.750	0.000	0.000	0.750	0.800		Pk Hr Factor	0.714	0.400	0.000	0.792	0.808	

From: John Misuraca [<mailto:john@misuracacpa.com>]
Sent: Sunday, August 26, 2012 9:52 PM
To: Ken Rosenfield
Subject: Recommendation - El Segundo & Linda Flora Streets

August 26, 2012

Traffic Commission
City Of Laguna Hills,
City Hall
24035 El Toro Road
Laguna Hills, CA 92653

Honorable Members of the Commission:

I have lived next to the cul-de-sac of El Segundo Street for just over 20 years. My dealings in the past with city related business has been very limited, so the fact I am writing this letter is a very big deal – at least to me.

A few months ago, I was very pleased to see an improvement made to our street which involved adding a double yellow line and speed bumps to discourage people from cutting the left turn from southbound Aliso Hills Drive onto El Segundo and inevitably coming right into the path of cars going down El Segundo preparing to turn left or right. This was a very common problem and close calls did nothing to discourage people from continuing the practice. It was my understanding that an accident took place at that intersection which led to the improvement. Either way, it has almost totally eliminated the problem we had there.

However, there is another ongoing problem I am regularly encountering that I feel and have always felt is much more dangerous.

Each and every time I enter or exit El Segundo I clinch up when I pass Linda Flora (a t-intersection). Despite the fact that there are about 16 residences on our street, the majority (over 50%) of the cars entering El Segundo from Linda Flora speed through the turn with no decrease in speed what so ever and then quickly stop in the intersection if they see you coming down El Segundo. This always leads me to clinch up and hope they will stop in time.

If I am entering El Segundo St. from Aliso Hills it's even worse. Some of the people coming off Linda Flora "just assume" I will be turning right onto Linda Flora and speed through their left turn. About every three months, I am close enough to the T-intersection that since these drivers play "Russian Roulette" with the turn, I, they or both end up violently hitting my/their/our brakes to avoid a sure collision. Please keep in mind, I am going the speed limit or slower just because I hate going past that intersection so it not caused by my own actions. As fast as many of them are going, if a collision ever does occur, it will be quite violent.

Today I had the incident that put me over the top. Proceeding up El Segundo and just a few feet from Linda Flora a van blew through the turn and I came literally within two feet of hitting the side of it. In the back seat on my side was a very young girl who would have been rammed had I not already been wary of the possibility and hit my brakes in time. The driver waved and just kept going.

I am one of the last people who wants cities to add more stops signs and other infringements to driving, but a stop sign NEEDS to be placed on Linda Flora at El Segundo. With the numerous close calls I've had you only need to multiply it by 16 (the number of residences on my street) to see that there must be a very near collision there every week.

I would be very happy to discuss this with you at your convenience or if you need more information please feel free to contact me. I'm here to help. Thank you for your attention to this matter.

Best regards,

John Misuraca
25901 El Segundo St.
Laguna Hills, CA 92653
Phone: (949) 643-2255

CITY OF LAGUNA HILLS

December 2012

RADAR TRAILER SCHEDULE

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3 Nellie Gail 24791 25 MPH	4 Bridlewood S/O Laurel Crest 25 MPH	5 Nottingham 25461 25 MPH	6	7	8
9	10 Nellie Gail 24791 25 MPH	11 Lost Colt W/O Stageline 25 MPH	12	13 Nottingham 25461 25 MPH	14	15
16	17	18	19	20	21	22
23 HOLIDAY 30	24 HOLIDAY 31	25 HOLIDAY	26	27	28	29

CITY OF LAGUNA HILLS

January 2013

RADAR TRAILER SCHEDULE

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2		3	4	5	6 7
8	9 Nellie Gail 24791 25 MPH	10	11 Lost Colt E/O Beargrass 25 MPH	12 Nottingham 25461 25 MPH	13	14
15	16	17	18	19	20	21
22	23 Nellie Gail 24791 25 MPH	24	25 Lost Colt E/O Beargrass 25 MPH	26 Nottingham 25461 25 MPH	27	28
29	30	31				