



**STUDY SESSION**  
**Agenda Item # 1**

**AGENDA REPORT SUMMARY**

**Meeting Date:** February 14, 2017

**Subject:** Engineering and Traffic Surveys at 15 Collector Street segments in Los Altos

**Prepared by:** Cedric Novenario, Transportation Services Manager

**Reviewed by:** Susanna Chan, Public Works Director

**Approved by:** Chris Jordan, City Manager

**Attachment:**  
Engineering and Traffic Survey Map

**Initiated by:**  
Staff

**Fiscal Impact:**  
Projected expenditures and estimated savings are shown:

	<b>Project Budget</b>	<b>Projected Expenditures</b>	<b>Projected Savings</b>
Data Collection		\$17,050	
<b>TOTAL</b>	<b>\$66,000</b>	<b>\$17,050</b>	<b>\$48,950</b>

A private firm was hired to collect speed and volume data required for the Engineering and Traffic Survey. There is a savings of \$48,950 as a result of staff performing the analysis and developing the Engineering and Traffic Survey.

**Environmental Review:**  
Categorically Exempt Pursuant to CEQA Exemption 15321

- Policy Question(s) for Council Consideration:**
- Will the Council consider raising speed limits consistent with Engineering and Traffic Surveys so radar enforcement can occur?



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**Summary:**

- 15 Collector street segments were surveyed
- 14 collector street segments are being proposed with a 5 mph higher speed limit, if approved, it will be radar enforceable
- One collector street segment will maintain its posted speed limit (Miramonte Avenue between Foothill Expressway and Portland Avenue)
- Engineering and Traffic Surveys must be approved by the City Council to be radar enforceable, which is the safest and preferred method of speed enforcement

**Staff Recommendation:**

Receive a presentation regarding Engineering and Traffic Surveys at 15 Collector Street segments in Los Altos and direct staff regarding the results of the Engineering and Traffic Survey.



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### **Purpose**

To provide background and context on developing and enforcing engineering and traffic surveys (speed limits).

### **Background**

The California Vehicle Code (CVC) and the California Manual for Uniform Traffic Control Devices (CA MUTCD) requires that local agencies re-evaluate speed limits every five, seven or ten years, using an Engineering and Traffic Survey (E&TS). E&TS surveys are required on streets that are not designated as local, residential streets, or freeways. There are 41 street segments in Los Altos subject to this requirement. An E&TS typically consists of data that reflects vehicle speeds, vehicle volume, accident rates, and road conditions not readily apparent to the motorist. On September 10, 2016, the City Council adopted E&TS at 26 collector street segments. These E&TS established a speed limit at the nearest 85<sup>th</sup> percentile speed of free-flowing traffic and matched the existing posted speed limits. Thus, no speed limit changes were recommended for these 26 street segments and are radar enforceable. Approved E&TS are used by the Traffic Courts and Traffic Enforcement professionals on court rulings related to speeding.

### **Discussion/Analysis**

The requirements set forth by the CVC and CA MUTCD establishes speed limits at the nearest 5 mph increment to the 85<sup>th</sup> percentile speed of the free-flowing traffic. The 85<sup>th</sup> percentile concept is based on the theory that a large majority of drivers operate their vehicles at speeds that are reasonable and prudent for the conditions in each situation. The posted speed may be reduced by five mph from the nearest 5 mph increment of the 85<sup>th</sup> percentile speed, where an engineering and traffic survey indicates the need for a reduction in speed to match existing conditions with the traffic safety needs of the community, considering such factors as accident rates, other modes of travel and characteristics of the road not apparent to the motorists. Attachment 1 depicts the locations of previously approved E&TS and proposed E&TS for the remainder of the City.

A total of 15 collector street segments were surveyed and have a current posted speed limit of 25 MPH. In 2013, an increased speed limit was recommended on these segments commensurate with their 85% percentile speeds; however, the posted 25 MPH speed limits were maintained and became unenforceable by radar per CVC 40802, which requires a valid E&TS and a speed limit established within 5 MPH of the 85<sup>th</sup> percentile speed of free-flowing traffic.

Per the requirements of the CVC and CA MUTCD, 14 segments are proposed to be increased from their posted speed limit by 5 MPH. One segment (Miramonte Avenue between Foothill Expressway and Portland Avenue) will maintain its posted speed limit based on the 85<sup>th</sup> percentile speed data.



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In regards to the 14 segments proposed for a speed limit increase, their current 85<sup>th</sup> percentile speeds are similar with their 85<sup>th</sup> percentile speeds from 2013, thus the free flow speed of motorists have not dramatically increased (see Table in Attachment 1). The consistent 85<sup>th</sup> percentile speeds also indicate that motorists established the maximum safe speeds on these segments over time. If approved, the proposed speed limits may be maintained up to 10 years per the CVC.

#### *Increased Speed Limit Concerns*

There have been previous concerns that increasing speed limits will result in increased motorist speeding. In a study in 1992 and 1997, the Federal Highway Administration (FHWA) noted that increasing posted speed limits did not result in increase in vehicle speeds. Conversely, artificially posting lower speed limits did not result in lower vehicle speeds. Although the studies are from 1992 and 1997, the comparison of the 85<sup>th</sup> percentile speeds of 2013 and 2016 of the 15 collector street segments are consistent with their findings. The FHWA studies can be located at the following links:

- <https://www.fhwa.dot.gov/publications/research/safety/97084/97084.pdf>
- <https://www.ibiblio.org/rdu/sl-irrel.html>

#### *Enforcement*

The traffic enforcement group of the Los Altos Police Department repeatedly receives requests for speed enforcement on the following streets:

- Covington Road.
- El Monte Avenue
- Fremont Avenue
- Miramonte Avenue
- Cuesta Drive
- Grant Road

Radar and lidar (laser detection) is the safest and most efficient method to enforce speeds. If an approved E&TS does not exist for any segment of these roads, the traffic enforcement group can't use radar or lidar enforcement. Use of radar or lidar on a street segment without an approved E&TS becomes a speed trap and any speeding citations will be ruled out in court. An alternative to enforce speeds is the pace method; which requires a police officer to pace behind a speeding vehicle. The street layout of the City does not safely support this form of enforcement.

Without the use of radar and lidar, the traffic enforcement group must rely on portable radar signs to warn motorists of their speed. The traffic enforcement group can also provide visible presence to encourage motorists to adhere to the speed limit. Unfortunately, the portable radar and visible enforcement only have short-term effects on managing vehicle speeds. Thus, an approved E&TS is a low cost, effective and critical tool to help the Los Altos Police Department enforce speed limits.



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*Planning and Transportation Commission (PTC)*

On January 19, 2017, the PTC received a presentation from engineering and traffic enforcement staff regarding E&TS. The goal of the presentation was to provide the PTC background, context, and education in developing and enforcing speed limits. Some members of the public in attendance voiced the following concerns:

- Increasing the speed limit will ultimately encourage motorists to further violate the speed limits;
- Increase the chance of accidents; and
- The perceived lack of traffic enforcement will not ultimately be effective in managing speeds.

One member of the public voiced support of the proposed speed limit increase, which allows radar and lidar enforcement. It was also suggested that staff perform similar engineering and traffic enforcement education outreach for the public.

On a 5-1 vote, the PTC approved the E&TS be considered by the City Council with the understanding that:

- The City will provide a significant public education effort;
- Without the engineering and traffic surveys and speed changes the City cannot legally enforce the existing speed limits on certain roads; and
- Engineering and traffic surveys are based on evidence-based facts and support safety.

*Bicycle/Pedestrian Advisory Commission (BPAC)*

On January 25, 2017, the BPAC received a similar presentation regarding E&TS. Members of the public in attendance also voiced similar concerns regarding raising the speed limits as in the PTC meeting. Some additional resident concerns included:

- Engineering and traffic surveys are skewed in favor of cars;
- Lack of emphasis for bicycle and pedestrian infrastructure;
- A decrease in the quality of life (vehicle noise);
- No benefit to raising speed limits; and
- Conduct surveys after planned infrastructure is implemented.

In summary, the BPAC favors speed enforcement as a tool to manage vehicle speeds. The BPAC recognized that motorist self-select the appropriate speeds given the conditions of the road and improved infrastructure (traffic calming, bicycle and pedestrian facilities) can help maintain current vehicle speeds. However, implementing infrastructure improvements can be difficult; in the event infrastructure cannot be implemented, the absence of an approved E&TS, leaves no other viable tool to manage speeds.

On a 6-0 vote, the BPAC approved the E&TS be considered by the City Council with the suggestion that public education outreach be conducted.



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### **Options**

- 1) Provide direction to staff regarding the results of the E&TS

**Advantages:** Gives clear indication regarding report and documentation preparation for E&TS adoption

**Disadvantages:** None

- 1) Do not provide direction to staff regarding the results of the E&TS

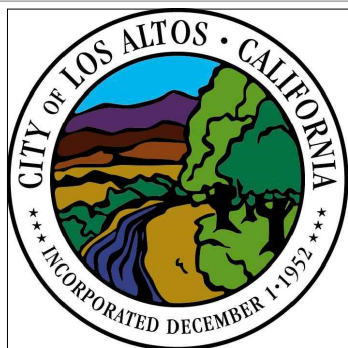
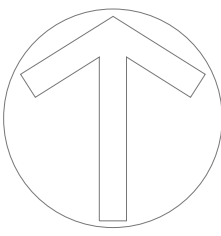
**Advantages:** None

**Disadvantages:** The proposed speed limits will maintain their posted speed limits, however, the speed limits will remain unenforceable by radar and lidar.

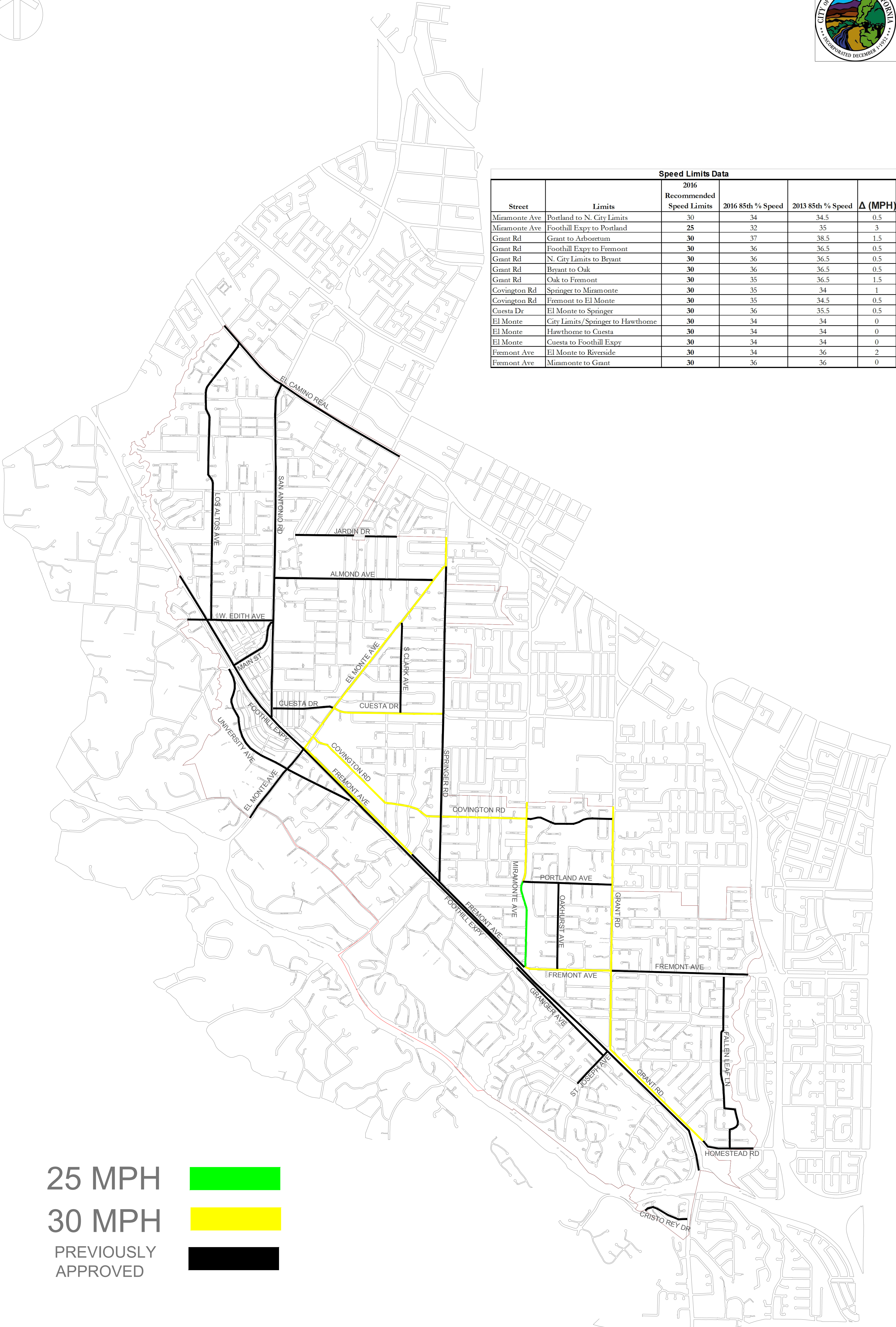
### **Recommendation**

The staff recommends Option 1.

# CITY OF LOS ALTOS 2016 SPEED ZONES



Speed Limits Data					
Street	Limits	2016 Recommended Speed Limits	2016 85th % Speed	2013 85th % Speed	Δ (MPH)
Miramonte Ave	Portland to N. City Limits	30	34	34.5	0.5
Miramonte Ave	Foothill Expy to Portland	25	32	35	3
Grant Rd	Grant to Arboretum	30	37	38.5	1.5
Grant Rd	Foothill Expy to Fremont	30	36	36.5	0.5
Grant Rd	N. City Limits to Bryant	30	36	36.5	0.5
Grant Rd	Bryant to Oak	30	36	36.5	0.5
Grant Rd	Oak to Fremont	30	35	36.5	1.5
Covington Rd	Springer to Miramonte	30	35	34	1
Covington Rd	Fremont to El Monte	30	35	34.5	0.5
Cuesta Dr	El Monte to Springer	30	36	35.5	0.5
El Monte	City Limits / Springer to Hawthorne	30	34	34	0
El Monte	Hawthorne to Cuesta	30	34	34	0
El Monte	Cuesta to Foothill Expy	30	34	34	0
Fremont Ave	El Monte to Riverside	30	34	36	2
Fremont Ave	Miramonte to Grant	30	36	36	0



**25 MPH**   
**30 MPH**   
 PREVIOUSLY APPROVED