

Email submitted 1-17-17 (6:56 am) to Napa City Council, for their 1-17-17 meeting

Dear Mayor and Council Members,

My name is Jay Beeber and I am the executive director of Safer Streets LA, an organization dedicated to improving traffic safety through proper engineering and sound public policy.

My extensive research on the use of red light cameras and the proper timing of the yellow interval of traffic signals qualified me as a member of the Institute of Transportation Engineers (ITE) (I am not a certified traffic engineer). I have also qualified as an expert witness in a red light camera cases and have served on a subcommittee of the California Traffic Control Devices Committee which provided recommendations on changes to the protocol for setting the proper yellow interval time at traffic signals in the State of California. Those recommendations were adopted in 2014 and incorporated into the most recent version of the California version of the Manual on Uniform Traffic Control Devices (CAMUTCA). I have also presented my research findings to the ITE membership at the most recent International Meeting of the organization this past August. Specifically, my presentation focused on the minimum yellow time needed for drivers approaching a traffic signal in a turning lane to ensure that some drivers are not forced to run the red light. These findings will be published in an upcoming edition of the ITE Journal, a peer-reviewed publication.

I am writing to you today with regards to the agenda item on this evening's City Council agenda having to do with the possible approval of a new red light camera contract with Redflex Traffic Systems. I have reviewed the staff report on this item as well as monthly citation data and the annual red light camera report submitted to the Judicial Council of California and would like to provide the following comments:

With regards to the staff report, I find that the claims of a safety improvement in Napa due to the use of red light cameras unconvincing. First, the staff report focuses mostly on "collisions" in the city, not specifically red light running collisions. There has never been any evidence that red light cameras can have an effect on collisions caused by factors other than red light running. This should be obvious, as, for example, a red light camera can have no effect on collisions caused by u-turns, failing to stop at a stop sign, failing to yield to a pedestrian in a crosswalk at an unsignalized intersection, etc. Yet the staff report claims a reduction in all types of collisions and then credits the use of red light cameras with that reduction.

In the one instance where the report focuses specifically on collisions caused by drivers running a red light (Table 1), the data shows that these types of collisions were in decline well before the red light cameras were installed in 2009. Further, the data provided reflects red light related collisions throughout the city, again crediting cameras at a mere four intersections for a citywide reduction. Curiously, the staff report fails to provide the one piece of data that might be useful in determining whether or not red light cameras are effective in improving safety at intersections – namely data on red light related collisions only at the four photo enforced intersections.

In addition to the above, using the CHP's Statewide Integrated Traffic Reporting System (SWITRS) database, we reviewed the collision history for the City of Napa from 2001 through 2015. As we have found in other cities, the reporting of collisions is inconsistent throughout the years with many fewer collisions being reported beginning in 2007 – 2008.

Table 1 below lists the number of collisions reported annually by collision severity. As can be seen, beginning in 2007 -2008, many fewer collision were reported. Considering the significant reduction in collisions in this short time period, it is not likely that this reflects an actual reduction

in the number of collisions that occurred, but rather a reduction in either the reporting of collisions or reduction in police responding to the scene of minor accidents. Indeed, the greatest reduction in the number of collisions is in the property damage only (PDO) category, the type of collision less likely to be reported or responded to.

TABLE 1 – ALL COLLISIONS						
	COLLISION SEVERITY					
ACCIDENT YEAR	PDO	FATAL	SEVERE	MINOR	COMPLAINT OF PAIN	Total Result
2001	1132	5	11	133	317	<b>1598</b>
2002	1285		13	127	302	<b>1727</b>
2003	1150		13	147	249	<b>1559</b>
2004	1070	5	29	125	281	<b>1510</b>
2005	995	4	14	114	329	<b>1456</b>
2006	944	2	16	124	282	<b>1368</b>
2007	587	3	21	112	251	<b>974</b>
2008	314	3	18	114	222	<b>671</b>
2009	307	2	16	86	194	<b>605</b>
2010	262	2	11	78	154	<b>507</b>
2011	263	2	13	65	166	<b>509</b>
2012	275	2	12	65	200	<b>554</b>
2013	275	1	9	70	161	<b>516</b>
2014	252	1	21	75	197	<b>546</b>
2015	250	1	20	81	180	<b>532</b>
<b>Total Result</b>	<b>9361</b>	<b>33</b>	<b>237</b>	<b>1516</b>	<b>3485</b>	<b>14632</b>

The reduction in the reporting of collisions beginning in 2007 – 2008, suggests that the reduction in collisions highlighted in the staff report is not accurate and is merely a reflection of a change in reporting, not some safety benefit realized from the use of red light cameras.

To test this theory, we calculated the percentage of red light running collisions in Napa as a percentage of all collisions. This allowed us to adjust for any changes in reporting across all types of collisions from year to year. If red light enforcement cameras were effective, we would expect to find a significant reduction in the percentage of red light related collisions in the years after camera enforcement began as compared to all other types of collisions.

As can be seen in Table 2 below, once we adjust for differences in reporting from year to year, there appears to be little difference in the percentage of red light related collisions in the city before and after the implementation of red light camera enforcement. Comparing the average percentage of red light related collisions in the years prior to camera enforcement and where the reporting of all collisions was fairly consistent (2001 – 2006) to the average percentage of red

light related collisions in the years after camera enforcement began (2010 - 2015), we see little difference in the percentages. Further, the most recent two years (2014 & 2015) had a higher percentage of red light running collisions than in the years prior to the use of ticketing cameras. This suggests that the use of red light cameras in Napa has had no appreciable effect on traffic safety, despite the claims in the staff report.

TABLE 2 – PERCENT RED LIGHT RELATED COLLISIONS			
ACCIDENT YEAR	RED LIGHT RELATED	ALL COLLISIONS	PERCENT RED LIGHT RELATED
2001	79	1598	4.94%
2002	79	1727	4.57%
2003	67	1559	4.30%
2004	73	1510	4.83%
2005	71	1456	4.88%
2006	64	1368	4.68%
2007	54	974	5.54%
2008	40	671	5.96%
2009	26	605	4.30%
2010	25	507	4.93%
2011	24	509	4.72%
2012	20	554	3.61%
2013	19	516	3.68%
2014	30	546	5.49%
2015	26	532	4.89%
<b>Average 2001 – 2006</b>			<b>4.70%</b>
<b>Average 2010 – 2015</b>			<b>4.55%</b>
<b>Average 2014 – 2015</b>			<b>5.19%</b>

Of final note is the fact that at red light camera enforced intersections, after the city increased the yellow signal time as required by the new protocols in the CAMUTCD which our subcommittee recommended, red light running decreased significantly. This indicates that a greater safety benefit can be achieved through the use of proper engineering techniques rather than through massive ticketing programs.

In conclusion, we urge caution when considering the proposal to obligate the City of Napa to a new long term contract with Redflex Traffic Systems. We recommend allowing the contract to expire and concentrating instead on improving traffic safety primarily through the use of proper engineering countermeasures, supplemented by traffic enforcement using live police officers. Alternatively, the city should study this issue in greater depth prior to any decision to sign a new long term camera contract.

We hope this will be useful to your deliberations on this issue. Please feel free to contact me if you have any questions about the information we have provided.

Sincerely,

Jay Beeber