Red Light Running Camera Justification Report Review

Location: IL 83 at 22nd Street, EB & SB, TS550
Community & County: Village of Oakbrook Terrace, DuPage Co.
Submittal Type: Justification Report

March 3, 2016

Red light running (RLR) Justification Report review comments:

1. From 2012 to 2014 the traffic signal was off IDOT maintenance 3 times to contractors doing work such as roadway capacity improvements, utility work and traffic signal modernization. Construction staging, daily lanes closures and other construction activities disrupted normal traffic and driver expeditions.
   a. An additional eastbound 22nd Street to southbound IL 83 right turn lane was constructed in the 22nd Street improvement project. The intersection was operating with temporary span wire signals and off IDOT maintenance from 2010 to March of 2012 to accommodate the right turn lane work and 22nd Street construction staging.
   b. From May 2013 to September 2013 utility work required open cutting pavement with short and long term lane closures. The traffic signal was off IDOT maintenance during this work.
   c. From March, 2014 until October, 2014 the contractor required temporary lane closures to convert the existing traffic signals from incandescent to LED and install a battery back-up system. The traffic signal was off IDOT maintenance during this work.
   d. As indicated in our April 5, 2013 letter, we would not consider crash data when either the intersection or the traffic signal were under construction and normal traffic operations were disrupted.

2. The RLR Justification Report included crash data from 2012 to 2014. Detailed crash reports from this period were reviewed. A number of coding mistakes were found and corrected.
   a. From 2012 to 2014, all Angle/Turning crashes averaged 2.3/year and represented 7% of all crashes while rear-end crashes represented 75%.
   b. When considering only Angle/Turning crashes during non-construction periods, Angle/Turning crashes averaged 1.7/year and represented 4.6% of all crashes while rear-end crashes represented 59%.

3. The traffic signal operates with left-turn-on-arrow-only (LTOAO) phasing on all approaches to reduce turning conflicts and the potential for severe injuries. The dual right turn lanes are staggered to improve visibility and right turns on red movements from the inside dual right turn lane are restricted to reduce conflicts with other turning vehicles. The recently installed LED optics improved signal visibility during normal and abnormal weather conditions and the new battery back-up system allows the traffic signal to operate un-interrupted during short term power outages. The existing intersection and traffic signal features contribute to the low crash rates.

4. Our review comments from April 5, 2013 indicated that a revised Justification Report could be submitted if RLR related crashes increased in 2013 and 2014. The un-corrected (submitted) and corrected crash data show a decrease in RLR type crashes since completion of the 22nd Street project in 2012.

5. RLR camera enforcement is not currently supported by corrected crash data taken from normal operating/non-construction periods. Also with the modernization in 2014 of the traffic signals to LED optics, which is considered a countermeasure to RLR, there needs to be a period to evaluate the effectiveness of the traffic signal improvements on RLR. The Village can resubmit a Justification Report with 3 years of post-crash data (2015-2017) for re-consideration.
March 18, 2016

Mr. Ryan Kim
Safespeed
150 North Wacker Drive
8th Floor
Chicago, IL 60606

Dear Mr. Kim:

We have completed our review of your justification report for proposed Red Light Automated Enforcement systems at this location, and we offer the following comments:

Red light running (RLR) Justification Report review comments:
1. From 2012 to 2014 the traffic signal was off IDOT maintenance 3 times to contractors doing work such as roadway capacity improvements, utility work and traffic signal modernization. Construction staging, daily lanes closures and other construction activities disrupted normal traffic and driver expeditions.
   a. An additional eastbound 22nd Street to southbound IL 83 right turn lane was constructed in the 22nd Street Improvement project. The intersection was operating with temporary span wire signals and off IDOT maintenance from 2010 to March of 2012 to accommodate the right turn lane work and 22nd Street construction staging.
   b. From May 2013 to September 2013 utility work required open cutting pavement with short and long term lane closures. The traffic signal was off IDOT maintenance during this work.
   c. From March, 2014 until October, 2014 the contractor required temporary lane closures to convert the existing traffic signals from incandescent to LED and install a battery back-up system. The traffic signal was off IDOT maintenance during this work.
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   a. From 2012 to 2014, all Angle/Turning crashes averaged 2.3/year and represented 7% of all crashes while rear-end crashes represented 75%.
   b. When considering only Angle/Turning crashes during non-construction periods, Angle/Turning crashes averaged 1.7/year
3. The traffic signal operates with left-turn-on-arrow-only (LTOAO) phasing on all approaches to reduce turning conflicts and the potential for severe injuries. The dual right turn lanes are staggered to improve visibility and right turns on red movements from the inside dual right turn lane are restricted to reduce conflicts with other turning vehicles. The recently installed LED optics improved signal visibility during normal and abnormal weather conditions and the new battery back-up system allows the traffic signal to operate un-interrupted during short term power outages. The existing intersection and traffic signal features contribute to the low crash rates.

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If you have any questions regarding this matter or would like to meet to discuss this matter further, please contact Carlos Muñoz Alba at (847) 705-4144 to set up an appointment for a meeting.

Very truly yours,

John A. Fortmann, P.E.
Region One Engineer

By: /s/ Thomas G. Gallenbach, P.E.
Traffic Permit Engineer

cc: City of Oakbrook Terrace
    Reading File
May 20, 2016

Mr. Ryan Kim  
Safespeed  
150 North Wacker Drive  
8th Floor  
Chicago, IL 60606  

Dear Mr. Kim:

The Department has completed its review of the additional information provided as part of the application for red light enforcement at the intersection of IL 83 and 22nd Street. Our Central Office, Bureau of Safety Programs and Engineering have also reviewed.

Recent safety improvements and the existing traffic signal phasing have proven to reduce the potential for crashes at this location. However, other factors can be considered when weighing the effectiveness of Red Light Running (RLR) enforcement. The Department has received video files of RLR violations that were not part of the original justification submittal. The video files dated November, 2015 demonstrates a pattern of RLR violations where corrective measures, such as the LED traffic signal upgrades, have been applied. RLR violations at the intersection not only include right turn movements but also a significant number of left turn and through movements. Therefore, camera enforcement for the proposed southbound IL 83 and eastbound 22nd Street is approved as a countermeasure to RLR violations.

Installation plans and other required documents can be prepared and submitted to the Department for review. Required follow-up reports will be used to determine the effects of camera enforcement on RLR violations.

If you have any questions regarding this matter or would like to meet to discuss this matter further, please contact Mr. Thomas Gallenbach at (847) 705-4130.

Very truly yours,

John Fortmann, P.E.  
Region One Engineer  

By: Lisa E. Heaven-Baum, P.E.  
Acting Bureau Chief of Traffic Operations
July 29, 2016

Thomas G. Gallenbach, P.E.
Area Permit Engineer
Illinois Department of Transportation
Bureau of Traffic
201 West Center Court
Schaumburg, Illinois 60196-1096

Re: RLR Installation Submittal: City of Oakbrook Terrace
Ref # 022 - 57459

Dear Mr. Gallenbach:

Please find enclosed two (2) copies of SafeSpeed’s Installation Submittal for the intersection of Rt. 83 and 22nd St, Oakbrook Terrace. (East and South bound)

In our Installation Submittal, we have included: a Summary section, RLR Camera Enforcement Plans, RLR Camera Enforcement Documentation, and RLR Camera Enforcement Information.

In the Summary section, we have included a copy of IDOT’s letter along with responses to the comments noted in that letter.

The RLR Camera Enforcement Plans section includes the overview of plans and Special Provisions for Red Light Enforcement Installations.

In the RLR Camera Enforcement Documentation section, please find copies of the following documents: a notification letter to Oak Brook, a description of proposed Public Information Campaign, the Indemnification Resolution, the Local Ordinance for RLR Enforcement, and a ComEd document.

In the RLR Camera Enforcement System Installation section, Oakbrook Terrace and SafeSpeed, LLC agree to abide by the Installation Guidelines and the proposed installation plan is included.

If you have any questions with regard to this submittal or require any additional information, please feel free to contact me at 312-924-7248, rkim@safespeedlic.com.

Very truly yours,

[Signature]
Ryan Kim, F.E.
Permit Engineer
3. RLR Camera Enforcement System Documentation
This section contains copies of those documents necessary for the Installation Submittal Review Process, as well as appropriate notations with respect to all points of the guidelines.

A. A commitment letter for signal upgrades – N/A

B. A letter of concurrence from a representative of the roadway authority – N/A

C. A letter of notification to adjacent Jurisdiction – Oak Brook

D. Description of proposed Public Information Campaign

E. Indemnification Resolution

F. Local Ordinance for RLR Enforcement System

G. The City of Oakbrook Terrace and SafeSpeed, LLC hereby commit to Follow-up Evaluation reports.

H. ComEd Document(s) – Signed
C. A Letter of notification to adjacent Jurisdiction

Oak Brook
July 20, 2016

Village President Gopal G. Lalmalani
Village of Oak Brook
1200 Oak Brook Road
Oak Brook, IL 60523

Re: City of Oakbrook Terrace – Red Light Camera Notification

Dear Village President Lalmalani:

On behalf of the City of Oakbrook Terrace, I would like to inform you of our plans to implement Red Light Photo Enforcement System(s) at an intersection that is adjacent to your Village.

The Illinois Department of Transportation (IDOT) has approved our Justification Report for Red Light Photo Enforcement System(s) at:

Route 83 and 22nd Street (South & East)

We expect to implement and activate our systems in the near future.

If you have any questions, please feel free to contact me at (630) 941-8320.

Sincerely,

Casey Calvello, Acting Chief of Police
City of Oakbrook Terrace Police Department

cc: Safe Speed, Ryan Kim
D. Description of the proposed Public Information Campaign

Red Light Photo Enforcement Public Information Campaign

The City of Oakbrook Terrace in partnership with its vendor SafeSpeed, LLC will embark on an aggressive Public Information Campaign for each Red Light Camera System installed. Together we will make the following information available to the public:

- Crash Statistics for the intersection/approach
- Local and national statistics about the reduction in accidents and red light violations
- Signage notifying drivers approaching a red light camera system
- Additional signage on right turn on red violations
- A Toll Free telephone number (800-Be-Safe1) where citizens can ask questions about the systems

This information may be issued to the public in the following ways:

- A press conference held by the municipality
- A press release issued by both the municipality and vendor
- A mailer sent to residents
- An ad in the local newspaper
- Announcements made at public/ community meetings/ gatherings
- Information posted on the web sites of both the municipality and the vendor
- Information posted in the local community newsletter
- A Toll Free telephone number (800-Be-Safe1) where citizens can ask any questions about the red light camera systems