



127th St and Cicero Ave
<Southbound>

Village of Alsip



Initial Analysis
with 24hr Video Traffic Study
Aug 2017

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I. Overview

One (1) intersection totaling one (1) approach in the **Village of Alsip** has been inspected and reviewed.

1. 127th St and Cicero Ave (S)

This report includes:

- A. Aerial photo of each intersection (Google Map)
- B. Average Daily Traffic Count (ADTC) of each intersection (IDOT)
- C. Detailed description of each approach with 24hr Video Traffic Study
- D. 3 years' crash data from IDOT

In order to secure IDOT permission to install a Red Light Running (RLR) Camera System, it must be shown that the intersection for which the application is being made has a red light running problem. As a part of the IDOT permit process, the first and longest phase is the “Justification” Phase. During this phase the community must submit a “Justification Report” that details why there needs to be a Red Light Camera at the intersection for which the permit is being requested. Some of the key requirements for justification are high traffic volume and crash data indicating a problem as well as a current RLR traffic study.

Analysis Summary

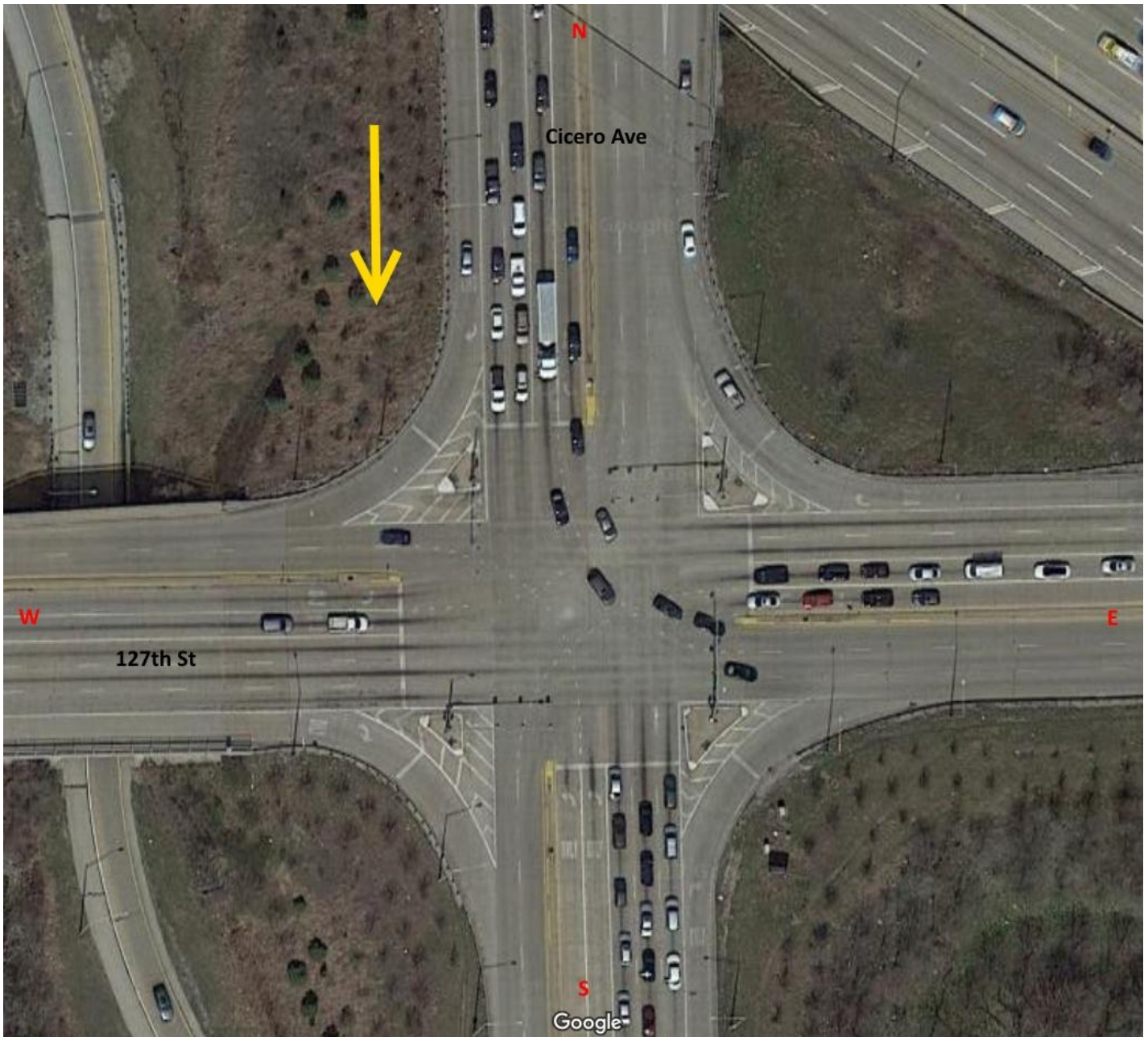
1. 127th St and Cicero Ave (S)

- High traffic volume – 127th St has an average daily traffic count (ADTC) of over 26,000 cars and Cicero Ave has over 36,000.
- High crash data (2013 -> 54, 2014 -> 75, 2015 -> 54).
- RLR Camera exists.



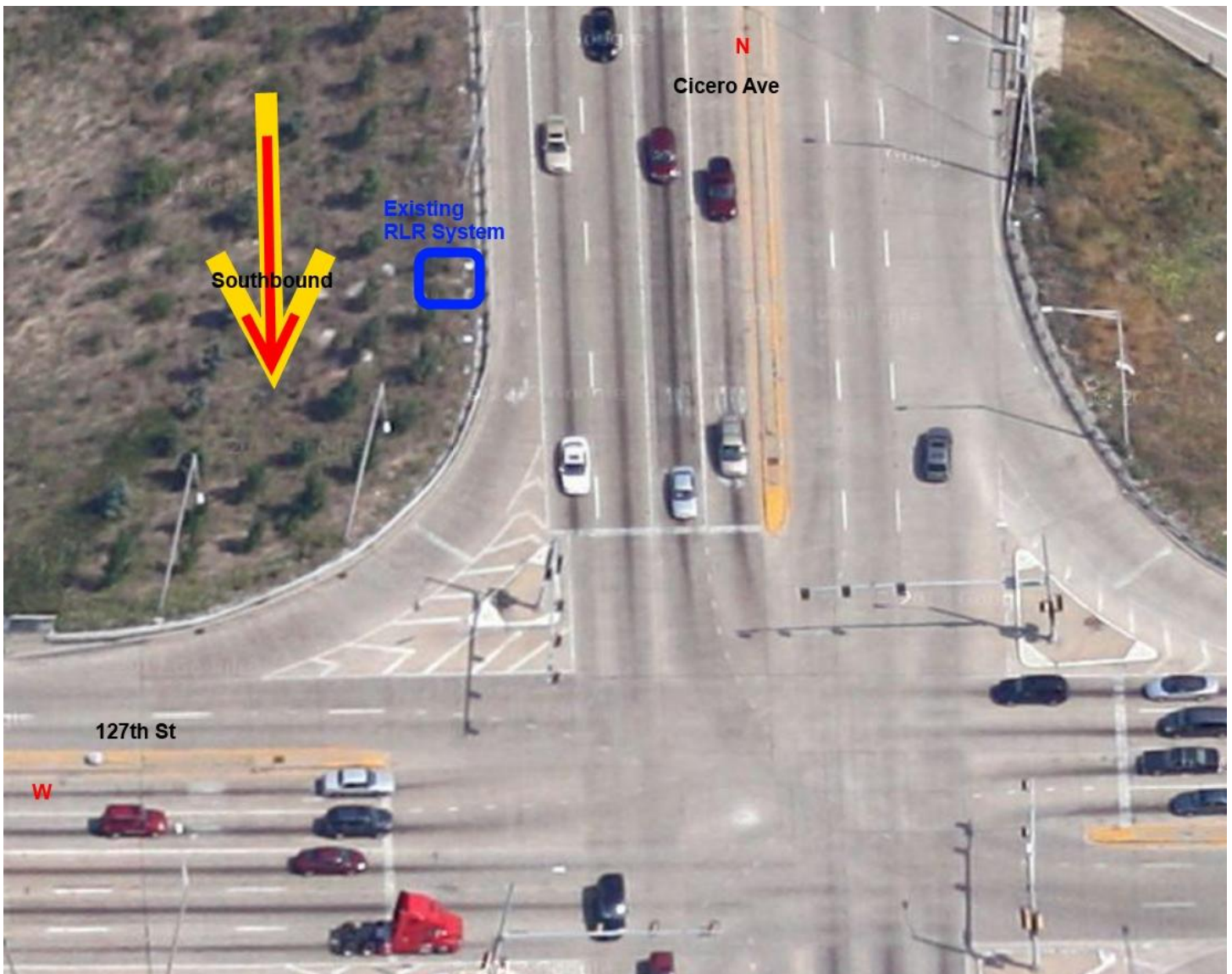
II. 127th St and Cicero Ave (S)

A. Aerial Photo





Close-up of Southbound



B. Average Daily Traffic Count

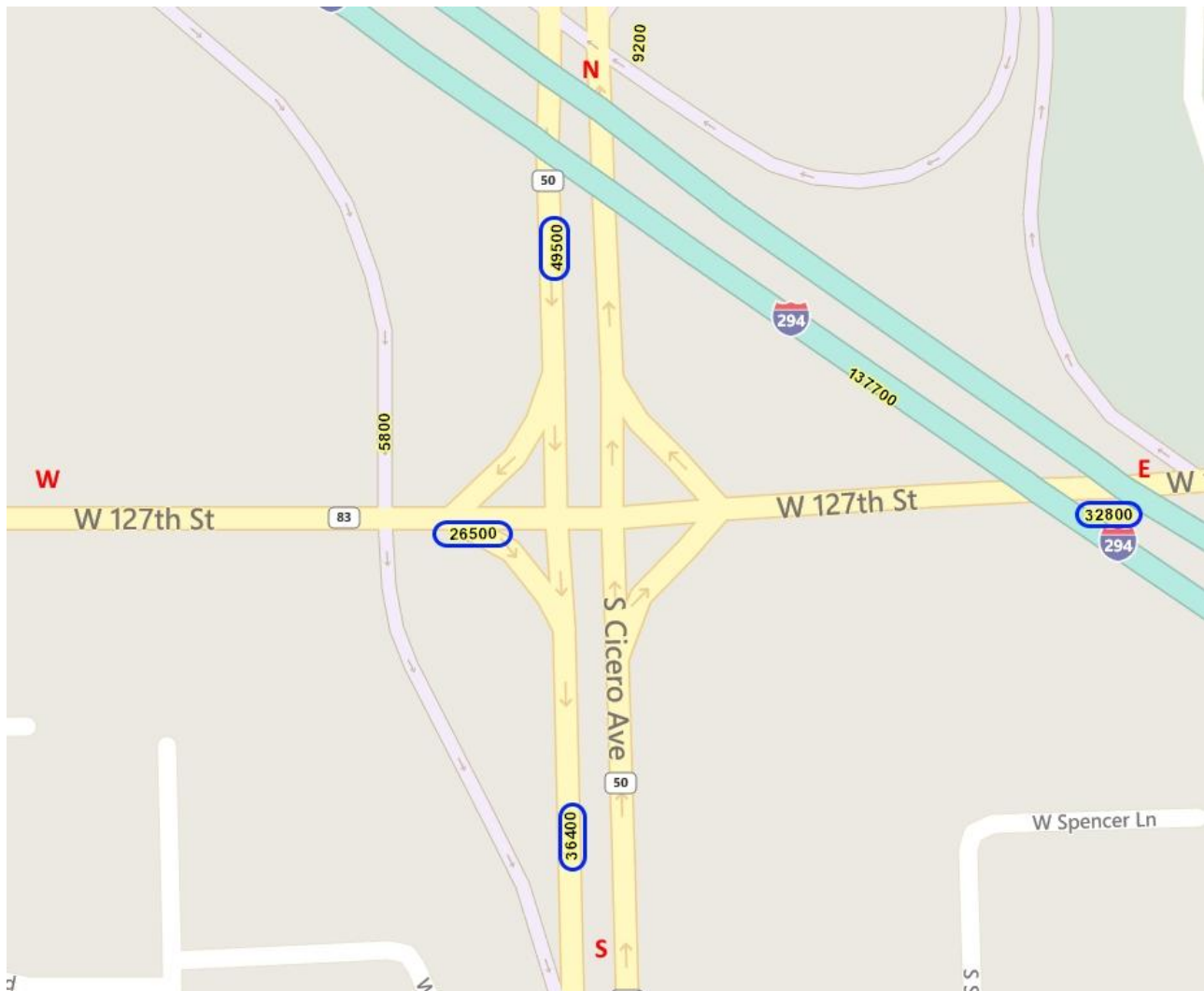
The following information was obtained via the Illinois Department of Transportation website per the RLR Guideline document published by IDOT. Only ADTC values were available, peak numbers were not provided.

Cicero Ave ADTC

- North - 49,500
- South - 36,400

127th St ADTC

- East - 32,800
- West - 26,500



C. Approaches

Southbound 127th St and Cicero Ave

- Traffic controller box is installed at Southeast corner
- No Cross walk
- 5 lanes
- Two dedicated left turn and one dedicated right turn lanes
- No Sidewalk
- 6 traffic lights
- Speed Limit: 35 mph
- Possible Location: ~70ft from the stop bar (where the existing RLR Camera is located)



Traffic Study

Southbound 127th St and Cicero Ave

Summary

A 24-hour study was conducted from 10:00 AM Friday, July 28, 2017 through 10:00 AM on Saturday, July 29, 2017. The video system recorded 174 red light violations during this time period. All captured violations were reviewed by a quality assurance analyst for accuracy. The tables which follow depict the information gathered during the study on an hourly basis in addition to the detailed violations reported.

Red Light Violation Summary

Date and Time	Left Turn	Straight	Right Turn	Total Violations
10:00-11:00	6	0	1	7
11:00-12:00	2	0	3	5
12:00-13:00	3	0	1	4
13:00-14:00	8	1	4	13
14:00-15:00	15	0	3	18
15:00-16:00	5	0	5	10
16:00-17:00	8	0	7	15
17:00-18:00	7	0	2	9
18:00-19:00	9	0	4	13
19:00-20:00	3	1	6	10
20:00-21:00	4	0	2	6
21:00-22:00	3	0	3	6
22:00-23:00	4	0	1	5
23:00-00:00	3	0	2	5
00:00-1:00	2	0	0	2
1:00-2:00	0	0	1	1
2:00-3:00	2	1	3	6
3:00-4:00	0	0	3	3
4:00-5:00	1	0	2	3
5:00-6:00	0	1	2	3
6:00-7:00	1	0	4	6
7:00-8:00	5	0	6	11
8:00-9:00	6	0	4	10
9:00-10:00	3	0	1	4
Grand Total	100	4	70	174

Redlight Violation Detail

Violations Time	Violations Type
10:00:05	Left Turn on Red
10:09:39	Left Turn on Red
10:15:25	Left Turn on Red
10:17:21	Left Turn on Red
10:26:25	Right Turn on Red
10:32:41	Left Turn on Red
10:55:40	Left Turn on Red
11:15:01	Right Turn on Red
11:16:54	Left Turn on Red
11:50:01	Right Turn on Red
11:50:04	Right Turn on Red
11:53:00	Left Turn on Red
12:07:01	Left Turn on Red
12:11:42	Left Turn on Red
12:17:38	Right Turn on Red
12:46:41	Left Turn on Red
13:07:40	Left Turn on Red
13:07:41	Left Turn on Red
13:14:19	Right Turn on Red
13:14:41	Left Turn on Red
13:18:28	Right Turn on Red
13:32:46	Right Turn on Red
13:38:26	Straight Through on Red
13:41:12	Right Turn on Red
13:42:41	Left Turn on Red
13:42:41	Left Turn on Red
13:47:23	Left Turn on Red
13:49:41	Left Turn on Red
13:52:01	Left Turn on Red
14:06:01	Left Turn on Red
14:17:10	Right Turn on Red
14:20:02	Left Turn on Red
14:20:04	Left Turn on Red
14:22:21	Left Turn on Red
14:27:01	Left Turn on Red
14:31:41	Left Turn on Red
14:31:44	Left Turn on Red
14:34:01	Left Turn on Red
14:36:21	Left Turn on Red
14:38:41	Left Turn on Red
14:43:21	Left Turn on Red
14:43:23	Left Turn on Red
14:45:06	Right Turn on Red

Violation Time	Violation Type
14:46:57	Right Turn on Red
14:48:03	Left Turn on Red
14:52:41	Left Turn on Red
14:57:21	Left Turn on Red
15:04:23	Left Turn on Red
15:04:25	Left Turn on Red
15:17:40	Right Turn on Red
15:29:35	Right Turn on Red
15:33:43	Right Turn on Red
15:34:41	Left Turn on Red
15:41:41	Left Turn on Red
15:43:01	Right Turn on Red
15:43:29	Right Turn on Red
15:46:21	Left Turn on Red
16:00:23	Left Turn on Red
16:02:42	Left Turn on Red
16:08:27	Right Turn on Red
16:13:48	Right Turn on Red
16:16:41	Left Turn on Red
16:21:21	Left Turn on Red
16:24:19	Right Turn on Red
16:26:01	Left Turn on Red
16:29:37	Right Turn on Red
16:30:41	Left Turn on Red
16:38:59	Right Turn on Red
16:44:42	Left Turn on Red
16:55:12	Right Turn on Red
16:58:02	Right Turn on Red
16:58:40	Left Turn on Red
17:06:58	Right Turn on Red
17:15:39	Right Turn on Red
17:17:21	Left Turn on Red
17:19:40	Left Turn on Red
17:19:41	Left Turn on Red
17:22:00	Left Turn on Red
17:24:20	Left Turn on Red
17:24:22	Left Turn on Red
17:54:40	Left Turn on Red
18:11:00	Left Turn on Red
18:13:21	Left Turn on Red
18:20:18	Left Turn on Red
18:28:37	Right Turn on Red
18:29:41	Left Turn on Red

Redlight Violation Detail

Violations Time	Violations Type
18:30:21	Left Turn on Red
18:32:00	Left Turn on Red
18:36:40	Left Turn on Red
18:36:42	Left Turn on Red
18:52:23	Right Turn on Red
18:55:20	Left Turn on Red
18:56:52	Right Turn on Red
18:59:10	Right Turn on Red
19:08:44	Right Turn on Red
19:18:08	Straight Through on Red
19:20:48	Right Turn on Red
19:24:09	Right Turn on Red
19:28:52	Right Turn on Red
19:46:03	Right Turn on Red
19:48:31	Left Turn on Red
19:50:26	Left Turn on Red
19:53:24	Right Turn on Red
19:54:17	Left Turn on Red
20:04:34	Right Turn on Red
20:15:21	Left Turn on Red
20:19:11	Left Turn on Red
20:30:41	Left Turn on Red
20:36:23	Left Turn on Red
20:53:13	Right Turn on Red
21:02:22	Right Turn on Red
21:02:47	Right Turn on Red
21:08:55	Left Turn on Red
21:10:55	Left Turn on Red
21:16:13	Right Turn on Red
21:43:26	Left Turn on Red
22:31:16	Left Turn on Red
22:47:41	Right Turn on Red
22:50:35	Left Turn on Red
22:52:29	Left Turn on Red
22:52:29	Left Turn on Red
23:04:00	Left Turn on Red
23:04:59	Right Turn on Red
23:11:39	Left Turn on Red
23:18:40	Right Turn on Red
23:38:16	Left Turn on Red
0:33:44	Left Turn on Red
0:46:22	Left Turn on Red
1:23:36	Right Turn on Red
2:24:29	Right Turn on Red

Violation Time	Violation Type
2:25:53	Right Turn on Red
2:36:17	Left Turn on Red
2:40:55	Straight Through on Red
2:49:42	Right Turn on Red
2:57:47	Left Turn on Red
3:38:06	Right Turn on Red
3:46:34	Right Turn on Red
3:47:27	Right Turn on Red
4:08:29	Right Turn on Red
4:14:08	Left Turn on Red
4:51:02	Right Turn on Red
5:47:38	Right Turn on Red
5:56:10	Right Turn on Red
5:59:31	Straight Through on Red
6:25:45	Right Turn on Red
6:31:04	Right Turn on Red
6:37:53	Right Turn on Red
6:46:06	Left Turn on Red
6:59:10	Right Turn on Red
7:09:28	Left Turn on Red
7:10:48	Right Turn on Red
7:24:01	Right Turn on Red
7:27:29	Right Turn on Red
7:31:26	Right Turn on Red
7:32:29	Left Turn on Red
7:34:02	Right Turn on Red
7:49:44	Left Turn on Red
7:53:34	Left Turn on Red
7:57:07	Left Turn on Red
7:58:52	Right Turn on Red
8:00:10	Right Turn on Red
8:02:40	Right Turn on Red
8:03:08	Left Turn on Red
8:05:02	Left Turn on Red
8:09:52	Right Turn on Red
8:13:46	Right Turn on Red
8:29:58	Left Turn on Red
8:33:48	Left Turn on Red
8:35:39	Left Turn on Red
8:37:38	Left Turn on Red
9:17:37	Right Turn on Red
9:23:39	Left Turn on Red
9:31:18	Left Turn on Red
9:35:08	Left Turn on Red

D. Crash Data

DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.

Coordinate Collision Diagram Report

1/1/2015 to 12/31/2015

For XCoordinate 2960053.80977335 : YCoordinate 1828587.98935543 | Foot Tolerance : 300 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

TOTAL CRASHES	FATAL CRASHES	A INJURY CRASHES	B INJURY CRASHES	C INJURY CRASHES	PROPERTY DAMAGE CRASHES	TOTAL KILLED	TOTAL INJURED	A INJURIES	B INJURIES	C INJURIES
<u>54</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>10</u>	<u>44</u>	<u>0</u>	<u>16</u>	<u>0</u>	<u>0</u>	<u>16</u>

Type of Crash	Total	%	Day of Wk	Total	%	Hour of Day	Total	%	Vehicle Type	Total	%
Rear End	35	64.8%	Monday	6	11.1%	Midnight	1	1.9%	Other	1	0.9%
Sideswipe Same Direction	7	13.0%	Tuesday	10	18.5%	02 AM	2	3.7%	Passenger	63	56.8%
Turning	12	22.2%	Wednesday	9	16.7%	03 AM	1	1.9%	Pickup	5	4.5%
TOTAL:	54		Thursday	10	18.5%	04 AM	2	3.7%	SUV	29	26.1%
			Friday	5	9.3%	06 AM	1	1.9%	Tractor With Semi-Trailer	4	3.6%
			Saturday	10	18.5%	07 AM	3	5.6%	Tractor Without Semi-Trailer	1	0.9%
			Sunday	4	7.4%	08 AM	2	3.7%	Truck Single Unit	2	1.8%
			TOTAL:	54		10 AM	3	5.6%	Unknown	1	0.9%
						11 AM	2	3.7%	Van/Mini-Van	5	4.5%
						Noon	3	5.6%	TOTAL:	111	
						1 PM	2	3.7%			
						2 PM	5	9.3%			
						3 PM	3	5.6%			
						4 PM	3	5.6%			
						5 PM	9	16.7%			
						6 PM	2	3.7%			
						7 PM	2	3.7%			
						8 PM	4	7.4%			
						10 PM	3	5.6%			

Coordinate Collision Diagram Report

1/1/2014 to 12/31/2014

For XCoordinate 2960053.80977335 : YCoordinate 1828587.98935543 | Foot Tolerance : 300 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

TOTAL CRASHES	FATAL CRASHES	A INJURY CRASHES	B INJURY CRASHES	C INJURY CRASHES	PROPERTY DAMAGE CRASHES	TOTAL KILLED	TOTAL INJURED	A INJURIES	B INJURIES	C INJURIES
<u>75</u>	<u>0</u>	<u>2</u>	<u>3</u>	<u>15</u>	<u>55</u>	<u>0</u>	<u>27</u>	<u>3</u>	<u>4</u>	<u>20</u>

Type of Crash	Total	%	Day of Wk	Total	%	Hour of Day	Total	%	Vehicle Type	Total	%
Fixed Object	2	2.7%	Monday	12	16.0%	Midnight	1	1.3%	Bus Over 15 Passengers	1	0.7%
Overtaken	1	1.3%	Tuesday	12	16.0%	06 AM	1	1.3%	Bus Up to 15 Passengers	1	0.7%
Rear End	58	77.3%	Wednesday	11	14.7%	07 AM	6	8.0%	Passenger	90	60.0%
Turning	14	18.7%	Thursday	9	12.0%	08 AM	5	6.7%	Pickup	5	3.3%
TOTAL:	75		Friday	13	17.3%	09 AM	5	6.7%	SUV	24	16.0%
			Saturday	9	12.0%	10 AM	4	5.3%	Tractor With Semi-Trailer	13	8.7%
			Sunday	9	12.0%	11 AM	7	9.3%	Tractor Without Semi-Trailer	3	2.0%
			TOTAL:	75		Noon	8	10.7%	Truck Single Unit	1	0.7%
						1 PM	4	5.3%	Van/Mini-Van	12	8.0%
						2 PM	3	4.0%	TOTAL:	150	
						3 PM	8	10.7%			
						4 PM	6	8.0%			
						5 PM	4	5.3%			
						6 PM	3	4.0%			
						7 PM	4	5.3%			
						8 PM	1	1.3%			
						10 PM	1	1.3%			
						11 PM	4	5.3%			
						TOTAL:	75				

Coordinate Collision Diagram Report

1/1/2013 to 12/31/2013

For XCoordinate 2960053.80977335 : YCoordinate 1828587.98935543 | Foot Tolerance : 300 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

TOTAL CRASHES	FATAL CRASHES	A INJURY CRASHES	B INJURY CRASHES	C INJURY CRASHES	PROPERTY DAMAGE CRASHES	TOTAL KILLED	TOTAL INJURED	A INJURIES	B INJURIES	C INJURIES
<u>54</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>6</u>	<u>45</u>	<u>0</u>	<u>15</u>	<u>1</u>	<u>3</u>	<u>11</u>

Type of Crash	Total	%	Day of Wk	Total	%	Hour of Day	Total	%	Vehicle Type	Total	%
Angle	1	1.9%	Monday	4	7.4%	01 AM	3	5.6%	Passenger	61	54.5%
Fixed Object	1	1.9%	Tuesday	9	16.7%	02 AM	1	1.9%	Pickup	11	9.8%
Rear End	44	81.5%	Wednesday	6	11.1%	03 AM	1	1.9%	SUV	20	17.9%
Sideswipe Same Direction	2	3.7%	Thursday	7	13.0%	04 AM	1	1.9%	Tractor With Semi-Trailer	7	6.3%
Turning	6	11.1%	Friday	13	24.1%	05 AM	2	3.7%	Truck Single Unit	3	2.7%
TOTAL:	54		Saturday	7	13.0%	06 AM	1	1.9%	Van/Mini-Van	10	8.9%
			Sunday	8	14.8%	07 AM	5	9.3%	TOTAL:	112	
			TOTAL:	54		08 AM	3	5.6%			
						09 AM	3	5.6%			
						10 AM	6	11.1%			
						11 AM	1	1.9%			
						Noon	5	9.3%			
						1 PM	2	3.7%			
						2 PM	6	11.1%			
						3 PM	2	3.7%			
						4 PM	3	5.6%			
						5 PM	3	5.6%			
						7 PM	1	1.9%			
						8 PM	1	1.9%			

III. Moving Forward

SafeSpeed, LLC, recommends going forward with the vendor transfer process on the following approach(es):

- 1. 127th St and Cicero Ave (Southbound)**

The next page shows the general RLR permit process flow chart provided by IDOT.

Illinois Department of Transportation Red Light Running Process Flow Chart

