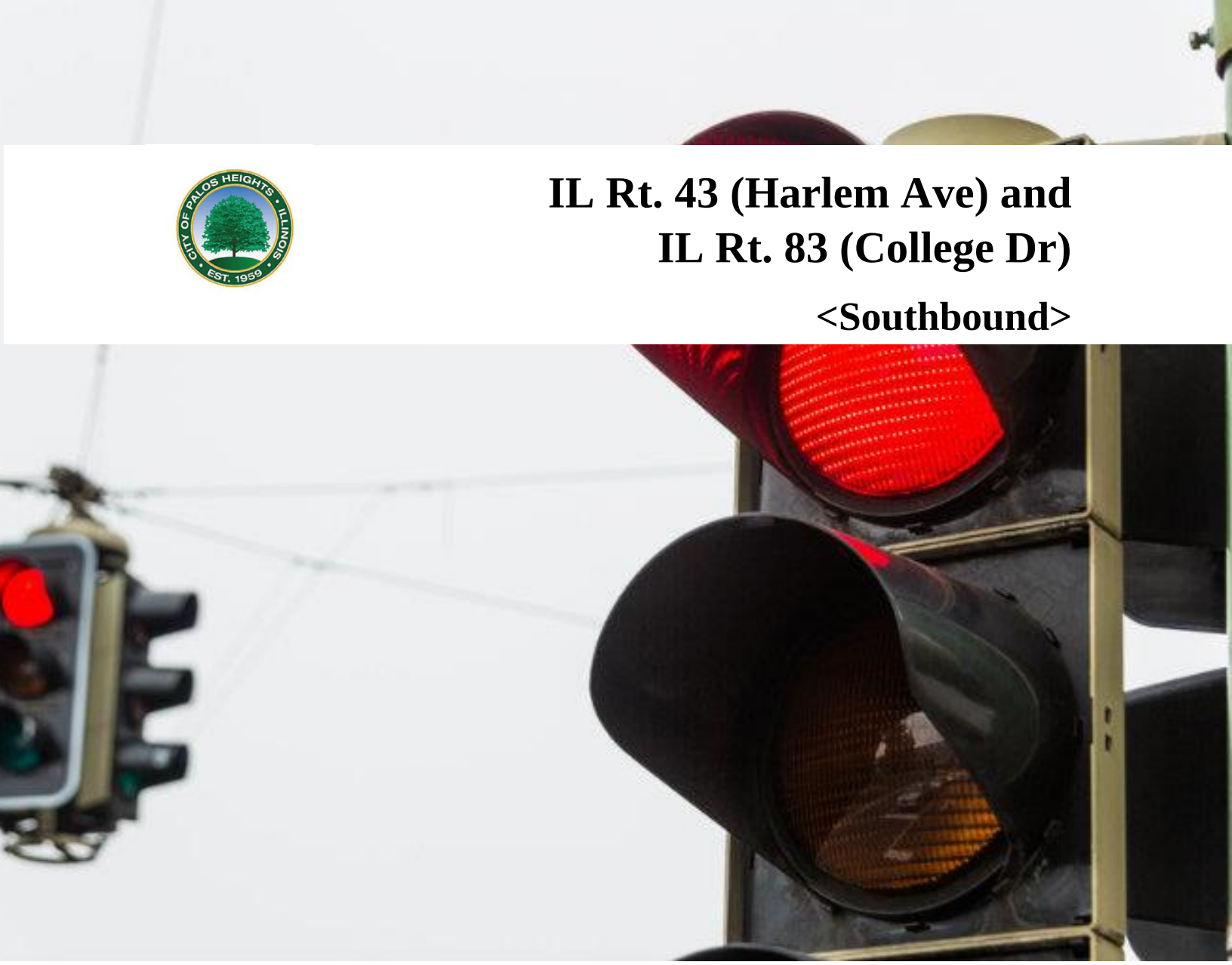

IL Rt. 43 (Harlem Ave) and
IL Rt. 83 (College Dr)

<Southbound>

Palos Heights, IL
RLR 1 Year Follow-Up

Evaluation Report

Reference No: 016-61661

November 2019

Palos Heights Police Department

7607 West College Drive Palos Heights, Illinois 60463

George L. Yott Jr.
Chief of Police

Admin. (708) 448-5060
Fax: (708) 361-9371

November 20, 2019

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 1 Year Follow-Up Evaluation Report
IL RT 43 and IL RT 83 (Southbound)
City of Palos Heights
Ref #: 016 – 61661

Dear Mr. Gallenbach:

Please find enclosed a copy of the 1 Year RLR Follow-Up Evaluation Report for the intersection of IL RT 43 and IL RT 83 (Southbound), City of Palos Heights.

In this submittal, included are: RLR Camera Location, Implementation Date, System Manufacturer and Contractors, RLR Crash Data and Analysis, Traffic Volume History, Summary of Adjudication, and Summary section.

If you have any questions with regard to this submittal or require any additional information, please feel free to contact us at 708-448-5060, or Lyott@palosheightspd.org.

Sincerely,

On behalf of the City of Palos Heights
George L. Yott, Jr.
Chief of Police

1 Year Evaluation Checklist

RLR FOLLOW-UP EVALUATION REPORT CHECKLIST

Reference Number:			Date:
Location:			Firm:
Yes	No	N/A	
☐	☐	☐	Intersection location and RLR camera approaches identified
☐	☐	☐	Date of RLR camera implementation
☐	☐	☐	RLR camera system manufacturer and contractor name
☐	☐	☐	Crash data including 3 years prior to RLR camera installation with post period crash data
☐	☐	☐	Analysis of crash data
☐	☐	☐	Signal timing changes
☐	☐	☐	Traffic volumes before and after RLR cameras
☐	☐	☐	Recommendations
☐	☐	☐	Summary of adjudication experience and results

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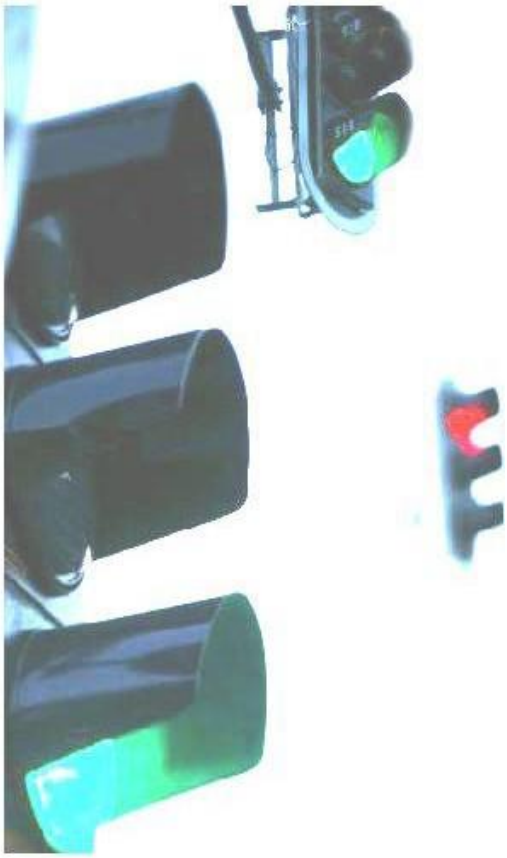


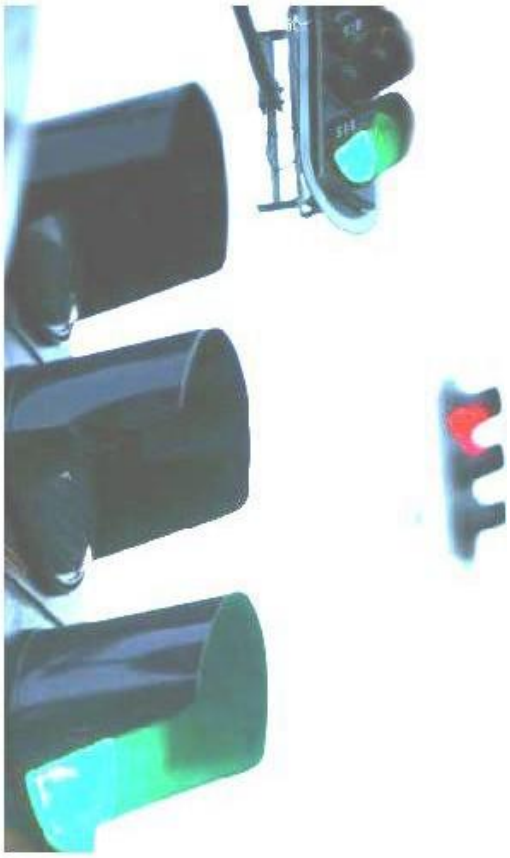
1. RLR Camera Location, Live Date, System Manufacturer and Contractors

In 2015, The **City of Palos Heights** received approval from the Illinois Department of Transportation (IDOT) to install a Red Light Running (RLR) camera at the **Southbound** approach of **IL Rt. 43 (Harlem Ave) and IL Rt. 83 (College Dr)**. The installation followed a comprehensive analysis and justification process. The dates of the most relevant events are listed below:

- Date on which camera with previous vendor went live: **07/2009**
- Date on which camera with previous vendor were shut down: **05/2014**
- Date on which the vendor transfer request was submitted: **04/2015,** approved: **07/2015**
- Date on which the installation report was submitted: **07/2015,** approved: **09/2015**
- Date on which the permit and bond were submitted: **10/2015,** approved: **10/2015**
- Date on which camera went live with current vendor: **11/2016**

No changes were made to the traffic signal timing or any other settings pertaining to the operation of traffic signals at this intersection following the camera installation.

RLR Camera System Manufacturer **SafeSpeed, LLC** 150 North Wacker Drive Floor 8 Chicago, IL 60606 Phone: (877) 237-2331 Fax: (877) 237-2302 Email: info@safespeedllc.com Web: safespeedllc.com Key Contact: Mr. Ryan Kim Phone: (312) 924-7248 Email: rkim@safespeedllc.com	Electrical Contractor **Meade Electric Company** 9550 West 55 Street McCook, IL 60525 Phone: (708) 588-2500 Fax: (708) 588-2501 Email: info@meadeelectric.com Web: meadeelectric.com Key Contact: Mr. Michael Knutson Phone: (708) 588-2500 Email: mkk@meade100.com



2. RLR Crash Data and Analysis

The table below shows a summary of motor vehicle crashes at the intersection of **IL Rt. 43 (Harlem Ave) and IL Rt. 83 (College Dr)** over a span of 5 years.*

	Angle	Head On	Turning	Rear End	Sideswipe	Fixed Object	Total
2013	0	0	4	9	0	0	13
2014	2	0	6	13	1	2	24
2015	1	1	7	7	2	0	18
2016	1	0	5	6	0	0	12
2017	0	0	8	13	1	0	22

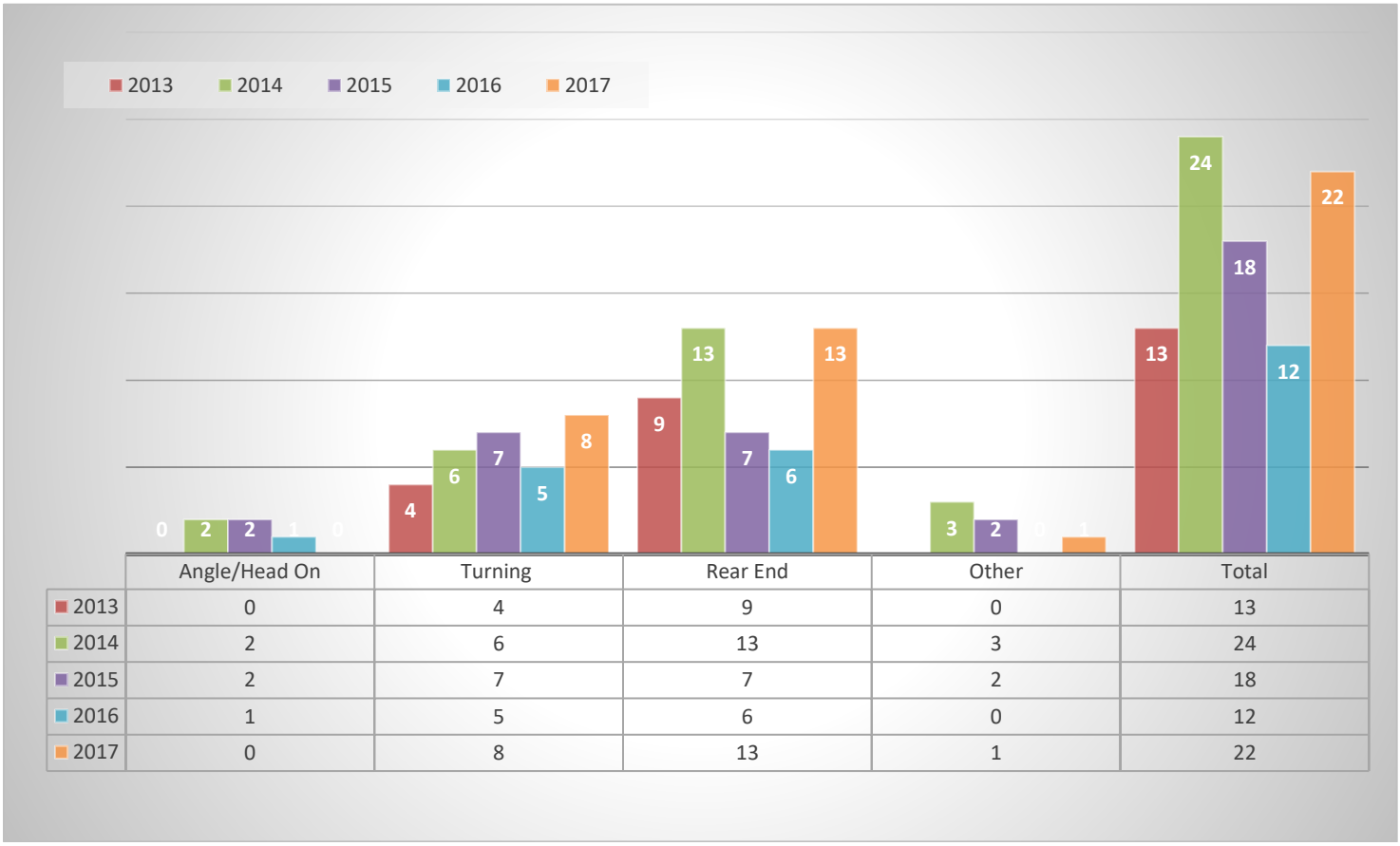
- The data from 2013-2015 shows the period prior to the RLR camera vendor transfer.
- The data from 2016 shows the year in which the current camera was installed.
- The data from 2017 shows the period following the transfer.

	Before Transfer				After Transfer
Year / Type	**2013**	**2014**	**2015**	**2016**	**2017**
Angle/Head On	0	2	2	1	0
Turning	4	6	7	5	8
Rear End	9	13	7	6	13
Other**	0	3	2	0	1
Total	**13**	**24**	**18**	**12**	**22**
Yearly Average	**18.33**				**22**

* DISCLAIMER: The motor vehicle crash data referenced herein was provided by the IDOT. 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.

** Other crashes include: Sideswipe and Fixed Object.

The chart below shows the trends of each crash type from 2013–2017.



	Angle/Head On	Turning	Rear End	Other	Total
2013	0	4	9	0	13
2014	2	6	13	3	24
2015	2	7	7	2	18
2016	1	5	6	0	12
2017	0	8	13	1	22

From 2013-2015, prior to the RLR camera vendor transfer, there were 55 total crashes; this averages out to 18.33 total crashes a year. In 2017, post RLR camera vendor transfer, there were 22 total crashes.

From 2013-2015, prior to the RLR camera vendor transfer, there were 29 rear end crashes; this averages out to 9.67 rear end crashes a year. In 2017, post RLR camera vendor transfer, there were 13 rear end crashes.

From 2014-2015, prior to the RLR camera vendor transfer, there were 2 angle crashes in 2014 and 2 in 2015. In 2017, post RLR camera vendor transfer, the angle crashes went down to 0.

The following pages contain crash data summary pages from 2013 to 2017. (The complete crash data can be obtained by contacting the IDOT via DOT.DTS.DataRequests@illinois.gov.)

Illinois Department of Transportation
Division of Traffic Safety

Collision Diagram

1/1/2013 to 12/31/2013

Crash Route: IL043 | From MileStation 11.72 to 11.72 | 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
13	0	0	3	1	9	0	10	0	9	1

Type of Crash	*Total*	*%*
Rear End	9	69.2%
Turning	4	30.8%
TOTAL:	***13***	

Dayof Wk	*Total*	*%*
Monday	2	15.4%
Tuesday	3	23.1%
Wednesday	4	30.8%
Thursday	3	23.1%
Sunday	1	7.7%
TOTAL:	***13***	

Hour of Day	*Total*	*%*
04 AM	1	7.7%
11 AM	1	7.7%
Noon	1	7.7%
2 PM	1	7.7%
3 PM	3	23.1%
4 PM	1	7.7%
5 PM	2	15.4%
6 PM	1	7.7%
9 PM	2	15.4%
TOTAL:	***13***	

Vehicle Type	*Total*	*%*
Passenger	21	77.8%
Pickup	1	3.7%
SUV	2	7.4%
Van/Mini-Van	3	11.1%
TOTAL:	***27***	

Weather Cond	*Total*	*%*
Clear	8	61.5%
Cloudy/Overcast	2	15.4%
Rain	3	23.1%
TOTAL:	***13***	

Light Cond	*Total*	*%*
Darkness/ Lighted Road	2	15.4%
Dawn	2	15.4%
Daylight	9	69.2%
TOTAL:	***13***	

Road Surface	*Total*	*%*
Dry	8	61.5%
Unknown	1	7.7%
Wet	4	30.8%
TOTAL:	***13***	

DIRP	*Total*	*%*
East	3	11.1%
North	8	29.6%
Northeast	1	3.7%
Northwest	1	3.7%
South	8	29.6%
Southeast	1	3.7%
West	5	18.5%
TOTAL:	***27***	

Illinois Department of Transportation
Division of Traffic Safety

Collision Diagram Summary

1/1/2014 to 12/31/2014

Crash Route: IL043 | From MileStation 11.72 to 11.72 | 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
24	0	2	5	1	16	0	15	2	9	4

Type of Crash	*Total*	*%*
Angle	2	8.3%
Fixed Object	2	8.3%
Rear End	13	54.2%
Sideswipe Same Direction	1	4.2%
Turning	6	25.0%
TOTAL:	***24***	

Dayof Wk	*Total*	*%*
Wednesday	2	8.3%
Monday	5	20.8%
Saturday	6	25.0%
Thursday	3	12.5%
Friday	3	12.5%
Tuesday	5	20.8%
TOTAL:	***24***	

Hour of Day	*Total*	*%*
03 AM	1	4.2%
08 AM	2	8.3%
09 AM	1	4.2%
11 AM	1	4.2%
Noon	3	12.5%
1 PM	1	4.2%
2 PM	1	4.2%
4 PM	3	12.5%
5 PM	5	20.8%
6 PM	1	4.2%
7 PM	3	12.5%
8 PM	1	4.2%
11 PM	1	4.2%
TOTAL:	***24***	

Vehicle Type	*Total*	*%*
Other	2	4.1%
Other Vehicle With Trailer	1	2.0%
Passenger	33	67.3%
SUV	7	14.3%
Truck Single Unit	1	2.0%
Unknown	1	2.0%
Van/Mini-Van	4	8.2%
TOTAL:	***49***	

Weather Cond	*Total*	*%*
Clear	10	41.7%
Cloudy/Overcast	2	8.3%
Rain	5	20.8%
Snow	7	29.2%
TOTAL:	***24***	

Light Cond	*Total*	*%*
Darkness	3	12.5%
Darkness/ Lighted Road	6	25.0%
Daylight	15	62.5%
TOTAL:	***24***	

Road Surface	*Total*	*%*
Dry	9	37.5%
Other	1	4.2%
Snow or Slush	8	33.3%
Wet	6	25.0%
TOTAL:	***24***	

DIRP	*Total*	*%*
East	19	38.8%
North	8	16.3%
Northwest	1	2.0%
South	16	32.7%
Southeast	4	8.2%

Illinois Department of Transportation
Division of Traffic Safety

Coordinate Collision Diagram Report

1/1/2015 to 12/31/2015

For XCoordinate 2943977.19238709 : YCoordinate 1833121.57923901 | Foot Tolerance : 250 | 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
18	0	0	1	5	12	0	15	0	5	10

Type of Crash	*Total*	*%*
Angle	1	5.6%
Head On	1	5.6%
Rear End	7	38.9%
Sideswipe Opposite Direction	1	5.6%
Sideswipe Same Direction	1	5.6%
Turning	7	38.9%
TOTAL:	***18***	

Dayof Wk	*Total*	*%*
Monday	2	11.1%
Tuesday	2	11.1%
Wednesday	4	22.2%
Thursday	2	11.1%
Friday	5	27.8%
Saturday	2	11.1%
Sunday	1	5.6%
TOTAL:	***18***	

Hour of Day	*Total*	*%*
Midnight	1	5.6%
07 AM	1	5.6%
08 AM	2	11.1%
10 AM	1	5.6%
Noon	2	11.1%
1 PM	3	16.7%
3 PM	2	11.1%
4 PM	2	11.1%
5 PM	1	5.6%
6 PM	1	5.6%
9 PM	1	5.6%
10 PM	1	5.6%
TOTAL:	***18***	

Vehicle Type	*Total*	*%*
Passenger	30	78.9%
SUV	6	15.8%
Van/Mini-Van	2	5.3%
TOTAL:	***38***	

Weather Cond	*Total*	*%*
Clear	16	88.9%
Cloudy/Overcast	1	5.6%
Rain	1	5.6%
TOTAL:	***18***	

Light Cond	*Total*	*%*
Darkness	1	5.6%
Darkness, Lighted Road	1	5.6%
Daylight	16	88.9%
TOTAL:	***18***	

Road Surface	*Total*	*%*
Dry	14	77.8%
Unknown	1	5.6%
Wet	3	16.7%
TOTAL:	***18***	

DIRP	*Total*	*%*
East	5	13.2%
North	12	31.6%
Northwest	5	13.2%
South	15	39.5%

Illinois Department of Transportation
Division of Traffic Safety

Coordinate Collision Diagram Report

1/1/2016 to 12/31/2016

For XCoordinate 2943977.19238709 : YCoordinate 1833121.57923901 | Foot Tolerance : 250 | 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
12	0	0	4	0	8	0	6	0	4	2

Type of Crash	*Total*	*%*
Angle	1	8.3%
Rear End	6	50.0%
Turning	5	41.7%
TOTAL:	***12***	

Dayof Wk	*Total*	*%*
Monday	1	8.3%
Tuesday	2	16.7%
Wednesday	2	16.7%
Thursday	1	8.3%
Friday	4	33.3%
Saturday	1	8.3%
Sunday	1	8.3%
TOTAL:	***12***	

Hour of Day	*Total*	*%*
01 AM	1	8.3%
07 AM	1	8.3%
09 AM	1	8.3%
Noon	2	16.7%
1 PM	1	8.3%
3 PM	1	8.3%
5 PM	1	8.3%
8 PM	1	8.3%
10 PM	2	16.7%
11 PM	1	8.3%
TOTAL:	***12***	

Vehicle Type	*Total*	*%*
Passenger	16	61.5%
Pickup	2	7.7%
SUV	6	23.1%
Tractor With Semi-Trailer	1	3.8%
Van/Mini-Van	1	3.8%
TOTAL:	***26***	

Weather Cond	*Total*	*%*
Clear	8	66.7%
Cloudy/Overcast	1	8.3%
Rain	3	25.0%
TOTAL:	***12***	

Light Cond	*Total*	*%*
Darkness, Lighted Road	5	41.7%
Daylight	6	50.0%
Dusk	1	8.3%
TOTAL:	***12***	

Road Surface	*Total*	*%*
Dry	8	66.7%
Unknown	1	8.3%
Wet	3	25.0%
TOTAL:	***12***	

DIRP	*Total*	*%*
East	8	30.8%
North	7	26.9%
Northwest	1	3.8%
South	7	26.9%
West	3	11.5%
TOTAL:	***26***	

Illinois Department of Transportation
Division of Traffic Safety

Coordinate Collision Diagram Report

1/1/2017 to 12/31/2017

For XCoordinate 2943977.19238709 : YCoordinate 1833121.57923901 | Foot Tolerance : 250 | 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
22	0	0	1	8	13	0	10	0	1	9

Type of Crash	*Total*	*%*
Rear End	13	59.1%
Sideswipe Same Direction	1	4.5%
Turning	8	36.4%
TOTAL:	***22***	

Dayof Wk	*Total*	*%*
Monday	3	13.6%
Tuesday	5	22.7%
Wednesday	6	27.3%
Thursday	3	13.6%
Friday	1	4.5%
Saturday	3	13.6%
Sunday	1	4.5%
TOTAL:	***22***	

Hour of Day	*Total*	*%*
06 AM	2	9.1%
07 AM	2	9.1%
08 AM	1	4.5%
09 AM	2	9.1%
11 AM	2	9.1%
Noon	2	9.1%
2 PM	1	4.5%
3 PM	1	4.5%
4 PM	2	9.1%
5 PM	1	4.5%
6 PM	1	4.5%
7 PM	2	9.1%
10 PM	2	9.1%
11 PM	1	4.5%
TOTAL:	***22***	

Vehicle Type	*Total*	*%*
Other Vehicle With Trailer	1	2.2%
Passenger	29	64.4%
Pickup	3	6.7%
SUV	7	15.6%
Unknown	2	4.4%
Van/Mini-Van	3	6.7%
TOTAL:	***45***	

Weather Cond	*Total*	*%*
Clear	18	81.8%
Cloudy/Overcast	2	9.1%

Light Cond	*Total*	*%*
Darkness	1	4.5%
Darkness, Lighted Road	4	18.2%

Road Surface	*Total*	*%*
Dry	18	81.8%

DIRP	*Total*	*%*
East	8	17.8%
North	14	31.1%

3. Traffic Volume

The table below shows a summary of the Average Daily Traffic Count (ADTC) at the intersection of **IL Rt. 43 (Harlem Ave) and IL Rt. 83 (College Dr)** over a span of 5 years.

The history of available ADTC on each approach was obtained from the IDOT website per the RLR Guideline document published by the IDOT and recorded in **bold** below. (http://www.gettingaroundillinois.com/gai.htm?mt=aadt)

- The data from 2013-2015 shows the period prior to the RLR camera vendor transfer.
- The data from 2016 shows the year in which the current camera was installed.
- The data from 2017 shows the period following the transfer.

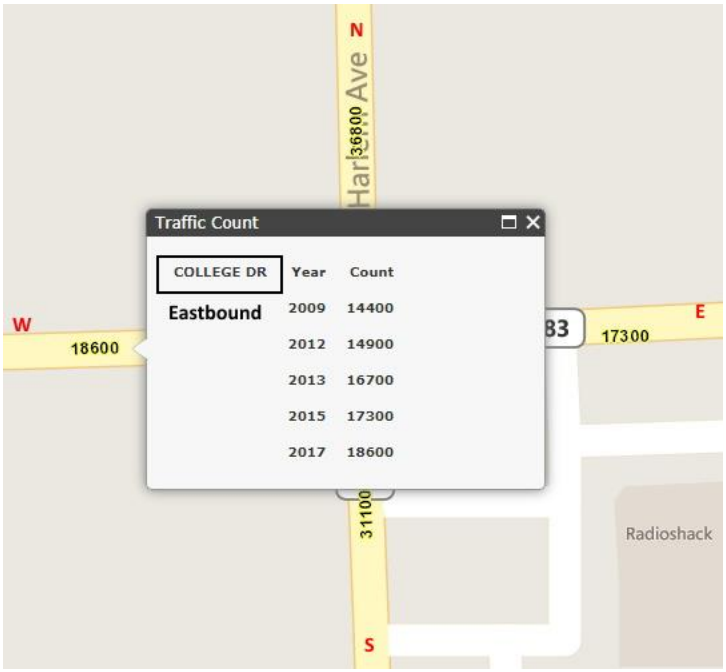
	Before Transfer				After Transfer
Year / Direction	2013	2014	2015	2016	2017
Eastbound	**16,700**	16,700	**17,300**	17,300	**18,600**
Westbound	**16,300**	16,300	**16,300**	16,300	**17,300**
Northbound	**32,100**	32,100	**35,500**	35,500	**36,800**
Southbound	**36,300**	36,300	**35,500**	35,500	**36,800**
Combined	**101,400**	**101,400**	**104,600**	**104,600**	**109,500**
Combined Avg	**102,467**				**109,500**

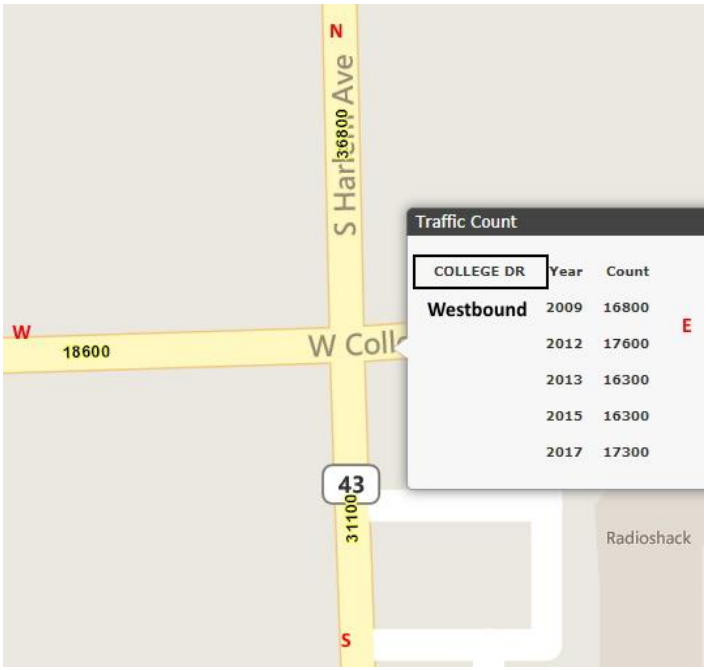
From 2013-2015, prior to the RLR camera vendor transfer, the combined average of ADTC was 102,467.

In 2017, post RLR camera vendor transfer, the combined average of ADTC was 109,500, resulting in an increase of 6.86%.

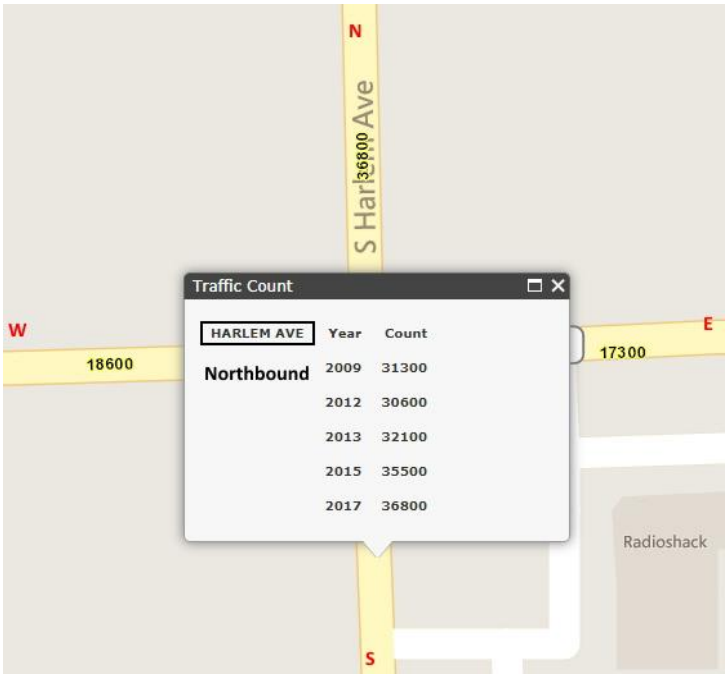
The following page consists of screenshots of ADTC data from 2013-2017 obtained from the IDOT's website.

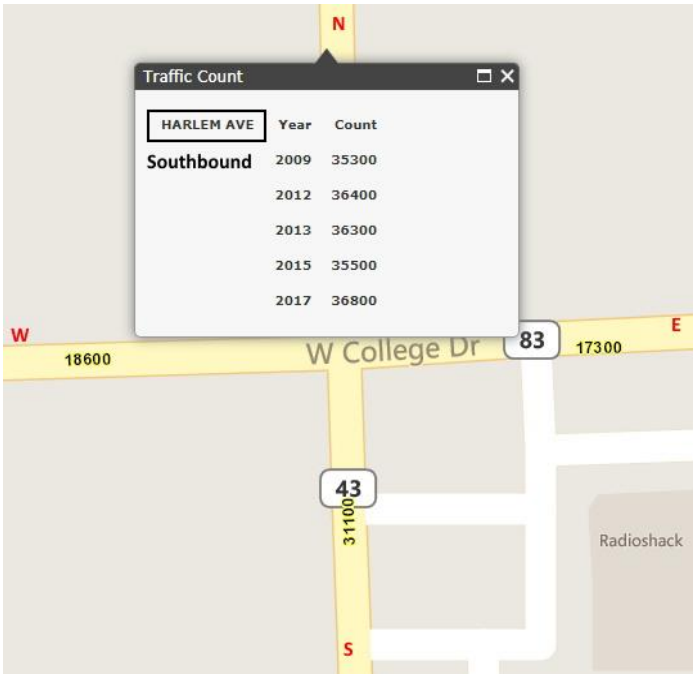
Eastbound and Westbound ADTC

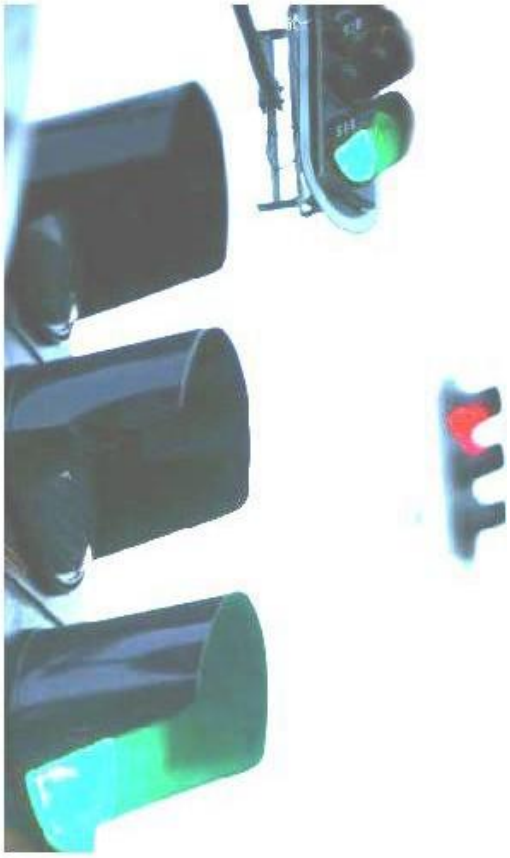




Northbound and Southbound ADTC







4. Summary of Adjudication

Below are the summaries of tickets contested “in person” and “by mail” from the **Southbound** approach of **IL Rt. 43 (Harlem Ave) and IL Rt. 83 (College Dr)** from January 2017 through December 2017.

In Person Contest

Date	Total Contests	Found Guilty	Dismissed	Dismiss Ratio
01/01/2017 - 01/31/2017	3	2	1	**33%**
02/01/2017 - 02/28/2017	5	3	2	**40%**
03/01/2017 - 03/31/2017	10	6	4	**40%**
04/01/2017 - 04/30/2017	7	5	2	**29%**
05/01/2017 - 05/31/2017	0	0	0	**N/A**
06/01/2017 - 06/30/2017	2	1	1	**50%**
07/01/2017 - 07/31/2017	7	3	4	**57%**
08/01/2017 - 08/31/2017	8	5	3	**38%**
09/01/2017 - 09/30/2017	2	2	0	**0%**
10/01/2017 - 10/31/2017	1	1	0	**0%**
11/01/2017 - 11/30/2017	1	0	1	**100%**
12/01/2017 - 12/31/2017	0	0	0	**N/A**
Total	**46**	**28**	**18**	**39%**

As indicated in the table above, 46 contested tickets were reviewed by one or more Hearing Officers during the above referenced period. The Hearing Officer(s) dismissed 18 of the contested tickets, a 39% total dismissal rate.

By Mail Contest

Date	Total Contests	Found Guilty	Dismissed	Dismiss Ratio
01/01/2017 - 01/31/2017	2	1	1	**50%**
02/01/2017 - 02/28/2017	7	6	1	**14%**
03/01/2017 - 03/31/2017	5	1	4	**80%**
04/01/2017 - 04/30/2017	18	10	8	**44%**
05/01/2017 - 05/31/2017	1	1	0	**0%**
06/01/2017 - 06/30/2017	2	1	1	**50%**
07/01/2017 - 07/31/2017	4	1	3	**75%**
08/01/2017 - 08/31/2017	1	0	1	**100%**
09/01/2017 - 09/30/2017	6	4	2	**33%**
10/01/2017 - 10/31/2017	2	1	1	**50%**
11/01/2017 - 11/30/2017	1	0	1	**100%**
12/01/2017 - 12/31/2017	0	0	0	**N/A**
Total	**49**	**26**	**23**	**47%**

As indicated in the table above, 49 tickets were contested by mail during the above referenced period. 23 contests by mail were dismissed, a 47% dismissal rate.

5. Report Summary and Recommendation

The long-term goal of RLR camera enforcement programs such as this one is to increase traffic safety by enforcing red light running ordinances in a consistent manner and with transparency for a sustained period. The timing of the traffic signals at this intersection have not been, and should not be, altered while the RLR camera system is in operation. In time, these cameras will become a part of everyday life for motorists living and working in this area.

The **City of Palos Heights** uses state-of-the-art digital cameras provided by SafeSpeed, LLC to execute its RLR Enforcement Safety Program. The intersection of **IL Rt. 43 (Harlem Ave) and IL Rt. 83 (College Dr)** was selected specifically for this program because of its high traffic volume and crash data. The citation and adjudication process administered by The **City of Palos Heights** is conducted in a courteous, professional and timely manner and in compliance with the RLR regulations laid out by the Illinois Department of Transportation District 1 Bureau of Traffic Operations.

In 2015, The **City of Palos Heights** received approval from the IDOT for a vendor transfer of an RLR camera on the **Southbound** approach at the intersection of **IL Rt. 43 (Harlem Ave) and IL Rt. 83 (College Dr)**. The dates of the most relevant events are listed below:

- Date on which camera with previous vendor went live: **07/2009**
- Date on which camera with previous vendor were shut down: **05/2014**
- Date on which the vendor transfer request was submitted: **04/2015,** approved: **07/2015**
- Date on which the installation report was submitted: **07/2015,** approved: **09/2015**
- Date on which the permit and bond were submitted: **10/2015,** approved: **10/2015**
- Date on which camera went live with current vendor: **11/2016**

From 2013-2015, prior to the RLR camera vendor transfer, the combined average of ADTC was 102,467. In 2017, post RLR camera vendor transfer, the combined average of ADTC was 109,500, resulting in an increase of 6.86%. (See Tab 3)

From 2013-2015, prior to the RLR camera vendor transfer, there were 55 total crashes; this averages out to 18.33 total crashes a year. In 2017, post RLR camera vendor transfer, there were 22 total crashes. From 2013-2015, there were 29 rear end crashes; this averages out to 9.67 rear end crashes a year. In 2017, there were 13 rear end crashes. From 2014-2015, there were 2 angle crashes in 2014 and 2 in 2015. In 2017, the angle crashes went down to 0. (See Tab 2)

Studies have reported that RLR cameras generally reduce severe Angle crashes with an occasional increase in less-severe Rear End crashes. This intersection showed a similar trend in its first year of transfer, though it is very difficult to determine the effectiveness of the RLR cameras currently installed at this intersection at this time. A larger sample size of data is required to reach a more accurate conclusion.

Since enhanced traffic safety is the principal aim of RLR camera enforcement programs, RLRC systems should remain at this intersection as an integral part of the traffic system process, which incorporates public education, enforcement and engineering.