GURNEE
DEPARTMENT OF POLICE

Memo

TO: Chief Smith

FROM: Earl Tuckman

DATE: Monday, December 28, 2020

SUBJECT: 3 Year Follow-up Evaluation Report:
Route 132 & Route 21
Route 132 & Hunt Club Road
Route 132 & Dilleys Road

Chief Smith,

Per the Illinois Department of Transportation policy on Red Light Running Camera Systems (RLR), we are required to present an evaluation report one year after operation of a photo enforced intersection(s) and every three years after.

In accordance with their policy the following information is needed for the evaluation report:

- Intersection Location(s).
- Date of implementation.
- RLR Camera System manufacturer and contractor name.
- Crash data specific to the RLR location(s) for the 3-year period prior to and for the period post RLR Camera installation.
- An analysis of the crash data, including a summary of any increase in crash types.
- Signal timings and other settings before and after RLR Camera installation.
- Traffic volumes before and after RLR Camera System installation.
- Recommendations to further reduce red light violations, severe crashes and to improve the operation of the intersection(s).
- Summary of adjudication experience and results.

The report is attached

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ROUTE 132 & ROUTE 21
ROUTE 132 & HUNT CLUB ROAD
ROUTE 132 & DILLEYS ROAD

RED LIGHT PHOTO ENFORCEMENT
3 YEAR FOLLOW-UP REPORT

September 2020

Overview

The Village of Gurnee is required to summit a Follow-Up Evaluation report to the Illinois Department of Transportation for the intersection(s) of Route 132 & Route 21, Route 132 & Dilley's and Route 132 & Hunt Club Road one year after the installation of a Red Light Running Camera System (RLR). After the first year evaluation report is completed the Village is required to submit evaluation reports every three years to the Illinois Department of Transportation.

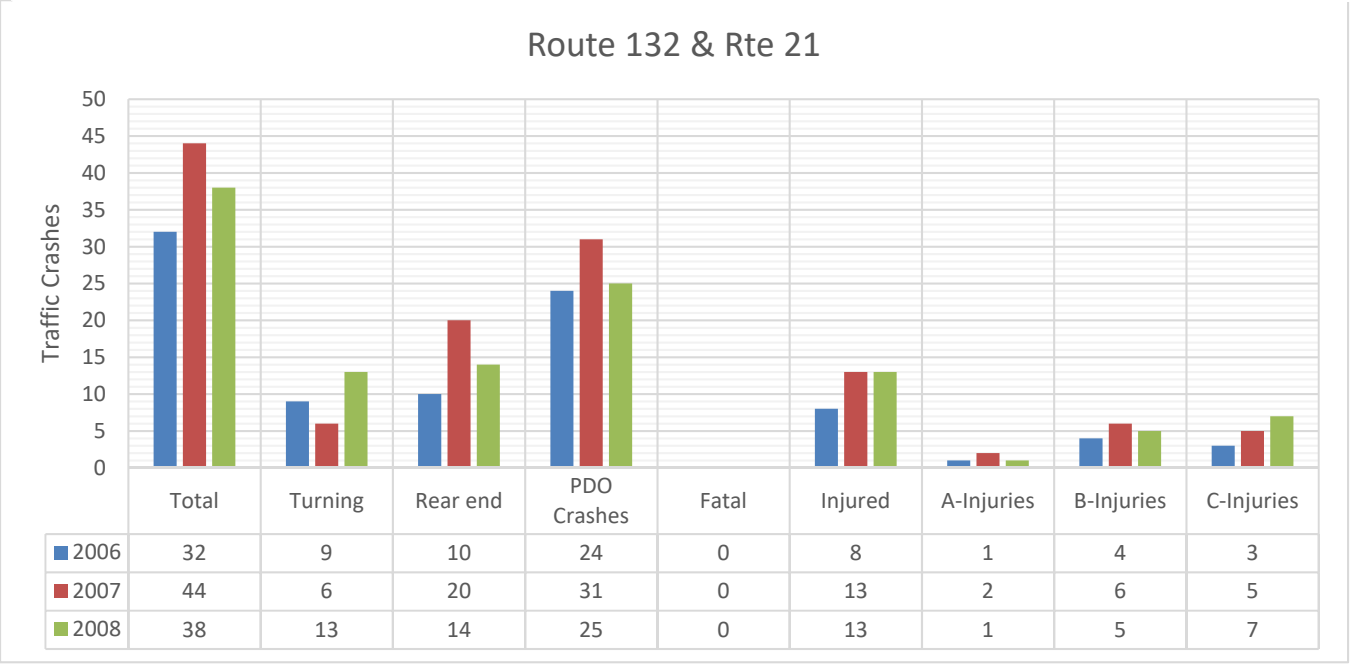
On December 3, 2007, the Village of Gurnee entered into agreement with Redflex Traffic Systems Inc. to install Red Light Running Camera Systems at several intersections throughout the Village. Once the testing and warning phase was completed the RLR Systems went fully operational with citations being issued on:

Route 132 & Route 21	05/31/2009
Route 132 & Hunt Club Road	05/31/2009
Route 132 & Dilleys Road	05/31/2009

Crash Data

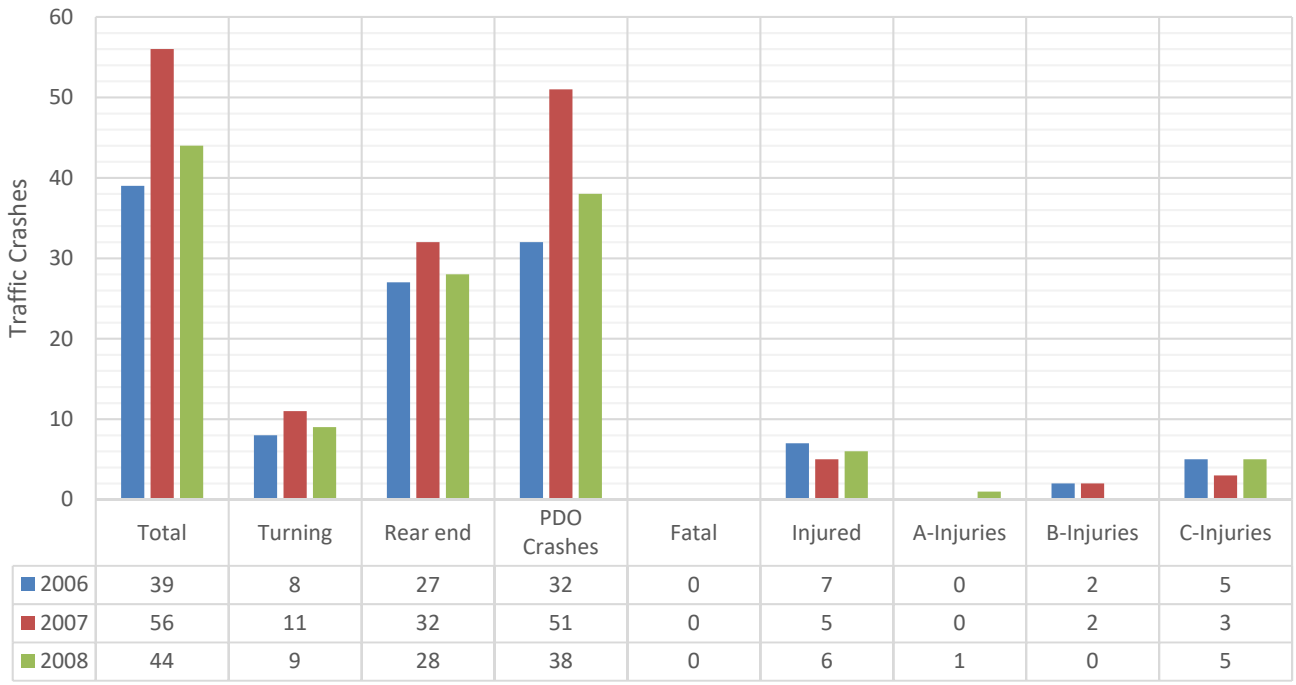
The crash data specific to the RLR location(s) for the 3-year period (Exhibits #1-1b) prior to and for the period post (Exhibits #2-4) RLR installation.

Exhibit 1



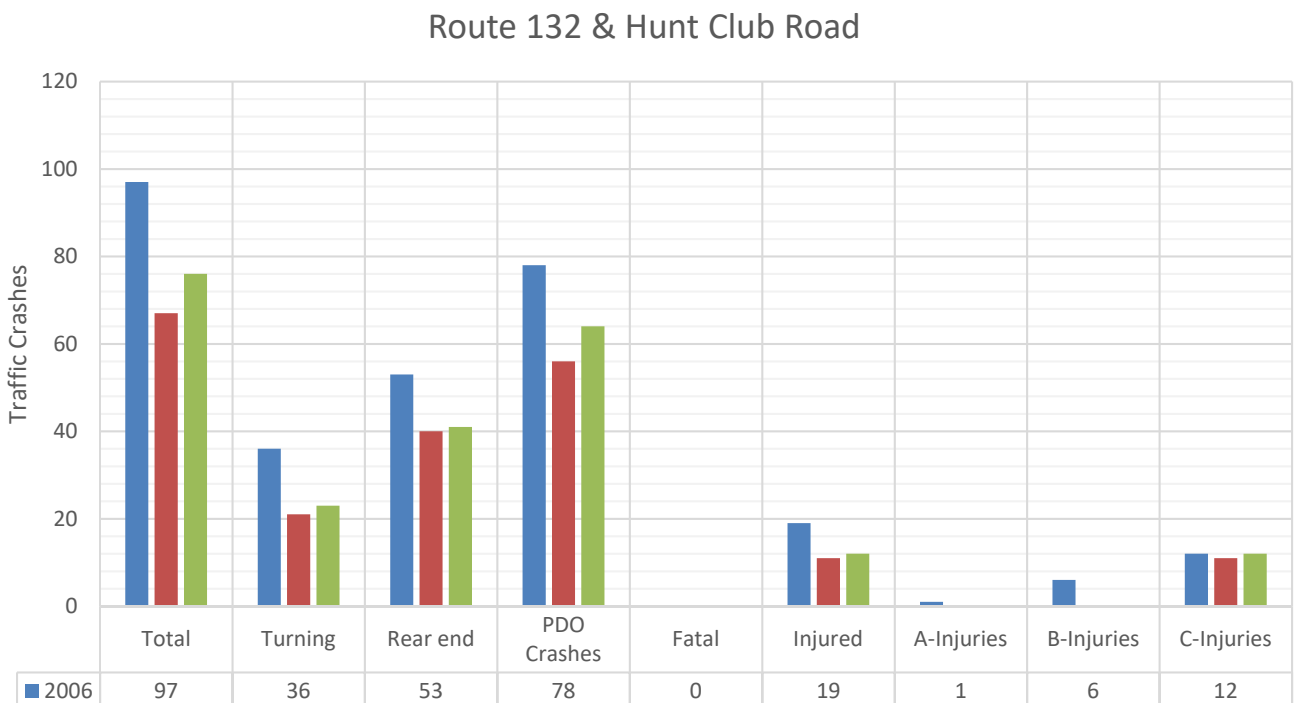
	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2006	32	9	10	24	0	8	1	4	3
2007	44	6	20	31	0	13	2	6	5
2008	38	13	14	25	0	13	1	5	7

Exhibit 1a



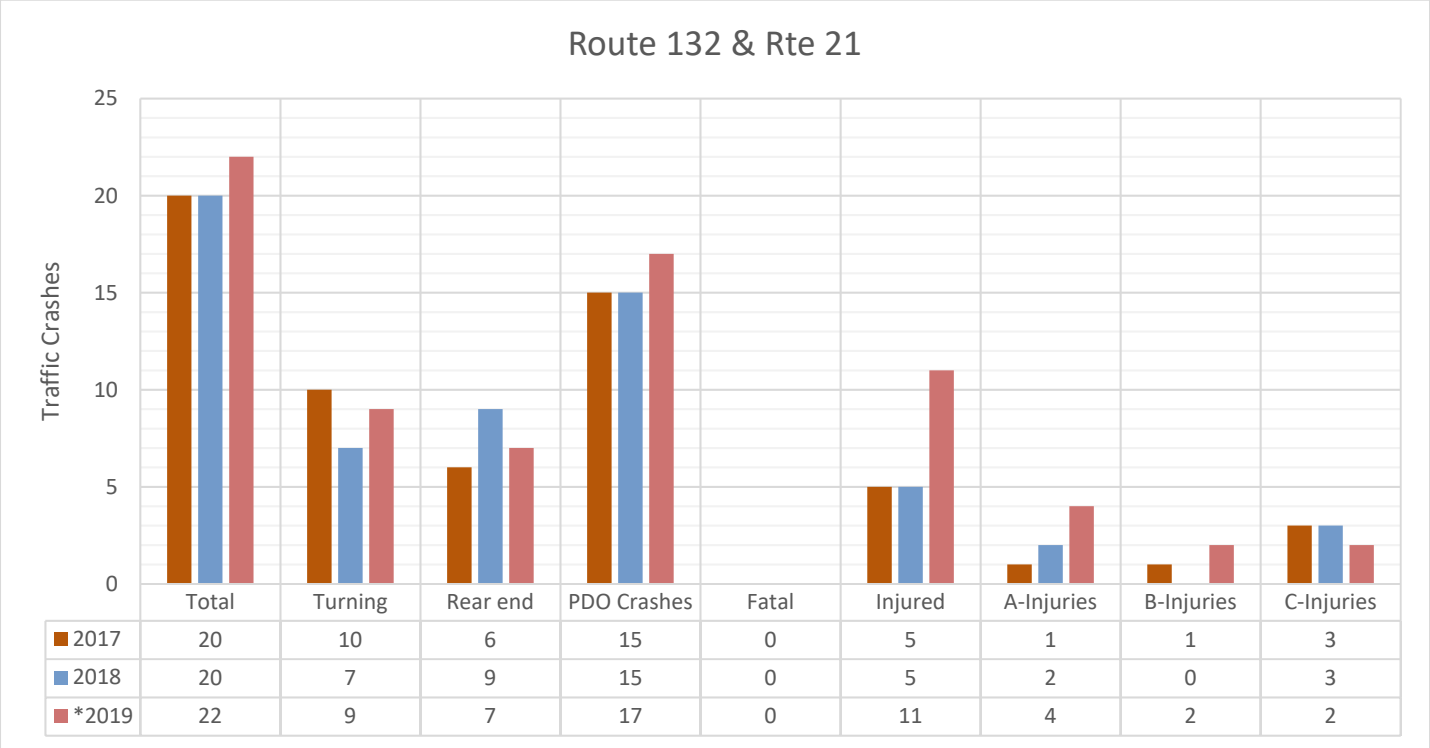
	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2006	39	8	27	32	0	7	0	2	5
2007	56	11	32	51	0	5	0	2	3
2008	44	9	28	38	0	6	1	0	5

Exhibit 1b



	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2006	97	36	53	78	0	19	1	6	12
2007	67	21	40	56	0	11	0	0	11
2008	76	23	41	64	0	12	0	0	12

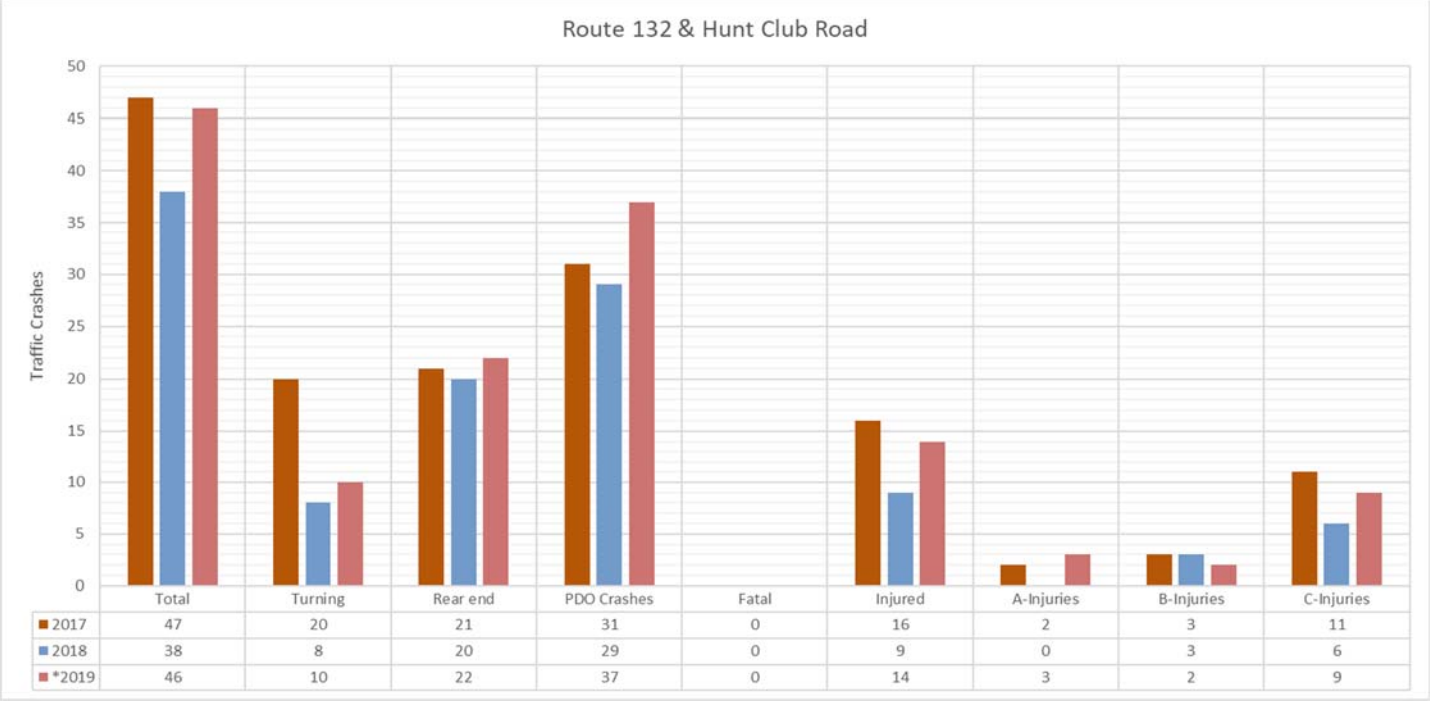
Exhibit 2



	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2017	20	10	6	15	0	5	1	1	3
2018	20	7	9	15	0	5	2	0	3
*2019	22	9	7	17	0	11	4	2	2

**2019 data not yet available through LCDOT. Data is preliminary agency data*

Exhibit 3



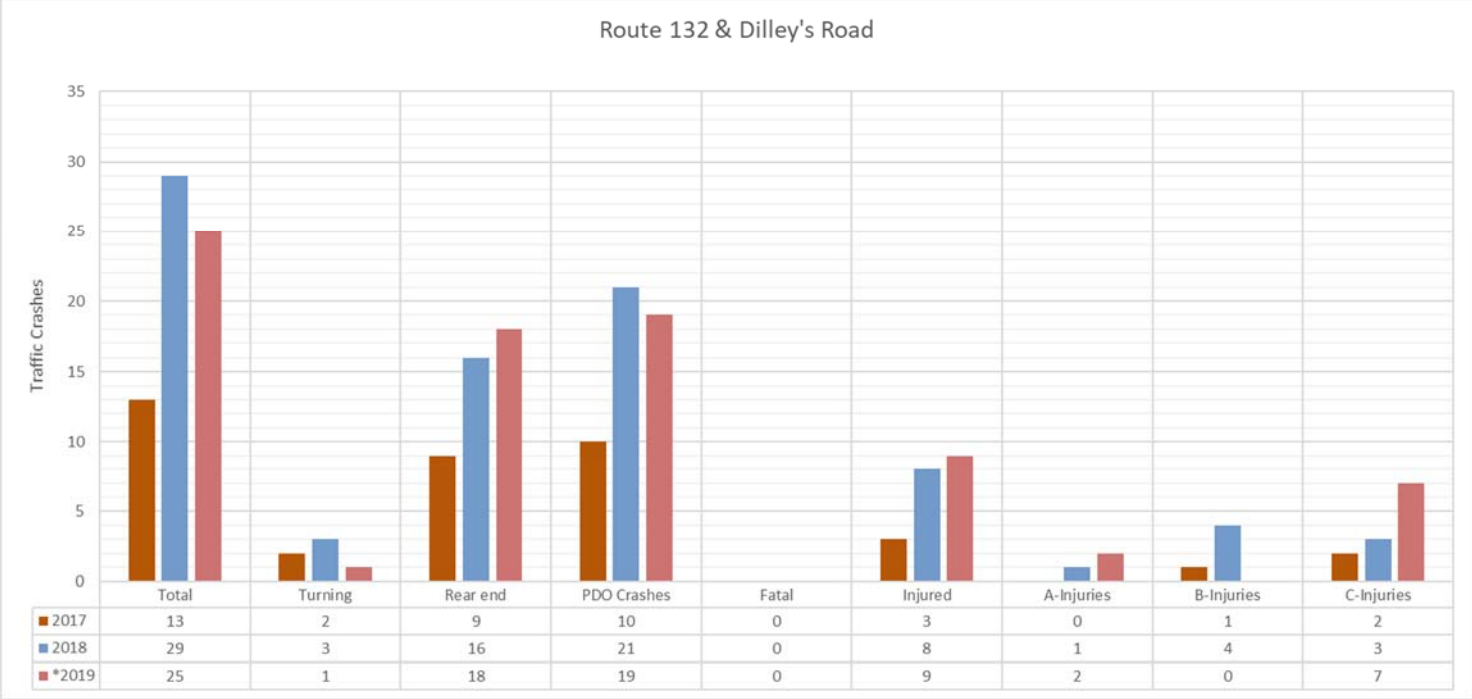
	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2017	47	20	21	31	0	16	2	3	11
2018	38	8	20	29	0	9	0	3	6
*2019	46	10	22	37	0	14	3	2	9

**2019 data not yet available through LCDOT. Data is preliminary agency data*

Cameras at Route 132 & Hunt Club were deactivated in June 2019 during the IDOT intersection improvement project. At the time of this report the cameras remain deactivated.

2017-2019 Crash Data

Exhibit 4



	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2017	13	2	9	10	0	3	0	1	2
2018	29	3	16	21	0	8	1	4	3
*2019	25	1	18	19	0	9	2	0	7

**2019 data not yet available through LCDOT. Data is preliminary agency data*

Rte 132 / Rte 21

Year	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2006	32	9	10	24	0	13	2	5	6
2007	44	6	20	31	0	18	3	6	9
2008	38	13	14	25	0	21	3	5	13
Total	**114**	**28**	**44**	**80**	**0**	**52**	**8**	**16**	**28**

Year	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2017	20	10	6	15	0	6	1	1	4
2018	20	7	9	15	0	8	3	1	4
*2019	22	9	7	17	0	11	4	2	5
Total	**62**	**26**	**22**	**47**	**0**	**25**	**8**	**4**	**13**
Rte 132 / Rte 21	**-46%**	**-7%**	**-50%**	**-41%**	**0%**	**-52%**	**0%**	**-75%**	**-54%**
	-52	**-2**	**-22**	**-33**	**0**	**-27**	**0**	**-12**	**-15**

*Preliminary agency data

Rte 132 / Hunt Club

Year	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2006	97	36	53	78	0	38	2	15	21
2007	67	21	40	56	0	17	0	0	17
2008	76	23	41	64	0	17	0	0	17
Total	**240**	**80**	**134**	**198**	**0**	**72**	**2**	**15**	**55**

Year	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2017	47	20	21	31	0	21	2	3	16
2018	38	8	20	29	0	10	0	3	7
*2019	46	10	22	37	0	14	3	2	9
Total	**131**	**38**	**63**	**97**	**0**	**45**	**5**	**8**	**32**
Rte 132 / Hunt Club	**-45%**	**-53%**	**-53%**	**-51%**	**0%**	**-38%**	**150%**	**-47%**	**-42%**
	-109	**-42**	**-71**	**-101**	**0**	**-27**	**3**	**-7**	**-23**

*Preliminary agency data

Rte 132 / Dilleys

Year	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2006	39	8	27	32	0	7	0	2	5
2007	56	11	32	51	0	7	0	4	3
2008	44	9	28	38	0	8	1	0	7
Total	**139**	**28**	**87**	**121**	**0**	**22**	**1**	**6**	**15**

Year	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2017	13	2	9	10	0	4	0	1	3
2018	29	3	16	21	0	14	1	5	8
*2019	25	1	18	19	0	9	2	0	7
Total	**67**	**6**	**43**	**50**	**0**	**27**	**3**	**6**	**18**
Rte 132 / Dilleys	**-52%**	**-79%**	**-51%**	**-59%**	**0%**	**23%**	**200%**	**0%**	**20%**
	-72	**-22**	**-44**	**-71**	**0**	**5**	**2**	**0**	**3**

*Preliminary agency data

	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
2006-2008 Total	**493**	**136**	**265**	**399**	**0**	**146**	**11**	**37**	**98**
2017-2019 Total	**260**	**70**	**128**	**194**	**0**	**97**	**16**	**18**	**63**

	Total	Turning	Rear end	PDO Crashes	Fatal	Injured	A-Injuries	B-Injuries	C-Injuries
Combined Average (all Intersections)	**-48%**	**-46%**	**-51%**	**-50%**	**0%**	**-22%**	**117%**	**-41%**	**-25%**
	-78	**-22**	**-46**	**-68**	**0**	**-16**	**2**	**-6**	**-12**

Crash Data Analysis

The combined crash total of all three intersections in the current period (260) was 48% lower than the combined previous period total (493).

While the combined total of type "A" injuries (16) did increase compared to the previous period (11), overall injury accidents (97) in the current period were 22% lower compared to the previous period (146).

The combined average of *rear end* crashes in the current period (86) was 51% lower than the previous period average (54.8).

A significant reduction in *turning* crashes was noted at **Route 132 / Dilleys**. *Turning* crashes for the current period (6) were 79% lower compared to the previous period (28).

Signal Timings

Signal timings and other settings before and after RLR camera installation.

The traffic signal timings are not under control of the Village of Gurnee. As such, we do not possess this information.

Traffic Volumes

Traffic volumes before and after RLR Camera System installation. The traffic volumes shall include both Average Daily and Peak Period traffic.

The average daily traffic counts for each approach were obtained from the Lake County Division of Transportation and Illinois Department of Transportation at:
http://lake.ms2soft.com
http://www.gettingaroundillinois.com/gai.htm?mt=aadt.
The traffic counts below reflect the available 3-years prior and the post camera installation traffic counts. Peak period traffic was not available.

Prior Years Average

Route 132 & Route 21
eastbound – 29,000 westbound – 29,000
Route 132 & Hunt Club Road
eastbound – 39,600 westbound – 35,700
Route 132 & Dilleys Road
eastbound – 24,600 westbound – 29,000

Post Camera Installation (most recent available)

Route 132 & Route 21
eastbound – 18,800 westbound – 22,100
Route 132 & Hunt Club Road
eastbound – 42,200 westbound – 31,700
Route 132 & Dilleys Road
eastbound – 22,100 westbound – 22,100

Recommendations

Recommendations to further reduce red light violations and severe crashes and to improve the operation of the intersection(s).

The first recommendation is to keep the current eastbound and westbound photo enforcement approaches operational and to continue to analyze the intersection crash data over the next three years.

Second; a majority of serious injuries involved turning vehicles. As such, it is further recommended to provide protected left turn lanes at Route 132 / Route 21. A protected left turn would potentially reduce accidents and reduce severity of injures.

Third; Route 132 & Hunt Club recently underwent a long-term traffic safety intersection reconstruction project with the addition of protected left turn lanes. Red light cameras were deactivated at this location during the construction project. It is recommended that the cameras be re-activated and the intersection crash data be analyzed over the next three years.

Adjudication Process

Provide a summary of adjudication experience and results.

Our administrative adjudication system does not segregate enforcement approaches. As such, we are unable to provide data specific to each intersection.

During the examined time period we conducted 891 administrative hearings related to photo enforcement citations issued system-wide. Of those hearings, 707 of those were found to be Liable including those who failed to appear at their scheduled hearing.