



LINCOLNWOOD POLICE DEPARTMENT

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Jason S. Parrott
Chief of Police

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Illinois Department of Transportation
Traffic Operations Bureau Chief
201 W. Center Court
Schaumburg, IL 60196

Dear Sir or Madam,

This report is a summary and analysis of the Village of Lincolnwood's automated traffic law enforcement system. The statistical analysis is based upon the best available Illinois Department of Transportation (IDOT) motor vehicle traffic crash data. This report will be made available to the public on the Village's website.

An automated traffic law enforcement system was installed at the intersection of Touhy Avenue at Lincoln Avenue in November 2010. The overall goal of the program is to improve motor vehicle traffic safety by improving motorists' compliance with motor vehicle traffic laws.



Touhy Avenue Average Daily Vehicle Count



The automated traffic enforcement system monitors traffic traveling eastbound on Touhy Avenue at Lincoln Avenue. This location has a high volume of traffic and enforcement presents several significant challenges. According to IDOT, the Average Daily Vehicle (ADV) count for Touhy Avenue between Lincoln Avenue and Cicero Avenue is 37,500.

The high traffic counts frequently cause gridlock, frustrating motorists, and general noncompliance with traffic laws. However, since traffic is frequently stopped, a single traffic stop can cause traffic to backup for several blocks or more. Regular enforcement of traffic laws during peak travel times is not practical.

Northbound Lincoln Avenue at Touhy Avenue



The above photograph shows northwest bound Lincoln Avenue traffic during a typical weekday morning rush hour. It is not uncommon for traffic to be backed up several blocks and for motorists to have to wait for several traffic signal cycles before passing through the intersection. If the police department were to routinely enforce traffic laws during peak periods, northbound Lincoln Avenue traffic could potentially back up to Devon Avenue having an adverse impact on the intersection of Lincoln Avenue and Devon Avenue.

Police officers must choose between enforcing traffic safety laws and inconveniencing the motoring public. An automated traffic enforcement system is a practical solution to the problem of traffic congestion.

Southeast Bound Lincoln Avenue at Touhy Avenue



The above photograph shows typical southeast bound Lincoln Avenue traffic during a typical weekday morning rush hour. It is not uncommon for traffic to be backed up several blocks and for motorists to have to wait for several traffic signal cycles before passing through the intersection. If the police department were to routinely enforce traffic laws during peak periods, southeast bound Lincoln Avenue traffic could potentially back up to Jarvis Avenue.

Police officers must choose between enforcing traffic safety laws and inconveniencing the motoring public. An automated traffic enforcement system is a practical solution to the problem of traffic congestion.

Southeast Bound Lincoln Avenue Traffic



The above photograph shows a cyclist traveling southeast bound on Lincoln Avenue at Touhy Avenue. The intersection of Lincoln Avenue and Touhy Avenue is located approximately one-half mile from access to two points of the Valley Line Trail (bicycle path). Pedestrian and bicycle traffic warrants a \$3,937,162 bridge over Touhy Avenue less than one quarter mile to the west of the intersection. Construction of the overpass was completed in 2018.

This area has very narrow sidewalks immediately adjacent to a roadway carrying a high volume of traffic traveling at speeds in excess of 35 miles an hour. A second complicating factor is the 120 degree angle of southeast bound Lincoln Avenue at Touhy Avenue. Motorists traveling eastbound on Touhy Avenue have to rotate approximately 120 degrees to observe southeast bound Lincoln Avenue traffic. This angle creates a significant challenge for motorists traveling eastbound on Touhy Avenue and proceeding straight or turning right on to Lincoln Avenue.

It is very difficult for motorists traveling (at any speed) eastbound on Touhy Avenue at Lincoln Avenue to see motorists, bicyclists, and pedestrians traveling southeast bound on Lincoln Avenue. It is imperative that motorists come to a complete stop and wait for an arrow prior to turning right onto Lincoln Avenue. An automated traffic enforcement system enhances motorist compliance with the traffic laws in a way that uniformed police officers are not able to sustain.

Eastbound Touhy Avenue at Lincoln Avenue



The above photograph shows traffic backed up on eastbound Touhy Avenue at the Lincoln Avenue intersection during the morning rush hour. The intersection is approximately one-half mile east of the Edens Expressway.

Traffic traveling on the Edens Expressway during peak periods presents challenges to traffic on Touhy Avenue. Traffic traveling southbound on the Edens Expressway is frequently stopped for extended periods of time during the morning rush hours. Once motorists exit onto Touhy Avenue, they are less inclined to stop at Cicero Avenue and/or Lincoln Avenue. Cicero Avenue is also a good location for an automated traffic enforcement system.

Traffic traveling northbound on the Edens Expressway presents a more serious challenge. Traffic traveling northbound on the Edens Expressway during the morning rush hour is frequently backed up for an extended period of time. Then once traffic is able to exit onto northbound Cicero, motorists are faced with a second backup. Then motorists wishing to travel eastbound on Touhy Avenue are sometimes faced with a third backup. The motorists are faced with significant congestion northbound on the Edens Expressway, to northbound on Cicero Avenue and then finally eastbound on Touhy Avenue. It should not come as a surprise that motorists going through a gauntlet of congestion are less inclined to stop for a red traffic control signal at the next

intersection located at Touhy Avenue at Lincoln Avenue. Again, typical traffic enforcement by a uniformed police officer in a marked squad car is not practical or safe during rush hour. An automated traffic enforcement system is a reasonable and practical solution to address non-compliance on Touhy Avenue at Lincoln Avenue.

Westbound Touhy Avenue



Westbound Touhy Avenue traffic is frequently stopped. Routine traffic enforcement would only create additional congestion. In addition, there is no safe and convenient location for an officer to pull over/stop a motorist.

Illinois Department of Transportation Average Daily Vehicle Count



The above map shows Average Daily Vehicle counts (traffic volume) on the streets in the immediate area of Touhy Avenue and Lincoln Avenue. The map was obtained from the IDOT website. It shows the area surrounding Touhy Avenue and the Edens Expressway is extremely congested. That congestion affects the neighboring intersections, including the intersection of Touhy Avenue and Lincoln Avenue.

The Police Department's staff theorizes that the relatively intense traffic congestion leads to motorist frustration and subsequently non-compliance with traffic laws. Non-compliance with traffic laws complicated by frustration, poor decision making, ill-advised risks, and the Police Department's hampered enforcement efforts lead to less safe roadways and more motor vehicle traffic crashes.

A practical method to modify motorist behavior and increase compliance is with an automated traffic enforcement system. Although costly, staff recommends IDOT consider approving an automated traffic enforcement system at all four approaches at Lincoln Avenue and Touhy Avenue and at all four approaches at Touhy Avenue and Cicero Avenue.

Twelve Year Summary of Motor Vehicle Traffic Crashes Reported by the Illinois Department of Transportation

Touhy and Lincoln Motor Vehicle Traffic Crash History By Type						
	Angle	Other	Rear-End	Sideswipe	Turning	Total
2008	3	0	7	2	1	13
2009	8	0	9	1	3	21
2010*	7	0	7	3	7	24
2011	0	1	14	0	1	16
2012	2	0	7	0	5	14
2013	1	1	9	1	4	16
2014	0	2	7	0	2	11
2015	2	0	8	0	3	13
2016	3	0	1	2	1	7
2017	4	0	0	1	0	5
2018	3	1	3	6	2	15
2019	3	0	4	4	1	12
2020	3	0	10	8	0	21
2021	0	0	3	1	1	5
2022	4	0	0	0	5	9
Total	43	5	89	29	36	202
Average	2.87	0.33	5.93	1.93	2.40	13.47

*An automated traffic law enforcement system was installed at the intersection of Touhy Avenue at Lincoln Avenue in November 2010

The table above contains data reported by IDOT for Touhy Avenue and Lincoln Avenue intersection related motor vehicle traffic crashes from 2008 to 2022. The data was taken from collision diagrams provided by IDOT. The Lincolnwood Police Department investigates and reports every motor vehicle traffic crash report and reports each one to IDOT. However, IDOT does not report every crash on its website or in collision diagrams. For that reason, data previously reported by the Lincolnwood Police Department varies from the data in the above table. The motor vehicle traffic crash data provided by IDOT is reviewed and analyzed in this report.

The table shows that over the past 14 years, there has been an average of less than 3 right angle motor vehicle traffic crashes per year. There were seven right angle motor vehicle traffic crashes in 2010 and never more than four through 2021. Right angle traffic crashes have reduced since the inception of the automated traffic enforcement system.

There has been an average of 5.93 rear-end motor vehicle traffic crashes each year over the past 14 years. There were 7 rear-end motor vehicle traffic crashes in 2010 and zero in 2022.

There has been an average of 13.47 overall motor vehicle traffic crashes over the past 14 years. In 2022, there were 9 overall motor vehicle traffic crashes at this

intersection.

Right angle traffic crashes have been reduced since the inception of the automated traffic enforcement system. These are indicators of a successful motor vehicle traffic crash reduction program.

Comparison of Motor Vehicle Traffic Crashes: 2010 Versus 2022

Touhy Avenue and Lincoln Avenue Motor Vehicle Traffic Crash History By Type – 2010 and 2022						
	Angle	Other	Rear-End	Sideswipe	Turning	Total
2010	7	0	7	3	7	24
2022	4	0	0	0	5	9
Total	11	0	7	3	12	33
Average	5.5	0	3.5	1.5	6	16.5

When the data from 2010 is compared with 2022 data, the numbers reflect an improvement in overall traffic safety. In 2022, there were fewer angled motor vehicle traffic crashes; fewer turning rear-end crashes; fewer turning crashes; and fewer overall motor vehicle crashes. Safety appears to be increased by the use of an automated traffic enforcement system.

Automated Traffic Enforcement Citations Issued for Eastbound Touhy Avenue at Lincoln Avenue Since the Inception of the Program

Automated Traffic Enforcement Citations Issued	
Year	Total
2010	162
2011	1,073
2012	1,216
2013	1,305
2014	1,133
2015	946
2016	1,954
2017	1,487
2018	1,795
2019	1,548
2020	988
2021	1,407
2022	1,173
Total Citations Issued	16,187
Average Citations Issued Annually 2010 - 2022	1,245

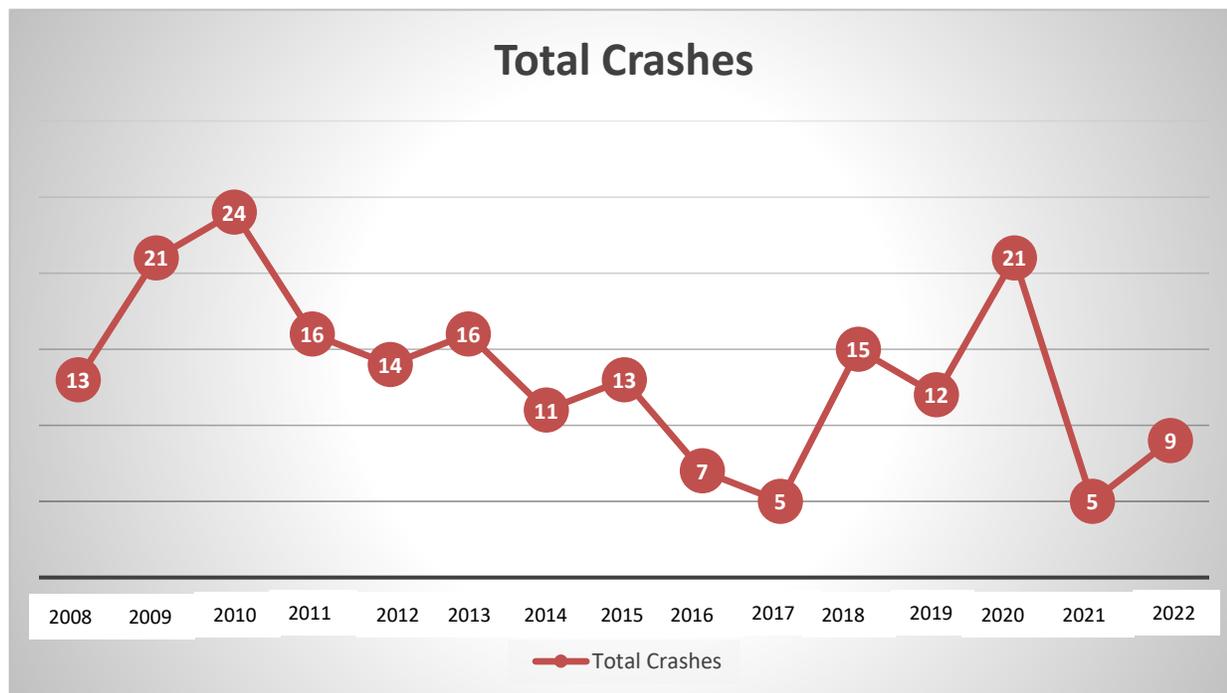
The automated traffic enforcement system identified an average of 1,245 violations annually from 2010 to 2022. The system was only active for two months in 2010. The system was inactive from mid-July through December in 2022 due to construction in the area. Violations are occurring and traditional traffic enforcement initiatives are challenged by traffic congestion.

Automated Traffic Enforcement System Program Costs

Automated Traffic Enforcement System Cost Versus Revenue		
Fiscal	Cost	Revenue
2010	\$ 6,053	(\$ 3,953)
2011	\$ 9,433	\$ 11,075
2012	\$ 41,281	\$ 79,944
2013	\$ 56,796	\$ 62,119
2014	\$ 56,596	\$ 74,689
2015	\$ 56,596	\$ 48,479
2016	\$ 52,800	\$ 42,200
2017	\$ 52,800	\$ 117,020
2018	\$ 52,800	\$118,240
2019	\$ 52,800	\$184,000
2020	\$ 52,800	\$143,720
2021	\$ 59,235	\$126,895
2022	\$ 52,800	\$138,900
Totals	\$ 602,790	\$ 1,143,328
Average	\$ 46,368	\$ 87,948

The table above shows the leased cost of the automated traffic enforcement system and the revenue collected. The table does not take into account the costs associated with 1) the law enforcement review process, 2) the purchase and maintenance of computer equipment, 3) staff time allocated to citation processing, 4) staff time allocated to the adjudication process, or 5) the administrative hearing officer.

Motor Vehicle Traffic Crash Reports by Year 2008 to 2022



The chart above shows total motor vehicle traffic crashes at the intersection of Touhy Avenue and Lincoln Avenue trending lower since inception of an automated traffic enforcement system.

Summary

The automated traffic enforcement system at Touhy Avenue and Lincoln Avenue has helped reduce motor vehicle traffic crashes, thereby improving traffic safety, and, therefore, the cost differential is justified. Staff recommends continuation of the program.

Sincerely,



Jason S. Parrott
Chief of Police