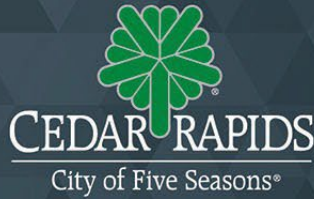




Cedar Rapids Police Department

Automated Traffic Enforcement Program

2021 Annual Report



CEDAR RAPIDS POLICE DEPARTMENT

AUTOMATED TRAFFIC ENFORCEMENT PROGRAM

2021 ANNUAL REPORT

INTRODUCTION

Automated Traffic Enforcement (ATE) is a significant safety countermeasure that the City of Cedar Rapids utilizes to enhance traffic safety. Speeding and red-light running are the most prevalent factors contributing to traffic crashes. Traffic crashes in high-risk locations pose a safety concern for first responders, as well as other motorists. The use of ATE systems result in measurable safety improvements in high-crash locations. Automated traffic enforcement systems are not intended to replace traditional traffic enforcement operations, but to provide an effective supplement. These systems also reduce the opportunity for bias-based policing by minimizing physical traffic stops. The information presented in this report will convey the considerable impact the ATE systems have had on roadway safety in the City of Cedar Rapids.

HISTORY

In March 2009, the Iowa Department of Transportation (IDOT) sponsored a study through CTRE (Center for Transportation Research and Education, Iowa State University) which identified multiple safety countermeasures to mitigate traffic concerns at high-risk and high-crash locations, one of which was the use of automated traffic enforcement. As suggested, automated traffic enforcement systems were introduced into Cedar Rapids in 2010. In April 2017, the Iowa District Court ruled that the IDOT had authority to regulate automated traffic cameras on state-maintained roadways. Due to this ruling, ATE cameras on I-380 ceased operation in April 2017 with all other locations ceasing operation in September 2018. The Iowa Supreme Court ruled in January 2019 that the IDOT did not have authority to prescribe to local law enforcement how to enforce traffic laws. The Cedar Rapids ATE program was re-established in July 2019 and all camera locations resumed operation.

IMPACT OF AUTOMATED TRAFFIC ENFORCEMENT

This report details the Automated Traffic Enforcement locations in the City of Cedar Rapids. The City of Cedar Rapids has ATE cameras at five intersections within the city that monitor red-light and speed violations, while four locations along northbound and southbound Interstate 380 monitor speed violations only. Crash data comparisons show a measurable improvement in crash totals and crash severity while the ATE systems are active. Motorists braking due to an Automated Traffic Enforcement system was not listed as a contributing driver behavior. Based on analysis of accident reports, the top three contributing factors for rear end collisions were following too close, failure to maintain control, and excessive speed. The following crash data summations detail the effectiveness of the ATE systems and highlight the necessity to continue utilizing these monitoring systems to promote safe driving habits and safe roadways.

CRASH DATA SUMMATION

Interstate 380 – All Locations Northbound and Southbound

As indicated in Table 1.1, the average crashes per month from May 2017 to June 2019 was 3.69, which decreased to 3.10 from July 2019 to December 2021. The average injury crashes per month also decreased by 24% from the pre-camera timeframe to post-camera timeframe.

Table 1.1 Average number of crashes per month, pre and post camera activation

Average Number of Crashes per Month			
	Total Crashes	Injury	Property Damage
Pre-Camera (5/17 - 6/19)	3.69	1.19	2.46
Post-Camera (7/19 - 12/21)	3.10	0.90	2.17

One fatal crash was recorded in 2021 on Interstate 380. This crash involved a wrong-way driver under the influence traveling southbound in the northbound lanes of Interstate 380.

Table 1.2 Total number of State reported crashes on I-380 separated into categories based on severity of crash

Fixed Speed Cameras on Interstate 380 Personal Injury vs Property Damage vs Fatal Crashes					
	Year	Number of Crashes	Injury Crashes	Fatal Crashes	Property Damage Crashes
Post-Camera Data	2011	32	9	0	23
	2012	36	15	0	21
	2013	38	10	0	28
	2014	46	12	0	34
	2015	46	10	0	36
	2016	50	9	1	40
	2017*	8	1	0	7
	Total	256	66	1	189
Pre-Camera Data**	2017*	29	8	0	21
	2018	35	11	0	24
	2019*	32	12	1	19
	Total	96	31	1	64
Post-Camera Data	2019*	20	6	0	14
	2020	32	8	0	24
	2021	41	13	1	27
	Total	93	27	1	65

* Data separated into pre and post camera activation for years where the ATE system was active a partial year.

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from May 2017 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

Table 1.3 Crash types, pre and post camera activation, with total speed violations issued on I-380

Fixed Speed Cameras on Interstate 380				
	Year	Number of Crashes	Crash Type	
Post-Camera Data	2011	32	10 – Non-Collision 10 – Side Swipe	8 – Rear End^ 4 – Other/Unknown
	2012	36	14 – Non-Collision 5 – Side Swipe	16 – Rear End^ 1 – Other/Unknown
	2013	38	10 – Non-Collision 15 – Side Swipe	11 – Rear End^ 2 – Other/Unknown
	2014	46	24 – Non-Collision 9 – Side Swipe	10 – Rear End^ 3 – Other/Unknown
	2015	46	17 – Non-Collision 2 – Side Swipe	6 – Rear End^ 5 – Other/Unknown
	2016	50	14 – Non-Collision 9 – Side Swipe	13 – Rear End^ 14 – Other/Unknown
	2017*	8	2 – Non-Collision 3 – Side Swipe	2 – Rear End^ 1 – Other/Unknown
Pre-Camera Data**	2017*	29	13 – Non-Collision 6 – Side Swipe	9 – Rear End^ 1 – Other/Unknown
	2018	35	16 – Non-Collision 6 – Side Swipe	8 – Rear End^ 5 – Other/Unknown
	2019*	32	16 – Non-Collision 9 – Side Swipe	6 – Rear End^ 1 – Other/Unknown
Post-Camera Data	2019*	20	7 – Non-Collision 5 – Side Swipe	6 – Rear End^ 2 – Other/Unknown
	2020	32	11 – Non-Collision 11 – Side Swipe	9 – Rear End^ 1 – Other/Unknown
	2021	41	25 – Non-Collision 9 – Side Swipe	5 – Rear End^ 2 – Other/Unknown

* Data separated into pre and post camera activation for years where the ATE system was active a partial year.

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^ Crash data analysis reports the top three contributing factors for rear end collisions as following too close, failure to maintain control, and excessive speed.

1st Avenue & 10th Street East

As indicated in Table 2.1, the total number of crashes has decreased in 2021 by 67% when compared to the total number of crashes in 2020 at the intersection of 1st Avenue and 10th Street East.

Table 2.1 Total number of State reported crashes separated into categories based on severity of crash

Intersection: 1st Avenue & 10th Street East			
Year	Number of Crashes	Injury Crashes	Property Crashes
2011	4	0	4
2012	12	0	12
2013	9	2	7
2014	13	3	10
2015	9	3	6
2016	5	2	3
2017	9	1	8
2018**	2	1	1
2019**	4	1	3
2020	6	2	4
2021	2	1	1

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

Table 2.2 Crash types by year

Intersection: 1st Avenue & 10th Street East	
Year	Crash Types
2017	1 – Broadside 4 – Angle Oncoming, Left Turn 1 – Side Swipe, Same Direction 2 – Rear End^ 1 – Non-Collision
2018**	1 – Rear End^ 1 – Angle Oncoming, Left Turn
2019**	1 – Broadside 1 – Angle Oncoming, Left Turn 2 – Rear End^
2020	2 – Broadside 1 – Non-Collision 3 – Rear End^
2021	1 – Angle Oncoming, Left Turn 1 – Non-Collision

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

^ Crash data analysis reports the top three contributing factors for rear end collisions as following too close, failure to maintain control, and excessive speed.

1st Avenue & L Street West

As indicated in Table 3.1, the total number of crashes has decreased in 2021 by 50% when compared to the total number of crashes in 2020 at the intersection of 1st Avenue and L Street West.

Table 3.1 Total number of State reported crashes separated into categories based on severity of crash

Intersection: 1st Avenue & L Street West			
Year	Number of Crashes	Injury Crashes	Property Crashes
2011	10	1	9
2012	6	1	5
2013	9	3	6
2014	8	2	6
2015	15	3	12
2016	18	2	16
2017	4	1	3
2018**	13	0	13
2019**	12	5	7
2020	6	0	6
2021	3	2	1

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

Table 3.2 Crash types by year

Intersection: 1st Avenue & L Street West	
Year	Crash Types
2017	1 – Broadside 3 – Rear End [^]
2018**	3 – Broadside 2 – Angle Oncoming, Left Turn 1 – Side Swipe, Same Direction 4 – Rear End [^] 2 – Improper Turn, Left 1 – Non-Collision
2019**	1 – Broadside 2 – Angle Oncoming, Left Turn 2 – Side Swipe, Same Direction 3 – Rear End [^] 4 – Improper Turn, Right
2020	2 – Rear End [^] 2 – Improper Turn – Right 1 – Angle Oncoming, Left Turn 1 – Improper Turn – Left
2021	1 – Broadside 2 – Rear End [^]

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

[^] Crash data analysis reports the top three contributing factors for rear end collisions as following too close, failure to maintain control, and excessive speed.

Edgewood Road & 42nd Street NE

As indicated in Table 5.1, there was one crash in 2021 at the intersection of Edgewood Road and 42nd Street NE. This is an increase from zero crashes in 2020, but a steady decrease in crashes at this location has been recorded since 2011.

Table 5.1 Total number of State reported crashes separated into categories based on severity of crash

Intersection: Edgewood Road & 42nd Street NE			
Year	Number of Crashes	Injury Crashes	Property Crashes
2011	7	2	5
2012	4	1	3
2013	4	1	3
2014	6	3	3
2015	3	1	2
2016	6	1	5
2017	4	3	1
2018**	3	0	3
2019**	4	1	3
2020	0	0	0
2021	1	1	0

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

Table 5.2 Crash types by year

Intersection: Edgewood Road & 42nd Street NE	
Year	Crash Types
2017	4 – Rear End [^]
2018**	3 – Rear End [^]
2019**	3 – Rear End [^] 1 – Angle Oncoming, Left Turn
2020	0 – No Crashes
2021	1 – Rear End [^]

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

[^] Crash data analysis reports the top three contributing factors for rear end collisions as following too close, failure to maintain control, and excessive speed.

Center Point Road & Collins Road Ramp

As indicated in Table 6.1, the total number of crashes in 2021 was the same as the total number of crashes in 2020 at the intersection of Center Point Road and Collins Road Ramp. The single crash in 2021 was a property damage crash with zero injury crashes recorded in 2021.

Table 6.1 Total number of State reported crashes separated into categories based on severity of crash

Intersection: Center Point Road & Collins Road Ramp			
Year	Number of Crashes	Injury Crashes	Property Crashes
2011	3	0	3
2012	2	0	2
2013	2	0	2
2014	6	3	3
2015	3	0	3
2016	3	0	3
2017	4	1	3
2018**	5	3	2
2019**	5	0	5
2020	1	1	0
2021	1	0	1

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

Table 6.2 Crash types by year

Intersection: Center Point Road & Collins Road Ramp	
Year	Crash Types
2017	3 – Broadside 1 – Angle Oncoming, Left Turn
2018**	4 – Broadside 1 – Improper Turn
2019**	3 – Broadside 1 – Angle Oncoming, Left Turn 1 – Rear End^
2020	1 – Broadside
2021	1 – Broadside

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused the inactive period for this location from September 2018 to June 2019. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

^ Crash data analysis reports the top three contributing factors for rear end collisions as following too close, failure to maintain control, and excessive speed.

CITATION TOTALS

The following table displays the total red-light and speed citations issued at all ATE monitored locations from 2011 through 2021.

Table 7.1 Total red-light and speed citations issued each calendar year

CITATION TOTALS											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1ST Avenue & 10th Street **											
Speed	491	374	663	1,252	1,593	2,101	893	41	7	2,774	12,859
Red-Light	293	541	412	696	700	811	1,111	1,046	610	847	879
TOTAL	784	915	1,075	1,948	2,293	2,912	2,004	1,087	617	3,621	13,738
1st Avenue & L Street **											
Speed	476	578	586	561	760	883	1,240	674	429	922	1,327
Red-Light	400	929	647	428	447	417	717	612	531	1,206	1,371
TOTAL	876	1,507	1,233	989	907	1,300	1,957	1,286	960	2,128	2,698
Williams Boulevard & 16th Street SW **											
Speed	1,107	1,101	1,322	985	1,355	1,400	1,021	620	100	303	2,240
Red-Light	425	509	637	379	373	434	316	195	103	351	621
TOTAL	1,532	1,610	1,959	1,364	1,728	1,834	1,337	815	203	654	2,861
Edgewood Road & 42nd Street NE **											
Speed	N/A	N/A	N/A	N/A	N/A	2,059	3,819	1,482	1,301	3,076	1,684
Red-Light	N/A	N/A	N/A	N/A	N/A	327	441	402	355	392	715
TOTAL	---	---	---	---	---	2,386	4,260	1,884	1,656	3,468	2,399
Center Point Road & Collins Road Ramp **											
Speed	N/A	N/A	N/A	N/A	N/A	964	932	525	236	162	762
Red-Light	N/A	N/A	N/A	N/A	N/A	0	0	5	18	410	1,247
TOTAL	---	---	---	---	---	964	932	530	254	572	2,009
Interstate 380 - Diagonal Drive SW Northbound **											
Speed TOTAL	9,190	10,109	4,218	8,249	10,775	12,161	3,621	0	10,831	17,492	24,889
Interstate 380 - J Avenue Northbound **											
Speed TOTAL	36,775	35,327	36,069	39,402	62,016	73,217	22,605	0	49,568	70,310	62,047
Interstate 380 - J Avenue Southbound **											
Speed TOTAL	44,775	38,052	44,529	56,650	57,265	56,879	16,706	0	55,206	74,162	76,544
Interstate 380 - 1st Avenue West Southbound **											
Speed TOTAL	1,226	986	1,234	770	1,186	1,591	506	0	1,201	1,552	2,045

** In April 2017, Iowa District Court ruled that IDOT had authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused inactive periods April 2017 through June 2019 on Interstate 380 and September 2018 through June 2019 for all other locations. Subsequently, the Iowa Supreme Court reversed this ruling in January 2019, reactivating the use of Automated Traffic Enforcement on state-maintained roadways in July 2019.

--- Citation totals are not available for this timeframe.

ATE SYSTEM CALIBRATION

Sensys Gatso, the City's third-party contractor, conducted annual calibration of each monitored lane of northbound and southbound Interstate 380 on October 11, 2021. Annual calibration for all other intersections within the city were conducted between the dates of September 9, 2021 and September 14, 2021.

The Cedar Rapids Police Department conducted quarterly calibration verification for all reported ATE systems on the following dates:

- February 2021
- May 2021
- August 2021
- December 2021

REVENUE AND USAGE

The City of Cedar Rapids partners with Sensys Gatso USA Inc. to assist with administering the Automated Traffic Enforcement Program.

- For red light citations, Sensys Gatso receives \$22.00 per paid citation and the City of Cedar Rapids receives \$78.00 per paid citation.
- For speed citations, Sensys Gatso receives \$20.00 per paid citation. The amount the City of Cedar Rapids receives for speed citations varies depending upon the citation's value.

Table 8.1 provides the percentage of citations that have been paid in full since the program was reinstated in July 2019.

Table 8.1 Total number of active citations and paid citations from July 2019 through December 2021

ATE Citations	
Total Active Citations	483,804
Total Paid Citations	279,859
Percentage of Citations Paid	57.85%

Revenue generated from the Automated Traffic Enforcement Program is directed to public safety. The budgeted revenue for Fiscal Year 2021 was \$5,575,000. This includes:

- Funding for 27 police officer positions (\$3,303,000)
- ATE Service Provider and Collection Costs (\$1,394,000)
- Public safety equipment (\$628,000)
- Social justice programs (\$250,000)

For additional information about the Cedar Rapids Automated Traffic Enforcement Program, visit www.cityofcr.com/ate or contact the Automated Traffic Enforcement Coordinator, Hannah Myrom, at 319-286-5716.