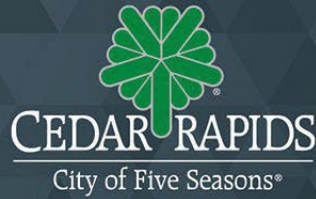# Cedar Rapids Police Department

Automated Traffic Enforcement Program

2022 Annual Report

CEDAR RAPIDS POLICE DEPARTMENT

AUTOMATED TRAFFIC ENFORCEMENT PROGRAM
2022 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 results 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. The information presented in this report will convey the ATE systems' considerable impact 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 in Cedar Rapids in 2010. In April 2017, the Iowa District Court ruled that the IDOT had the 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 the authority to prescribe to local law enforcement how to enforce traffic laws. The Cedar Rapids ATE program was reestablished 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 contributing factor. Based on an 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

Crashes on the I-380 "S-Curve" have decreased with the use of ATE compared to time periods when ATE was not in use. As Table 1.1 indicates, the average number of crashes with injury per month decreased by 49.5% and the average number of crashes per month decreased by 15.5%.

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

Average Number of Crashes per Month		
	Total Crashes	**Injury**
Pre-Camera	4.58	1.82
Post-Camera	3.87	0.92

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	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	**224**	**57**	**1**	**166**
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
	2022	29	8	0	21
	Total	**122**	**35**	**1**	**86**

* Data separated into pre-camera 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 on I-380

	Year	Number of Crashes	Crash Type	
Post-Camera Data	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
	2022	29	13 – Non-Collision 8 - Side Swipe 1 – Head On	3 – Rear-End 4 - Other/Unknown

Fixed Speed Cameras on Interstate 380

* Data separated into pre-camera 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.

^ 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 decreased in 2022 by 83% 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**
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
2022	1	0	1

** In April 2017, Iowa District Court ruled that IDOT had the 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 2 – Rear-End^ 4 – Angle Oncoming, Left Turn 1 – Non-Collision 1 – Side Swipe, Same Direction
2018**	1 – Rear End^ 1 – Angle Oncoming, Left Turn
2019**	1 – Broadside 2 – Rear-End^ 1 – Angle Oncoming, Left Turn
2020	2 – Broadside 3 – Rear-End^ 1 – Non-Collision
2021	1 – Angle Oncoming, Left Turn 1 – Non-Collision
2022	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.

1st Avenue & L Street West

As indicated in Table 3.1, the total number of crashes with injury remains unchanged from crashes with injury in 2021.

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**
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
2022	5	2	3

** 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**
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^
2022	2 – Broadside 2 – Rear-End 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.

Williams Boulevard SW & 16th Avenue SW

As indicated in Table 4.1, zero crashes were recorded in 2022 at the intersection of Williams Boulevard & 16th Avenue SW. In the past four years, there have been zero crashes with injury at this location.

Table 4.1 Total number of State reported crashes separated into categories based on severity of crash

Intersection: Williams Boulevard & 16th Street SW			
Year	**Number of Crashes**	**Injury Crashes**	**Property Crashes**
2012	7	0	7
2013	5	0	5
2014	6	0	6
2015	9	1	8
2016	7	2	5
2017	8	1	7
2018**	11	3	8
2019**	4	0	4
2020	5	0	5
2021	0	0	0
2022	0	0	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 4.2 Crash types by year

Intersection: Williams Boulevard & 16th Street SW	
Year	**Crash Types**
2018**	5 – Rear-End**^** 4 – Angle Oncoming, Left Turn 2 – Side Swipe, Same Direction
2019**	2 – Rear-End**^** 1 – Angle Oncoming, Left Turn 1 – Side Swipe, Same Direction
2020	1 – Rear-End**^** 4 – Angle Oncoming, Left Turn
2021	0 – Crashes
2022	0 - Crashes

** 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, in 2022, there was one property crash and zero injury crashes at the intersection of Edgewood Road and 42nd Street NE.

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**
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
2022	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 5.2 Crash types by year

Intersection: Edgewood Road & 42nd Street NE	
Year	**Crash Types**
2018**	3 – Rear-End^
2019**	3 – Rear-End^ 1 – Angle Oncoming, Left Turn
2020	0 – No Crashes
2021	1 – Rear-End^
2022	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 2022 at this intersection has increased since 2021. A leading cause of these accidents is motorists running a red light and either being broadsided or broadsiding traffic traveling West on Collins Road ramp.

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**
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
2022	7	3	4

** 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**
2018**	4 – Broadside 1 – Improper Turn
2019**	3 – Broadside 1 – Rear-End^ 1 – Angle Oncoming, Left Turn
2020	1 – Broadside
2021	1 – Broadside
2022	6 – Broadside 1 – Left Turn

** 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 2012 through 2022.

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

CITATION TOTALS											
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
1ST Avenue & 10th Street **											
Speed	374	663	1,252	1,593	2,101	893	41	7	2,274	12,859	13,427
Red-Light	541	412	696	700	811	1,111	1,046	610	847	879	1,152
TOTAL	915	1,075	1,948	2,293	2,912	2,004	1,087	617	3,621	13,738	14,579
1st Avenue & L Street **											
Speed	578	586	561	760	883	1,240	674	429	922	1,327	314
Red-Light	929	647	428	447	417	717	612	531	1,206	1,371	714
TOTAL	1,507	1,233	989	907	1,300	1,957	1,286	960	2,128	2,698	1,028
Williams Boulevard & 16th Street SW **											
Speed	1,101	1,322	985	1,355	1,400	1,021	620	100	303	2,240	5,018
Red-Light	509	637	379	373	434	316	195	103	351	621	1,039
TOTAL	1,610	1,959	1,364	1,728	1,834	1,337	815	203	654	2,861	6,057
Edgewood Road & 42nd Street NE **											
Speed	N/A	N/A	N/A	N/A	N/A	3,819	1,482	1,301	3,076	1,684	1,939
Red-Light						441	402	355	392	715	750
TOTAL	---	---	---	---	---	4,260	1,884	1,656	3,468	2,399	2,689
Center Point Road & Collins Road Ramp **											
Speed	N/A	N/A	N/A	N/A	N/A	932	525	236	162	762	858
Red-Light						0	5	18	410	1,247	806
TOTAL	---	---	---	---	---	932	530	254	572	2,009	1,664
Interstate 380 - Diagonal Drive SW Northbound **											
Speed **TOTAL**	10,109	4,218	8,249	10,775	12,161	3,621	0	10,831	17,492	24,889	28,051
Interstate 380 - J Avenue Northbound **											
Speed **TOTAL**	35,327	36,069	39,402	62,016	73,217	22,605	0	49,568	70,310	62,047	55,673
Interstate 380 - J Avenue Southbound **											
Speed **TOTAL**	38,052	44,529	56,650	57,265	56,879	16,706	0	55,206	74,162	76,544	70,130
Interstate 380 - 1st Avenue West Southbound **											
Speed **TOTAL**	986	1,234	770	1,186	1,591	506	0	1,201	1,552	2,045	3,070
Mobile Speed Camera (All Locations)											
Speed **TOTAL**	--	--	--	--	--	--	--				

** In April 2017, Iowa District Court ruled that IDOT had the authority to regulate Automated Traffic Enforcement on state-maintained roadways. This caused inactive periods from 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, installed new equipment at each location. The new equipment has a single radar device capable of monitoring up to six traffic lanes and providing higher-quality color images. The annual calibration of each monitored lane of northbound and southbound Interstate 380 occurred between July 11, 2022, and September 16, 2022.

Annual calibration for all other ATE-monitored intersections within the city was conducted on July 12, 2022.

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

- January 2022
- April 2022
- July 2022
- October 2022

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 $18.00 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 2022

ATE Citations	
Total Active Citations	665,844
Total Paid Citations	352,359
Percentage of Citations Paid	**52.92%**

Revenue generated from the Automated Traffic Enforcement Program is directed to public safety. The budgeted revenue for Fiscal Year 2023 is $5,939,900. This includes:

- Funding for 33 police officer positions ($4,100,000)
- ATE Service Provider and Collection Costs ($1,400,000)
- Public Safety Equipment (i.e. body camera maintenance support) and Designated Programs ($439,900)

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.