



May 10, 2017

Mr. Tim Crouch  
Office of Traffic and Safety  
Iowa DOT  
800 Lincoln Way  
Ames, Iowa 50010

Dear Sir:

Pursuant to DOT rule 761 - 144.7 of the Iowa Administrative Code, the City of Cedar Rapids submits this report on its Automated Traffic Enforcement system for calendar year 2016. In so doing, however, the City does not acknowledge the validity of that rule as applied to Cedar Rapids, nor does it concede the report forms a valid basis for any evaluation by which the DOT purports to require changes to the City's ATE program.

**Crash Data Summation:**

Pre-ATE Period

Between January 1, 2007 and that part of 2010 before ATE was operational (a period of 41 ½ months), the City recorded 213 crash events on I-380. Of the 213 crashes, 92 involved at least one driver or passenger being injured. Three of those 92 crashes involved fatalities with a combined death toll of four. Researching crashes back to 2003 the City averaged 1 fatal crash per year along the stretch of I-380 currently monitored by ATE.

We ask you to note that in the DOT's Evaluations of the City's ATE program, the IDOT omits some crash data, namely 2 fatal crashes, one in 2004 and the other in 2009. The crash in 2004 killed 4 people. This inaccuracy in data creates inaccuracy of DOT's evaluations.

Post-ATE Period (through 12/31/16)

Since the start of ATE in 2010, through 2016, (a period of 78½ months), the City recorded 260 crash events on I-380. Of the 260 crashes, 67 resulted in at least one driver or passenger being injured. One crash resulted in the death of two people.

**Comparison of Pre-ATE and Post ATE Periods:**

The rate of collisions per month

Before ATE – 5.13 crashes per month  
after ATE (through 12/31/16) - 3.29 crashes per month

The rate of personal injuries (not including death) per month

Before ATE was - 2.2 personal injury crashes per month  
After ATE (through 12/31/16) - .81 injury crashes per month

There has been one fatal crash in the 7 years since the ATE program was started compared to 5 fatal crashes in the 6 years prior to ATE.

**Cedar Rapids Police Department**  
505 First Street SW • Cedar Rapids, Iowa 52404-2103  
(319) 286-5375 • FAX (319) 286-5462

To date there has not been a reported rear end crash at either camera location on I-380 which DOT regards as being in violation of the so called 1000 foot rule. The rationale behind that rule was that the presence of the cameras would cause drivers to “slam” on their brakes to avoid a citation. But this has not proven to be true -- no such crash has occurred in the nearly seven years ATE has been used there. The City continues to dispute the need for and logic of the 1000 foot rule but have asked the DOT, in the spirit of inter-agency cooperation, to move the 55 mph speed limit signs to create a 1000 foot distance between the signs and the locations of the ATE equipment. Unfortunately, the DOT has never responded directly to this request. The DOT has installed new signs, however, which are well beyond the 1000 foot mark, to warn of the 55 mph speed limit change ahead. To date, no reason has been provided why those signs could not have marked the point at which the speed limit drops from 60 to 55mph, so as to create a 1000 foot distance. This would address the DOT’s stated concern about rear end collisions with virtually no additional time or disruption to traffic. The City would certainly pay for this to avoid the additional cost, time and disruption associated with moving ATE equipment from the very locations where DOT directed they be installed.

Approximately 1.2 million vehicles have passed the cameras each month. Of those vehicles, less than .05% were traveling at least 12 mph over the posted speed limit, for which they received an ATE citation. Stated otherwise, 99.05% of those passing the cameras were not cited. The data does not support DOT’s characterization that the rate of citation is extremely high.

For traffic heading into the S-Curve (inbound traffic), the IDOT has directed the City to move or disable ATE equipment because violations are detected at a point just 150 feet or less short of the 1000 foot mark. It is implausible, however, to believe vehicles will decelerate from 67 to 55 mph within a mere 150 feet. While the City acknowledges DOT’s desire to establish a statewide standard for the distance between any drop in the posted speed limit and ATE enforcement (a position with which the City disagrees), the rule is inappropriate with respect to Cedar Rapids’ I-380 cameras. Given that IDOT directed the City where to install the cameras, and the probability that vehicles cannot slow from 67 to 55 mph in 150 feet, the City maintains that the 150 foot “shortfall” should be waived.

There are also two ATE locations for traffic heading out of the S-curve (outbound traffic): I-380 southbound at the 1<sup>st</sup> Ave west exit and I-380 northbound at J Ave NE. The DOT has ordered them removed as being “outside the area of concern.” To address this, these ATE units can be moved closer to the center of the S-curve. See the enclosed map in appendix “A,” describing proposed new locations. This would put ATE units for traffic heading out of the S-curve inside the area of concern and also preserve the two-cameras-per-direction which DOT originally permitted. As the City and DOT previously agreed, a pairing of ATE units ensures that motorists maintain a safe speed throughout the “S” curves, while a single ATE unit for traffic heading into the S-curve ensures only a safe speed at that single point.

Rules promulgated by the DOT state that ATE should only be used at a location with a high crash history and a proven hazardous location. There is no dispute that the “S” curves are hazardous and have a history of crashes. DOT has acknowledged that fact. The first (and to date only) fatal crash in seven years inside the S-curve actually highlights the continued hazards in that stretch of I-380. At the time of that crash in November, 2016, officers were positioned to warn motorists of an accident that had just occurred in the same area. They used their car as a “cover car” by parking it on the shoulder, off the travel lanes, with the arrow stick light activated on the back of the squad directing other drivers to move to the left, clear of the accident. Still, another car approaching from north of the accident struck the cover car, killing the occupants of that other car and injuring the officers in the cover car. One officer remains unable to return to work.

Denying Cedar Rapids the option of using ATE as originally designed and permitted by the DOT will significantly increase the risk of speed related accidents, in turn causing significantly increased hazards such as those which led to the one fatality accident which has occurred on the S- curve since the use of ATE there. The DOT’s actions regarding ATE on the S- curve place an arbitrary and undue emphasis on the 1000 foot rule while ignoring the hazards of traditional enforcement in that area. Taking away a speed reduction program proven to lower the incidence of serious crashes will almost certainly mean more crashes and, in turn, a far greater chance for additional tragedy.

Intersection: 1st Ave and L St West

Year	Number of Crashes	Injury Crashes	Property Crashes	Crash Types	RLR Violations Issued	Speed Violations Issued
<b>2008</b>	19	4	15		NA	NA
<b>2009</b>	11	2	9		NA	NA
<b>2010*</b>	20	3	17	See Attached Diagrams	NA	NA
<b>2011</b>	10	1	9		400	476
<b>2012</b>	6	1	5		929	578
<b>2013</b>	9	3	6		647	586
<b>2014</b>	8	2	6		428	561
<b>2015</b>	15	3	12		447	760
<b>2016</b>	18	2	16		417	883

Camera Installed 6/1/2010

Intersection: 1st Ave and 10th St East

Year	Number of Crashes	Injury Crashes	Property Crashes	Crash Types	RLR Violations Issued	Speed Violations Issued
<b>2008</b>	10	2	8		NA	NA
<b>2009</b>	15	2	13		NA	NA
<b>2010*</b>	6	1	5	See Attached Diagrams	NA	NA
<b>2011</b>	4	0	4		293	491
<b>2012</b>	12	0	12		541	374
<b>2013</b>	9	2	7		412	663
<b>2014</b>	13	3	10		696	1252
<b>2015</b>	9	3	6		700	1593
<b>2016</b>	5	2	3		811	2101

Cameras installed 3/14/2010

Intersection: Williams and 16th SW

Year	Number of Crashes	Injury Crashes	Property Crashes	Crash Types	RLR Violations Issued	Speed Violations Issued
<b>2008</b>	13	3	10		NA	NA
<b>2009</b>	14	6	8		NA	NA
<b>2010*</b>	8	3	5	See Attached Diagrams	NA	NA
<b>2011</b>	6	1	5		425	1107
<b>2012</b>	7	0	7		509	1101
<b>2013</b>	5	0	5		637	1322
<b>2014</b>	6	0	6		379	985
<b>2015</b>	9	1	8		373	1355
<b>2016</b>	7	2	5		434	1400

Camera Installed 12/18/2010

## Fixed Speed Cameras Located I-380 between mm 19-22 By Crash Type

	<b>Year</b>	<b>Number of Crashes</b>	<b>Non Collision</b>	<b>Rear- End</b>	<b>SideSwipe</b>	<b>Other</b>	<b>Unknown</b>
<b>Pre-Camera Data</b>	<b>2007</b>	54	20	13	16	2	2
	<b>2008</b>	67	25	13	20	5	4
	<b>2009</b>	69	19	15	18	13	4
	<b>2010</b>	23	12	3	5	0	0
<b>Post-Camera Data</b>	<b>2010</b>	12	3	2	5	2	0
	<b>2011</b>	32	10	8	10	4	0
	<b>2012</b>	36	14	16	5	0	1
	<b>2013</b>	38	10	11	15	2	0
	<b>2014</b>	46	24	10	9	3	0
	<b>2015</b>	46	17	6	2	5	0
	<b>2016</b>	50*	14	13	9	1	13

## Fixed Speed Cameras Located I-380 Between mm 19-22

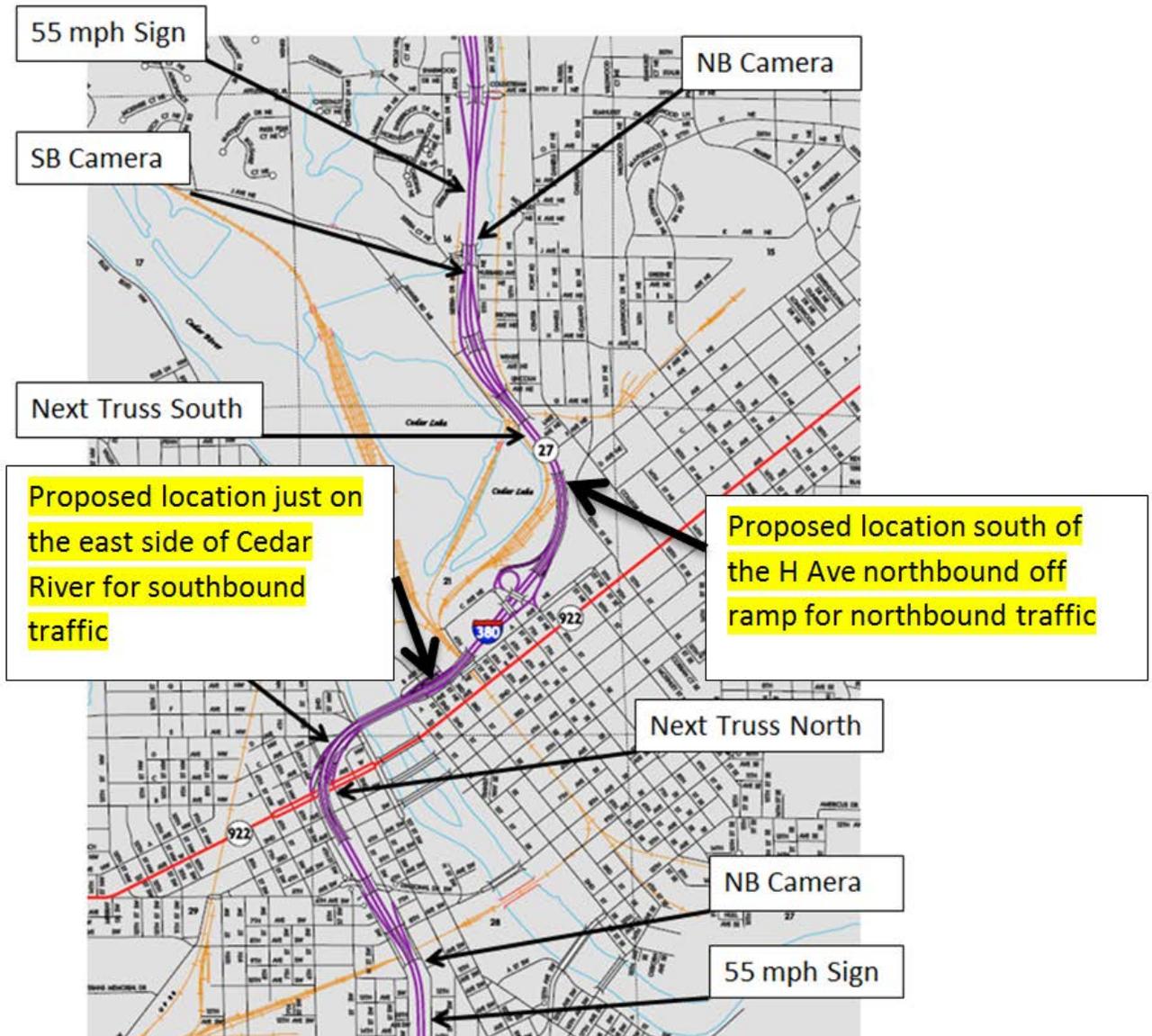
Fatal vs injury vs property damage accidents

	YEAR	Number of Crashes	Injury Crashes	Fatal Crashes	Property Damage Crashes
Pre-camera Data	<b>2007</b>	54	21	0	33
	<b>2008</b>	67	32	1	35
	<b>2009</b>	69	32	2	37
	<b>2010</b>	23	7	0	16
	<b>Total</b>	<b>213</b>	<b>92</b>	<b>3</b>	<b>121</b>
Post-Camera Data	<b>2010</b>	12	2	0	10
	<b>2011</b>	32	9	0	23
	<b>2012</b>	36	15	0	21
	<b>2013</b>	38	10	0	28
	<b>2014</b>	46	12	0	34
	<b>2015</b>	46	10	0	36
	<b>2016</b>	50	9	1	40
	<b>Total</b>	<b>260</b>	<b>67</b>	<b>1</b>	<b>192</b>

### Citation Totals I-380

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Diagonal Dr. SW NB	9190	10109	4218	8249	10775	12161
J Ave. NB	36775	35327	36069	39402	62016	73217
J Ave. SB	44775	38052	44529	56650	57265	56879
1st Ave West Ramp SB	1226	986	1234	770	1186	1591

**APPENDIX A**



**APPENDIX B**

