



Iowa Department of Transportation

2010 5 PERCENT MOST SEVERE SAFETY NEEDS REPORT

Background

Section 1401 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) amended Section 148 of Title 23 USC to create a new Highway Safety Improvement Program (HSIP) as a “core” Federal Highway Administration program with separate funding. The purpose of the HSIP is to reduce traffic fatalities and serious injuries on public roads. As part of the new HSIP, states are required to submit an annual report describing not less than 5 percent of their highway locations exhibiting the most severe safety needs. The intent of this provision is to raise public awareness of highway safety needs and challenges in the states.

This report must include an assessment of:

- potential remedies to hazardous locations identified;
- estimated costs associated with remedies; and
- impediments to implementation other than cost.

Discussion

Highway crashes are very complex. Contributing factors can include a roadway’s design and/or pavement conditions (e.g. rain, snow and ice), a vehicle’s mechanical condition (e.g. tires, brakes, lights), a driver’s behavior (e.g. speeding, inattentiveness and seat belt usage), as well as the driver’s condition (e.g. alcohol use, age-related conditions, physical impairment). In fact, the driver’s behavior and condition factors are the primary cause in an estimated 67 percent of highway crashes and a contributing factor in an estimated 95 percent of all crashes.

As such, highway safety needs go beyond just physical improvements to a specific roadway or intersection, and include changes to driver behavior. These are best addressed with a multi-disciplinary approach using engineering, enforcement, emergency response, and education strategies.

Iowa’s most severe safety needs

Based on an analysis of Iowa’s 2001–2009 fatal and major injury crashes, Iowa’s most severe safety needs are related to crashes involving:

- single vehicles running off the road;
- vehicles crossing the centerline on two-lane highways
- vehicles crossing the medians on freeways;
- horizontal curves

- intersections
- unbelted drivers and passengers;
- impaired drivers; and
- speeding.

The analysis following this discussion identifies the 5 percent of Iowa's most severe safety needs in each of the areas listed above.

Historically, the Iowa DOT's intersection "Safety Candidate List" identified the 200 highest ranked intersections relative to crash history. Iowa's 5 percent most severe intersection safety needs are the highest 5 percent of these intersections (10 intersections). There are more than 100,000 miles of public roads in Iowa. Candidate roadway safety projects are the 5,000 miles of roadway with the greatest crash history. Therefore, Iowa's 5 percent most severe corridor safety needs are 5 percent of these 5,000 miles (250 miles).

Iowa, like many low populated rural states, has relatively low traffic volumes on most of its 113, 836 miles of public roads. As such it requires crash data from a large number of years to confidently identify locations with high concentrations of fatal and major injury crashes. This FY 2011 5 percent most severe safety needs report is based on nine years of crash data (2001-2009). It is the Iowa Department of Transportation's goal to base future reports on ten years of crash data. Due to a crash report form change per MMUCC guidelines, Iowa crash data prior to 2001 are of sufficiently different format from those data post-2001 to greatly complicate and confound the analysis of our 5% topics.

Proposed Improvements and Schedules

In establishing engineering, education, enforcement, and emergency response priorities, state agencies consider factors beyond those depicted in this report. For instance, decisions regarding any roadway or intersection improvements are based on detailed engineering studies that consider the strategies most appropriate for site-specific conditions, as well as the cost and anticipated effectiveness of those improvements. Scheduling of these improvements is also contingent upon the availability of highway safety improvement funds.

The following pages detail Iowa's most severe 5 percent safety needs for Federal Fiscal Year 2011. These initial analyses are based on 2001-2009 crash and roadway data bases. A review of each site will be necessary to ascertain the appropriateness of each intersection or corridor in this report.



9/28/10

Steve Gent, P.E.
Director
Office of Traffic and Safety

Date



Iowa Department of Transportation

GTSB Statewide Enforcement Effort Explanation

Background

When the Iowa 5% Severe Safety Needs per Section 1401 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was first formulated, statewide enforcement efforts, as coordinated by the Governor's Traffic Safety Bureau (GTSB), were being directed at corridor-based enforcement. Thus, basing selection and response on identification of corridors related to enforcement-related topics such as speeding, driver impairment, and unbelted drivers or passengers was initiated. However, GTSB has refocused their method of operation to promote inclusion and saturation based on regions or areas rather than corridors. Thus, rather than encouraging enforcement efforts on a particular corridor or particular topic, the efforts are directed towards covering large areas and encouraging all enforcement agencies within the areas to be more involved and capture violations across topics. They hope to foster greater sustainability of enforcement efforts and awareness of these efforts by the public in order to affect a change in mindset with regard to traffic safety.

Discussion

In essence, GTSB has divided the state into 5 somewhat overlapping regions, 3 proceeding from north to south and spanning the state from east to west (Southern Exposure, Operation Midway, and Northern Lights) and 2 dividing the state east and west (Eastern Heat and Westward Expansion). Using these 5 regions and 2 additional statewide operations, GTSB encourages enforcement agencies within the regions to participate in region-wide enforcement awareness efforts through 7 annual efforts:

- Southern Exposure - 2 days in April (southern third of Iowa),
- Operation Midway - 2 days in May (middle third of Iowa),
- Northern Lights - 2 days in June (northern third of Iowa),
- Operation "I"s - 2 days in July (statewide interstates),
- Eastern Heat - 2 days in August (eastern half of Iowa - east of I-35),
- Child Passenger Safety and Mobile Eyes Corridor - 2 days in September (statewide), and
- Western Expansion - 2 days in October (western half of Iowa - west of I-35).

Additionally, GTSB sponsors 5 Statewide Traffic Enforcement Program (STEP) waves:

- St. Patrick's Day (5 days in March),
- Memorial Day/C.I.O.T. (Click It Or Ticket) (14 days in May/June),
- Independence Day (4 days in July),
- Labor Day/Over the Limit - Under Arrest (14 days in August/September), and
- Thanksgiving (7 days in November).

It should be noted that, though a couple of these mention specific programs or topics, enforcement are encouraged to maintain their awareness across all topics. The special

STEP topics for Memorial Day and Labor Day are scheduled in conjunction with national efforts.

Through these two programs, though not targeted specifically to the identified corridors, enforcement efforts throughout the state cover each county a minimum of 8 times throughout each year, hopefully encouraging sustained enforcement efforts and awareness by the public. We have discussed with GTSB the possibility of sharing the information related to these corridors with the agencies in the region who might then be more aware of the need along these corridors during the enforcement campaigns and, for that matter, in general throughout their normal operations.

Highest Fatal & Major Injury Single Vehicle Run-off-Road Crash Density Corridors
Rural Primary and Paved Secondary Roads
2001 to 2009

JURISDICTION	LENGTH (miles)	DISTRICT	COUNTY	ROUTE	ROAD NAME	FROM	TO	FATAL AND MAJOR INJURY SINGLE VEHICLE RUN-OFF-ROAD CRASHES	ANNUAL FATAL AND MAJOR INJURY SINGLE VEHICLE RUN-OFF-ROAD CRASH DENSITY (CRASHES/MI/YR)	Potential Remedies /Improvement (1)	Estimated Costs	Impediments	Status/ Program Fiscal Year	Project #	Description
PRIMARY	3.9	5	HENRY	US 218		-0.1 MI SOUTH OF 185TH ST	-0.25 MI NORTH OF 150TH ST	6	0.172	b	(2)	(3)			
PRIMARY	5.5	5	MARION	IOWA 5		-0.4 MI WEST OF 60TH AVE	MCKIMBER ST INTERCHANGE	7	0.143	a			2007	STP-005-2(35)--2C-68	Two Lane Paved Shoulders
PRIMARY	5.2	6	LINN	US 151	DUBUQUE RD	-0.2 MI EAST OR CORPORATE BOUNDARY OF MARION	SOUTH CORPORATE BOUNDARY OF SPRINGVILLE	6	0.129	a	\$1,133,880	None	2010		4' paved shoulders were constructed in 2010
SECONDARY	7.1	4	MILLS	L-35	221ST ST	INTERSECTION OF 225TH ST	MILLS/POTTAWATTAMIE COUNTY BORDER	8	0.125	b	(2)	(3)			
SECONDARY	4.8	1	MARSHALL	E-35	MAIN ST RD	EAST CORPORATE BOUNDARY OF MARSHALLTOWN	INTERSECTION OF ZELLER AVE	5	0.117	f	\$496,120	None	2011 (4)	L-TSF-C064(111)--74-64	Upgrade and add chevron signs, add deer crossing signs and solar powered flashing red
PRIMARY	9.4	1	BOONE	US 30	220TH ST	WEST CORPORATE BOUNDARY OF BOONE	INTERSECTION OF X AVE	9	0.107	a			2006	HES-30-4(72)--2H-08	Expressway Paved Shoulder
PRIMARY	7.4	5	DES MOINES	US 61		LEE/DES MOINES COUNTY BORDER	INTERSECTION OF WEST AVE	7	0.106	a	\$1,620,080	None	2010		
PRIMARY	6.1	5	MUSCATINE	US 61		-0.1 MI SOUTH OF MITTMAN RD	-0.1 MI EAST OF ISETT AVE	5	0.090	b	(2)	(3)			
PRIMARY	6.5	5	JEFFERSON	US 34		INTERSECTION OF ASH ST	INTERSECTION OF HEMLOCK AVE	5	0.086	b	(2)	(3)			
PRIMARY	6.9	6	JOHNSON	US 6		SOUTH CORPORATE BOUNDARY OF IOWA CITY OR 420TH ST	JOHNSON/MUSCATINE COUNTY BORDER	5	0.081	a	\$1,057,900	None	2010		4' shoulders and CL rumble strips were added in 2010.
PRIMARY	7.2	5	MUSCATINE	US 61		INTERSECTION OF TUCKER AVE	-0.1 MI EAST OF 153RD ST	5	0.077	a	\$1,587,080	None	2011	TSF-61-4(108)--92-70	Add inside/outside shoulders and rumble strips
PRIMARY	7.2	5	LEE	US 61		-0.15 MI WEST OF 335TH ST	LEE/DES MOINES COUNTY BORDER	5	0.077	a	\$1,594,120	None			
SECONDARY	9.0	4	POTTAWATTAMIE	L-34	ROAD L34	INTERSECTION OF RAILROAD HWY	INTERSECTION OF SUMAC RD	6	0.074	b	(2)	(3)			
PRIMARY	7.7	2	BUTLER	IOWA 57		EAST CORPORATE BOUNDARY OF PARKERSBURG OR IOWA 14	BUTLER/GRUNDY COUNTY BORDER OR WESTBROOK ST	5	0.072	a	\$849,420	None	2010		
PRIMARY	7.7	1	JASPER	IOWA 163	IOWA 163 W	WEST CORPORATE BOUNDARY OF PRAIRIE CITY	QUICKSILVER AVE INTERCHANGE	5	0.072	e			2008	HSIPX-163-2(54)--3L-50	
PRIMARY	12.5	5	WASHINGTON	US 218		INTERSECTION OF 240TH ST	SOUTH CORPORATE BOUNDARY OF RIVERSIDE	8	0.071	a			2007	HES-218-3(74)--2H-92	Expressway Paved Shoulder
PRIMARY	11.4	2	WINNESHIEK	IOWA 139		POLE LINE RD	IOWAMINNESOTA STATE BORDER	7	0.068	a	\$1,257,080	None	2011		
PRIMARY	9.8	1	WEBSTER	US 20	235TH ST	QUAIL AVE INTERCHANGE	WEBSTER/HAMILTON COUNTY BORDER OR CO RD R19/CHASE AVE	6	0.068	a	\$2,160,180	None	2009	NHSX-020-3(167)--3H-94	
PRIMARY	10.5	6	CLINTON	US 61		INTERSECTION OF 212TH ST	IOWA 136 INTERCHANGE	6	0.064	a			2007	NHSX-061-6(68)--3H-23	4' were added on this section last year.
SECONDARY	8.8	5	WASHINGTON	W-55	WAYLAND RD	WASHINGTON/HENRY COUNTY BORDER	SOUTH CORPORATE BOUNDARY OF WASHINGTON	5	0.063	a	\$500,000	None	2011 (4)	FM-TSF-C092(77)--5B-92	Pave shoulders and add rumble strips
PRIMARY	8.9	6	JOHNSON	US 6		JOHNSON/IOWA COUNTY BORDER	DEER VIEW AVE	5	0.063	a	\$974,600	None	2011		Project next year would include shoulders, rumble strips in addition to guardrails, safety dikes and clear zone obstructions.
SECONDARY	9.2	4	MADISON	G050	SAINT CHARLES RD	INTERSECTION OF MAPLE LN	INTERSECTION OF VALLEYVIEW AVE	5	0.061	b	(2)	(3)			
PRIMARY	9.5	5	MARION	IOWA 163		MARION/JASPER COUNTY BORDER	WEST CORPORATE BOUNDARY OF PELLA	5	0.058	a	\$1,550,890	None	2008 (5 miles)		
PRIMARY	14.1	5	MARION	IOWA 5		ATTICA RD INTERCHANGE	MARION/MONROE COUNTY BORDER	7	0.055	a			2007	STP-005-2(35)--2C-68	Two Lane Paved Shoulders
SECONDARY	10.3	4	HARRISON	F20L	EASTON TRL	EAST CORPORATE BOUNDARY OF PISGAH	-0.6 MI EAST OF ONEIDA AVE	5	0.054	f	(2)	None	2011 (4)		
PRIMARY	15.0	6	CLINTON	US 30		S 6TH AVE INTERCHANGE	-0.3 MI EAST OF MILL CREEK PKWY	7	0.052	b	(2)	(3)	2013		This project would consist of adding paved shoulders and the upgrading of other safety features.
PRIMARY	12.0	5	JEFFERSON	US 34		EAST CORPORATE BOUNDARY OF FAIRFIELD	JEFFERSON/HENRY COUNTY BORDER	5	0.046	b	(2)	(3)			
PRIMARY	20.4	4	POTTAWATTAMIE	US 6		-0.1 MI WEST OF HUNT AVE	SOUTH CORPORATE BOUNDARY OF OAKLAND	8	0.044	a	\$2,240,480	None	2010	STP-6-1(118)--2C-78	Project is completed but not finalized.
PRIMARY	15.3	6	JACKSON	US 61		NORTH CORPORATE BOUNDARY OF MAQUOKETA	JACKSON/DUBUQUE COUNTY BORDER	6	0.043	b	(2)	(3)			
SECONDARY	13.4	3	PLYMOUTH	C-60		INTERSECTION OF K-42	INTERSECTION OF POLK AVE	5	0.041	d	\$500,000	None	2011 (4)	FM-TSF-C075(125)--5B-75	Widen shoulders, flatten foreslopes and improve vertical curves
PRIMARY	20.5	2	ALLAMAKEE	IOWA 76		NORTH INTERSECTION OF IOWA 9	ALLAMAKEE/CLAYTON COUNTY BORDER	6	0.032	a			2009		Previous only to NCL Waukon?
PRIMARY	19.7	6	JACKSON	US 52	GREAT RIVER ROAD	SW CORPORATE BOUDNARY OF BELLEVUE	WEST CORPORATE BOUNDARY OF SABULA	5	0.028	b	(2)	(3)			
SECONDARY	21.9	6	JACKSON	D061	BELLEVUE-CASCADE RD	INTERSECTION OF BERNARD RD	INTERSECTION OF ANSEL BRIGGS HWY	5	0.025	b	(2)	(3)			

Total miles = 344.7

ROADWAYS INCLUDED

1. Rural, primary two-lane
2. Rural, primary multi-lane divided (non-freeway)
3. Paved NEXTary

QUALIFYING CONDITIONS

1. At least twice statewide average fatal and major injury SVRROR crash density.
2. At least five fatal or major injury SVRROR crashes during analysis period.

STATEWIDE AVERAGE = 0.012 FATAL AND MAJOR INJURY SVRROR CRASHES/MILE/YEAR

Footnotes:

(1) Potential Remedies/Improvements

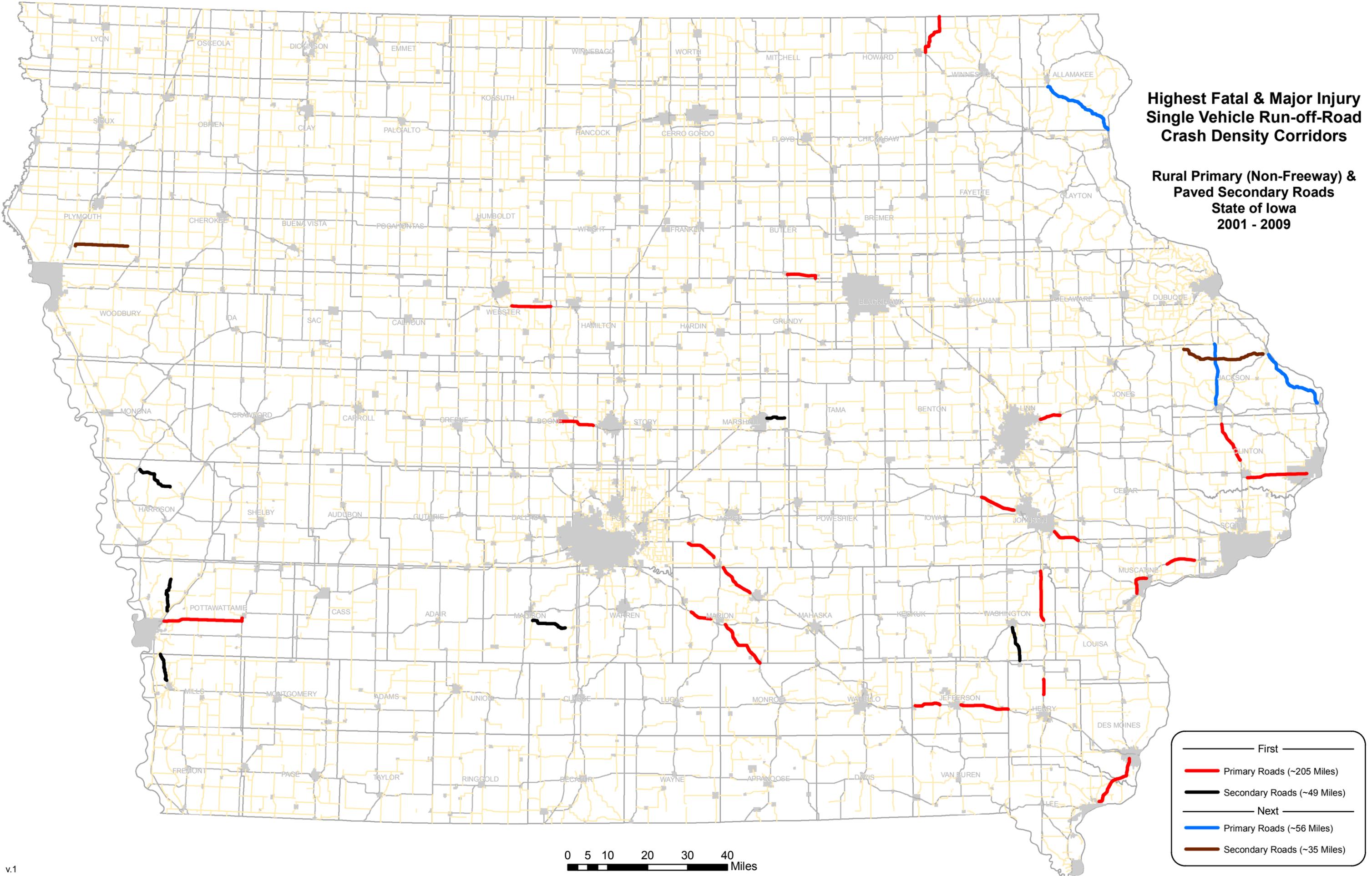
- a. Paving a part of the shoulder and installing shoulder rumble strips
 - b. Study needed. Alternatives include:
 1. Paving a part of the shoulder and installing shoulder rumble strips
 2. Installing rumble strips along the edge of the pavement
 3. Widen the shoulder
 - c. Upgrading roadway adding two-foot paved shoulders and intermittent shoulder rumble strips
 - d. Improved curve
 - e. Converted 2-lane to 4-lane roadway
 - f. Traffic Control Devices (TCD) and/or signing
- (2) Cost estimate is unknown until after study is completed.
(3) Possible impediments are unknown until after a study is completed. There could be environmental or right-of-way impediments if shoulder widening is required.
(4) State Traffic Safety Funds (TSF) applied for.

Appears in previous report as under consideration or in plan

Appears in previous report as completed

Highest Fatal & Major Injury Single Vehicle Run-off-Road Crash Density Corridors

Rural Primary (Non-Freeway) & Paved Secondary Roads
State of Iowa
2001 - 2009



	First
	Primary Roads (~205 Miles)
	Secondary Roads (~49 Miles)
	Next
	Primary Roads (~56 Miles)
	Secondary Roads (~35 Miles)

Highest Multiple Vehicle Cross Centerline (MVCC) Crash Density Corridors

Rural Primary Two-lane and Paved Secondary Roads

2001 to 2009

JURISDICTION	LENGTH (miles)	DISTRICT	COUNTY	ROUTE	FROM	TO	TOTAL MULTI-VEHICLE CROSS CENTERLINE CRASHES	TOTAL INTERSECTION-RELATED MVCC CRASHES*	FATAL/MAJOR INJURY MVCC CRASHES*	ANNUAL MULTI-VEHICLE CROSS CENTERLINE CRASH DENSITY (CRASHES/MI/YR)	POTENTIAL REMEDIES	ESTIMATED COST	IMPEDIMENTS	Status/Program Fiscal Year	ADDITIONAL DETAILS
SECONDARY	1.243	1	WEBSTER	QUAIL AVE	~0.05 MI NORTH OF NW RAMP CURV (US 20)	~0.2 MI SOUTH OF 220TH ST (Just south of the SE corner of Fort Dodge)	10	0	4	0.894	(1)	\$12,430.00	(2)		
SECONDARY	1.128	4	HARRISON	LOESS HILLS TRL	HARRISON/POTTAWATTAMIE CO LINE	~0.3 MI SOUTH OF KERMIT PL (Just south of Missouri Valley)	6	0	1	0.591	(1)	\$11,280.00	(2)		
PRIMARY	2.172	1	TAMA	US 30	~0.3 MI EAST OF F AVE AND ~0.3 MI EAST OF MP-198	~0.3 MI EAST OF H AVE AND ~0.45 MI WEST OF MP-201 (Just to the west of Tama)	10	2	3	0.512	(1)	\$21,720.00	(2)		
PRIMARY	1.496	3	PLYMOUTH	IOWA 404	IA 60	END OF ROAD (At intersection with Plymouth St. in Le Mars)	6	2	0	0.446	(1)	\$14,960.00	(2)		Spot overlays and patches (2011), bridge deck overlay and guardrail (2012)
PRIMARY	2.554	3	SIOUX	US 75	450TH ST AND ~0.13 MI NORTH OF MP-133	~0.5 MI NORTH OF 430TH ST AND ~0.4 MI NORTH OF MP-135 (between Sioux Center and Maurice)	6	0	0	0.261	(1)	\$25,540.00	(2)		
PRIMARY	5.137	5	WAPELLO	US 63	DAVIS/WAPELLO CO LINE AND ~0.25 MI NORTH OF MP-27	~0.3 MI SOUTH OF RIVER RD AND ~0.1 MI SOUTH OF MP-32 (Just south of the SE corner of Ottumwa)	12	2	3	0.260	(1)	\$51,370.00	(2)	2011	4-lane PMT underway by consultant, CH2M Hill
PRIMARY	5.704	6	JOHNSON	US 6	~0.2 MI NW OF INTERSECTION OF OSAGE ST/TAFT AVE AND ~0.4 MI NW OF MP-257 (Just to the SE of Iowa City)	CEDAR/JOHNSON CO LINE RD AND ~0.3 MI SE OF MP-262	13	5	3	0.253	(1)	\$57,040.00	(2)		
PRIMARY	7.656	4	HARRISON	US 30	IOWA/NEBRASKA BORDER @ MP-0	~0.6 MI WEST OF ITALY AVE AND ~0.4 MI WEST OF MP-8 (to the west of Missouri Valley)	16	1	7	0.232	(1)	\$76,560.00	(2)		
PRIMARY	3.463	5	DAVIS	US 63	FLORIS RD AND ~0.3 MI NORTH OF MP-23 (Just west of Floris)	WAPELLO/DAVIS CO LINE AND ~0.25 MI SOUTH OF MP-27	7	2	2	0.225	(1)	\$34,630.00	(2)	N/A	4-lane PMT underway by consultant, CH2M Hill
PRIMARY	4.983	6	JOHNSON	IOWA 1	BUCHMAYER BND @ MP-91 (Just NE of Iowa City)	~0.2 MI SOUTH OF 210TH ST @ MP-96 (Just south of Solon)	10	2	3	0.223	(1)	\$49,830.00	(2)	2010	A project is under construction to add 6 ft. paved shoulders and right and left turn lanes at Rapids Creek Rd. Morse Rd. and Newport Rd. in addition to improving the slopes of the bed and extending the pipes and upgrading the guardrails and other safety features.
PRIMARY	6.114	2	WINNESHIEK	US 52	CO RD B16 @ MP-142 (Just north of Calmar)	~0.8 MI SW OF DECORAH CORPORATE BOUNDARY AND ~0.1 MI NORTH OF MP-148	12	0	2	0.218	(1)	\$61,140.00	(2)	2012	Winneschiek US 52, MP 142-148, will be within the project limits of Winneschiek NHSX-052-5(36)—3H-96, a 3R project we are planning to develop for FY 2012. Cross-Centerline crashes are something we will need to look at in development of this project.
PRIMARY	4.192	6	IOWA	US 151	220TH TRL AND ~0.2 MI SOUTH OF MP-11 (East of Marengo)	BENTON/IOWA CO LINE AND ~0.1 MI NORTH OF MP-15	8	1	4	0.212	(1)	\$41,920.00	(2)	2005-2010	IDOT paved the shoulders about five years ago and a safety study is being finalized.
PRIMARY	5.464	3	SIOUX	US 18	FIR AVE AND ~0.1 MI WEST OF MP-21 (East of Rock Valley)	~0.5 MI EAST OF US 75 AND ~0.2 MI EAST OF MP-26 (West of Hull)	10	0	2	0.203	(1)	\$54,640.00	(2)		3R Asphalt Overlay and Widening (shoulder and rumble strips)
PRIMARY	3.879	6	CLINTON	US 67	SCOTT/CLINTON CO LINE AND ~0.2 MI SOUTH OF MP-25	~0.1 MI SW OF 400TH AVE AND ~0.3 MI NE OF MP-29 (South of Camanche)	7	4	1	0.201	(1)	\$38,790.00	(2)		
PRIMARY	3.908	5	LOUISA	US 61	~0.8 MI NORTH OF CORPORATE BOUNDARY OF WAPELLO @ MP-69	~0.6 MI SOUTH OF 145TH ST @ MP-73 (Just south of Grandview)	7	0	0	0.199	(1)	\$39,080.00	(2)		
PRIMARY	8.529	2	CLAYTON	US 18	135TH ST. AND ~0.5 MI NW OF MP-293 (Just south of Monona)	IA 76 @ MP-0 (Just west of McGregor)	15	2	4	0.195	(1)		(2)	2006	was recently improved as part of a FY 2006 3R project, NHSN-018-9(83)—2R-22.
PRIMARY	4.967	4	DALLAS	IOWA 44	~0.2 MI EAST OF S AVE AND ~0.1 MI EAST OF MP-97 (Just east of Dallas center)	~0.7 MI WEST OF DALLAS/POLK CO LINE AND ~0.2 MI EAST OF MP-102	8	2	0	0.179	(1)	\$49,670.00	(2)		
PRIMARY	3.768	2	CERRO GORDO	US 65	~0.2 MI NORTH OF 300TH ST @ MP-200 (North of Mason City)	CERRO GORDO/WORTH CO LINE AND ~0.2 MI SOUTH OF MP-204	6	1	1	0.177	(1)		(2)	2009	was recently improved as part of HSIP-65-8(53)—2H-17, let and constructed in 2009.
PRIMARY	13.612	6	BENTON	US 30	BENTON/TAMA CO LINE @ MP-218	~0.2 MI WEST OF U.S. 218 AND ~0.2 MI WEST OF MP-232 (south of Vinton)	21	2	9	0.171	(1)	\$136,120.00	(2)		US 30 is in the planning stage to widen to 4 lanes cross section.
PRIMARY	5.333	1	MARSHALL	US 30	FAIRMAN AVE AND ~0.2 MI EAST OF MP-174 (Just west of State center)	~0.3 MI EAST OF KNAPP AVE AND ~0.1 MI EAST OF MP-179 (Just west of Marshalltown)	8	0	3	0.167	(1)	\$53,330.00	(2)		
PRIMARY	4.064	3	IDA	US 20	~0.3 MI WEST OF ALPINE AVE @ MP-40 (East of Cushing)	~0.1 MI EAST OF EAGLE AVE @ MP-44 (West of Holstain)	6	0	1	0.164	(1)	\$40,640.00	(2)		US 20 Reconstruction after 2015
PRIMARY	8.214	5	WAPELLO	US 34	MONROE/WAPELLO CO LINE AND ~0.2 MI EAST OF MP-177	170TH AVE @ MP-185 (West of Ottumwa)	12	0	4	0.162	(1)	\$82,140.00	(2)		
PRIMARY	6.921	6	BUCHANAN	IOWA 150	~0.7 MI NORTH OF 140TH ST AND ~0.35 MI NORTH OF MP-43 (Just south of Hazleton)	~0.4 MI NORTH OF 200TH ST AND ~0.3 NORTH OF MP-50 (Just north of Independence)	10	0	3	0.161	(1)	\$69,210.00	(2)	2011	Part of project HSIPX-150-3(65)—3L-10. Curve located 4.5 miles North of Independence is Proposed to LET in Oct. 2011
PRIMARY	5.016	2	WINNEBAGO	IOWA 9	190TH AVE @ MP-159 (East of Forest City)	WINNEBAGO/WORTH CO LINE @ MP-164	7	1	2	0.155	(1)		(2)		
PRIMARY	8.623	1	MARSHALL	IOWA 14	~0.2 MI SOUTH OF 182ND ST @ MP-105 (Just north of Marshalltown)	GRUNDY/MARSHALL CO LINE AND ~0.45 MI SOUTH OF MP-114	12	0	4	0.155	(1)	\$86,230.00	(2)		
PRIMARY	4.338	3	SIOUX	US 75	~0.35 MI SOUTH OF 360TH ST AND ~0.45 MI SOUTH OF MP-142 (North of Sioux Center)	320TH ST AND ~0.9 MI NORTH OF MP-145 (West of Hull)	6	0	1	0.154	(1)	\$43,380.00	(2)		
PRIMARY	5.387	1	MARSHALL	IOWA 14	~0.3 MI NORTH OF 315TH ST AND ~0.1 MI SOUTH OF MP-92 (North of Laurel)	~0.1 MI NORTH OF 260TH ST AND ~0.3 MI NORTH OF MP-97 (South of Marshalltown)	7	0	2	0.144	(1)	\$53,870.00	(2)		
PRIMARY	7.71	1	WEBSTER	US 169	~0.1 MI SOUTH OF 175TH ST AND ~0.5 MI NORTH OF MP-160 (Just north of the NW border of Fort Dodge)	WEBSTER/HUMBOLDT CO LINE AND ~.2 MI NORTH OF MP-168	10	0	6	0.144	(1)	\$77,100.00	(2)		
SECONDARY	4.705	5	MARION	HWY T15	OLD HWY 92 (East of Knoxville)	~0.04 MI SW OF RED ROCK RESERVOIR (South from the SW border of Pella)	6	1	1	0.142	(1)	\$47,050.00	(2)		

Highest Multiple Vehicle Cross Centerline (MVCC) Crash Density Corridors

Rural Primary Two-lane and Paved Secondary Roads

2001 to 2009

JURISDICTION	LENGTH (miles)	DISTRICT	COUNTY	ROUTE	FROM	TO	TOTAL MULTI-VEHICLE CROSS CENTERLINE CRASHES	TOTAL INTERSECTION-RELATED MVCC CRASHES*	FATAL/MAJOR INJURY MVCC CRASHES*	ANNUAL MULTI-VEHICLE CROSS CENTERLINE CRASH DENSITY (CRASHES/MI/YR)	POTENTIAL REMEDIES	ESTIMATED COST	IMPEDIMENTS	Status/Program Fiscal Year	ADDITIONAL DETAILS
PRIMARY	17.283	4	POTTAWATTAMIE	US 6	~0.4 MI EAST OF HACKBERRY RD @ MP-9 (East of Council Bluffs)	~0.15 MI WEST OF 400TH ST AND ~.25 MI EAST OF MP-26 (West of Oakland)	22	0	7	0.141	(1)	\$172,830.00	(2)		
PRIMARY	5.732	4	UNION	US 34	ADAMS/UNION CO LINE AND ~0.1 MI EAST OF MP-76	~0.2 MI NORTH OF 190TH ST AND ~0.2 MI SOUTH OF MP-82 (South from SW border of Creston)	7	0	4	0.136	(1)	\$57,320.00	(2)		
PRIMARY	9.885	5	MARION	IOWA 14	~0.2 MI NORTH OF HWY G44 AND ~0.1 MI SOUTH OF MP-46 (North of Knoxville)	~0.5 MI NORTH OF BRIGGS ST AND ~0.2 MI SOUTH OF MP-56 (South of Monroe)	12	0	2	0.135	(1)	\$98,850.00	(2)		
PRIMARY	9.232	5	DES MOINES	US 61	UPPER FLINT RD AND ~0.35 MI NORTH OF MP-44 (North of Burlington)	210TH ST AND ~0.45 MI SOUTH OF MP-54 (South of Mediapolis)	11	0	5	0.132	(1)	\$92,320.00	(2)	2009	Resurfaced last year with 4' paved shoulders with paved shoulder rumbles.
PRIMARY	5.282	6	JACKSON	IOWA 64	~0.45 MI WEST OF 82ND AVE AND ~0.3 MI WEST OF MP-26 (east of Baldwin)	~0.5 MI WEST OF 24TH ST @ MP-31 (East of Maquoketa)	6	0	1	0.126	(1)		(2)	2006	HMA widened and resurfaced in 2006.
PRIMARY	9.038	6	BUCHANAN	IOWA 150	BENTON-BUCHANAN CO LINE @ MP 29	~0.2 MI NORTH OF 252ND ST @ MP-38 (South of Independence)	10	0	3	0.123	(1)	\$90,380.00	(2)		
PRIMARY	5.531	5	LOUISA	IOWA 92	~0.2 MI EAST OF 140TH ST AND ~0.35 MI WEST OF MP-254 (East of Fredonia)	~1.0 MI WEST OF GRANDVIEW CORPORATE BOUNDARY AND ~0.2 MI EAST OF MP-259	6	1	2	0.121	(1)	\$55,310.00	(2)		
PRIMARY	6.63	5	MONROE	US 34	~0.4 MI EAST OF 205TH TRL AND ~0.2 MI EAST OF MP-170 (East of Albia)	MONROE/WAPELLO CO LINE AND ~0.2 MI WEST OF MP-177	7	0	3	0.117	(1)	\$66,300.00	(2)		
SECONDARY	7.694	5	JEFFERSON	PLEASANT PLAIN RD	~0.3 MI NORTH OF 185TH ST (North of the NE border of Fairfield)	~0.15 MI NORTH OF 127TH ST (South of Pleasant Plain)	8	1	2	0.116	(1)	\$76,940.00	(2)		
PRIMARY	5.978	2	WINNESHIEK	IOWA 9	~0.2 MI NORTH OF CENTENNIAL RD AND ~0.1 MI SOUTH OF MP-264 (South of the SE Border of Decorah)	ALLAMAKEE/WINNESHIEK CO LINE ~0.15 MI EAST OF MP-270	6	1	2	0.112	(1)		(2)		
PRIMARY	6.048	3	CLAY	US 71	~0.3 MI NORTH OF CLAY/BUENA VISTA CO LINE AND ~0.4 MI NORTH OF MP-188	~0.5 MI SOUTH OF 440TH ST AND ~0.5 MI SOUTH OF MP-195 (South of Greenville and Rossie)	6	0	1	0.110	(1)	\$60,480.00	(2)		
PRIMARY	10.088	5	MARION	IOWA 5	~0.2 MI SE OF SW RAMP CURVE IOWA 5/92 AND ~0.2 MI NW OF MP-60	~0.4 MI NW OF VAN BUREN DR @ MP-50 (North of Marysville)	10	3	1	0.110	(1)	\$100,880.00	(2)		
PRIMARY	6.325	4	UNION	IOWA 25	DOGWOOD AVE @ MP-39 (West of Creston)	ADAIR/UNION CO LINE AND ~0.4 MI NORTH OF MP-45	6	0	3	0.105	(1)	\$63,250.00	(2)		
PRIMARY	11.614	1	TAMA	US 30	~0.5 MI EAST OF M AVE AND ~0.45 MI EAST OF MP-206 (East of Tama)	BENTON/TAMA CO LINE AND IOWA 21 @ MP-218	11	1	3	0.105	(1)	\$116,140.00	(2)		
PRIMARY	6.826	2	HANCOCK	US 18	~0.1 MI EAST OF KENT @ MP-154	US 69 AND ~0.1 MI WEST OF MP-161 (West of Garner)	6	0	1	0.098	(1)	\$68,260.00	(2)		
PRIMARY	8.06	4	MADISON	US 169	~0.7 MI NORTH OF CUMMING RD AND ~0.5 MI SOUTH OF MP-73 (North of Winterset)	DALLAS/MADISON CO LINE AND ~0.4 MI SOUTH OF MP-81	7	0	1	0.096	(1)	\$80,600.00	(2)		
PRIMARY	9.291	5	WASHINGTON	IOWA 1	~0.2 MI NORTH OF 230TH ST @ MP-57 (North of Washington)	~0.25 MI SOUTH OF 133RD ST AND ~0.4 MI NORTH OF MP-66 (South of Kalona)	8	2	3	0.096	(1)	\$92,910.00	(2)		
PRIMARY	7.234	6	IOWA	IOWA 220	U.S. 6 AND MP-0 (West of Marengo)	U.S. 151/42ND AVE AND ~0.8 MI EAST OF MP-7	6	1	0	0.092	(1)	\$72,340.00	(2)		IDOT has added paved shoulders and replaced some shoulders in the flood area in the last few years.
SECONDARY	8.452	6	BUCHANAN	BAXTER AVE	~1 MI NORTH OF JESUP CORPORATE BOUNDARY	~0.2 MI SOUTH OF 112TH ST (South of Fairbank)	7	0	1	0.092	(1)	\$84,520.00	(2)		
PRIMARY	7.38	5	WASHINGTON	IOWA 1	~1.0 MI NE OF BRIGHTON CORPORATE BOUNDARY AND ~0.55 MI NORTH OF MP-45	~1.3 MI SW OF WASHINGTON CORPORATE BOUNDARY @ MP-53	6	0	1	0.090	(1)	\$73,800.00	(2)		
PRIMARY	7.576	3	CRAWFORD	US 59	CRAWFORD/SHELBY CO LINE AND ~0.3 MI NORTH OF MP-91	~0.1 MI NORTH 260TH ST AND ~0.1 MI NW OF MP-99 (North of Denison)	6	2	2	0.088	(1)	\$75,760.00	(2)		
PRIMARY	11.902	6	JOHNSON	IOWA 1	JOHNSON/WASHINGTON CO LINE @ MP-70	MAIER AVE AND ~0.1 MI WEST OF MP-82 (South of SW Border of Iowa City)	9	1	2	0.084	(1)	\$119,020.00	(2)		
PRIMARY	7.977	5	MAHASKA	US 63	220TH ST AND ~0.4 MI NW OF MP-66 (North of Oskaloosa)	~1.0 MI SOUTH OF NEW SHARON CORPORATE BOUNDARY AND ~0.35 MI NORTH OF MP-74	6	1	3	0.084	(1)	\$79,770.00	(2)	2010	It was resurfaced during FY 2010 with 2' wide paved shoulders with paved shoulder rumbles.
PRIMARY	9.491	5	MUSCATINE	IOWA 22	ELDER AVE AND ~0.4 MI WEST OF MP-59 (East of Nichols)	~0.6 MI EAST OF SEVEN SPRINGS RD @ MP-68 (West of Muscatine)	7	0	2	0.082	(1)	\$94,910.00	(2)		
PRIMARY	8.695	3	SIOUX	US 18	LYON-SIOUX CO LINE @ MP-8	~0.3 MI WEST OF DOVE AVE @ MP-17 (West of Rock Valley)	6	0	2	0.077	(1)	\$86,950.00	(2)		Being considered for 3R but outside current 3-year
PRIMARY	11.639	6	BENTON	US 218	US 30 @ MP-232 (Between Van Horne and Newhall)	~1.1 MI SOUTH OF VINTON CORPORATE BOUNDARY AND ~0.2 MI SOUTH OF MP-146	8	2	1	0.076	(1)	\$116,390.00	(2)		
PRIMARY	9.73	3	WOODBURY	US 20	~ MI WEST OF JASPER AVE @MP-22 (East of Merville)	~1.0 MI WEST OF CORRECTIONVILLE CORPORATE BOUNDARY AND ~0.2 MI WEST OF MP-32	6	0	3	0.069	(1)	\$97,300.00	(2)		
PRIMARY	12.075	2	WINNESHIEK	US 52	~1.08 MI NE OF CITY OF DECORAH AND ~0.4 MI NORTH OF MP-153	MINNESOTA STATE LINE	7	0	2	0.064	(1)		(2)	2002	This corridor was improved as part of FY 2002 3R project NHSX-52-5(30)—3H-96.
PRIMARY	10.813	6	IOWA	US 6	~0.7 MI EAST OF N AVE AND ~0.5 MI EAST OF MP-223 (East of Marengo)	JOHNSON COUNTY LINE AND ~0.2 MI EAST OF MP-234	6	1	1	0.062	(1)	\$108,130.00	(2)		
PRIMARY	16.556	1	BOONE	IOWA 17	~0.5 MI NORTH OF 260TH ST AND ~0.3 MI NORTH OF MP-16 (North of Luther)	HAMILTON/BOONE CO LINE AND ~0.2 MI SOUTH OF MP-33	9	0	3	0.060	(1)	\$165,560.00	(2)		
PRIMARY	11.213	2	ALLAMAKEE	IOWA 9	~1.3 NE OF WAUKON CORPORATE BOUNDARY AND ~0.3 MI NORTH OF MP-281	~1.3 MI WEST OF LANSING CORPORATE BOUNDARY AND ~0.45 MI WEST OF MP-293	6	0	2	0.059	(1)		(2)	1992	This corridor was last resurfaced in 1992.

Highest Multiple Vehicle Cross Centerline (MVCC) Crash Density Corridors

Rural Primary Two-lane and Paved Secondary Roads

2001 to 2009

JURISDICTION	LENGTH (miles)	DISTRICT	COUNTY	ROUTE	FROM	TO	TOTAL MULTI-VEHICLE CROSS CENTERLINE CRASHES	TOTAL INTERSECTION-RELATED MVCC CRASHES*	FATAL/MAJOR INJURY MVCC CRASHES*	ANNUAL MULTI-VEHICLE CROSS CENTERLINE CRASH DENSITY (CRASHES/MI/YR)	POTENTIAL REMEDIES	ESTIMATED COST	IMPEDIMENTS	Status/Program Fiscal Year	ADDITIONAL DETAILS
PRIMARY	13.086	1	GRUNDY	IOWA 14	~0.4 MI SOUTH OF 320TH ST AND ~0.2 MI NORTH OF MP-115 (North of the NW Border of Conrad)	~1.0 MI WEST OF GRUNDY CENTER CORPORATE BOUNDARY AND ~0.4 MI EAST OF MP-128	7	0	3	0.059	(1)	\$130,860.00	(2)		
PRIMARY	19.63	2	ALLAMAKEE	IOWA 76	~0.08 MI NW OF DUNDEE DR AND ~0.2 MI NW OF MP-27 (South of Waukon)	ALLAMAKEE/CLAYTON CO LINE AND ~0.45 MI NORTH OF MP-7	8	0	2	0.045	(1)		(2)	1995	This corridor was last resurfaced in 1994-95.
PRIMARY	15.576	1	TAMA	US 63	~0.25 MI NORTH OF HWY E43 AND ~0.4 MI NORTH OF MP-121 (North of Toledo)	~0.8 MI EAST OF O AVE AND ~0.2 MI EAST OF MP-137 (West of Traer)	6	0	1	0.043	(1)	\$155,760.00	(2)		

Total Miles = 479.842

* Included in TOTAL MULTI-VEHICLE CROSS CENTERLINE (MVCC) CRASHES.

ROADWAYS INCLUDED

1. Rural, primary two-lane
2. Paved secondary
3. Must be at least one-mile away from an incorporated area boundary.

QUALIFYING CONDITIONS

1. Multiple vehicle cross centerline crashes (MVCC).
2. More than 2.5 times statewide average MVCC crash density.
3. At least six MVCC crashes during analysis period.

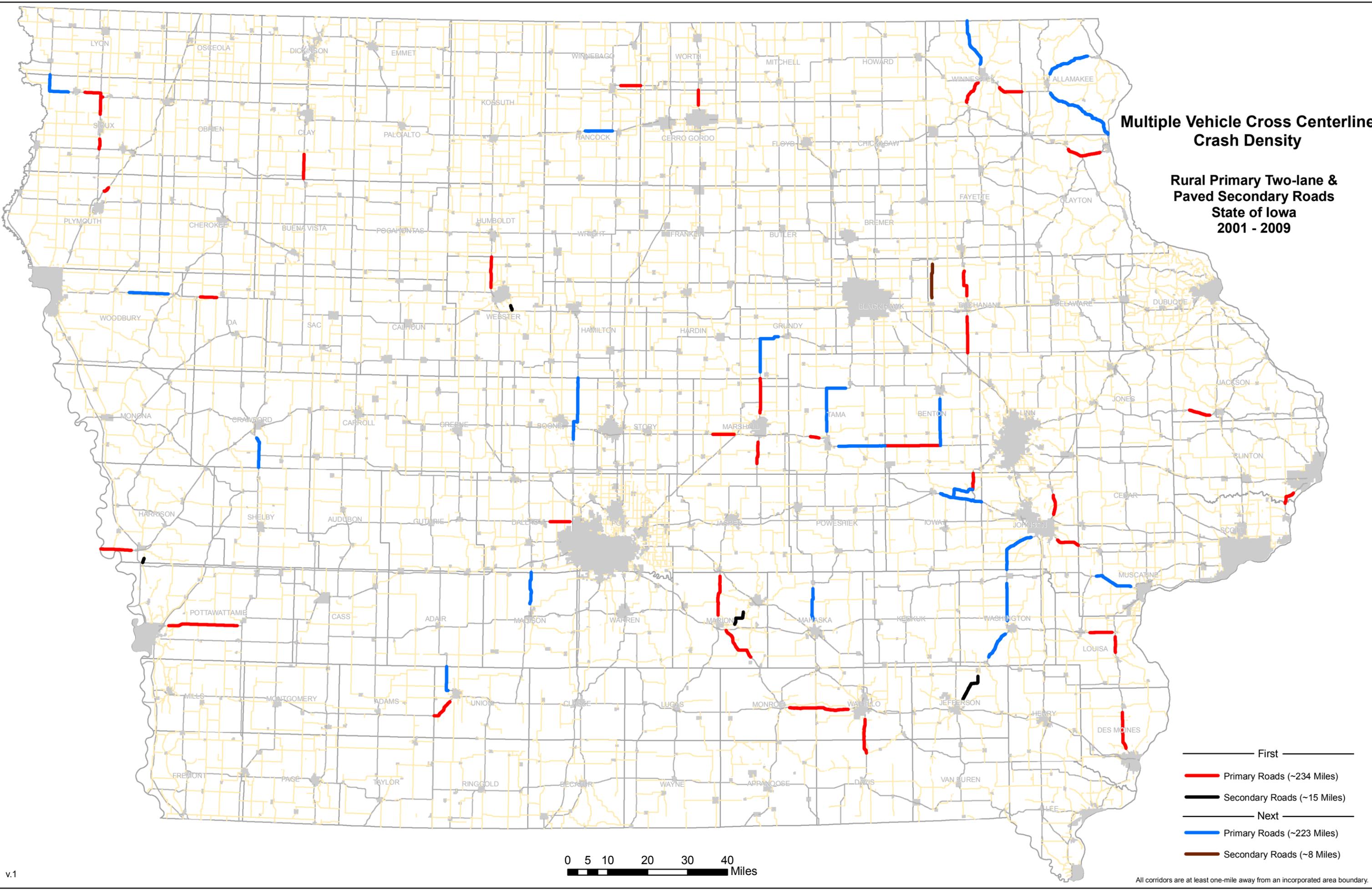
STATEWIDE AVERAGE = 0.016 MVCC CRASHES/MILE/YEAR

Footnotes:

- (1) Installing Centerline Rumble Strips if >= 3000 ADT or on top 5% List and pavement is in good condition (Iowa DOT Design Policy).
- (2) Possible impediments are unknown until after a study is completed.

Multiple Vehicle Cross Centerline Crash Density

Rural Primary Two-lane &
Paved Secondary Roads
State of Iowa
2001 - 2009



- First —
- Primary Roads (~234 Miles)
- Secondary Roads (~15 Miles)
- Next —
- Primary Roads (~223 Miles)
- Secondary Roads (~8 Miles)

0 5 10 20 30 40 Miles

All corridors are at least one-mile away from an incorporated area boundary.

Highest Multiple Vehicle Cross Median (MVCM) Crash Density Corridors
 Interstate/Freeway
 2001 to 2009

SECTION #	TOTAL LENGTH (miles)	DISTRICT	COUNTY	ROUTE	FROM MILEPOST	TO MILEPOST	COMPONENT LENGTH* (miles)	TOTAL MULTI-VEHICLE CROSS MEDIAN CRASHES*	ANNUAL MULTI-VEHICLE CROSS MEDIAN CRASH DENSITY (crash/mile/year)*	MVCM CRASH DENSITY RANK*	TOTAL FATAL AND MAJOR INJURY MULTI-VEHICLE CROSS MEDIAN CRASHES*	Potential Remedies	Estimated Costs	Impediments	Status/Program Fiscal Year	Project #	Description
1	6.543	6	Cedar, Johnson	I-80	247.5	254.1	5 1.543	17 16	0.378 0.360	1 2	6 4 - 5	Cable Median Barrier	\$425,295	None	2011, in combination with section #5, via 2010 HSIP mp 248.19 to mp 259		
2	6.6	6	Johnson	I-80	241.0	247.5	6.1 0.5	16 15	0.356 0.333	7 30	6 - 7 5 - 7	Cable Median Barrier	\$429,000	None	This 7 mile section is flanked on either side by planned HSIP Cable Median Barrier.		
3	6.964	6	Johnson	US 218, I-380	95.7 (US 218)	5 (I-380)	5.664 0.1 0.3 0.1 0.6 0.2	14 14 13 12 11 10	0.313 0.311 0.291 0.269 0.246 0.224	57 59 70 120 197 288	2 2 - 6 2 2 2 2	Cable Median Barrier	\$452,660	Current Interchange Reconstruction Project	2013, in combination with section #23		
4	6.3	1	Polk	I-80	141.6	148.0	5 0.9 0.4	14 13 12	0.311 0.289 0.267	59 73 121	2 - 6 2 - 6 2 - 6	Cable Median Barrier	\$409,500	None	2012, via 2010 HSIP mp 142 to mp 164		
5	8	6	Cedar	I-80	254.1	262.1	0.2 3.1 0.5 0.7 3.5	14 13 12 12 11	0.315 0.292 0.270 0.267 0.244	55 67 102 121 203	4 3 - 4 3 - 5 2 - 6 2 - 6	Cable Median Barrier	\$520,000	None	2010, in combination with section #25 via 2010 HSIP mp 259 to mp 271		
6	6.1	6	Iowa	I-80	220.4	226.5	5.4 0.1 0.6	13 12 11	0.289 0.267 0.244	73 121 203	2 - 6 2 - 6 2 - 6	Cable Median Barrier	\$396,500	None	2010, in combination with section #8, #16 via 2010 HSIP mp 215 to mp 225		
7	8.1	6	Scott	I-80	291.1	299.2	5.2 2.2 0.7	13 12 11	0.289 0.267 0.244	73 121 203	2 - 6 2 - 6 2 - 6	Cable Median Barrier	\$526,500	None	2011, in combination with section #17, #20, #28, #33 via 2010 HSIP mp 280 to mp 306		For all of I-80 in Scott County: annual 4R patching, fog sealing of shoulders, crack filling of HMA ramps, interchange
8	3.3	6	Iowa	I-80	217.1	220.4	3.2 0.1	12 11	0.267 0.244	121 203	2 - 6 2 - 6	Cable Median Barrier	\$214,500	None	2010, in combination with section #6 via 2010 HSIP mp 215 to mp 225		
9	7.242	6, 1	Iowa, Poweshiek	I-80	203.4	210.5	5.542 0.5 0.9 0.3	12 11 11 10	0.270 0.247 0.244 0.225	102 161 203 275	3 - 5 4 2 - 6 4	Cable Median Barrier	\$470,730	None	2011, in combination with section #21, #29, #30 via 2010 HSIP mp 187 to mp 209	IM-80-6(242)210	
11	5	1	Polk	I-35, I-80	67.9	124 (I-80)	5	10	0.247	185	2	Cable Median Barrier	\$325,000	None	2013, in combination with section #26		
12	7.262	5	Clarke, Warren	I-35	38.5	45.7	5.962 1.3	11 10	0.246 0.224	186 282	3 3	Cable Median Barrier	\$472,030	None	2012, in combination with section #15, #22 via 2010 HSIP mp 33 to mp 47		Delayed until 2012 due to construction conflicts within the corridor
13	5.8	6	Linn	I-380	15.9	21.7	5.8	11	0.244	203	2 - 6	Cable Median Barrier	\$377,000	None	2010, in combination with section #18, #19 via 2010 HSIP mp 13 to mp 28	TSF-380-6(267)19-92-57	Replace existing pavement markings with grooved-in, wet-reflective contrasting tape markings
14	4.969	6	Cedar, Scott	I-80	276.4	281.3	4.969	10	0.224	290	4	Cable Median Barrier	\$322,985	None	2012, in combination with section #24 via 2010 HSIP mp 271 to mp 280		For all of I-80 in Scott County: annual 4R patching, fog sealing of shoulders, crack filling of HMA ramps, interchange improvements at IA 130 (exit 292)

**Highest Multiple Vehicle Cross Median (MVCM) Crash Density Corridors
Interstate/Freeway
2001 to 2009**

SECTION #	TOTAL LENGTH (miles)	DISTRICT	COUNTY	ROUTE	FROM MILEPOST	TO MILEPOST	COMPONENT LENGTH* (miles)	TOTAL MULTI-VEHICLE CROSS MEDIAN CRASHES*	ANNUAL MULTI-VEHICLE CROSS MEDIAN CRASH DENSITY (crash/mile/year)*	MVCM CRASH DENSITY RANK*	TOTAL FATAL AND MAJOR INJURY MULTI-VEHICLE CROSS MEDIAN CRASHES*	Potential Remedies	Estimated Costs	Impediments	Status/Program Fiscal Year	Project #	Description
15	2.4	5	Clarke	I-35	36.1	38.5	1.5	10	0.222	291	2 - 5	Cable Median Barrier	\$156,000	None	2012, in combination with section #12, #22 via 2010 HSIP mp 33 to mp 47		Delayed until 2012 due to construction conflicts within the corridor
16	0.5	6	Iowa	I-80	216.5	217.1	0.4	10	0.222	291	2 - 5	Cable Median Barrier	\$32,500	None	2010, in combination with section #6, #8 via 2010 HSIP mp 215 to mp 225	IM-80-6(242)210	
17	6.6	6	Scott	I-80	284.5	291.1	1.8	10	0.222	291	2 - 5	Cable Median Barrier	\$429,000	None	2011, in combination with section #7, #20, #28, #33 via 2010 HSIP mp 280 to mp 306		For all of I-80 in Scott County: annual 4R patching, fog sealing of shoulders, crack
18	2.4	6	Linn	I-380	13.5	15.9	0.7	10	0.222	291	2 - 5	Cable Median Barrier	\$156,000	None	2010, in combination with section #13, #19 via 2010 HSIP mp 13 to mp 28	TSF-380-6(267)19--92-57	Replace existing pavement markings with grooved-in, wet-reflective contrasting tape markings
19	2.3	6	Linn	I-380	21.7	24.0	0.6	9	0.200	375	2 - 4	Cable Median Barrier	\$149,500	None	2010, in combination with section #13, #18 via 2010 HSIP mp 13 to mp 28	TSF-380-6(267)19--92-57	Replace existing pavement markings with grooved-in, wet-reflective contrasting tape markings
20	1.2	6	Scott	I-80	299.3	300.4	0.6	8	0.178	499	2 - 5	Cable Median Barrier	\$78,000	None	2011, in combination with section #7, #17, #28, #33 via 2010 HSIP mp 280 to mp 306		For all of I-80 in Scott County: annual 4R patching, fog sealing of shoulders, crack filling of HMA ramps, interchange
21	1.7	1	Poweshiek	I-80	201.6	203.3	0.8	10	0.222	291	2 - 5	Cable Median Barrier	\$110,500	None	2011, in combination with section #9, #29, #30 via 2010 HSIP mp 187 to mp 209		
22	4.7	5	Warren	I-35	42.0	52.0	0.2	9	0.200	375	2 - 4	Cable Median Barrier	\$305,500	None	2011, in combination with section #9, #29, #30 via 2010 HSIP mp 187 to mp 209		Location was changed to current one and it was advanced to FY 2011.
23	2.4	6	Johnson	US 218	93.3	95.7	0.2	8	0.178	499	2 - 5	Cable Median Barrier	\$156,000	Current Interchange Reconstruction Project	2013, In combination with section #3		
24	2.3	6	Cedar	I-80	274.1	276.4	0.3	9	0.202	333	3	Cable Median Barrier	\$149,500	None	2012, in combination with section #14 via 2010 HSIP mp 271 to mp 280		
25	4	6	Cedar	I-80	262.1	266.2	0.9	8	0.180	446	3	Cable Median Barrier	\$260,000	None	2010, in combination with section #5 via 2010 HSIP mp 259 to mp 271		
26	5.588	1, 5	Polk, Warren	I-35	62.3	67.8	0.2	8	0.178	499	2 - 5	Cable Median Barrier	\$363,220	None	2013, in combination with section #11		
27	5.7	1	Story	I-35	108.6	114.0	0.3	9	0.200	375	2 - 4				Completed in 2008		
28	6.574	1	Polk, Story	I-35	100.4	107.0	5.474	9	0.201	369	2				Completed in 2008	IHSIP-035-4(133)92--10-7	
29	5.9	1	Poweshiek	I-80	195.0	200.9	0.1	9	0.200	375	2 - 4	Cable Median Barrier	\$383,500	None	2011, in combination with section #9, #21, #30 via 2010 HSIP mp 187 to mp 209		
30	7.3	1	Poweshiek	I-80	187.7	195.0	0.2	8	0.178	499	2 - 5	Cable Median Barrier	\$474,500	None	2011, in combination with section #9, #21, #29 via 2010 HSIP mp 187 to mp 209		
31	5.1	6	Johnson	I-80	232.4	237.5	5	9	0.200	375	2 - 4	Cable Median Barrier	\$331,500	None	2010, in combination with section #32 via 2010 HSIP mp 225 to mp 239		
32	4.035	6	Iowa, Johnson	I-80	228.4	232.4	0.1	8	0.178	499	2 - 5	Cable Median Barrier	\$262,275	None	2010, in combination with section #31 via 2010 HSIP mp 225 to mp 239		
33	1.9	6	Scott	I-80	281.4	283.3	0.2	8	0.178	499	2 - 5	Cable Median Barrier	\$123,500	None	2011, in combination with section #7, #17, #20, #28 via 2010 HSIP mp 280 to mp 306		For all of I-80 in Scott County: annual 4R patching, fog sealing of shoulders, crack filling of HMA ramps, interchange
34	2.3	6	Iowa	I-80	210.5	212.9	1.1	9	0.201	354	4				Completed in 2008	IM-80-6(242)210	

Total miles = 157.077

* Since "moving" five-mile sections may overlap, the length of the qualifying portion (not contained within another section) and the summary data for the entire, qualifying five-mile section are presented.

QUALIFYING CONDITIONS

1. Multiple-vehicle cross-median crashes (MV CM)
2. "Moving" five-mile long sections, based on 1/10th mile segments, with at least twice statewide average MVCM crash density.
3. At least two fatal or major injury MVCM crashes during the analysis period.

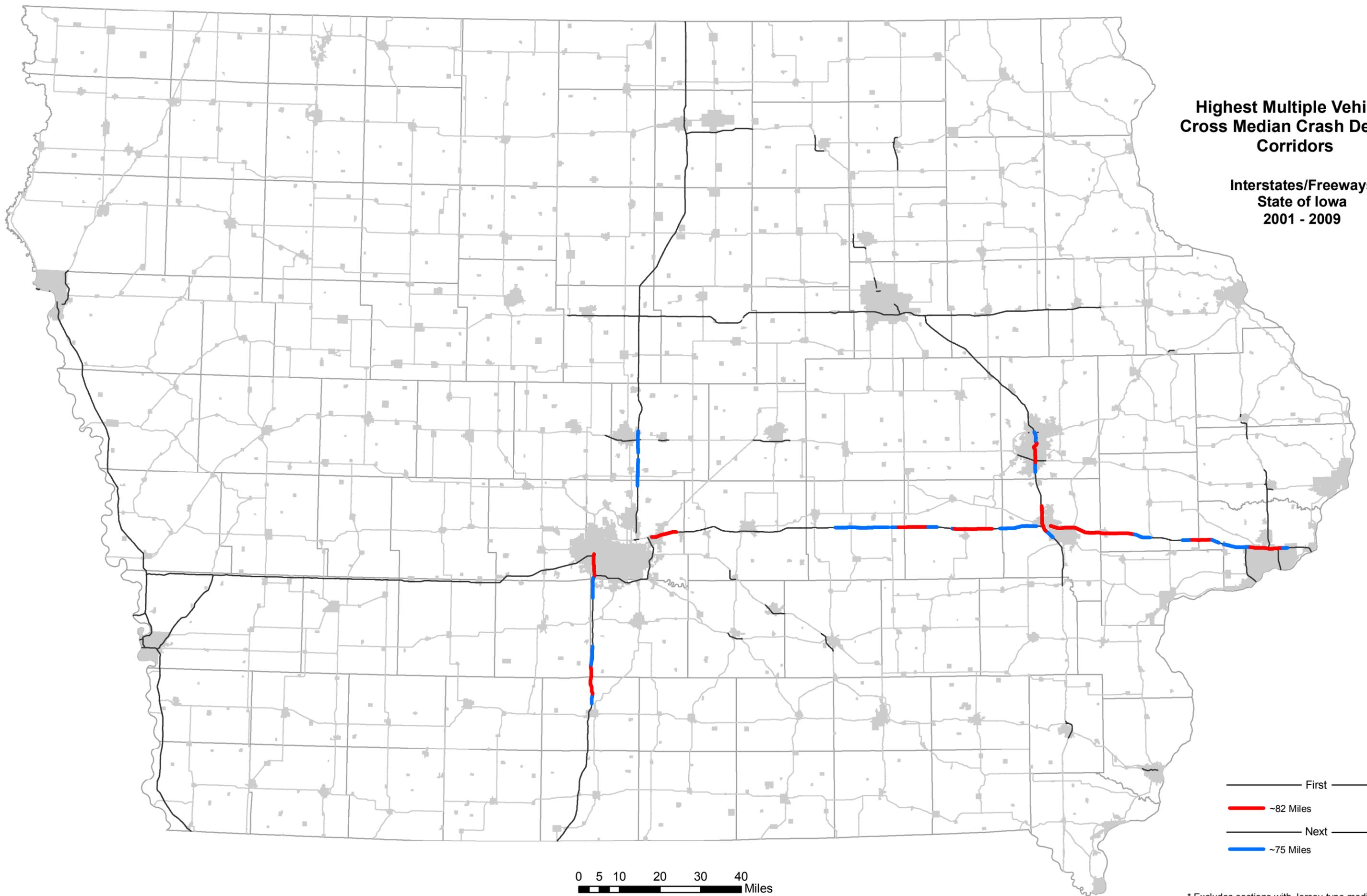
STATEWIDE AVERAGE = 0.018 MVCM CRASHES/MILE/YEAR

Appears in previous report as under consideration or in plan

Appears in previous report as completed

**Highest Multiple Vehicle
Cross Median Crash Density
Corridors**

**Interstates/Freeways
State of Iowa
2001 - 2009**



0 5 10 20 30 40
Miles

— First —
— ~82 Miles —
— Next —
— ~75 Miles —

* Excludes sections with Jersey-type median barriers.

High Crash Horizontal Curves
High Speed, Paved Two-lane Roads
2001 to 2009

JURISDICTION	District	COUNTY	CITY	ROUTE	ROAD NAME	LITERAL DESCRIPTION	EST. CURVE LENGTH, ft	EST. RADIUS 1, ft.	EST. RADIUS 2, ft.	SPEED LIMIT, mph	TRAFFIC VOLUME, AADT	POTENTIAL REMEDIES/ IMPROVEMENTS	ESTIMATED COST (2)	IMPEDIMENTS	Status/Program Fiscal Year
Secondary	4	HARRISON		L020	LOESS HILLS TRL	LOESS HILLS TRL 0.35 MILES SOUTH OF KERMIT PL	392	1,151	1,002	55	1,520	(1)	150,000	(3)	
Primary	1	TAMA		US 30	US 30	US 30 0.57 MILES WEST OF I AVE	919	5,838	5,535	55	8,200	(1)	150,000	(3)	
Secondary	6	JONES		E034	CO RD E-34	CO RD E-34 0.05 MILES EAST OF 215TH AVE	494	583	584	55	3,410	(1)	150,000	(3)	
Secondary	6	JOHNSON		W066	DUBUQUE ST	DUBUQUE ST .05 Miles East of Naples Ave NE (along road)	588	644	670	50	6,000	(1)	150,000	(3)	
Secondary	1	WEBSTER		P059	QUAIL AVE	QUAIL AVE 0.08 Miles SOUTH OF 230TH ST	1,231	1,260	1,247	55	6,700	(1)	150,000	(3)	
Primary	6	SCOTT		US 67	GREAT RIVER RD	GREAT RIVER RD 0.08 Miles WEST OF HARBOR DR	1,217	2,241	2,230	50	9,900	(1)	150,000	(3)	
Secondary	1	STORY			NORTH DAKOTA AVE	NORTH DAKOTA AVE 0.4 Miles NORTH OF 209TH LN	194	312	286	55	1,020	(1)	150,000	(3)	
Secondary	5	MARION		T015	HWY T15	HWY T15 NORTH OF HWY T17. Intersect .05 Miles N of T17	1,114	730	747	55	3,190	(1)	150,000	(3)	
Secondary	6	BENTON		E066	77 ST DR	77 ST DR SOUTH OF 14TH AVE DR (curve is directly south, not following road)	496	308	323	55	1,040	(1)	150,000	(3)	
Primary	1	WEBSTER		US 20	US 20	US 20 AT 270TH ST 0.22 Miles East of Zebulon Ave.	785	1,477	1,506	55	2,870	(1)	150,000	(3)	
Primary	5	DES MOINES		US 61	US 61	US 61 0.31 Miles NORTH OF UPPER FLINT RD	852	1,684	1,707	55	7,100	(1)	150,000	(3)	2009 resurfacing with paved shldr. rumbles & CL rumbles.
Primary	5	DES MOINES		US 61	US 61	US 61 0.01 Miles NORTH OF PFEIFF RD	821	1,397	1,381	55	6,500	(1)	150,000	(3)	2009 resurfacing with paved shldr. rumbles & CL rumbles.
Secondary	4	MILLS		L035	221ST ST	221ST ST 0.4 Miles NORTH OF EASTMAN RD	623	979	1,017	55	2,450	(1)	150,000	(3)	
Secondary	4	MILLS		L035	221ST ST	221ST ST 0.09 Miles NORTH OF ASHTON RD	1,082	2,137	2,000	55	3,930	(1)	150,000	(3)	
Secondary	5	MARION		S071	HWY S71	HWY S71 0.07 Miles NORTH OF HWY T15	524	835	881	55	700	(1)	150,000	(3)	
Secondary	4	HARRISON		L020	LOESS HILLS TRL	LOESS HILLS TRL from 0.47 Miles SOUTH OF KERMIT PL	692	658	670	55	1,520	(1)	150,000	(3)	
Secondary	1	STORY			NORTH DAKOTA AVE	NORTH DAKOTA AVE 0.23 Miles NORTH OF 215TH ST	492	886	838	55	1,020	(1)	150,000	(3)	
Secondary	6	DUBUQUE		Y021	SUNDOWN RD	SUNDOWN RD 0.23 Miles SOUTH OF E PLEASANT GROVE RD	888	960	955	55	2,000	(1)	150,000	(3)	
Secondary	1	WEBSTER		P059	QUAIL AVE	QUAIL AVE 0.37 Miles SOUTH OF MILL RD	264	1,636	1,483	55	6,700	(1)	150,000	(3)	
Secondary	4	POTTAWATTAMIE		L035	WABASH AVE	WABASH AVE 0.02 Miles NORTH OF ASHWOOD LN	459	1,279	1,280	55	2,580	(1)	150,000	(3)	
Secondary	4	POTTAWATTAMIE		L020	OLD LINCOLN HWY	OLD LINCOLN HWY AT OAK VALLEY RD	619	700	708	55	3,070	(1)	150,000	(3)	
Secondary	5	WARREN		R063	95TH AVE	95TH AVE 0.11 Miles NORTH OF DUBUQUE ST	852	1,138	1,128	55	3,080	(1)	150,000	(3)	
Secondary	4	GUTHRIE		F065	WHITE POLE RD	WHITE POLE RD EAST OF 350TH ST (Directly East not following road)	647	749	758	55	1,780	(1)	150,000	(3)	
Secondary	1	POLK	ALTOONA	S014	1ST AVE S	1ST AVE S 0.68 Miles NORTH OF E UNIVERSITY AVE	751	949	959	55	2,300	(1)	150,000	(3)	
Primary	1	POLK		IA 415		HWY 415 0.09 Miles North OF intersection with NW 44TH ST	1,708	1,932	1,898	55	6,400	(1)	150,000	(3)	
Secondary	1	STORY		E041	LINCOLN HWY	LINCOLN HWY 0.69 Miles EAST OF 650TH AVE	856	1,127	1,122	55	1,250	(1)	150,000	(3)	
Primary	1	GREENE		US 30	US 30 DIAGONAL	US 30 0.23 Miles DIAGONAL EAST OF B AVE	2,363	2,864	2,868	55	3,390	(1)	150,000	(3)	
Primary	6	DUBUQUE		US 52	US 52	US 52 0.06 Miles NORTH OF KEMP RD	657	1,291	1,307	50	5,100	(1)	150,000	(3)	
Secondary	1	WEBSTER		D020	200TH ST	Curve in SW quadrant connecting 200TH ST (W LEG) & XAVIER AVE (S LEG)	1,621	1,138	1,132	55	2,640	(1)	150,000	(3)	
Primary	3	CALHOUN		IA 7	190TH ST	190TH ST AT ADAMS ST	589	2,393	2,177	55	3,160	(1)	150,000	(3)	
Secondary	6	BUCHANAN		W013	FAIRBANK-AMISH BLVD	FAIRBANK-AMISH BLVD AT 170TH ST	390	592	572	55	700	(1)	150,000	(3)	2011, via 2010 HSIP @ \$523,000
Secondary	2	CERRO GORDO		B020	310TH ST	3CO RD B20 AT 310TH ST	1,373	947	945	55	1,960	(1)	150,000	(3)	
Secondary	5	DES MOINES		X062	SUMMER ST	SUMMER ST AT OLD HWY 61	886	669	680	55	1,570	(1)	150,000	(3)	
Secondary	4	POTTAWATTAMIE		L035	WABASH AVE	WABASH AVE curve between Bunge Ave & ATTICA LN	748	501	511	55	3,930	(1)	150,000	(3)	
Primary	5	MAHASKA		IA 23	IOWA 23	IOWA 23 AT 310TH ST	789	958	961	55	1,910	(1)	150,000	(3)	
Secondary	4	HARRISON		K045	AUSTIN AVE	AUSTIN AVE AT 245TH ST	616	800	802	55	650	(1)	150,000	(3)	
Secondary	6	JOHNSON			HERBERT HOOVER HWY	HERBERT HOOVER HWY 0.13 Miles WEST OF I 80	232	1,265	1,054	55	6,400	(1)	150,000	(3)	
Secondary	6	CEDAR		F028	210TH	210TH 0.19 Miles EAST OF JEFFERSON AVE	753	1,965	1,905	55	1,320	(1)	150,000	(3)	
Primary	1	STORY		IA 210	IOWA 210	IOWA 210 AT 650TH ST	1,053	963	969	55	1,060	(1)	150,000	(3)	
Primary	1	WEBSTER		US 20	US 20	US 20 AT CO HWY D-20 (Curve on US 20 and intersects D-20 twice)	2,252	1,906	1,921	55	1,830	(1)	150,000	(3)	
Secondary	6	DUBUQUE			HALES MILL RD	DERBY GRANGE RD 0.02 Miles NW of HALES MILL RD	395	296	290	55	1,400	(1)	150,000	(3)	
Primary	3	SIoux		US 18	310TH ST	310TH ST (E LEG) curve connecting it to CHESTNUT AVE (N LEG)	2,041	1,167	1,195	55	1,660	(1)	150,000	(3)	
Secondary	3	DICKINSON			100TH ST	100TH ST AT 700TH ST	559	377	382	55	30	(1)	150,000	(3)	reconstruction 2014
Primary	5	LEE		IA 2	IOWA 2	IOWA 2 0.2 Miles NORTH OF US 61	2,039	1,913	1,901	55	3,880	(1)	150,000	(3)	presently under construction
Secondary	5	DES MOINES		X099	DMC 99	CO RD 99 0.17 Miles NORTH OF 150TH ST	1,807	1,847	1,799	55	1,430	(1)	150,000	(3)	
Secondary	5	WAPELLO		H041	BLUEGRASS RD	BLUEGRASS RD 0.64 Miles WEST OF LAKE RD	328	663	711	55	1,480	(1)	150,000	(3)	
Primary	5	CLARKE		US 69	US 69	US 69 0.36 Miles NORTH OF PERRY LN	989	1,157	1,165	55	1,760	(1)	150,000	(3)	
Primary	5	CLARKE		US 69	US 69	US 69 (NORTH MAIN ST) curves north at intersection with OAKWOOD ST. follow curve 0.03 Miles	724	581	600	55	1,150	(1)	150,000	(3)	
Secondary	5	MAHASKA			OLD HWY 163	JEWELL AVE At Pella ave (just NE of Highway 163)	203	155	170	55	1,030	(1)	150,000	(3)	
Primary	5	WARREN		IA 92	IOWA 92	IOWA 92 0.07 Miles EAST OF KENNEDY ST	590	1,174	1,160	55	3,630	(1)	150,000	(3)	
Secondary	4	POTTAWATTAMIE		L034	ROAD L34	ROAD L34 AT MAHOGANY RD	683	572	569	55	510	(1)	150,000	(3)	
Secondary	5	WARREN		R063	HWY R63	HWY R63 AT CARPENTER ST	1,078	1,128	1,136	55	5,500	(1)	150,000	(3)	
Primary	5	WASHINGTON		IA 22		IOWA 22 0.5 Miles WEST OF REDWOOD AVE	987	1,156	1,170	55	2,640	(1)	150,000	(3)	
Secondary	4	GUTHRIE		F065	WHITE POLE RD	WHITE POLE RD 0.25 Miles WEST OF ZEBRA AVE	1,343	2,889	2,853	55	1,780	(1)	150,000	(3)	
Primary	5	MUSCATINE		US 6	US 6	US 6 0.33 Miles WEST OF BANCROFT AVE	854	1,143	1,178	55	4,250	(1)	150,000	(3)	
Secondary	6	JOHNSON	IOWA CITY		OLD HIGHWAY 218	OLD HIGHWAY 218 0.27 Miles NORTH OF MORMON TREK BLVD	623	1,144	1,139	50	11,700	(1)	150,000	(3)	

High Crash Horizontal Curves
High Speed, Paved Two-lane Roads
2001 to 2009

JURISDICTION	District	COUNTY	CITY	ROUTE	ROAD NAME	LITERAL DESCRIPTION	EST. CURVE LENGTH, ft	EST. RADIUS 1, ft.	EST. RADIUS 2, ft.	SPEED LIMIT, mph	TRAFFIC VOLUME, AADT	POTENTIAL REMEDIES/ IMPROVEMENTS	ESTIMATED COST (2)	IMPEDIMENTS	Status/Program Fiscal Year
Primary	4	HARRISON		US 30	US 30	US 30 AT REDWOOD AVE	2,718	4,218	4,379	55	4,080	(1)	150,000	(3)	This Project (100) was constructed in 1996 with a 28' Top
Primary	1	JASPER		US 6	US 6 E	US 6 E 0.25 Miles EAST OF E 92ND ST N	595	1,256	1,232	55	4,300	(1)	150,000	(3)	
Secondary	6	JOHNSON		W066	DUBUQUE ST	DUBUQUE ST AT 275TH ST NE	362	594	608	50	5,600	(1)	150,000	(3)	
Primary	1	MARSHALL		IA 330	MARSHALLTOWN BLVD	MARSHALLTOWN BLVD 0.58 Miles WEST OF CO HWY S75	1,143	2,298	2,289	55	3,610	(1)	150,000	(3)	
Primary	3	MONONA		IA 141	IOWA 141	IOWA 141 0.8 Miles SE OF CO HWY L32	395	469	480	55	970	(1)	150,000	(3)	
Secondary	1	HARDIN		D067	CO HWY D67	CO HWY D67 0.6 Miles WEST OF Y AVE	1,508	2,248	2,276	55	730	(1)	150,000	(3)	
Secondary	3	CHEROKEE	CHEROKEE	C038	HWY 977	HWY 977 0.26 Miles WEST OF SUNSET POINT DR	1,075	1,178	1,166	50	1,630	(1)	150,000	(3)	
Secondary	2	CLAYTON		B045	PLEASANT RIDGE RD	PLEASANT RIDGE RD 0.29 Miles SOUTH OF GRANITE AVE	1,047	1,442	1,447	55	1,040	(1)	150,000	(3)	
Primary	2	WINNESHIEK		IA 150	IOWA 150	IOWA 150 0.65 Miles SOUTH OF 155TH ST	946	1,909	1,897	55	2,210	(1)	150,000	(3)	warning signs: chevrons, left turn arrows, & watch for turning traffic sign
Primary	2	WINNESHIEK		US 52	US 52	US 52 0.57 Miles SOUTH OF IOWA 9	1,678	1,441	1,439	55	4,620	(1)	150,000	(3)	scheduling chevron sign installations
Primary	2	WINNESHIEK		US 52	US 52	US 52 0.35 Miles S of College Dr	1,738	3,844	3,808	55	2,700	(1)	150,000	(3)	
Primary	3	EMMET		IA 15	IOWA 15	IOWA 15 curves north and the horizontal road becomes 170TH ST. Curve is IOWA 15 going north	1,558	1,168	1,156	55	1,060	(1)	150,000	(3)	
Secondary	5	VAN BUREN		J040	RTE J40	RTE J40 0.28 Miles EAST OF 2ND ST	361	626	616	55	1,030	(1)	150,000	(3)	
Primary	5	WAPELLO		IA 16	IOWA 16	IOWA 16 AT 45TH ST	1,475	1,085	1,087	55	2,780	(1)	150,000	(3)	
Secondary	5	WAPELLO		H041	BLUEGRASS RD	BLUEGRASS RD 0.88 Miles EAST OF 170TH AVE	392	368	369	55	1,480	(1)	150,000	(3)	
Primary	5	JEFFERSON		IA 904	IA 904	IA 904 (Highway 34) 0.8 Miles WEST OF NUTMEG AVE	787	2,743	2,731	55	2,450	(1)	150,000	(3)	2005451052591, Old US 34, east of Fairfield; soon to be TJ'd to Jefferson Co., also significant drop in traffic volume due to Fairfield Bypass since 2008.
Secondary	4	MILLS		L043	230TH ST	230TH ST 0.57 Miles SOUTH OF GASTON AVE	294	539	541	55	970	(1)	150,000	(3)	
Primary	5	DES MOINES		US 61	US 61	US 61 0.62 Miles NORTH OF CO RD H28	622	1,806	1,768	55	4,350	(1)	150,000	(3)	2009 resurfacing with paved shldr. rumbles & CL rumbles
Secondary	4	MILLS		L035	221ST ST	221ST ST 0.14 Miles NORTH OF DEACON RD	454	813	774	55	2,450	(1)	150,000	(3)	
Primary	5	MONROE		IA 137	IOWA 137	IOWA 137 0.15 Miles WEST OF 710 AVE	988	1,170	1,174	55	1,830	(1)	150,000	(3)	
Secondary	4	POTTAWATTAMIE		L035	WABASH AVE	WABASH AVE 0.35 Miles SOUTH OF ATTICA LN	296	1,387	1,303	55	3,930	(1)	150,000	(3)	
Primary	5	WARREN		US 69	US 69	US 69 0.1 Miles WEST OF 128TH AVE (69 curves into and becomes 128th North LEG)	1,579	1,050	1,048	50	1,670	(1)	150,000	(3)	
Primary	5	MAHASKA		IA 92	IOWA 92	IOWA 92 0.98 Miles EAST OF HICKORY AVE	1,738	2,874	2,845	55	2,820	(1)	150,000	(3)	
Secondary	4	POTTAWATTAMIE		L020	OLD LINCOLN HWY	OLD LINCOLN HWY AT Iowana Ln	294	688	729	50	3,980	(1)	150,000	(3)	
Primary	5	MUSCATINE		IA 22	IOWA 22	IOWA 22 AT LUCAS RD	952	2,000	1,973	55	3,620	(1)	150,000	(3)	
Secondary	5	MAHASKA			OLD HWY 102	OLD HWY 102 0.06 Miles NORTH OF CORDOVA AVE	688	1,147	1,148	55	1,910	(1)	150,000	(3)	
Secondary	5	MARION		T014	HWY T14	HWY T14 0.53 Miles NORTH OF 220TH PL	1,638	1,281	1,282	55	1,070	(1)	150,000	(3)	
Secondary	4	DALLAS		R022	UTE AVE	UTE AVE 0.03 Miles South of 340TH TRAIL	590	601	618	55	1,350	(1)	150,000	(3)	
Primary	4	HARRISON		US 30	US 30	US 30 0.1 Miles SOUTH OF CO RD F58	689	830	822	55	6,800	(1)	150,000	(3)	Project was constructed in 2007 with paved shoulders and rumble strips
Secondary	4	DALLAS		F064	ASHWORTH RD	ASHWORTH RD 0.06 Miles WEST OF 88TH ST	888	958	944	55	3,710	(1)	150,000	(3)	
Secondary	1	POLK		S027	NE 112 ST	NE 112 ST 0.02 Miles NORTH OF E UNIVERSITY AVE	197	342	356	50	770	(1)	150,000	(3)	
Primary	6	SCOTT		US 67	GREAT RIVER RD	GREAT RIVER RD 0.06 Miles SOUTH OF 215TH ST	855	2,230	2,245	55	5,100	(1)	150,000	(3)	
Primary	6	SCOTT		US 67	GREAT RIVER RD	GREAT RIVER RD 0.23 Miles SOUTH OF 235TH ST	918	1,552	1,554	55	5,100	(1)	150,000	(3)	
Secondary	6	SCOTT		Y052	115 AVE	115 AVE 0.17 Miles SOUTH OF ALLENS GROOVE RD	456	977	1,005	55	1,710	(1)	150,000	(3)	
Primary	4	GUTHRIE		IA 44	IOWA 44	IOWA 44 AT ROOST LN	1,802	2,857	2,851	55	3,330	(1)	150,000	(3)	
Secondary	6	JOHNSON			JAMES AVE	JAMES AVE 0.69 Miles NORTH OF IRELAND AVE NW	390	202	215	55	830	(1)	150,000	(3)	
Secondary	6	JOHNSON		F028	MEHAFFEY BRIDGE RD	MEHAFFEY BRIDGE RD 0.1 Miles WEST OF HILL DR NE	785	1,158	1,140	55	3,490	(1)	150,000	(3)	
Primary	6	LINN	FAIRFAX	US 151	WILLIAMS BLVD	WILLIAMS BLVD between stallman dr. & CEMETERY RD	1,773	1,906	1,908	55	7,200	(1)	150,000	(3)	
Secondary	1	STORY		E057	280TH ST	280TH ST 0.23 Miles EAST OF TIMBER RD	230	835	892	55	970	(1)	150,000	(3)	
Secondary	1	MARSHALL		E035	MAIN ST RD	MAIN ST RD 0.49 Miles WEST OF Vance AVE	556	1,810	1,819	55	3,960	(1)	150,000	(3)	
Secondary	1	STORY			NORTH DAKOTA AVE	NORTH DAKOTA AVE 0.18 Miles NORTH OF 209TH LN	231	218	228	55	1,020	(1)	150,000	(3)	
Secondary	3	WOODBURY		D054	DEER RUN TRL	DEER RUN TRL 0.32 Miles EAST OF KONA AVE	822	932	992	55	280	(1)	150,000	(3)	
Secondary	1	WEBSTER			GYPSUM HOLLOW RD	GYPSUM HOLLOW RD 0.34 Miles SOUTH OF 15TH AVE S	502	437	460	55	1,100	(1)	150,000	(3)	
Secondary	6	DUBUQUE			KENNEDY RD	KENNEDY RD 0.3 Miles EAST OF CHERRYWOOD HILLS DR	525	587	598	55	2,840	(1)	150,000	(3)	
Primary	6	DUBUQUE		US 52	US 52	US 52 0.35 Miles SW OF SHERRILL RD	945	639	628	50	2,240	(1)	150,000	(3)	
Primary	6	DUBUQUE		US 52	US 52	US 52 AT SHERRILL RD	1,677	825	834	50	2,240	(1)	150,000	(3)	
Primary	6	DUBUQUE		US 52	US 52	US 52 0.28 Miles NORTH OF BOY SCOUT RD	263	493	519	50	2,240	(1)	150,000	(3)	
Primary	1	WEBSTER		US 169	US 169	US 169 0.61 Miles SOUTH OF 130TH ST	686	2,057	1,953	55	5,500	(1)	150,000	(3)	

**High Crash Horizontal Curves
High Speed, Paved Two-lane Roads
2001 to 2009**

JURISDICTION	District	COUNTY	CITY	ROUTE	ROAD NAME	LITERAL DESCRIPTION	EST. CURVE LENGTH, ft	EST. RADIUS 1, ft.	EST. RADIUS 2, ft.	SPEED LIMIT, mph	TRAFFIC VOLUME, AADT	POTENTIAL REMEDIES/ IMPROVEMENTS	ESTIMATED COST (2)	IMPEDIMENTS	Status/Program Fiscal Year
Primary	2	FAYETTE		IA 3	35TH ST	Follow Iowa 3 west for 0.74 Miles after intersection with K ave	947	944	961	55	2,700	(1)	150,000	(3)	Installed "Advisory Speed Plate 50" signs.
Primary	3	PLYMOUTH		IA 3	IOWA 3	IOWA 3 0.36 Miles WEST OF MARBLE AVE	459	2,003	1,883	50	3,290	(1)	150,000	(3)	
Secondary	2	FAYETTE		W051	CEDAR RD	CEDAR RD 0.06 Miles north of DOVE RD	753	1,605	1,626	55	830	(1)	150,000	(3)	
Primary	2	FAYETTE		IA 150	LINCOLN RD	LINCOLN RD 0.66 Miles SOUTH OF MAJOR RD	920	1,418	1,430	55	2,140	(1)	150,000	(3)	Planning to install rumble strips, paved shoulders, & chevron signs. Also improve pavement markings and reverse curve signs
Primary	2	ALLAMAKEE		IA 76	IOWA 76	IOWA 76 (Great River Road) 0.72 Miles SOUTH OF Thomas Rd	427	757	721	50	2,430	(1)	150,000	(3)	
Primary	3	PALO ALTO	EMMETSBURG	US 18	450 AVE	360th st 0.09 miles North of college dr (previously said :450 AVE NORTH OF COLLEGE DR)	2,552	1,651	1,655	50	4,730	(1)	150,000	(3)	Being considered for 3R but outside current 3-year
Secondary	2	CERRO GORDO		B020	300TH ST	300TH ST 1.41 Miles WEST OF US 65	1,082	1,428	1,462	55	2,770	(1)	150,000	(3)	
Secondary	2	ALLAMAKEE		A052	ELON DR	ELON DR 0.05 Miles East of SHERMAN RIDGE RD	723	1,132	1,145	55	1,210	(1)	150,000	(3)	
Secondary	2	WINNESHIEK		W038	LOCUST RD	LOCUST RD 0.24 SOUTH OF 337TH ST	756	1,132	1,156	55	1,390	(1)	150,000	(3)	
Primary	2	MITCHELL		US 218	US 218	US 218 AT FOOTHILL AVE	1,213	959	964	55	2,000	(1)	150,000	(3)	replaced existing signs

EST, RADIUS 1: Computed using circular regression.
EST, RADIUS 2: Computed using estimated chord and curve lengths.

QUALIFYING CONDITIONS

1. Paved, two-lane primary and secondary roads.
2. Speed limit greater than, or equal to, 50 mph.
3. At least seven, non-animal, non-intersection crashes.

NOTE: Some crashes occurring on tangents immediately adjacent to curves were included in the analysis.

Footnotes:

- (1) Potential Remedies/Improvements include, pending a study, the following:
 - (a) Add chevrons.
 - (b) Add shoulder rumble strips.
 - (c) Add paved shoulders.
 - (d) Add centerline rumble strips.
 - (e) Add delineation markers.
 - (f) Update pavement markings.
 - (g) Possible excavation for flattening the curve or increasing the radius.
- (2) Estimates cannot be complete without a study.
- (3) Possible impediments are unknown until after a study is completed.
- (4) Excludes collisions with animals and crashes reported as occurring at an intersection.

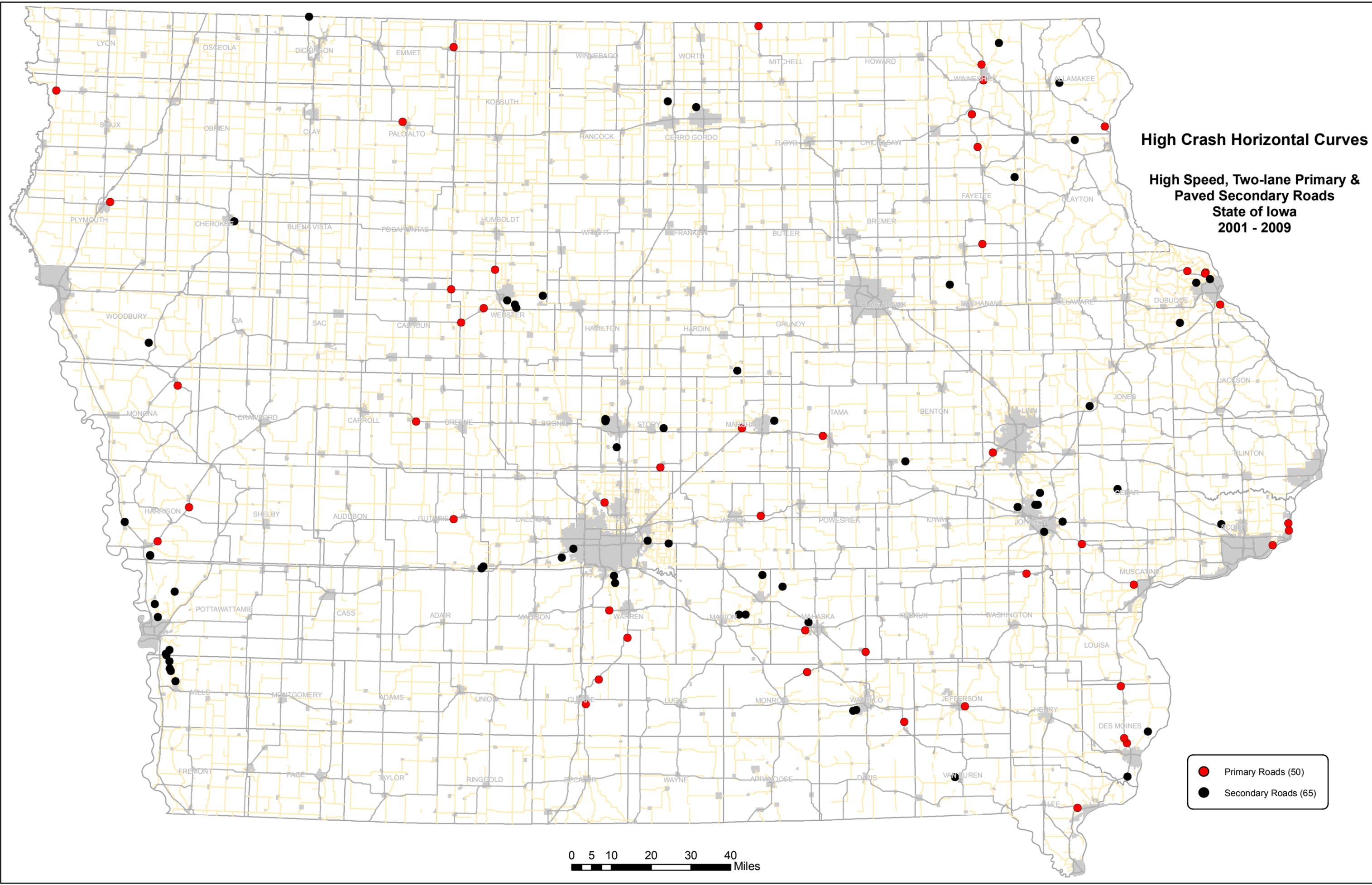
CRASH SEVERITY (1)					TOTAL CRASHES (4)	GOOGLE MAP LINK
FATAL	MAJOR INJURY	MINOR INJURY	POSSIBLE/U NK INJURY	PDO		
1	1	3	5	6	16	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.52289+95.88528&ll=42.489061,-94.192593&sspn=0.009636,0.022638&ie=UTF8&t=h&z=16
0	0	2	4	9	15	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.99284+92.61312&ll=42.089827,-91.305438&sspn=0.009697,0.022638&ie=UTF8&t=h&z=16
0	1	4	3	7	15	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.08981+91.30543&ll=41.520501,-95.88566&sspn=0.009784,0.022638&ie=UTF8&t=h&z=16
0	2	1	5	6	14	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.7338+91.57948&ll=42.454779,-94.121819&sspn=0.009641,0.022638&ie=UTF8&t=h&z=16
1	2	2	0	9	14	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.45478+94.12177&ll=41.992874,-92.613191&sspn=0.009712,0.022638&ie=UTF8&t=h&z=16
0	1	2	0	10	13	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.567+90.42925&ll=41.733818,-91.579469&sspn=0.009752,0.022638&ie=UTF8&t=h&z=16
0	0	1	2	10	13	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.05362+93.67862&ll=41.567032,-90.42928&sspn=0.009777,0.022638&ie=UTF8&t=h&z=16
0	1	0	7	4	12	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.34269+92.99205&ll=41.898032,-92.210756&sspn=0.009727,0.022638&ie=UTF8&t=h&z=16
0	2	1	2	7	12	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.89801+92.21077&ll=42.398424,-94.392934&sspn=0.00965,0.022638&ie=UTF8&t=h&z=16
1	1	1	3	6	12	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.39839+94.39292&ll=42.053513,-93.678113&sspn=0.009703,0.022638&ie=UTF8&t=h&z=16
0	1	1	4	5	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=40.85963+91.15694&ll=41.520501,-95.88566&sspn=0.009784,0.022638&ie=UTF8&t=h&z=16
0	0	1	1	9	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=40.87751+91.16977&ll=41.139462,-95.775078&sspn=0.009841,0.022638&ie=UTF8&t=h&z=15
0	2	0	4	5	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.10395+95.76724&ll=41.342618,-93.023952&sspn=0.019622,0.045276&ie=UTF8&t=h&z=16
0	0	3	4	4	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.13948+95.77504&ll=42.386097,-90.852014&sspn=0.009652,0.022638&ie=UTF8&t=h&z=16
0	0	1	2	8	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.34262+93.02394&ll=41.342722,-92.992092&sspn=0.009811,0.022638&ie=UTF8&t=h&z=15
0	1	1	2	7	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.52133+95.88503&ll=41.103948,-95.76725&sspn=0.009847,0.022638&ie=UTF8&t=h&z=16
0	0	5	1	5	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.04507+93.67848&ll=40.877509,-91.169776&sspn=0.019761,0.045276&ie=UTF8&t=h&z=16
0	0	3	1	7	11	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.3861+90.85202&ll=40.859621,-91.157001&sspn=0.009883,0.022638&ie=UTF8&t=h&z=16
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0	3	3	0	4	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.18075+95.77747&ll=41.503866,-94.27397&sspn=0.009787,0.022638&ie=UTF8&t=h&z=16
2	0	1	5	2	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.34544+95.8547&ll=42.540572,-91.983537&sspn=0.009628,0.022638&ie=UTF8&t=h&z=15
0	0	1	6	3	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.45589+93.62586&ll=42.020494,-93.399796&sspn=0.009708,0.022638&ie=UTF8&t=h&z=15
0	3	2	1	4	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.50379+94.27415&ll=42.448241,-90.652448&sspn=0.019285,0.045276&ie=UTF8&t=h&z=16
0	1	0	3	6	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.61046+93.67914&ll=41.74909&sspn=0.009749,0.022638&ie=UTF8&t=h&z=16
0	1	2	2	5	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.74906+93.67914&ll=42.500904,-93.992989&sspn=0.009634,0.022638&ie=UTF8&t=h&z=16
0	0	4	0	6	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.02102+93.39263&ll=41.60426,-93.467345&sspn=0.009771,0.022638&ie=UTF8&t=h&z=16
0	0	0	4	6	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.03519+94.60563&ll=42.518496,-94.444471&sspn=0.009632,0.022638&ie=UTF8&t=h&z=16
0	3	0	3	4	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.44824+90.65245&ll=43.212474,-93.379957&sspn=0.009524,0.022638&ie=UTF8&t=h&z=15
0	2	0	3	5	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.50005+93.99245&ll=41.180713,-95.778701&sspn=0.002459,0.005659&ie=UTF8&t=h&z=16
0	0	1	0	9	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.51846+94.44446&ll=41.455898,-93.625833&sspn=0.019588,0.045276&ie=UTF8&t=h&z=16
2	2	2	0	4	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.5406+91.9836&ll=42.466958,-94.12881&sspn=0.019279,0.045276&ie=UTF8&t=h&z=16
1	1	0	2	6	10	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.21246+93.37997&ll=41.345437,-95.854779&sspn=0.019621,0.045276&ie=UTF8&t=h&z=16
0	1	2	0	6	9	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=40.7371+91.15824&ll=41.878032,-93.408009&sspn=0.00973,0.022638&ie=UTF8&t=h&z=16
0	0	5	0	4	9	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.1659+95.79301&ll=41.641271,-96.013725&sspn=0.009766,0.022638&ie=UTF8&t=h&z=16
1	1	0	3	4	9	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.20499+92.41123&ll=42.035532,-94.606577&sspn=0.009706,0.022638&ie=UTF8&t=h&z=16
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0	0	0	0	9	9	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.67106+91.44795&ll=42.530222,-90.767875&sspn=0.00963,0.022638&ie=UTF8&t=h&z=16
0	0	1	6	2	9	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.78626+91.17746&ll=41.204982,-92.411243&sspn=0.009832,0.022638&ie=UTF8&t=h&z=16
0	2	2	1	4	9	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.87802+93.408&ll=43.500504,-95.180906&sspn=0.009479,0.022638&ie=UTF8&t=h&z=16
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0	1	1	0	7	9	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.53023+90.76787&ll=40.737102,-91.15824&sspn=0.009902,0.022638&ie=UTF8&t=h&z=16
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0	1	2	1	4	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=40.62711+91.40022&ll=41.392859,-95.760818&sspn=0.009803,0.022638&ie=UTF8&t=h&z=16
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0	1	0	4	3	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.01396+93.76244&ll=41.701585,-95.703814&sspn=0.009757,0.022638&ie=UTF8&t=h&z=16
0	0	1	4	3	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.10368+93.70096&ll=42.147099,-95.782242&sspn=0.009689,0.022638&ie=UTF8&t=h&z=15
2	0	0	2	4	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&

CRASH SEVERITY (1)					TOTAL CRASHES (4)	GOOGLE MAP LINK
FATAL	MAJOR INJURY	MINOR INJURY	POSSIBLE/ NK INJURY	PDO		
0	1	3	0	4	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.70159+95.70384&mrt=all&sl=43.164872,-91.862526&sspn=0.009531,0.022638&ie=UTF8&t=h&z=16
0	3	0	3	2	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.70282+92.91737&mrt=all&sl=43.340744,-91.811062&sspn=0.009504,0.022638&ie=UTF8&t=h&z=16
0	1	2	1	4	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.73344+91.56685&mrt=all&sl=41.01143,-93.762925&sspn=0.009861,0.022638&ie=UTF8&t=h&z=16
0	1	3	0	4	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.02163+93.0096&mrt=all&sl=43.400689,-94.45374&sspn=0.009495,0.022638&ie=UTF8&t=h&z=15
0	0	2	4	2	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.14314+95.77855&mrt=all&sl=42.231123,-93.026454&sspn=0.009676,0.022638&ie=UTF8&t=h&z=16
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2	0	5	0	1	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.74729+95.52496&mrt=all&sl=41.308785,-92.687016&sspn=0.004908,0.011319&ie=UTF8&t=h&z=16
0	0	4	3	1	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.0595+91.35302&mrt=all&sl=43.026016,-91.205342&sspn=0.009553,0.022638&ie=UTF8&t=h&z=15
0	1	0	1	6	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.15965+91.86286&mrt=all&sl=40.627176,-91.400196&sspn=0.009918,0.022638&g=40.62711+91.40022&ie=UTF8&ll=43.164872,-91.862526&spn=0.009531,0.022638&t=h&z=16
0	1	2	1	4	8	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.28343+91.80377&mrt=all&sl=41.510811,-94.265249&sspn=0.009786,0.022638&ie=UTF8&t=h&z=15
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0	1	0	0	6	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=40.74605+91.98644&mrt=all&sl=40.949241,-92.228101&sspn=0.00987,0.022638&ie=UTF8&t=h&z=15
0	1	1	2	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=40.94923+92.22812&mrt=all&sl=41.132406,-92.69518&sspn=0.019685,0.045276&ie=UTF8&t=h&z=16
0	0	4	0	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=40.99102+92.47346&sl=40.9879,-92.476988&sspn=0.009864,0.022638&ie=UTF8&ll=40.991026,-92.47349&spn=0.009864,0.022638&t=h&z=16
0	2	0	1	4	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.00298+91.93452&mrt=all&sl=41.001569,-91.927907&sspn=0.009862,0.022638&ie=UTF8&ll=41.002978,-91.934516&spn=0.009862,0.022638&t=h&z=16
0	1	0	5	1	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.06687+95.74283&mrt=all&sl=41.073916,-95.740314&sspn=0.009851,0.022638&ie=UTF8&ll=41.066863,-95.742846&spn=0.009852,0.022638&t=h&z=16
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0	0	0	2	5	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.11265+95.77206&sl=41.574234,-95.851665&sspn=0.009776,0.022638&ie=UTF8&t=h&z=16
0	1	2	2	2	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.13242+92.69519&mrt=all&sl=42.566265,-90.719859&sspn=0.009624,0.022638&ie=UTF8&t=h&z=15
0	0	3	1	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.16097+95.7904&sl=41.16276,-95.790653&sspn=0.009838,0.022638&ie=UTF8&ll=41.160967,-95.790396&spn=0.009838,0.022638&t=h&z=16
1	0	0	5	1	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.25677+93.56383&mrt=all&sl=42.296126,-95.925169&sspn=0.009666,0.022638&ie=UTF8&t=h&z=15
0	0	1	1	5	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.28528+92.70386&sl=42.573197,-90.809042&sspn=0.009623,0.022638&ie=UTF8&t=h&z=15
0	2	0	3	2	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.29836+95.8374&mrt=all&sl=41.950348,-93.621915&sspn=0.009719,0.022638&ie=UTF8&t=h&z=15
0	0	1	3	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.43647+91.10745&mrt=all&sl=41.002978,-91.934516&sspn=0.009862,0.022638&ie=UTF8&t=h&z=16
0	2	2	3	0	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.44462+92.81238&mrt=all&sl=41.444608,-92.812367&sspn=0.009796,0.022638&ie=UTF8&t=h&z=16
0	1	1	2	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.48725+92.90954&mrt=all&sl=41.066863,-95.742846&sspn=0.009852,0.022638&ie=UTF8&t=h&z=15
0	3	0	1	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.54662+93.88548&mrt=all&sl=41.436419,-91.107412&sspn=0.009797,0.022638&ie=UTF8&t=h&z=16
0	0	3	3	1	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.57457+95.85118&sl=43.486657,-92.926402&sspn=0.009481,0.022638&ie=UTF8&t=h&z=16
0	0	0	0	7	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.57941+93.82977&sl=41.618951,-90.348243&sspn=0.009769,0.022638&ie=UTF8&t=h&z=16
0	0	2	2	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.60129+93.36698&mrt=all&sl=42.803326,-96.142078&sspn=0.009588,0.022638&ie=UTF8&t=h&z=16
0	0	0	4	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.61895+90.34825&sl=41.28531,-92.703868&sspn=0.019639,0.045276&ie=UTF8&t=h&z=16
1	1	0	1	4	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.64525+90.35001&mrt=all&sl=41.648556,-90.67556&sspn=0.009765,0.022638&ie=UTF8&t=h&z=16
1	2	0	1	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.64855+90.67558&mrt=all&sl=42.562425,-90.723038&sspn=0.009625,0.022638&ie=UTF8&t=h&z=16
0	1	0	0	6	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.68152+94.41332&mrt=all&sl=42.928468,-91.65459&sspn=0.009568,0.022638&ie=UTF8&t=h&z=16
0	2	1	0	4	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.72701+91.66617&mrt=all&sl=41.727031,-91.665158&sspn=0.009753,0.022638&ie=UTF8&ll=41.727031,-91.66621&spn=0.009753,0.022638&t=h&z=16
0	1	2	1	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.77751+91.55616&mrt=all&sl=41.777041,-91.555016&sspn=0.004873,0.011319&ie=UTF8&t=h&z=16
0	0	2	0	5	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.92708+91.78256&mrt=all&sl=41.601295,-93.366965&sspn=0.009772,0.022638&ie=UTF8&t=h&z=16
0	3	0	1	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=41.95029+93.62192&mrt=all&sl=41.546624,-93.885489&sspn=0.00978,0.022638&ie=UTF8&t=h&z=16
1	0	2	0	4	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.04955+92.85056&mrt=all&sl=42.052161,-92.842712&sspn=0.009703,0.022638&ie=UTF8&ll=42.049595,-92.850587&spn=0.009704,0.022638&t=h&z=16
0	0	0	2	5	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.05151+93.67549&sl=41.579459,-93.829782&sspn=0.009775,0.022638&ie=UTF8&t=h&z=16
1	0	1	2	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.29583+95.92646&mrt=all&sl=43.106716,-91.200997&sspn=0.019081,0.045276&ie=UTF8&t=h&z=16
0	0	1	1	5	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.48176+94.1678&sl=42.483713,-94.168239&sspn=0.009637,0.022638&ie=UTF8&ll=42.481782,-94.167874&spn=0.009637,0.022638&t=h&z=16
0	0	0	3	4	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.54162+90.69952&sl=40.991026,-92.47349&sspn=0.009864,0.022638&ie=UTF8&t=h&z=16
2	0	0</				

CRASH SEVERITY (1)					TOTAL CRASHES (4)	GOOGLE MAP LINK
FATAL	MAJOR INJURY	MINOR INJURY	POSSIBLE/U NK INJURY	PDO		
0	0	1	1	5	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.68697+-91.81962&sl=42.541643,-90.699514&sspn=0.009628,0.022638&ie=UTF8&t=h&z=15
0	1	1	4	1	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.80331+-96.14207&mrt=all&sl=42.803592,-96.136631&sspn=0.002397,0.005659&ie=UTF8&t=h&z=16
0	2	2	0	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=42.92847+-91.6546&mrt=all&sl=43.191598,-93.237877&sspn=0.019055,0.045276&ie=UTF8&t=h&z=16
1	0	2	0	4	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.0411+-91.83667&mrt=all&sl=43.045856,-91.835425&sspn=0.00955,0.022638&ie=UTF8&ll=43.041104,-91.836691&spn=0.009551,0.022638&t=h&z=16
1	0	2	2	2	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.1067+-91.20104&mrt=all&sl=43.110367,-91.19884&sspn=0.00954,0.022638&ie=UTF8&t=h&z=15
0	0	3	1	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.12518+-94.70063&sl=42.686977,-91.819626&sspn=0.019211,0.045276&ie=UTF8&t=h&z=16
0	2	2	2	1	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.19153+-93.23792&mrt=all&sl=43.190566,-93.224616&sspn=0.019055,0.045276&ie=UTF8&ll=43.191598,-93.237877&spn=0.019055,0.045276&t=h&z=15
0	1	3	2	1	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.26917+-91.42478&mrt=all&sl=43.418137,-91.722506&sspn=0.009492,0.022638&ie=UTF8&t=h&z=16
0	1	2	1	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.41814+-91.72252&mrt=all&sl=41.681578,-94.413358&sspn=0.00976,0.022638&ie=UTF8&t=h&z=16
0	0	1	3	3	7	http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=43.48665+-92.92641&sl=41.550736,-93.733354&sspn=0.156471,0.362206&ie=UTF8&t=h&z=16

High Crash Horizontal Curves

High Speed, Two-lane Primary & Paved Secondary Roads
State of Iowa
2001 - 2009



- Primary Roads (50)
- Secondary Roads (65)

0 5 10 20 30 40 Miles

5% Severe Safety Needs Intersections
All Intersections
2001 to 2009

Intersection ID (2008)	Expressway Intersection ID (2007)	Intersection List Order	District	County Number	County	Nearest City	Location	Route	Intersection Class	Rural/Urban	Potential Remedies/ Improvements	Estimated Cost	Impediments (3)	Status/ Program Fiscal Year	Project #	Description
234391	10767	1	1	50	Jasper	Mingo	US 65 & IA 117 & IA 330 (3 miles northwest of Mingo)	65	US Route - IA Route	Rural	several options have been considered, including J-Turn and restricted median	\$750,000		2014 (4)		Pending further study/consideration
407711	345	2	6	82	Scott	Davenport	US 61/140th St & Co Rd Y48/110th Ave (1 mile west of Davenport)	61	US Route - Municipal	Rural		\$100,000		2009	L-TSF-61-C082(41)--74-82	Add active advance signal warning at inter. of US 61 & Y48 (2009)
272682		3	5	58	Louisa		US 61 & IA 92/IOWA 92 & Co Rd G48/CO HWY 252	61	US Route - IA Route	Rural	(1)	(2)	None	2014 - 2016		Programmed to start purchasing ROW in 2014 with dirt work scheduled in 2015 and opening probably in 2016. This interchange is part of the 4-lane continuation from Muscatine Co. south into Louisa Co.
162662	100147	4	2	34	Floyd	Rudd	US 18 & Co Rd T24/Echo Ave (1.5 miles west of Rudd)	18	US Route - Municipal	Rural		\$448,862		2008	TSF-18-6(87)--92-34	eliminate skew angle of intersection (2009)
413507		5	6	82	Scott	Davenport	US 61/HARRISON ST & W LOCUST ST	61	US Route - Municipal	Urban			None			City to implement recommendations from Study (2009)
443002		6	1	77	Polk	Clive	US 6/HICKMAN RD & 128TH ST	6	US Route - Municipal	Urban		\$248,000	None			Extend Turn Bays, Adjust Phasing (2009)
720704		7	1	77	Polk	Des Moines	TUTTLE ST & SW 8TH ST		Municipal - Municipal	Urban		\$300,000		2009	CS-TSF-1945(740)--85-77	Add signals on Tuttle St at intersections of SW 8th St and SW 9th St (2009)
226527	323	8	5	70	Muscatine	Muscatine	US 61 & Hershey Ave (Muscatine)	61	US Route - Municipal	Urban		\$5,341,500		2008	HES-061-4(97)--2H-70	Interchange (2009)
1551		9	1	77	Polk	Des Moines	I-235 & 19TH ST	235	Interstate - Municipal	Urban			None			I-235 was reconstructed within the crash data timeframe and impacts are as yet uncertain
343174		10	3	97	Woodbury	Sioux City	I-29 Tri-Level SW Ramp Terminal	29	Interstate - Interstate	Urban	I-29 along either side of interchange scheduled for reconstruction		None	2011		Interchange Modification Under Design (2009)

SELECTION CRITERIA:

1. FIVE PERCENT OF THE 200 INTERSECTIONS WITH THE HIGHEST NUMBER OF FATAL AND MAJOR INJURY CRASHES DURING 2001-2009
2. TIES WERE THEN RANKED BY NUMBER OF PEOPLE WHO DIED OR RECEIVED A MAJOR INJURY, THEN BY THE NUMBER OF PEOPLE RECEIVING MINOR INJURIES

Footnotes:

- (1) Final plans and costs remain outstanding.
- (2) Cost estimate is unknown until after study is completed or plans finalized.
- (3) Possible impediments are unknown until after a study is completed or plans finalized. There could be environmental or right-of-way impediments, if shoulder widening is required.
- (4) Only 2011 is programmed/approved by commission. Other years are only in the plan.

Appears in previous report as under consideration or in plan

Appears in previous report as completed

**Highest Density Corridors of Unbelted Drivers & Passengers Killed or Seriously Injured
Rural State Highways
2001 to 2009**

ROAD TYPE	JURISDICTION	LENGTH (MI)	COUNTY	ROUTE	FROM	TO	KILLED OR SERIOUSLY INJURED UNBELTED PASSENGERS	ANNUAL KILLED OR SERIOUSLY INJURED UNBELTED PASSENGER DENSITY (PASSENGERS/MI/YR)	Potential Remedies (1)	Estimated Costs (2)	Impediments (3)	Status (4,5)
MULTI-LANE DIVIDED	Primary	17.5	BOONE	US 30	~0.7 MI WEST OF OGDEN CORPORATE BOUNDARY	~1.0 MI WEST OF BOONE/STORY COUNTY LINE	16	0.102				4a, 5b, 5f, 5g, 5h
INTERSTATE/FREEWAY	Primary	24.1	POWESHIEK	I 80	POWESHIEK/JASPER COUNTY LINE	POWESHIEK/IOWA COUNTY LINE	20	0.092				4a, 5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	20.8	DUBUQUE	US 20	DUBUQUE/DELAWARE COUNTY LINE	~0.03 MI SW OF COUSINS RD	17	0.091				4a, 5b, 5e, 5f, 5h
INTERSTATE/FREEWAY	Primary	18.1	MILLS	I 29	MILLS/FREMONT COUNTY LINE	MILLS/POTTAWATTAMIE COUNTY LINE	13	0.080				5a, 5f, 5g, 5h
MULTI-LANE DIVIDED	Primary	27.4	MUSCATINE	US 61	MUSCATINE/LOUISA COUNTY LINE	MUSCATINE/SCOTT COUNTY LINE	19	0.077				5a, 5e, 5f, 5h
INTERSTATE/FREEWAY	Primary	23.6	CASS	I 80	POTTAWATTAMIE/CASS COUNTY LINE	CASS/ADAIR COUNTY LINE	16	0.075				4a, 5a, 5f, 5g, 5h
INTERSTATE/FREEWAY	Primary	24.3	DECATUR	I 35	IOWA/MISSOURI BORDER	DECATUR/CLARK COUNTY LINE	16	0.073				4a, 5a, 5f, 5g, 5h
INTERSTATE/FREEWAY	Primary	24.2	WARREN	I 35	WARREN/CLARKE COUNTY LINE	WARREN/POLK COUNTY LINE	15	0.069				4a, 5a, 5g, 5f, 5h
INTERSTATE/FREEWAY	Primary	24.2	STORY	I 35	STORY/POLK COUNTY LINE	STORY/HAMILTON COUNTY LINE	15	0.069				4a, 5b, 5e, 5f, 5h
TWO-LANE	Primary	23.7	UNION	US 34	UNION/ADAMS COUNTY LINE	UNION/CLARKE COUNTY LINE	14	0.066				5a, 5g, 5f, 5h
INTERSTATE/FREEWAY	Primary	23.9	ADAIR	I 80	ADAIR/CASS COUNTY LINE	ADAIR/MADISON COUNTY LINE	14	0.065				5a, 5g, 5f, 5h

251.8

ROADWAYS INCLUDED

Rural, state maintained roadways

QUALIFYING CONDITIONS

1. Drivers/passengers killed or seriously injured not using occupant protection.
2. At least three times statewide average drivers/passengers killed or seriously injured not using occupant protection.
3. At least 13 drivers/passengers killed or seriously injured not using occupant protection.

EXCLUSIONS

1. Nonmotorists
2. Motorcyclists and bus passengers
3. Bus passengers

STATEWIDE AVERAGE = **0.020** KILLED AND SERIOUSLY INJURED UNBELTED PASSENGERS/MILE/YEAR

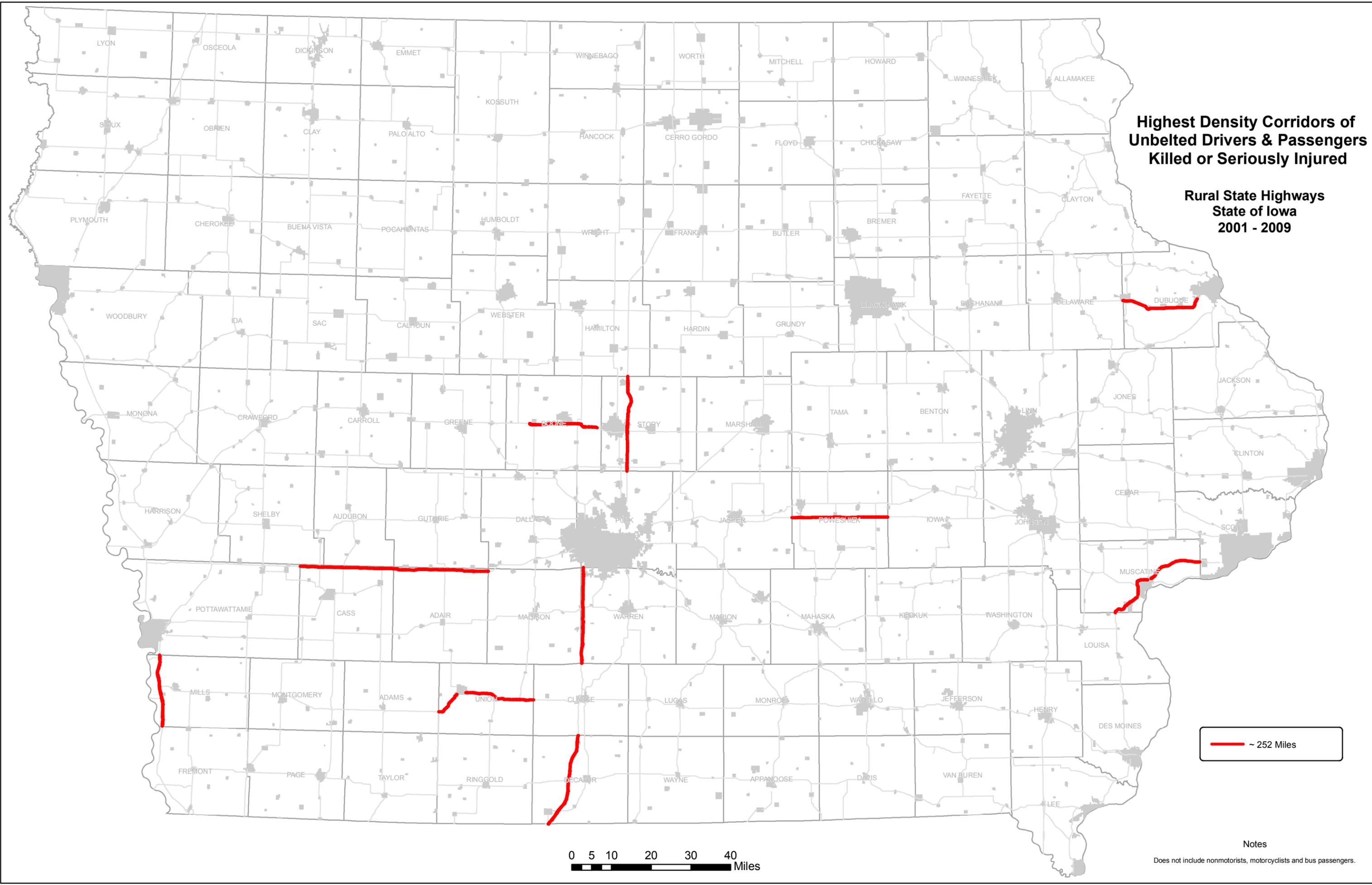
Appears in previous report as under consideration or in plan

Footnotes:

- (1) Potential remedies include: public awareness and education and increased seat belt enforcement in these corridors.
- (2) The estimated cost is unknown and variable. Identification of these corridors provides an opportunity for state and local enforcement agencies to target corridors for additional seat belt use enforcement using existing staff and funding resources. Providing funding for additional enforcement will be considered.
- (3) Reduction in enforcement officers due to budget constraints, military call up of staff and other enforcement responsibilities.
- (4) Status
 - a. Corridor enforcement event funded in 2008-09
 - b. Targeted spot enforcement within corridor funded in 2008-09
 - c. Additional local enforcement completed in 2008-09
 - d. Paved shoulders and shoulder rumble strips completed or programmed
- (5) Status - Governor's Traffic Safety Bureau (GTSB) Sponsored "Corridor" (Areal) Enforcement Efforts
 - a. Southern Exposure - 2 days in April (southern third of Iowa)
 - b. Operation Midway - 2 days in May (middle third of Iowa)
 - c. Northern Lights - 2 days in June (northern third of Iowa)
 - d. Operation "I"s - 2 days in July (statewide interstates)
 - e. Eastern Heat - 2 days in August (eastern half of Iowa - east of I-35)
 - f. Child Passenger Safety and Mobile Eyes Corridor - 2 days in September (statewide)
 - g. Western Expansion - 2 days in October (western half of Iowa - west of I-35)
 - h. Step Waves - Statewide - dates: Thanksgiving (7 days in November), St. Patrick's Day (5 days in March), Memorial Day/C.I.O.T. (Click It Or Ticket) (14 days in May/June), Independence Day (4 days in July), Labor Day/Over the Limit - Under Arrest (14 days in August/September)

Highest Density Corridors of Unbelted Drivers & Passengers Killed or Seriously Injured

Rural State Highways State of Iowa 2001 - 2009



Notes

Does not include nonmotorists, motorcyclists and bus passengers.

**Highest Fatal & Major Injury Alcohol & Drug-related Crash Density Corridors
Rural State Highways
2001 to 2009**

ROAD TYPE	JURISDICTION	LENGTH (MI)	COUNTY	ROUTE	FROM	TO	FATAL AND MAJOR INJURY ALCOHOL/DRUG-RELATED CRASHES	ANNUAL FATAL AND MAJOR INJURY ALCOHOL/DRUG-RELATED CRASH DENSITY (CRASHES/MI/YR)	Potential Remedies (1)	Estimated Costs (2)	Impediments (3)	Status (4,5)
MULTI-LANE DIVIDED	Primary	8.9	DES MOINES	US 61	DES MOINES/LEE COUNTY LINE	INTERSECTION OF FLINT BOTTOM RD	6	0.075				4a,4d, 5a, 5g, 5f, 5h
MULTI-LANE DIVIDED	Primary	10.1	DUBUQUE	US 61	DUBUQUE/JACKSON COUNTY LINE	~-0.25 MI SOUTH OF DUBUQUE CORPORATE BOUNDARY	6	0.066				5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	27.4	MUSCATINE	US 61	MUSCATINE/LOUISA COUNTY LINE	MUSCATINE/SCOTT COUNTY LINE	16	0.065				4a,4d,5a, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	20.8	DUBUQUE	US 20	DUBUQUE/DELAWARE COUNTY LINE	~-0.03 MI SW OF COUSINS RD	11	0.059				4a, 5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	9.5	LINN	US 151	~-0.2 MI EAST OF MARION CORPORATE BOUNDARY	LINN/JONES COUNTY LINE	5	0.058				5b, 5e, 5f, 5h
TWO-LANE	Primary	15.8	JOHNSON	US 6	JOHNSON/IOWA COUNTY LINE	~-0.4 MI EAST OF TIFFIN CORPORATE BOUNDARY	7	0.049				4c, 5b, 5e, 5f, 5h
INTERSTATE/FREEWAY	Primary	18.9	POTTAWATTAMIE	I 29	POTTAWATTAMIE/MILLS COUNTY LINE	POTTAWATTAMIE/HARRISON COUNTY LINE	7	0.041				4a,4d, 5a, 5g, 5f, 5h
TWO-LANE	Primary	23.7	UNION	US 34	UNION/ADAMS COUNTY LINE	UNION/CLARKE COUNTY LINE	8	0.038				4a,4d, 5a, 5g, 5f, 5h
INTERSTATE/FREEWAY	Primary	24.1	IOWA	I 80	IOWA/POWESHIEK COUNTY LINE	IOWA/JOHNSON COUNTY LINE	8	0.037				4a,4d, 5b, 5e, 5f, 5h
TWO-LANE	Primary	18.2	MAHASKA	US 63	INTERSECTION OF 275TH ST	MAHASKA/POWESHIEK COUNTY LINE	6	0.037				5a, 5e, 5f, 5h
TWO-LANE	Primary	24.0	JOHNSON	IOWA 1	JOHNSON/WASHINGTON COUNTY LINE	JOHNSON/LINN COUNTY LINE	7	0.032				5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	17.4	DALLAS	IOWA 141	~-0.7 MI WEST OF PERRY CORPORATE BOUNDARY	DALLAS/POLK COUNTY LINE	5	0.032				5b, 5g, 5f, 5h
MULTI-LANE DIVIDED	Primary	21.3	LEE	US 61	KEOKUK CORPORATE BOUNDARY	~-0.55 MI WEST OF FORT MADISON CORPORATE BOUNDARY	6	0.031				5a, 5e, 5f, 5h
TWO-LANE	Primary	17.8	MARSHALL	IOWA 14	MARSHALL/JASPER COUNTY LINE	MARSHALL/GRUNDY COUNTY LINE	5	0.031				4c, 5b, 5e, 5f, 5h
TWO-LANE	Primary	26.4	DUBUQUE	US 52	DUBUQUE/CLAYTON COUNTY LINE	~-0.3 MI SW OF SAGEVILLE CORPORATE BOUNDARY	7	0.029				4b, 5b, 5e, 5f, 5h

284.2

ROADWAYS INCLUDED

Rural, state maintained roadways

QUALIFYING CONDITIONS

1. Fatal or major injury crashes involving any of the following: a) BAC>0, b) Alcohol Test Refused, c) Drug Test Positive, d) Drug Test Refused, or e) Driver Condition = Under Influence of Alcohol/Drugs/Medication.
2. At least 2.75 times statewide average alcohol/drug-related fatal and major injury crash density.
3. At least five fatal or major injury alcohol/drug-related crashes.

STATEWIDE AVERAGE = **0.011** FATAL AND MAJOR INJURY ALCOHOL/DRUG-RELATED CRASHES/MILE/YEAR

Appears in previous report as under consideration or in plan

Footnotes:

(1) Potential remedies include: public awareness and education and increased impaired driving enforcement in these corridors.

(2) The estimated cost is unknown and variable. Identification of these corridors provides an opportunity for state and local enforcement agencies to target corridors for additional seat belt use enforcement using existing staff and funding resources. Providing funding for additional enforcement will be considered.

(3) Reduction in enforcement officers due to budget constraints, military call up of staff and other enforcement responsibilities.

(4) Status

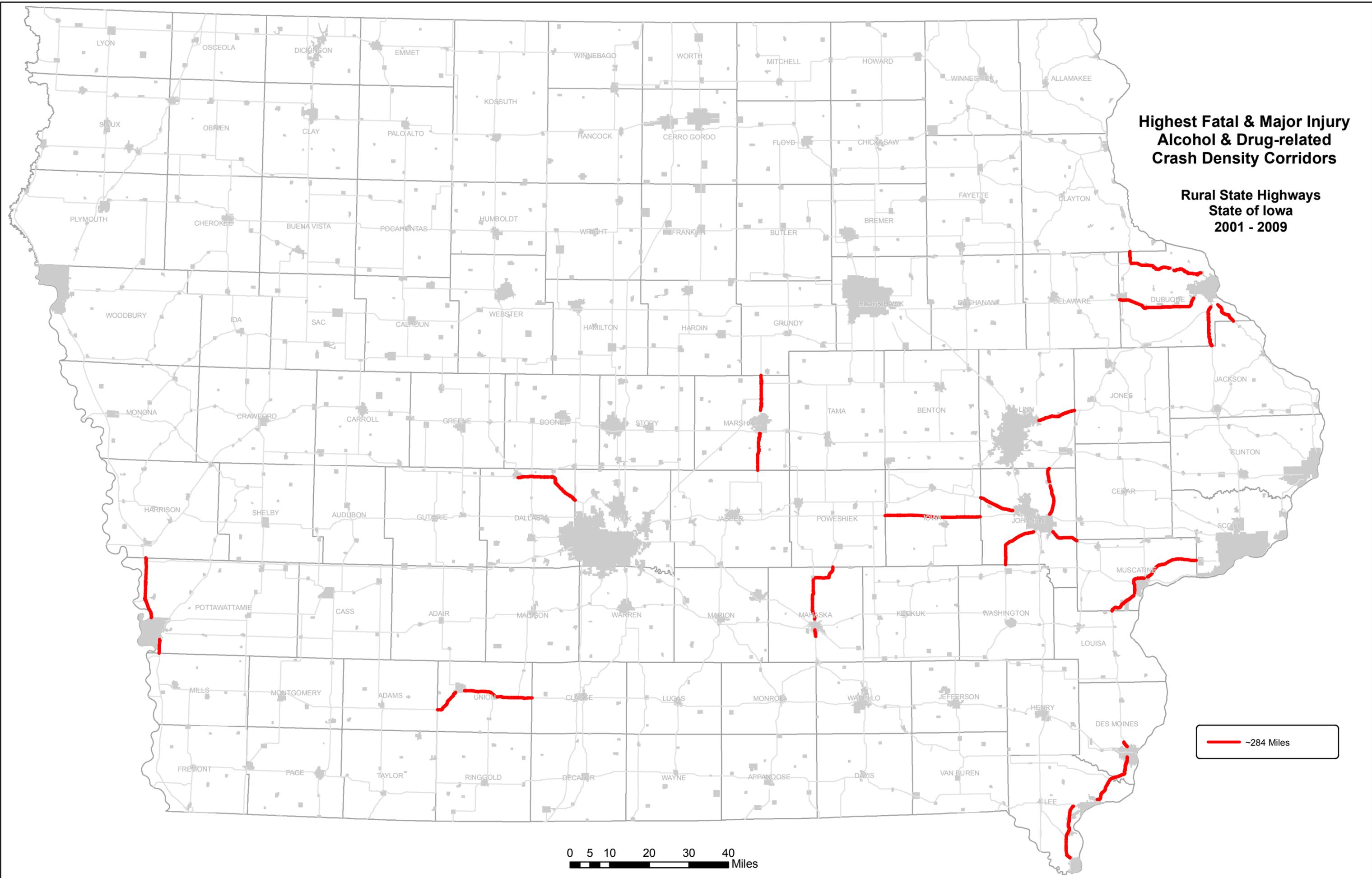
- a. Corridor enforcement event funded in 2007-2008
- b. Targeted spot enforcement within corridor funded in 2007-2008
- c. Additional local enforcement completed in 2007-08
- d. Paved shoulders and shoulder rumble strips completed in 2006-08

(5) Status - Governor's Traffic Safety Bureau (GTSB) Sponsored "Corridor" (Areal) Enforcement Efforts

- a. Southern Exposure - 2 days in April (southern third of Iowa)
- b. Operation Midway - 2 days in May (middle third of Iowa)
- c. Northern Lights - 2 days in June (northern third of Iowa)
- d. Operation "I"s - 2 days in July (statewide interstates)
- e. Eastern Heat - 2 days in August (eastern half of Iowa - east of I-35)
- f. Child Passenger Safety and Mobile Eyes Corridor - 2 days in September (statewide)
- g. Western Expansion - 2 days in October (western half of Iowa - west of I-35)
- h. Step Waves - Statewide - dates: Thanksgiving (7 days in November), St. Patrick's Day (5 days in March), Memorial Day/C.I.O.T. (Click It Or Ticket) (14 days in May/June), Independence Day (4 days in July), Labor Day/Over the Limit - Under Arrest (14 days in August/September)

Highest Fatal & Major Injury Alcohol & Drug-related Crash Density Corridors

Rural State Highways
State of Iowa
2001 - 2009



~284 Miles

0 5 10 20 30 40 Miles

Highest Fatal & Major Injury Speed-related Crash Density Corridors
Rural, Primary Non-Interstate/Freeways
2001 to 2009

ROAD TYPE	JURISDICTION	LENGTH (MI)	COUNTY	ROUTE	FROM	TO	FATAL AND MAJOR INJURY SPEED-RELATED CRASHES	ANNUAL FATAL AND MAJOR INJURY SPEED-RELATED CRASH DENSITY (CRASHES/MI/YR)	Potential Remedies (1)	Estimated Costs (2)	Impediments (3)	Status (4,5)
MULTI-LANE DIVIDED	Primary	3.4	FREMONT	IOWA 2	IOWA/NEBRASKA BORDER	-0.2 MI EAST OF I-29	5	0.163				5a, 5g, 5f, 5h
MULTI-LANE DIVIDED	Primary	6.8	MAHASKA	US 63	MAHASKA/WAPELLO COUNTY LINE	-1.3 MI SOUTH OF OSKALOOSA AND -0.05 MI SOUTH OF 275TH ST	9	0.147				4b, 4d, 5a, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	5.8	DALLAS	US 6	ADEL CORPORATE BOUNDARY	WAUKEE CORPORATE BOUNDARY	7	0.133				4c, 4d, 5b, 5g, 5f, 5h
MULTI-LANE DIVIDED	Primary	9.5	LINN	US 151	-0.2 MI EAST OF MARION CORPORATE BOUNDARY	LINN/JONES COUNTY LINE	11	0.128				4c, 5b, 5e, 5f, 5g
MULTI-LANE DIVIDED	Primary	10.1	DUBUQUE	US 61	DUBUQUE/JACKSON COUNTY LINE	-0.25 MI SOUTH OF DUBUQUE CORPORATE BOUNDARY	11	0.120				4a, 5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	9.5	MARION	IOWA 163	PELLA CORPORATE BOUNDARY	JASPER/MARION COUNTY LINE	10	0.116				4c, 5a, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	8.1	LINN	IOWA 13	INTERSECTION OF COUNTY HOME RD	-0.3 MI NORTH OF MAINE RIDGE RD	8	0.109				5b, 5g, 5f, 5h
MULTI-LANE DIVIDED	Primary	5.4	SCOTT	US 61	SCOTT/MUSCATINE COUNTY LINE	-0.5 MI WEST OF DAVENPORT CORPORATE BOUNDARY	5	0.103				4a, 5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	17.5	BOONE	US 30	-0.7 MI WEST OF OGDEN CORPORATE BOUNDARY	-1.0 MI WEST OF BOONE/STORY COUNTY LINE	16	0.102				4a, 4d, 5b, 5g, 5f, 5h
MULTI-LANE DIVIDED	Primary	22.9	WASHINGTON	US 3218	WASHINGTON/HENRY COUNTY LINE	RIVERSIDE CORPORATE LIMIT	20	0.097				4a, 4d, 5a, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	10.5	CLINTON	US 61	INTERSECTION OF 212 ST (E073)	INTERSECTION OF IOWA 136	9	0.095				4a, 4d, 5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	21.3	LEE	US 61	KEOKUK CORPORATE BOUNDARY	-0.55 MI WEST OF FORT MADISON CORPORATE BOUNDARY	18	0.094				4a, 5b, 5e, 5f, 5h
TWO-LANE	Primary	15.8	JOHNSON	US 6	JOHNSON/IOWA COUNTY LINE	-0.4 MI EAST OF TIFFIN CORPORATE BOUNDARY	13	0.092				4c, 5b, 5g, 5f, 5h
MULTI-LANE DIVIDED	Primary	20.8	DUBUQUE	US 20	DUBUQUE/DELAWARE COUNTY LINE	-0.03 MI SW OF COUSINS RD	17	0.091				4a, 5b, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	8.9	DES MOINES	US 61	DES MOINES/LEE COUNTY LINE	INTERSECTION OF WEST AVE	7	0.088				5a, 5e, 5f, 5h
TWO-LANE	Primary	6.3	WAPELLO	US 63	WAPELLO/DAVIS COUNTY LINE	-0.06 MI NORTH OF OTTUMWA CORPORATE LIMIT	5	0.088				4c, 5a, 5e, 5f, 5h
TWO-LANE	Primary	11.4	WINNESHIEK	IOWA 139	INTERSECTION OF IOWA 9	IOWA/MINNESOTA BORDER	9	0.088				4b, 5c, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	18.4	JEFFERSON	US 34	-1.0 MI EAST OF JEFFERSON/WAPELLO COUNTY LINE @ INTERSECTION OF ASH ST	HENRY/JEFFERSON COUNTY LINE	14	0.084				5a, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	27.4	MUSCATINE	US 61	MUSCATINE/LOUISA COUNTY LINE	MUSCATINE/SCOTT COUNTY LINE	20	0.081				4a, 5a, 5e, 5f, 5h
MULTI-LANE DIVIDED	Primary	13.7	WEBSTER	US 20	-0.75 MI WEST OF US 169	WEBSTER/HAMILTON COUNTY LINE	10	0.081				4a, 5b, 5g, 5f, 5h
TWO-LANE	Primary	11.0	LINN	IOWA 1	LINN/JOHNSON COUNTY LINE	LINN/JONES COUNTY LINE	8	0.081				4a, 5b, 5g, 5f, 5h
TWO-LANE	Primary	7.2	IOWA	IOWA 220	INTERSECTION OF US 6	INTERSECTION OF US 151	5	0.077				4a, 5b, 5e, 5f, 5h

271.9

ROADWAYS INCLUDED

Rural, state maintained roadways

QUALIFYING CONDITIONS

1. Fatal or major injury crashes involving any of the following driver conditions of a) Exceeded Authorized Speed, b) Driving Too Fast for Conditions, c) Lost Control, d) Followed Too Close, or e) Over Correcting/Over Steering.
2. At least three times statewide average speed-related fatal and major injury crash density.
3. At least five fatal or major injury speed-related crashes.

STATEWIDE AVERAGE = **0.025** FATAL AND MAJOR INJURY SPEED-RELATED CRASHES/MILE/YEAR

Appears in previous report as under consideration or in plan

Footnotes:

(1) Potential remedies include: public awareness and education and increased speed-related enforcement in these corridors.

(2) The estimated cost is unknown and variable. Identification of these corridors provides an opportunity for state and local enforcement agencies to target corridors for additional seat belt use enforcement using existing staff and funding resources. Providing funding for additional enforcement will be considered.

(3) Reduction in enforcement officers due to budget constraints, military call up of staff and other enforcement responsibilities.

(4) Status

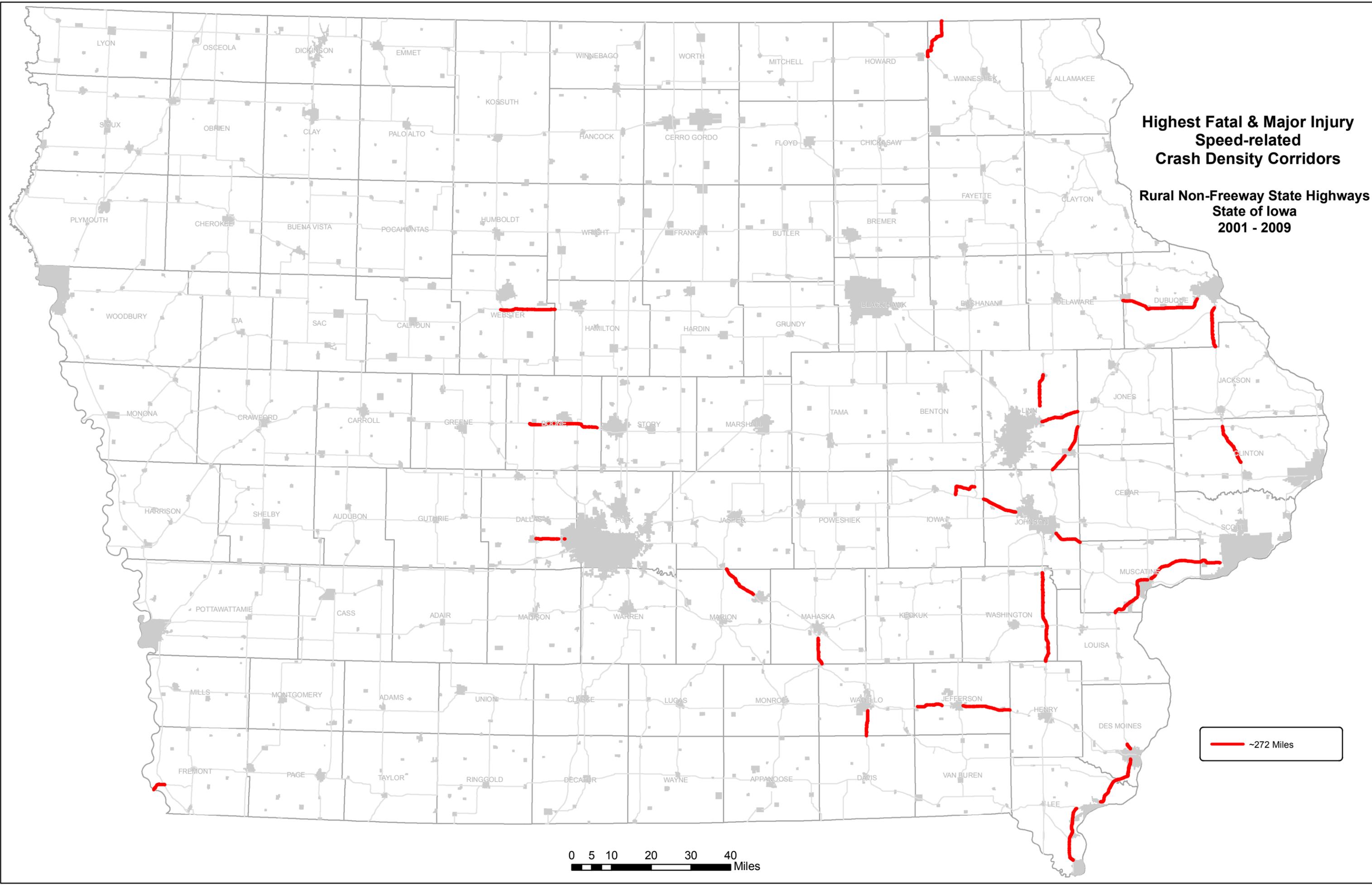
- a. Corridor enforcement event funded in 2007-2008
- b. Targeted spot enforcement within corridor funded in 2007-2008
- c. Additional local enforcement completed in 2007-08
- d. Paved shoulders and shoulder rumble strips completed in 2006-08

(5) Status - Governor's Traffic Safety Bureau (GTSB) Sponsored "Corridor" (Areal) Enforcement Efforts

- a. Southern Exposure - 2 days in April (southern third of Iowa)
- b. Operation Midway - 2 days in May (middle third of Iowa)
- c. Northern Lights - 2 days in June (northern third of Iowa)
- d. Operation "I"s - 2 days in July (statewide interstates)
- e. Eastern Heat - 2 days in August (eastern half of Iowa - east of I-35)
- f. Child Passenger Safety and Mobile Eyes Corridor - 2 days in September (statewide)
- g. Western Expansion - 2 days in October (western half of Iowa - west of I-35)
- h. Step Waves - Statewide - dates: Thanksgiving (7 days in November), St. Patrick's Day (5 days in March), Memorial Day/C.I.O.T. (Click It Or Ticket) (14 days in May/June), Independence Day (4 days in July), Labor Day/Over the Limit - Under Arrest (14 days in August/September)

Highest Fatal & Major Injury Speed-related Crash Density Corridors

Rural Non-Freeway State Highways
State of Iowa
2001 - 2009



~272 Miles

0 5 10 20 30 40 Miles