

APPENDIX C – CRASH ANALYSIS METHODOLOGY AND RESULTS

Criteria for Evaluating Crash Experience

This crash analysis was conducted as part of the Operational Needs Assessment and includes a crash analysis for the freeway mainline, ramp merge and diverge points and ramp terminal intersections. The objectives are to calculate crash rates and severity rates, identify trends in crashes corridor wide, and pinpoint locations with the highest crash problems in the corridor.

WisDOT catalogs all crashes on state highways in a database that is updated several times throughout the year. The crash data was collected for every crash in the project limits of the WIS 441 corridor. The data was collected from WisDOT, the University of Wisconsin-Madison Traffic Operations and Safety Laboratory (TOPS) Laboratory, and the City of Appleton. Strand Associates Inc. provided crash data along the US41 corridor as part of their effort in the US 41 Interstate Conversion Project. That data was entered into a Geographic Information System (GIS) database for graphical representation. All deer related crashes were removed from the database prior to analysis due to the random occurrence of deer related crashes.

Every crash on the GIS map is shown on the freeway mainline even if it occurred on an interchange ramp. The crash location was estimated from the information contained in the crash databases. The following fields were used to estimate the crash locations:

- Initial direction
- Reference point number
- Reference point distance
- Crash type
- Accident location (intersection or non-intersection)
- Location on roadway

In general, the crash analysis was conducted on two primary sources of traffic crashes:

- Freeway Mainline Crashes
- Interchange Area Crashes

Freeway Mainline Crashes

Crash rates for WIS 441 and US 41 (Breezewood Lane to CTH U, County Line Road) were reported. This data was used to identify any trends by direction for the mainline highway. For evaluation and comparison purposes, an average annual crash rate was used as the basis for the rating criteria. The crash rates were determined from data obtained by the UW-Madison TOPS Lab (**Table 1**).

Table 1: WI Average Annual Crash Rates

RURAL INTERSTATE			
	Total	Fatal	Injury
2002	46	0.4	14
2003	55	0.6	17
2004	61	0.6	19
2005	67	0.6	20
2006	53	0.4	16
rates expressed as HMVMT			

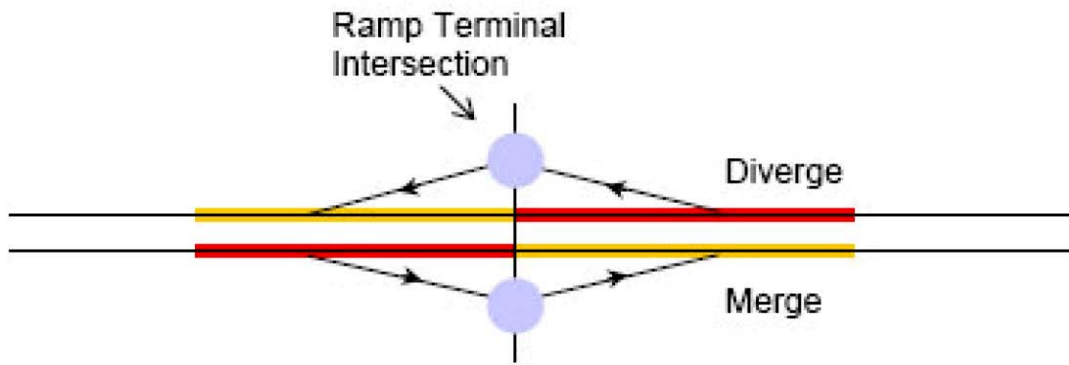
The average statewide rate for a rural interstate highway between 2002 and 2006 is 56 crashes per hundred-million vehicle miles traveled (HMVMT). This figure, again, excludes deer related crashes. This average crash rate is also used for comparison with the merge and diverge crashes.

Interchange Area Crashes

The study team calculated crash rates for all merge, diverge and ramp termini locations. Crashes for each merge and diverge location were determined based on a defined influence area along the ramp and mainline. The influence areas are defined below for each type of ramp.

For diamond ramps:

- The diverge influence area begins 1500' upstream of the diverge gore and ends 1500' downstream of the gore. The diverge influence area does not include any crashes on the ramp.
- The merge influence area begins 1500' upstream of the merge gore point and ends 1500' downstream of the merge gore point. It also includes half of the on-ramp.
- The diverge and merge influence areas should end at the crossroad bridge if there is less than 3000' between the diverge and merge gore points.
- The interchange termini influence area begins at the diverge gore and extends the entire length of the off-ramp and half-way up the on-ramp. The influence area should also include 1500' upstream and downstream of the ramp terminal intersection on the crossroad. If there is less than 1500' between the ramp intersections and the next intersection on the crossroad, the termini area should end at the midpoint between the intersections.
- If there is less than 3000' between adjacent interchanges, the upstream merge area and the downstream diverge area should start at the midpoint between the two interchanges.

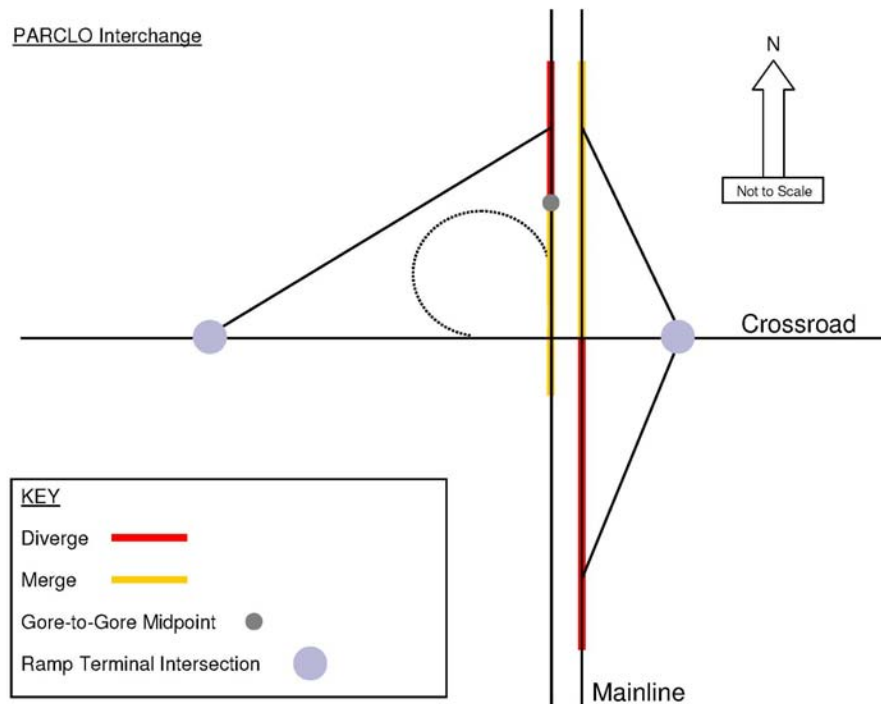


For double loop ramps:

- The diverge influence area begins either 1500' upstream of the diverge gore point or at the midpoint between the upstream merge gore point and the diverge gore point, whichever is shorter, and ends 1500' downstream of the diverge gore point. The diverge influence area does not include any crashes on the ramp.
- The merge influence area begins 1500' upstream of the merge gore point and ends either 1500' downstream of the merge gore point or at the midpoint between the merge gore point and the downstream diverge point, whichever is shorter. The merge influence area does not include any crashes on the ramp.
- The interchange termini influence area begins at the diverge gore and extends the entire length of the off-ramp and corresponding on-ramp. On the cross street, crashes occurring between ramp terminals were assigned to the nearest intersection.

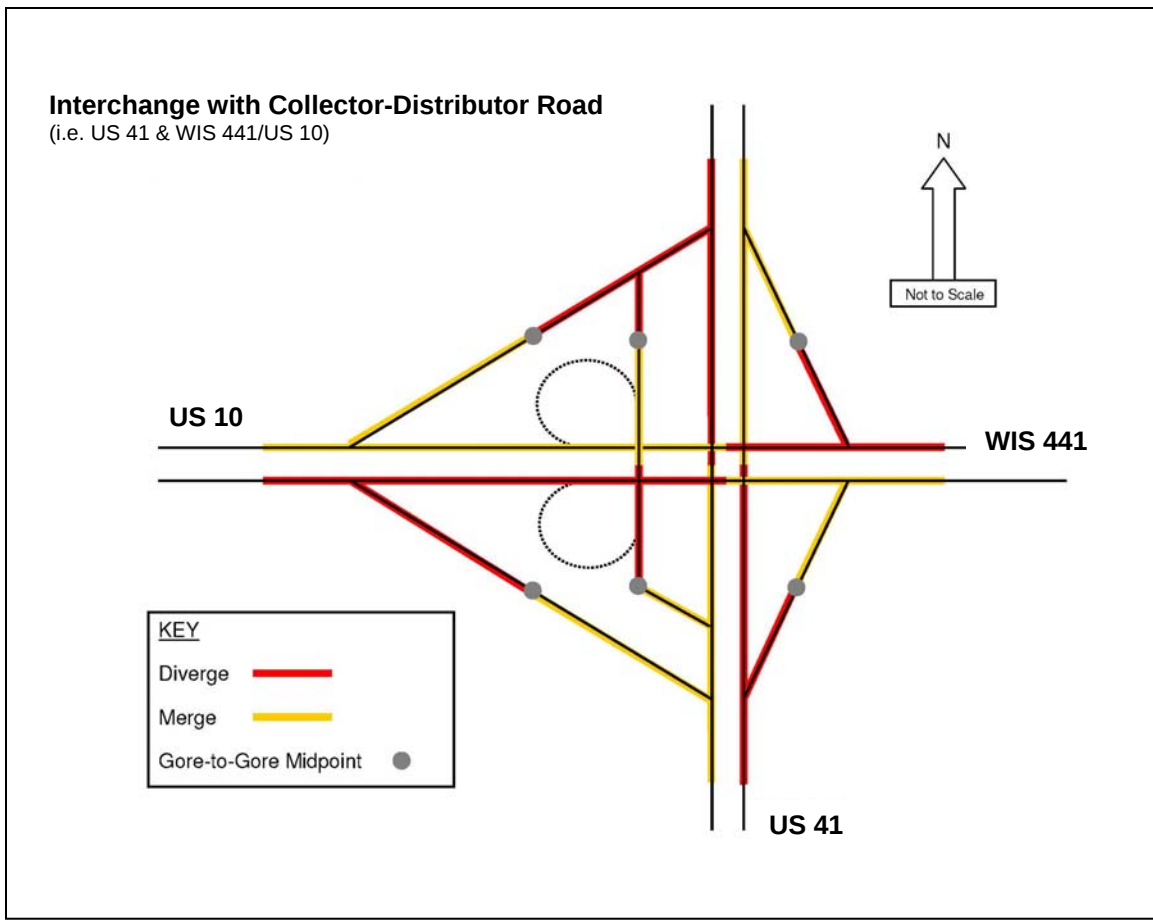
For partial cloverleaf interchanges:

- The diverge influence area begins 1500' upstream of the diverge gore point and ends either 1500' downstream of the diverge gore point or the midpoint between the diverge gore point and the downstream merge gore point, whichever is shorter. The diverge influence area does not include any crashes on the ramp.
- The merge influence area begins either 1500' upstream of the merge gore point or the midpoint between the upstream diverge gore point and the merge gore point, whichever is shorter, and ends 1500' downstream of the merge gore point. The merge influence area does not include any crashes on the ramp.
- The interchange termini influence area begins at the diverge gore point and extends the entire length of the off-ramp and corresponding on-ramp. On the cross street, crashes occurring between ramp terminals were assigned to the nearest intersection.



For interchanges with collector-distributor roads:

- The diagram following diagram provides a graphical representation of the merge and diverge areas classified on interchanges with collector-distributor road systems. The methodology incorporates a combination of the procedures used for both diamond and loop ramp configurations.



After the crashes were separated into influence areas, they were further separated by year (2002-2006) and by severity (property damage only, injury or fatality). The team then calculated the annual crash rates, and from those calculated the annual severity rates using the following formula:

$$\text{Severity_Rate} = \frac{\text{injury_crashes} + \text{fatal_crashes}}{\text{total_crashes}}$$

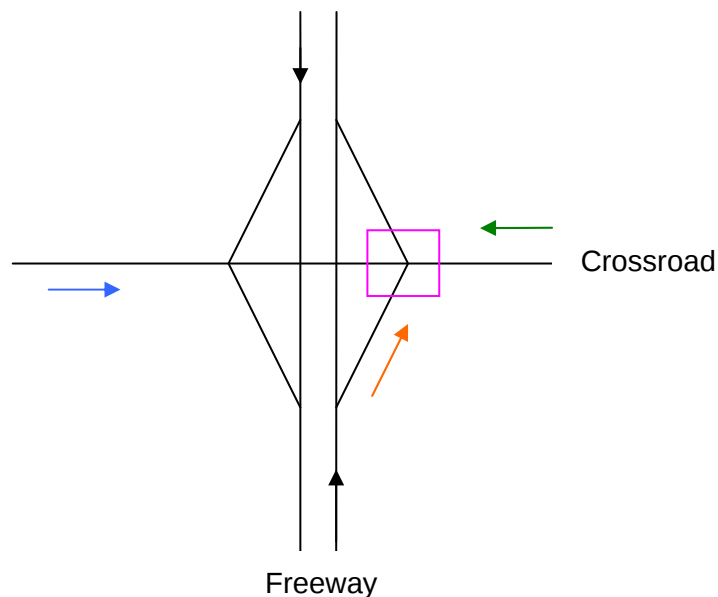
The higher the severity rate, the more hazardous the study location is to the safety of the drivers. A low severity rate indicates that the majority of the crashes involve property damage and little to no injuries to the drivers. If over half of the crashes at a specific location are severe, a severity rating of greater than 0.5, it is a strong indicator that the area has deficiencies that contribute to the poor rating.

The annual crash rates and a five-year average crash rate were calculated for each interchange. Approaching traffic volumes were obtained using existing annual average daily traffic (AADT) counts for the mainline. The intersections incorporated existing AADT values along with turning movement counts. Approaching traffic volumes were calculated using the following methods:

- Mainline:
 - Entering traffic for diverge = existing AADT for the segment approaching the interchange.
 - Entering traffic for merge = existing AADT for the segment approaching the interchange minus the AADT exiting on the off-ramp in the same direction.
- Intersections:
 - For cross road intersections, all four approaches were added and used as the existing AADT
 - For intersections at ramp terminals, see below

Referring to the figure below

- The analyzed intersection is the pink box
- This intersection has AADT's from each approach therefore not giving one value for each intersection
- The one-way entering AADT's were added from each entering approach to the ramp terminal to determine the overall intersection AADT
- Two assumptions were made in the determination of entering traffic volumes:
 1. If two way AADT values were provided, a 50/50 bi-directional split was used
 2. At the adjacent ramp terminal, the total entering traffic from the off-ramp equals the total existing traffic to the on-ramp.
- Based on these assumptions, the total entering AADT = green arrow + orange arrow + blue arrow



Annual crash rates were calculated using the following formulas:

- Merge and diverge sections:

$$\text{Annual_Crash_Rate} = \frac{100,000,000 * C}{365 * n * V * L}$$

Units represent the number of crashes per 100 million vehicle miles traveled (HMVMT)

Where C = number of crashes in analysis years
n = number of analysis years
V = AADT (vpd)
L = influence area of roadway section (miles)

- Ramp terminal intersections:

$$\text{Annual_Crash_Rate} = \frac{1,000,000 * C}{365 * n * V}$$

Units represent the number of crashes per one million entering vehicles (MEV)

Where: C = number of crashes in analysis years
n = number of analysis years
V = AADT (vpd)

Wisconsin statewide averages for urban intersections from a recent Wisconsin TOPS study were also used to establish rating criteria for the ramp terminal intersections. The average crash rate from that study was 0.96 MEV.

There are no statewide crash rates calculated specifically for interchanges. Each interchange was analyzed separately and the results compared to other interchanges in the corridor and around the state. The data were compared to two other similar studies, the Wisconsin Backbone Needs and Improvement Study¹ and the Madison Beltline Operational Needs Assessment². Although the other studies are not identical in roadway type and traffic volumes, the comparison is valuable to show the relative crash rates at other interchanges studied in Wisconsin. **Table 2** summarizes the crash rate statistics for interchange influence areas.

¹ *Wisconsin Backbone Needs and Improvement Study*. EarthTech. 2007.

² *Madison Beltline Operational Needs Assessment*. HNTB Corporation. January 2008.

Table 2: Interchange Crash Rate Statistics

	Crash Rate				Crash Severity			
	<i>Diverge</i>	<i>Merge</i>	<i>Weave</i>	<i>Terminal</i>	<i>Diverge</i>	<i>Merge</i>	<i>Weave</i>	<i>Terminal</i>
Backbone Interchange Statistics								
<i>Average</i>	63	83	402	0.63	0.34	0.32	0.32	0.33
<i>Average + 1SD</i>	107	152	432	1.04	0.48	0.52	0.34	0.43
Madison Beltline Interchange Statistics								
<i>Average</i>	90	67	402	0.62	0.39	0.37	0.32	0.37
<i>Average + 1SD</i>	145	124	432	0.74	0.56	0.59	0.34	0.77
US 41& WIS 441 Interchange Statistics								
<i>Average</i>	49	55	-	0.41	0.34	0.34	-	0.33
<i>Average + 1SD</i>	80	87	-	0.67	0.56	0.55	-	0.53

SD = Standard Deviation

- Diverge, merge, and weave crash rate units = 100 million vehicle miles traveled
- Terminal crash rate units = crashes per million entering vehicles

Overall, interchanges in the US 41 and WIS 441 corridor has a lower crash rate when compared to interchanges from previous studies. However, the crash severity is consistent with the other interchanges that were included in the statewide back bone study.

Exhibits C-1 through C-6 present the raw crash data.

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INTERCHANGE CRASH EXHIBITS

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Exhibit C1

Mainline Crash Summary (2002 to 2007)

Interchange 'A'	Interchange 'B'	Crashes (5yr total)	5 yr Avg. Crash Rate per HMVM	Severity Rate	Entering Traffic (AADT)
WIS 441 Northbound					
USH 41	CTH P	0	0	0.00	32,800
CTH P	CTH AP	0	0	0.00	23,200
CTH AP	WIS 47	0	0	0.00	22,200
WIS 47	USH 10	0	0	0.00	23,400
USH 10	CTH KK	10	21	0.30	17,700
CTH KK	CTH Ce	0	0	0.00	21,300
CTH Ce	CTH Oo	14	35	0.36	21,700
CTH Oo	USH 41	0	0	0.00	14,100
WIS 441 Southbound					
USH 41	CTH P	2	33	0.00	32,800
CTH P	CTH AP	0	0	0.00	23,200
CTH AP	WIS 47	0	0	0.00	19,300
WIS 47	USH 10	0	0	0.00	22,500
USH 10	CTH KK	12	27	0.42	16,500
CTH KK	CTH Ce	0	0	0.00	19,500
CTH Ce	CTH Oo	12	34	0.42	19,500
CTH Oo	USH 41	0	0	0.00	13,100
US 10 Northbound					
CTH CB	USH 41	0	0	0.00	11,000
US 10 Southbound					
CTH CB	USH 41	0	0	0.00	11,200
US 41 Northbound					
Breezewood Ln	WIS 114	3	12	0.33	35,200
WIS 114	Oakridge Rd.	0	0	0.00	37,600
Oakridge Rd.	CTH II	0	0	0.00	36,500
CTH II	STH 441 / USH 10	0	0	0.00	44,400
STH 441 / USH 10	CTH BB	11	32	0.45	37,500
CTH BB	Collge Ave	5	25	0.40	37,200
Collge Ave	WIS 96	0	0	0.00	33,700
WIS 96	WIS 15	0	0	0.00	29,500
WIS 15	WIS 47	35	32	0.29	29,700
WIS 47	CTH E	18	39	0.44	27,900
CTH E	STH 441	0	0	0.00	23,600
STH 441	CTH N	14	27	0.21	23,700
CTH N	WIS 55	10	21	0.40	23,700
WIS 55	CTH J	0	0	0.00	20,000
CTH J	CTH U	20	17	0.30	19,600
US 41 Southbound					
Breezewood Ln	WIS 114	0	0	0.00	34,700
WIS 114	Oakridge Rd.	0	0	0.00	39,300
Oakridge Rd.	CTH II	0	0	0.00	42,800
CTH II	STH 441 / USH 10	0	0	0.00	46,400
STH 441 / USH 10	CTH BB	7	21	0.14	36,900
CTH BB	Collge Ave	2	9	0.50	39,100
Collge Ave	WIS 96	0	0	0.00	35,200
WIS 96	WIS 15	0	0	0.00	30,100
WIS 15	WIS 47	34	29	0.29	32,500
WIS 47	CTH E	14	28	0.29	30,200
CTH E	STH 441	0	0	0.00	23,600
STH 441	CTH N	22	42	0.50	24,200
CTH N	WIS 55	11	23	0.64	24,200
WIS 55	CTH J	1	9	1.00	20,400
CTH J	CTH U	28	21	0.43	21,700

Crash Rate KEY
 = Good (<56)
 = Fair (56 - 73)
 = Poor (>73)

Severity Rate KEY
 = Good (<0.3)
 = Fair (0.3 - 0.5)
 = Poor (>0.5)

Exhibit C2

2002 Mainline Crashes

Facility	Interchange 'A'	Interchange 'B'	Direction	Crash Type					Crash Severity			Total Crashes	AADT	Average Annual Crash Rate	Crash Severity
				Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal				
USH 10	CTH CB	USH 41	EB	0	0	0	0	0	0	0	0	0	11000	0	0.00
			WB	0	0	0	0	0	0	0	0	0	11200	0	0.00
STH 441 / USH 10	USH 41	CTH P	NB/EB	0	0	0	0	0	0	0	0	0	32800	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	32800	0	0.00
	CTH P	CTH AP	NB/EB	0	0	0	0	0	0	0	0	0	23200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	23200	0	0.00
	CTH AP	WIS 47	NB/EB	0	0	0	0	0	0	0	0	0	22200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	19300	0	0.00
	WIS 47	USH 10	NB/EB	0	0	0	0	0	0	0	0	0	23400	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	22500	0	0.00
STH 441	USH 10	CTH KK	NB	0	0	1	0	1	2	0	0	2	17700	21	0.00
			SB	0	0	0	0	2	0	2	0	2	16500	22	1.00
	CTH KK	CTH Ce	NB	0	0	0	0	0	0	0	0	0	21300	0	0.00
			SB	0	0	0	0	0	0	0	0	0	19500	0	0.00
	CTH Ce	CTH Oo	NB	0	0	1	0	3	2	2	0	4	21700	51	0.50
			SB	1	0	0	0	4	3	2	0	5	19500	70	0.40
	CTH Oo	USH 41	NB	0	0	0	0	0	0	0	0	0	14100	0	0.00
			SB	0	0	0	0	0	0	0	0	0	13100	0	0.00
USH 41	Breezewood Ln	WIS 114	NB	0	0	0	0	1	0	1	0	1	35200	19	1.00
			SB	0	0	0	0	0	0	0	0	0	34700	0	0.00
	WIS 114	Oakridge Rd.	NB	0	0	0	0	0	0	0	0	0	37600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39300	0	0.00
	Oakridge Rd.	CTH II	NB	0	0	0	0	0	0	0	0	0	36500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	42800	0	0.00
	CTH II	STH 441 / USH 10	NB	0	0	0	0	0	0	0	0	0	44400	0	0.00
			SB	0	0	0	0	0	0	0	0	0	46400	0	0.00
	STH 441 / USH 10	CTH BB	NB	0	0	0	0	1	0	1	0	1	37500	15	1.00
			SB	0	0	1	0	1	2	0	0	2	36900	30	0.00
	CTH BB	Collge Ave	NB	1	0	0	0	0	1	0	0	1	37200	25	0.00
			SB	0	0	0	0	0	0	0	0	0	39100	0	0.00
	Collge Ave	WIS 96	NB	0	0	0	0	0	0	0	0	0	33700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	35200	0	0.00
	WIS 96	WIS 15	NB	0	0	0	0	0	0	0	0	0	29500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30100	0	0.00
	WIS 15	WIS 47	NB	1	0	0	0	8	8	1	0	9	29700	42	0.11
			SB	3	0	0	0	4	5	1	1	7	32500	30	0.29
	WIS 47	CTH E	NB	2	0	0	0	1	3	0	0	3	27900	33	0.00
			SB	1	0	0	0	1	2	0	0	2	30200	20	0.00
	CTH E	STH 441	NB	0	0	0	0	0	0	0	0	0	23600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	23600	0	0.00
	STH 441	CTH N	NB	1	0	2	0	0	1	2	0	3	23700	29	0.67
			SB	0	0	0	0	5	3	2	0	5	24200	47	0.40
	CTH N	WIS 55	NB	0	0	0	0	0	0	0	0	0	23700	0	0.00
			SB	1	0	0	0	2	0	3	0	3	24200	31	1.00
	WIS 55	CTH J	NB	0	0	0	0	0	0	0	0	0	20000	0	0.00
			SB	0	0	0	0	0	0	0	0	0	20400	0	0.00
	CTH J	CTH U	NB	0	0	0	0	2	1	1	0	2	19600	8	0.50
			SB	0	0	0	0	2	1	1	0	2	21700	8	0.50

Exhibit C2 Continued

2003 Mainline Crashes

Facility	Interchange 'A'	Interchange 'B'	Direction	Crash Type					Crash Severity			Total Crashes	AADT	Average Annual Crash Rate	Crash Severity
				Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal				
USH 10	CTH CB	USH 41	EB	0	0	0	0	0	0	0	0	0	11000	0	0.00
			WB	0	0	0	0	0	0	0	0	0	11200	0	0.00
STH 441 / USH 10	USH 41	CTH P	NB/EB	0	0	0	0	0	0	0	0	0	32800	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	32800	0	0.00
	CTH P	CTH AP	NB/EB	0	0	0	0	0	0	0	0	0	23200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	23200	0	0.00
	CTH AP	WIS 47	NB/EB	0	0	0	0	0	0	0	0	0	22200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	19300	0	0.00
	WIS 47	USH 10	NB/EB	0	0	0	0	0	0	0	0	0	23400	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	22500	0	0.00
STH 441	USH 10	CTH KK	NB	0	0	0	0	0	0	0	0	0	17700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	16500	0	0.00
	CTH KK	CTH Ce	NB	0	0	0	0	0	0	0	0	0	21300	0	0.00
			SB	0	0	0	0	0	0	0	0	0	19500	0	0.00
	CTH Ce	CTH Oo	NB	0	0	1	0	2	2	1	0	3	21700	38	0.33
			SB	0	0	0	0	1	1	0	0	1	19500	14	0.00
	CTH Oo	USH 41	NB	0	0	0	0	0	0	0	0	0	14100	0	0.00
			SB	0	0	0	0	0	0	0	0	0	13100	0	0.00
USH 41	Breezewood Ln	WIS 114	NB	0	0	1	0	0	1	0	0	1	35200	19	0.00
			SB	0	0	0	0	0	0	0	0	0	34700	0	0.00
	WIS 114	Oakridge Rd.	NB	0	0	0	0	0	0	0	0	0	37600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39300	0	0.00
	Oakridge Rd.	CTH II	NB	0	0	0	0	0	0	0	0	0	36500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	42800	0	0.00
	CTH II	STH 441 / USH 10	NB	0	0	0	0	0	0	0	0	0	44400	0	0.00
			SB	0	0	0	0	0	0	0	0	0	46400	0	0.00
	STH 441 / USH 10	CTH BB	NB	0	0	0	0	1	1	0	0	1	37500	15	0.00
			SB	0	0	0	0	0	0	0	0	0	36900	0	0.00
	CTH BB	Collge Ave	NB	0	0	0	0	1	0	1	0	1	37200	25	1.00
			SB	0	1	0	0	1	1	1	0	2	39100	47	0.50
	Collge Ave	WIS 96	NB	0	0	0	0	0	0	0	0	0	33700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	35200	0	0.00
	WIS 96	WIS 15	NB	0	0	0	0	0	0	0	0	0	29500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30100	0	0.00
	WIS 15	WIS 47	NB	1	0	1	0	1	2	1	0	3	29700	14	0.33
			SB	0	0	1	0	1	2	0	0	2	32500	8	0.00
	WIS 47	CTH E	NB	0	0	0	0	1	1	0	0	1	27900	11	0.00
			SB	4	0	0	0	1	4	1	0	5	30200	50	0.20
	CTH E	STH 441	NB	0	0	0	0	0	0	0	0	0	23600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	23600	0	0.00
	STH 441	CTH N	NB	0	0	1	0	2	3	0	0	3	23700	29	0.00
			SB	2	0	1	0	1	2	2	0	4	24200	38	0.50
	CTH N	WIS 55	NB	3	0	0	0	0	2	1	0	3	23700	32	0.33
			SB	1	1	0	0	0	1	1	0	2	24200	21	0.50
	WIS 55	CTH J	NB	0	0	0	0	0	0	0	0	0	20000	0	0.00
			SB	0	0	0	0	0	0	0	0	0	20400	0	0.00
	CTH J	CTH U	NB	1	0	2	0	1	3	1	0	4	19600	17	0.25
			SB	0	0	0	0	4	3	1	0	4	21700	15	0.25

Exhibit C2 Continued

2004 Mainline Crashes

Facility	Interchange 'A'	Interchange 'B'	Direction	Crash Type					Crash Severity			Total Crashes	AADT	Average Annual Crash Rate	Crash Severity
				Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal				
USH 10	CTH CB	USH 41	EB	0	0	0	0	0	0	0	0	0	11000	0	0.00
			WB	0	0	0	0	0	0	0	0	0	11200	0	0.00
STH 441 / USH 10	USH 41	CTH P	NB/EB	0	0	0	0	0	0	0	0	0	32800	0	0.00
			SB/WB	0	0	0	0	1	1	0	0	1	32800	84	0.00
	CTH P	CTH AP	NB/EB	0	0	0	0	0	0	0	0	0	23200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	23200	0	0.00
	CTH AP	WIS 47	NB/EB	0	0	0	0	0	0	0	0	0	22200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	19300	0	0.00
	WIS 47	USH 10	NB/EB	0	0	0	0	0	0	0	0	0	23400	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	22500	0	0.00
STH 441	USH 10	CTH KK	NB	0	0	0	0	0	0	0	0	0	17700	0	0.00
			SB	1	0	0	0	1	1	1	0	2	16500	22	0.50
	CTH KK	CTH Ce	NB	0	0	0	0	0	0	0	0	0	21300	0	0.00
			SB	0	0	0	0	0	0	0	0	0	19500	0	0.00
	CTH Ce	CTH Oo	NB	0	1	0	0	2	2	1	0	3	21700	38	0.33
			SB	0	0	0	0	3	3	0	0	3	19500	42	0.00
	CTH Oo	USH 41	NB	0	0	0	0	0	0	0	0	0	14100	0	0.00
			SB	0	0	0	0	0	0	0	0	0	13100	0	0.00
USH 41	Breezewood Ln	WIS 114	NB	1	0	0	0	0	1	0	0	1	35200	19	0.00
			SB	0	0	0	0	0	0	0	0	0	34700	0	0.00
	WIS 114	Oakridge Rd.	NB	0	0	0	0	0	0	0	0	0	37600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39300	0	0.00
	Oakridge Rd.	CTH II	NB	0	0	0	0	0	0	0	0	0	36500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	42800	0	0.00
	CTH II	STH 441 / USH 10	NB	0	0	0	0	0	0	0	0	0	44400	0	0.00
			SB	0	0	0	0	0	0	0	0	0	46400	0	0.00
	STH 441 / USH 10	CTH BB	NB	0	0	0	0	2	0	2	0	2	37500	29	1.00
			SB	0	0	0	0	2	2	0	0	2	36900	30	0.00
	CTH BB	Collge Ave	NB	1	0	0	0	0	1	0	0	1	37200	25	0.00
			SB	0	0	0	0	0	0	0	0	0	39100	0	0.00
	Collge Ave	WIS 96	NB	0	0	0	0	0	0	0	0	0	33700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	35200	0	0.00
	WIS 96	WIS 15	NB	0	0	0	0	0	0	0	0	0	29500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30100	0	0.00
	WIS 15	WIS 47	NB	2	0	0	0	1	2	1	0	3	29700	14	0.33
			SB	0	0	0	0	1	1	0	0	1	32500	4	0.00
	WIS 47	CTH E	NB	0	0	0	1	1	2	0	0	2	27900	22	0.00
			SB	1	1	1	0	0	1	2	0	3	30200	30	0.67
	CTH E	STH 441	NB	0	0	0	0	0	0	0	0	0	23600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	23600	0	0.00
	STH 441	CTH N	NB	0	0	0	0	0	0	0	0	0	23700	0	0.00
			SB	2	0	1	1	0	1	3	0	4	24200	38	0.75
	CTH N	WIS 55	NB	0	0	1	0	1	2	0	0	2	23700	21	0.00
			SB	0	0	1	0	0	1	0	0	1	24200	10	0.00
	WIS 55	CTH J	NB	0	0	0	0	0	0	0	0	0	20000	0	0.00
			SB	0	0	0	0	1	0	1	0	1	20400	45	1.00
	CTH J	CTH U	NB	0	0	0	0	4	3	1	0	4	19600	17	0.25
			SB	1	1	0	0	4	3	3	0	6	21700	23	0.50

Exhibit C2 Continued

2005 Mainline Crashes

Facility	Interchange 'A'	Interchange 'B'	Direction	Crash Type					Crash Severity			Total Crashes	AADT	Average Annual Crash Rate	Crash Severity
				Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal				
USH 10	CTH CB	USH 41	EB	0	0	0	0	0	0	0	0	0	11000	0	0.00
			WB	0	0	0	0	0	0	0	0	0	11200	0	0.00
STH 441 / USH 10	USH 41	CTH P	NB/EB	0	0	0	0	0	0	0	0	0	32800	0	0.00
			SB/WB	0	0	0	0	1	1	0	0	1	32800	84	0.00
	CTH P	CTH AP	NB/EB	0	0	0	0	0	0	0	0	0	23200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	23200	0	0.00
	CTH AP	WIS 47	NB/EB	0	0	0	0	0	0	0	0	0	22200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	19300	0	0.00
	WIS 47	USH 10	NB/EB	0	0	0	0	0	0	0	0	0	23400	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	22500	0	0.00
STH 441	USH 10	CTH KK	NB	0	0	1	0	4	3	2	0	5	17700	52	0.40
			SB	0	0	0	0	0	0	0	0	0	16500	0	0.00
	CTH KK	CTH Ce	NB	0	0	0	0	0	0	0	0	0	21300	0	0.00
			SB	0	0	0	0	0	0	0	0	0	19500	0	0.00
	CTH Ce	CTH Oo	NB	0	0	0	0	1	1	0	0	1	21700	13	0.00
			SB	0	0	0	0	1	0	1	0	1	19500	14	1.00
	CTH Oo	USH 41	NB	0	0	0	0	0	0	0	0	0	14100	0	0.00
			SB	0	0	0	0	0	0	0	0	0	13100	0	0.00
USH 41	Breezewood Ln	WIS 114	NB	0	0	0	0	0	0	0	0	0	35200	0	0.00
			SB	0	0	0	0	0	0	0	0	0	34700	0	0.00
	WIS 114	Oakridge Rd.	NB	0	0	0	0	0	0	0	0	0	37600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39300	0	0.00
	Oakridge Rd.	CTH II	NB	0	0	0	0	0	0	0	0	0	36500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	42800	0	0.00
	CTH II	STH 441 / USH 10	NB	0	0	0	0	0	0	0	0	0	44400	0	0.00
			SB	0	0	0	0	0	0	0	0	0	46400	0	0.00
	STH 441 / USH 10	CTH BB	NB	2	0	1	0	1	3	1	0	4	37500	58	0.25
			SB	0	0	0	0	3	2	1	0	3	36900	45	0.33
	CTH BB	Collge Ave	NB	1	0	0	0	0	0	1	0	1	37200	25	1.00
			SB	0	0	0	0	0	0	0	0	0	39100	0	0.00
	Collge Ave	WIS 96	NB	0	0	0	0	0	0	0	0	0	33700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	35200	0	0.00
	WIS 96	WIS 15	NB	0	0	0	0	0	0	0	0	0	29500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30100	0	0.00
	WIS 15	WIS 47	NB	6	0	0	1	3	6	4	0	10	29700	46	0.40
			SB	3	0	2	0	9	10	4	0	14	32500	59	0.29
	WIS 47	CTH E	NB	4	0	2	0	2	4	4	0	8	27900	87	0.50
			SB	1	1	1	0	1	3	1	0	4	30200	40	0.25
	CTH E	STH 441	NB	0	0	0	0	0	0	0	0	0	23600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	23600	0	0.00
	STH 441	CTH N	NB	0	0	0	0	3	3	0	0	3	23700	29	0.00
			SB	2	0	1	0	2	3	2	0	5	24200	47	0.40
	CTH N	WIS 55	NB	0	0	0	0	4	2	2	0	4	23700	42	0.50
			SB	1	0	0	0	2	2	1	0	3	24200	31	0.33
	WIS 55	CTH J	NB	0	0	0	0	0	0	0	0	0	20000	0	0.00
			SB	0	0	0	0	0	0	0	0	0	20400	0	0.00
	CTH J	CTH U	NB	1	0	1	0	4	4	2	0	6	19600	25	0.33
			SB	1	1	0	0	6	4	4	0	8	21700	31	0.50

Exhibit C2 Continued

2006 Mainline Crashes

Facility	Interchange 'A'	Interchange 'B'	Direction	Crash Type					Crash Severity			Total Crashes	AADT	Average Annual Crash Rate	Crash Severity
				Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal				
USH 10	CTH CB	USH 41	EB	0	0	0	0	0	0	0	0	0	11000	0	0.00
			WB	0	0	0	0	0	0	0	0	0	11200	0	0.00
STH 441 / USH 10	USH 41	CTH P	NB/EB	0	0	0	0	0	0	0	0	0	32800	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	32800	0	0.00
	CTH P	CTH AP	NB/EB	0	0	0	0	0	0	0	0	0	23200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	23200	0	0.00
	CTH AP	WIS 47	NB/EB	0	0	0	0	0	0	0	0	0	22200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	19300	0	0.00
	WIS 47	USH 10	NB/EB	0	0	0	0	0	0	0	0	0	23400	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	22500	0	0.00
STH 441	USH 10	CTH KK	NB	2	0	0	0	1	2	1	0	3	17700	31	0.33
			SB	2	1	2	1	2	6	2	0	8	16500	89	0.25
	CTH KK	CTH Ce	NB	0	0	0	0	0	0	0	0	0	21300	0	0.00
			SB	0	0	0	0	0	0	0	0	0	19500	0	0.00
	CTH Ce	CTH Oo	NB	1	0	1	0	1	2	1	0	3	21700	38	0.33
			SB	0	0	0	0	2	0	2	0	2	19500	28	1.00
	CTH Oo	USH 41	NB	0	0	0	0	0	0	0	0	0	14100	0	0.00
			SB	0	0	0	0	0	0	0	0	0	13100	0	0.00
USH 41	Breezewood Ln	WIS 114	NB	0	0	0	0	0	0	0	0	0	35200	0	0.00
			SB	0	0	0	0	0	0	0	0	0	34700	0	0.00
	WIS 114	Oakridge Rd.	NB	0	0	0	0	0	0	0	0	0	37600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39300	0	0.00
	Oakridge Rd.	CTH II	NB	0	0	0	0	0	0	0	0	0	36500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	42800	0	0.00
	CTH II	STH 441 / USH 10	NB	0	0	0	0	0	0	0	0	0	44400	0	0.00
			SB	0	0	0	0	0	0	0	0	0	46400	0	0.00
	STH 441 / USH 10	CTH BB	NB	0	1	1	0	1	2	1	0	3	37500	44	0.33
			SB	0	0	0	0	0	0	0	0	0	36900	0	0.00
	CTH BB	Collge Ave	NB	1	0	0	0	0	1	0	0	1	37200	25	0.00
			SB	0	0	0	0	0	0	0	0	0	39100	0	0.00
	Collge Ave	WIS 96	NB	0	0	0	0	0	0	0	0	0	33700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	35200	0	0.00
	WIS 96	WIS 15	NB	0	0	0	0	0	0	0	0	0	29500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30100	0	0.00
	WIS 15	WIS 47	NB	4	1	2	0	3	7	3	0	10	29700	46	0.30
			SB	5	1	0	1	3	6	4	0	10	32500	42	0.40
	WIS 47	CTH E	NB	2	0	0	0	2	0	4	0	4	27900	44	1.00
			SB	0	0	0	0	0	0	0	0	0	30200	0	0.00
	CTH E	STH 441	NB	0	0	0	0	0	0	0	0	0	23600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	23600	0	0.00
	STH 441	CTH N	NB	3	0	0	0	2	4	1	0	5	23700	48	0.20
			SB	1	0	0	0	3	2	2	0	4	24200	38	0.50
	CTH N	WIS 55	NB	0	0	0	0	1	0	1	0	1	23700	11	1.00
			SB	1	0	0	0	1	0	2	0	2	24200	21	1.00
	WIS 55	CTH J	NB	0	0	0	0	0	0	0	0	0	20000	0	0.00
			SB	0	0	0	0	0	0	0	0	0	20400	0	0.00
	CTH J	CTH U	NB	1	0	0	0	3	3	1	0	4	19600	17	0.25
			SB	0	0	1	0	7	5	3	0	8	21700	31	0.38

Exhibit C2 Continued

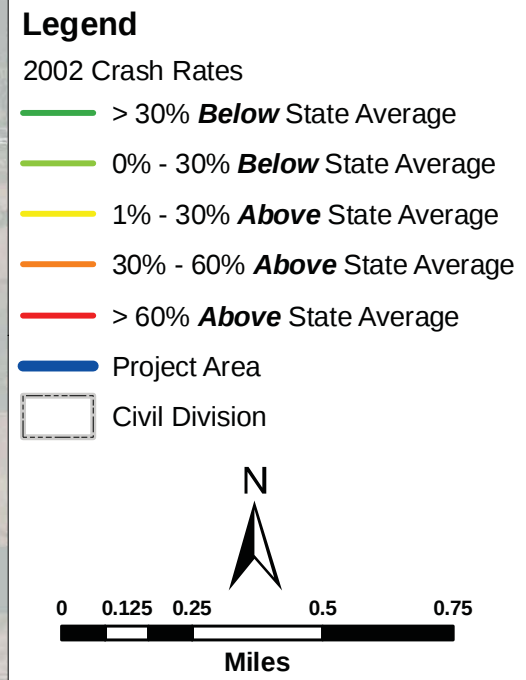
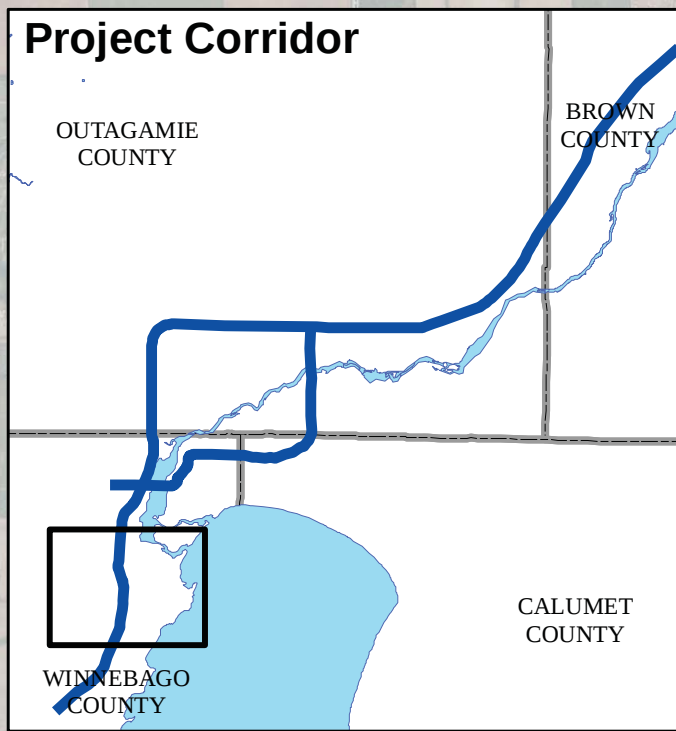
2007 Mainline Crashes

Facility	Interchange 'A'	Interchange 'B'	Direction	Crash Type					Crash Severity			Total Crashes	AADT	Average Annual Crash Rate	Crash Severity
				Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal				
USH 10	CTH CB	USH 41	EB	0	0	0	0	0	0	0	0	0	11000	0	0.00
			WB	0	0	0	0	0	0	0	0	0	11200	0	0.00
STH 441 / USH 10	USH 41	CTH P	NB/EB	0	0	0	0	0	0	0	0	0	32800	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	32800	0	0.00
	CTH P	CTH AP	NB/EB	0	0	0	0	0	0	0	0	0	23200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	23200	0	0.00
	CTH AP	WIS 47	NB/EB	0	0	0	0	0	0	0	0	0	22200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	19300	0	0.00
	WIS 47	USH 10	NB/EB	0	0	0	0	0	0	0	0	0	23400	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	22500	0	0.00
STH 441	USH 10	CTH KK	NB	2	0	0	0	4	2	4	0	6	17700	62	0.67
			SB	0	0	0	0	3	2	1	0	3	16500	33	0.33
	CTH KK	CTH Ce	NB	0	0	0	0	0	0	0	0	0	21300	0	0.00
			SB	0	0	0	0	0	0	0	0	0	19500	0	0.00
	CTH Ce	CTH Oo	NB	1	0	0	0	1	2	0	0	2	21700	25	0.00
			SB	0	0	0	0	1	0	1	0	1	19500	14	1.00
	CTH Oo	USH 41	NB	0	0	0	0	0	0	0	0	0	14100	0	0.00
			SB	0	0	0	0	0	0	0	0	0	13100	0	0.00
USH 41	Breezewood Ln	WIS 114	NB	0	0	0	0	0	0	0	0	0	35200	0	0.00
			SB	0	0	0	0	0	0	0	0	0	34700	0	0.00
	WIS 114	Oakridge Rd.	NB	0	0	0	0	0	0	0	0	0	37600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39300	0	0.00
	Oakridge Rd.	CTH II	NB	0	0	0	0	0	0	0	0	0	36500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	42800	0	0.00
	CTH II	STH 441 / USH 10	NB	0	0	0	0	0	0	0	0	0	44400	0	0.00
			SB	0	0	0	0	0	0	0	0	0	46400	0	0.00
	STH 441 / USH 10	CTH BB	NB	0	0	0	0	0	0	0	0	0	37500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	36900	0	0.00
	CTH BB	Collge Ave	NB	0	0	0	0	0	0	0	0	0	37200	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39100	0	0.00
	Collge Ave	WIS 96	NB	0	0	0	0	0	0	0	0	0	33700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	35200	0	0.00
	WIS 96	WIS 15	NB	0	0	0	0	0	0	0	0	0	29500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30100	0	0.00
	WIS 15	WIS 47	NB	0	0	0	0	0	0	0	0	0	29700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	32500	0	0.00
	WIS 47	CTH E	NB	0	0	0	0	0	0	0	0	0	27900	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30200	0	0.00
	CTH E	STH 441	NB	0	0	0	0	0	0	0	0	0	23600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	23600	0	0.00
	STH 441	CTH N	NB	0	0	0	0	0	0	0	0	0	23700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	24200	0	0.00
	CTH N	WIS 55	NB	0	0	0	0	0	0	0	0	0	23700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	24200	0	0.00
	WIS 55	CTH J	NB	0	0	0	0	0	0	0	0	0	20000	0	0.00
			SB	0	0	0	0	0	0	0	0	0	20400	0	0.00
	CTH J	CTH U	NB	0	0	0	0	0	0	0	0	0	19600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	21700	0	0.00

Exhibit C3

2002 to 2007 TOTAL Mainline Crashes

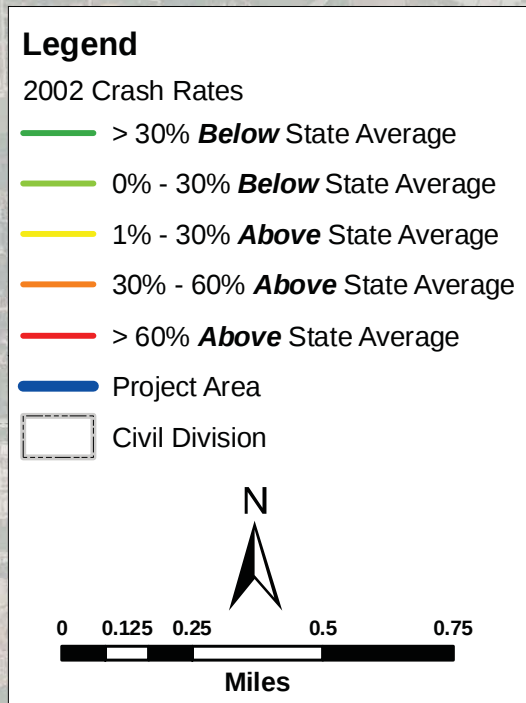
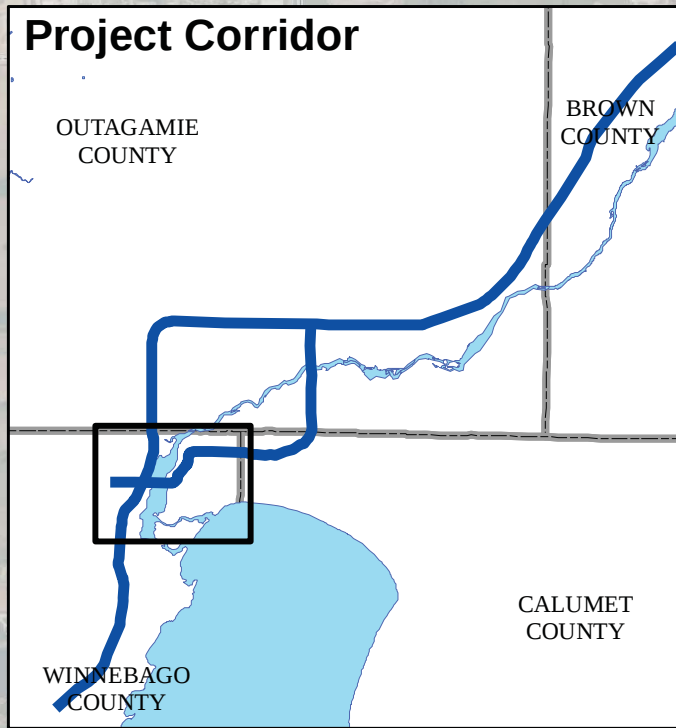
Facility	Interchange 'A'	Interchange 'B'	Direction	Crash Type					Crash Severity			Total Crashes	AADT	Average Annual Crash Rate	Crash Severity
				Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal				
USH 10	CTH CB	USH 41	EB	0	0	0	0	0	0	0	0	0	11000	0	0.00
			WB	0	0	0	0	0	0	0	0	0	11200	0	0.00
STH 441 / USH 10	USH 41	CTH P	NB/EB	0	0	0	0	0	0	0	0	0	32800	0	0.00
			SB/WB	0	0	0	0	2	2	0	0	2	32800	28	0.00
	CTH P	CTH AP	NB/EB	0	0	0	0	0	0	0	0	0	23200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	23200	0	0.00
	CTH AP	WIS 47	NB/EB	0	0	0	0	0	0	0	0	0	22200	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	19300	0	0.00
	WIS 47	USH 10	NB/EB	0	0	0	0	0	0	0	0	0	23400	0	0.00
			SB/WB	0	0	0	0	0	0	0	0	0	22500	0	0.00
STH 441	USH 10	CTH KK	NB	4	0	2	0	10	9	7	0	16	17700	28	0.44
			SB	3	1	2	1	8	9	6	0	15	16500	28	0.40
	CTH KK	CTH Ce	NB	0	0	0	0	0	0	0	0	0	21300	0	0.00
			SB	0	0	0	0	0	0	0	0	0	19500	0	0.00
	CTH Ce	CTH Oo	NB	2	1	3	0	10	11	5	0	16	21700	34	0.31
			SB	1	0	0	0	12	7	6	0	13	19500	30	0.46
	CTH Oo	USH 41	NB	0	0	0	0	0	0	0	0	0	14100	0	0.00
			SB	0	0	0	0	0	0	0	0	0	13100	0	0.00
USH 41	Breezewood Ln	WIS 114	NB	1	0	1	0	1	2	1	0	3	35200	10	0.33
			SB	0	0	0	0	0	0	0	0	0	34700	0	0.00
	WIS 114	Oakridge Rd.	NB	0	0	0	0	0	0	0	0	0	37600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	39300	0	0.00
	Oakridge Rd.	CTH II	NB	0	0	0	0	0	0	0	0	0	36500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	42800	0	0.00
	CTH II	STH 441 / USH 10	NB	0	0	0	0	0	0	0	0	0	44400	0	0.00
			SB	0	0	0	0	0	0	0	0	0	46400	0	0.00
	STH 441 / USH 10	CTH BB	NB	2	1	2	0	6	6	5	0	11	37500	27	0.45
			SB	0	0	1	0	6	6	1	0	7	36900	17	0.14
	CTH BB	Collge Ave	NB	4	0	0	0	1	3	2	0	5	37200	20	0.40
			SB	0	1	0	0	1	1	1	0	2	39100	8	0.50
	Collge Ave	WIS 96	NB	0	0	0	0	0	0	0	0	0	33700	0	0.00
			SB	0	0	0	0	0	0	0	0	0	35200	0	0.00
	WIS 96	WIS 15	NB	0	0	0	0	0	0	0	0	0	29500	0	0.00
			SB	0	0	0	0	0	0	0	0	0	30100	0	0.00
	WIS 15	WIS 47	NB	14	1	3	1	16	25	10	0	35	29700	27	0.29
			SB	11	1	3	1	18	24	9	1	34	32500	24	0.29
	WIS 47	CTH E	NB	8	0	2	1	7	10	8	0	18	27900	33	0.44
			SB	7	2	2	0	3	10	4	0	14	30200	24	0.29
	CTH E	STH 441	NB	0	0	0	0	0	0	0	0	0	23600	0	0.00
			SB	0	0	0	0	0	0	0	0	0	23600	0	0.00
	STH 441	CTH N	NB	4	0	3	0	7	11	3	0	14	23700	22	0.21
			SB	7	0	3	1	11	11	11	0	22	24200	35	0.50
	CTH N	WIS 55	NB	3	0	1	0	6	6	4	0	10	23700	18	0.40
			SB	4	1	1	0	5	4	7	0	11	24200	19	0.64
	WIS 55	CTH J	NB	0	0	0	0	0	0	0	0	0	20000	0	0.00
			SB	0	0	0	0	1	0	1	0	1	20400	7	1.00
	CTH J	CTH U	NB	3	0	3	0	14	14	6	0	20	19600	14	0.30
			SB	2	2	1	0	23	16	12	0	28	21700	18	0.43



US 41/WIS 441

CRASH RATES (2002)





US 41/WIS 441

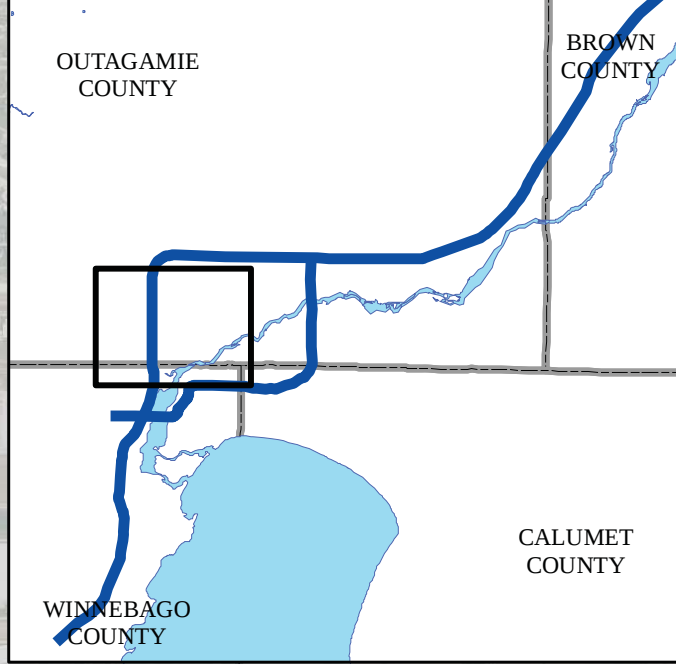
CRASH RATES (2002)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

Project Corridor

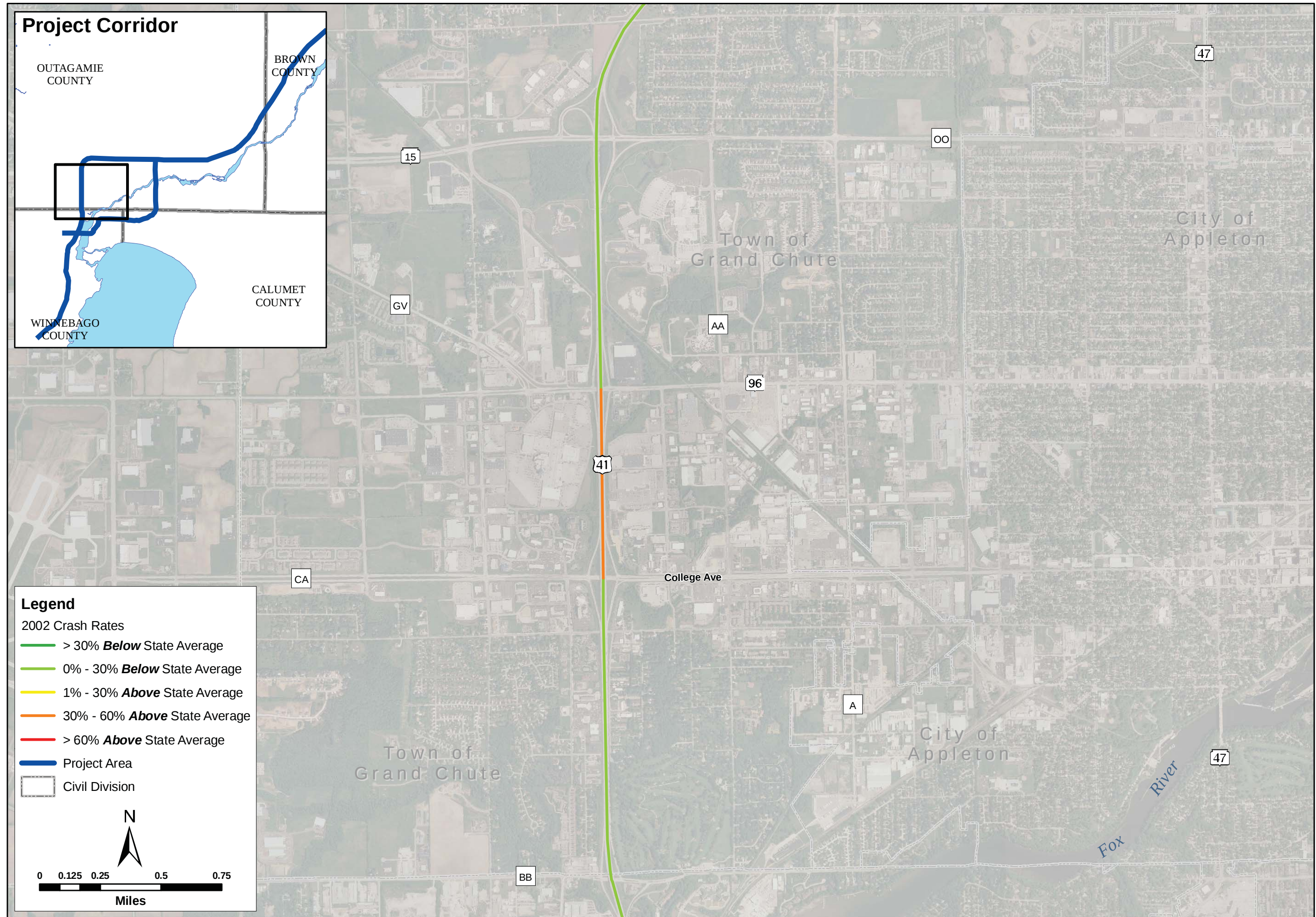
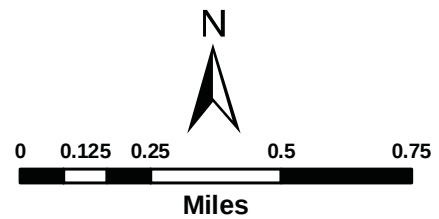


Legend

2002 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

- Project Area
- Civil Division



US 41/WIS 441

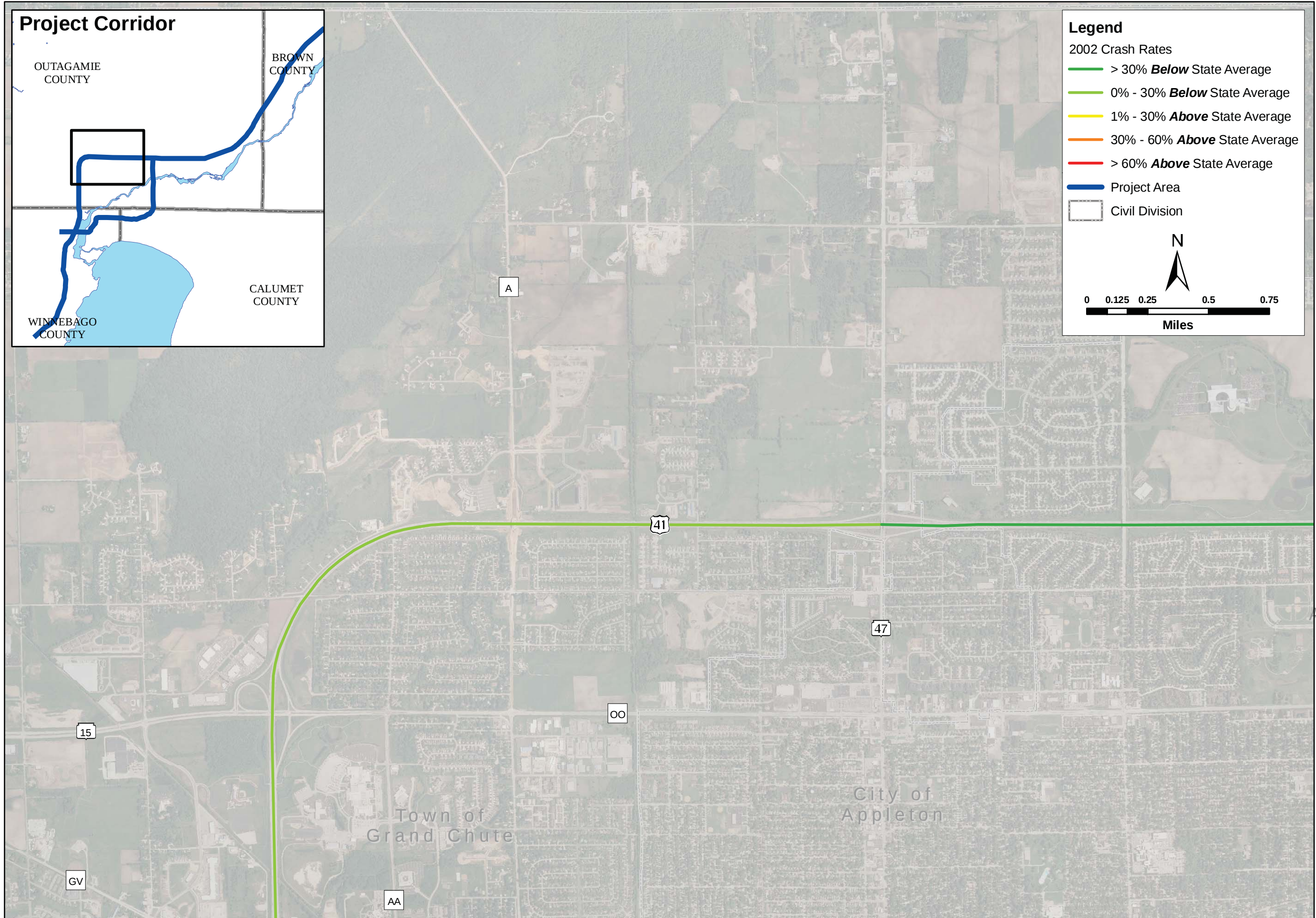
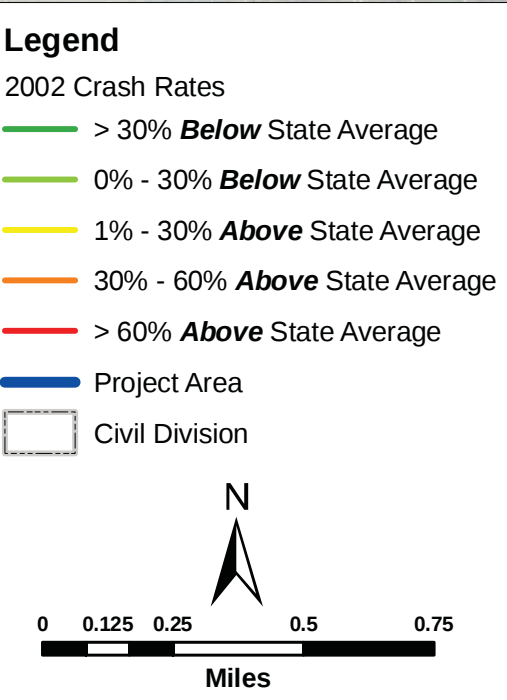
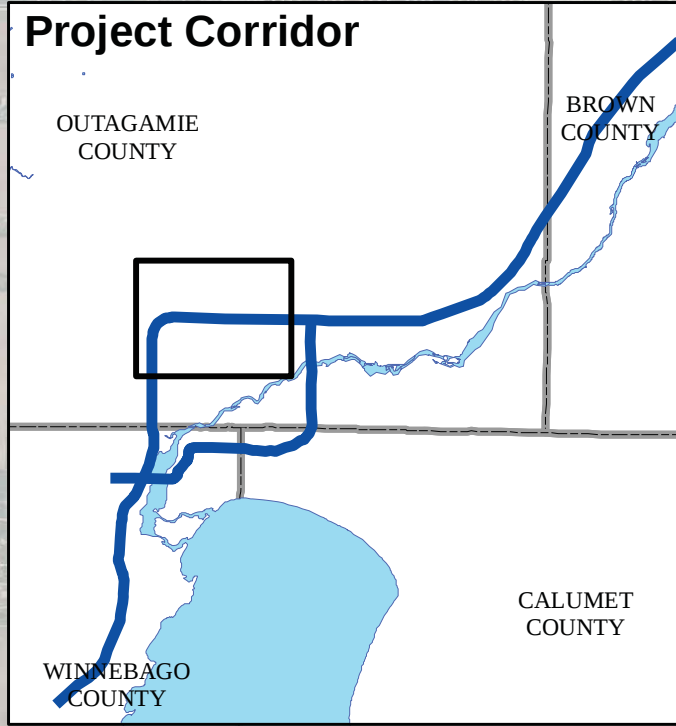
CRASH RATES (2002)

HNTB

Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

Page 11



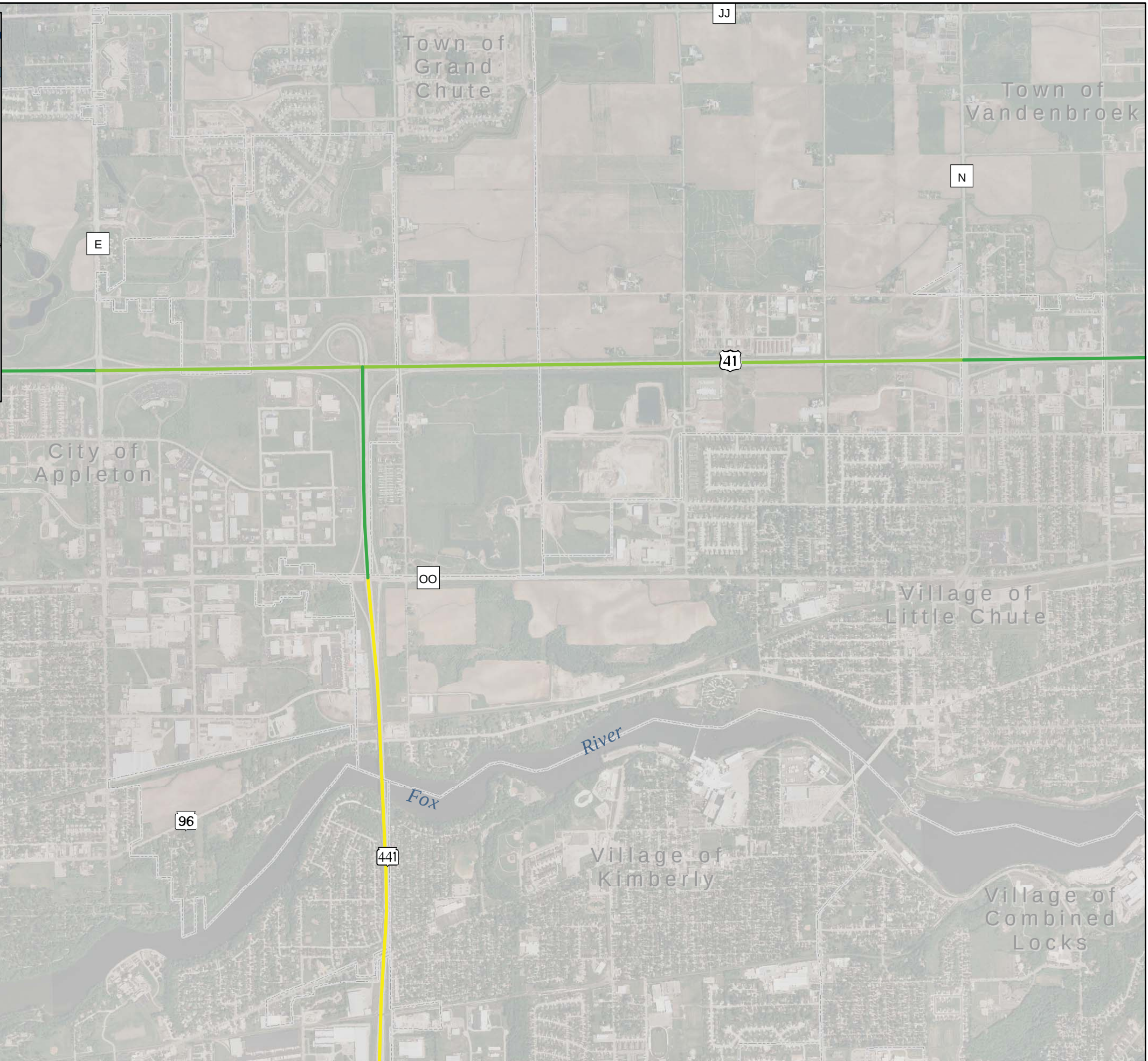
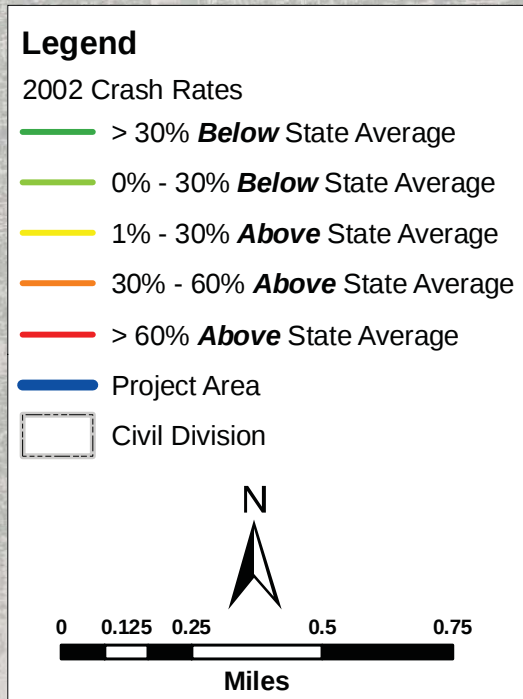
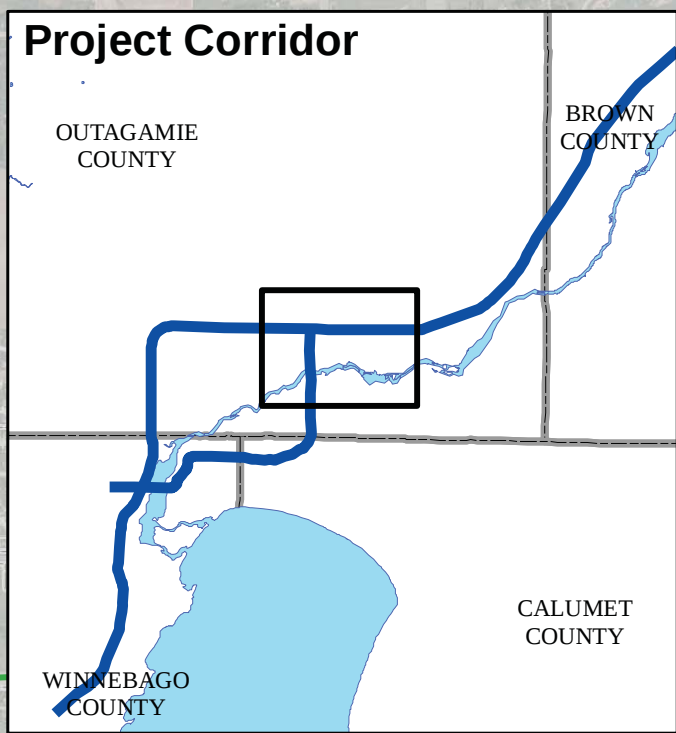
US 41/WIS 441

CRASH RATES (2002)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT



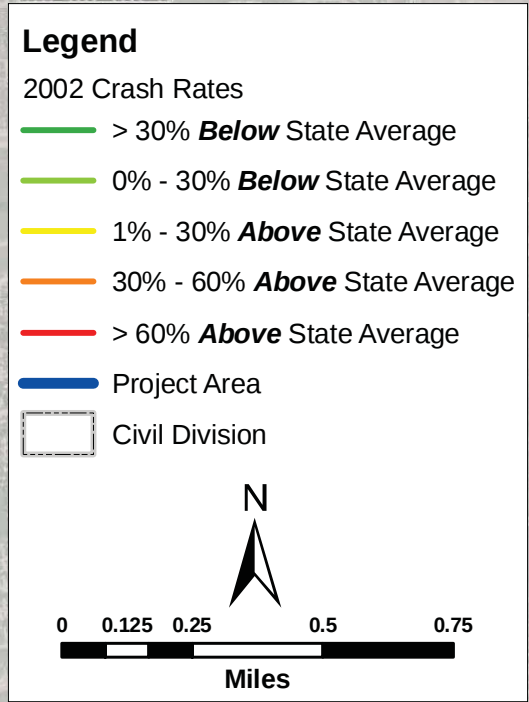
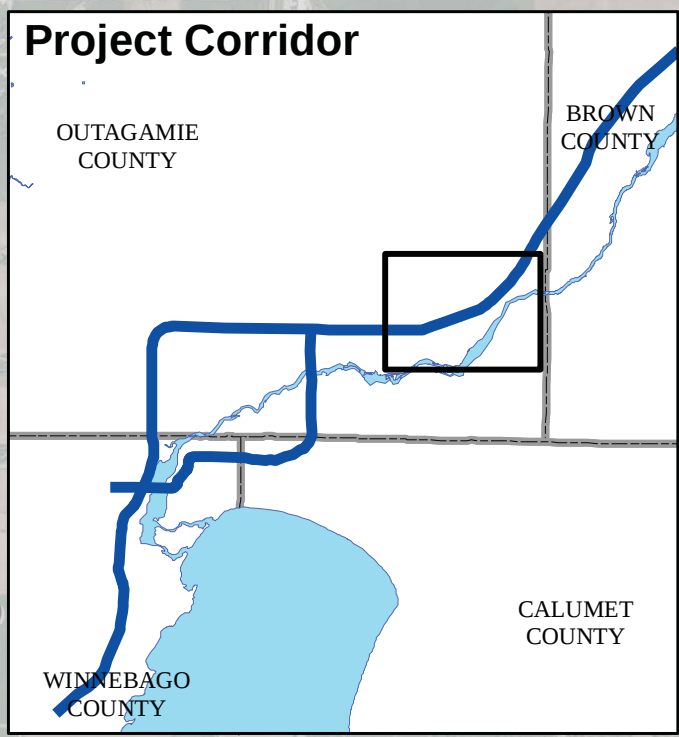
US 41/WIS 441

CRASH RATES (2002)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

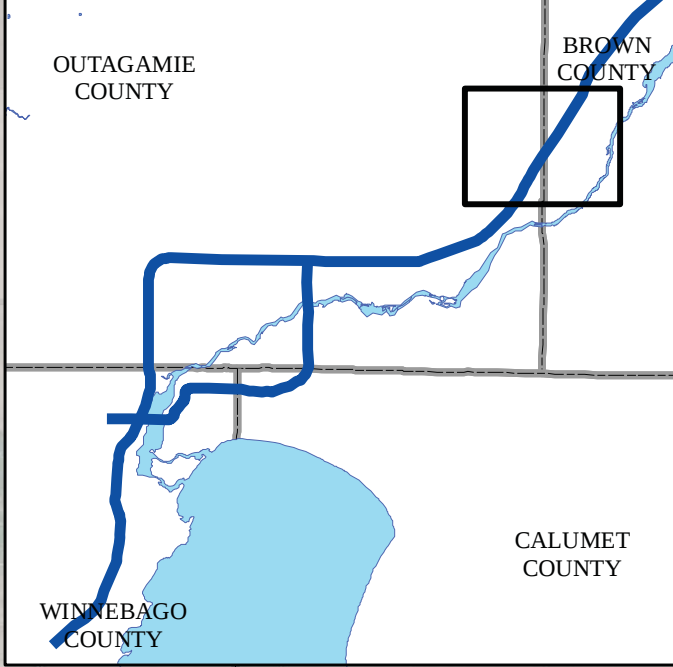


US 41/WIS 441

CRASH RATES (2002)



Project Corridor



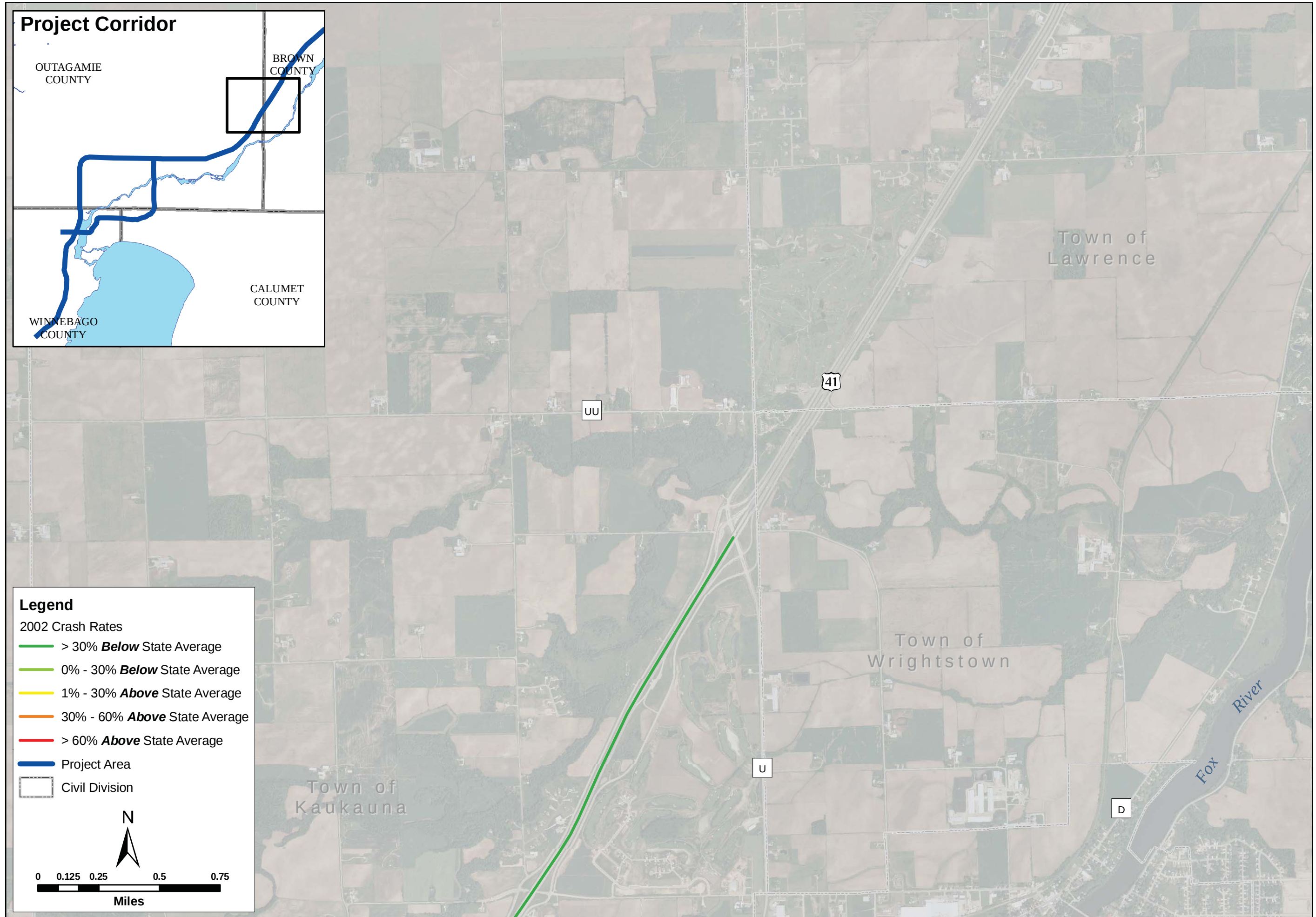
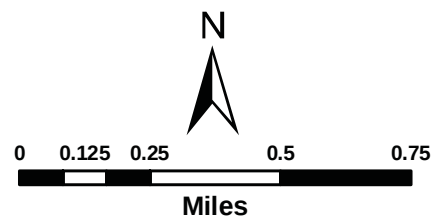
Legend

2002 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

— Project Area

Civil Division



US 41/WIS 441

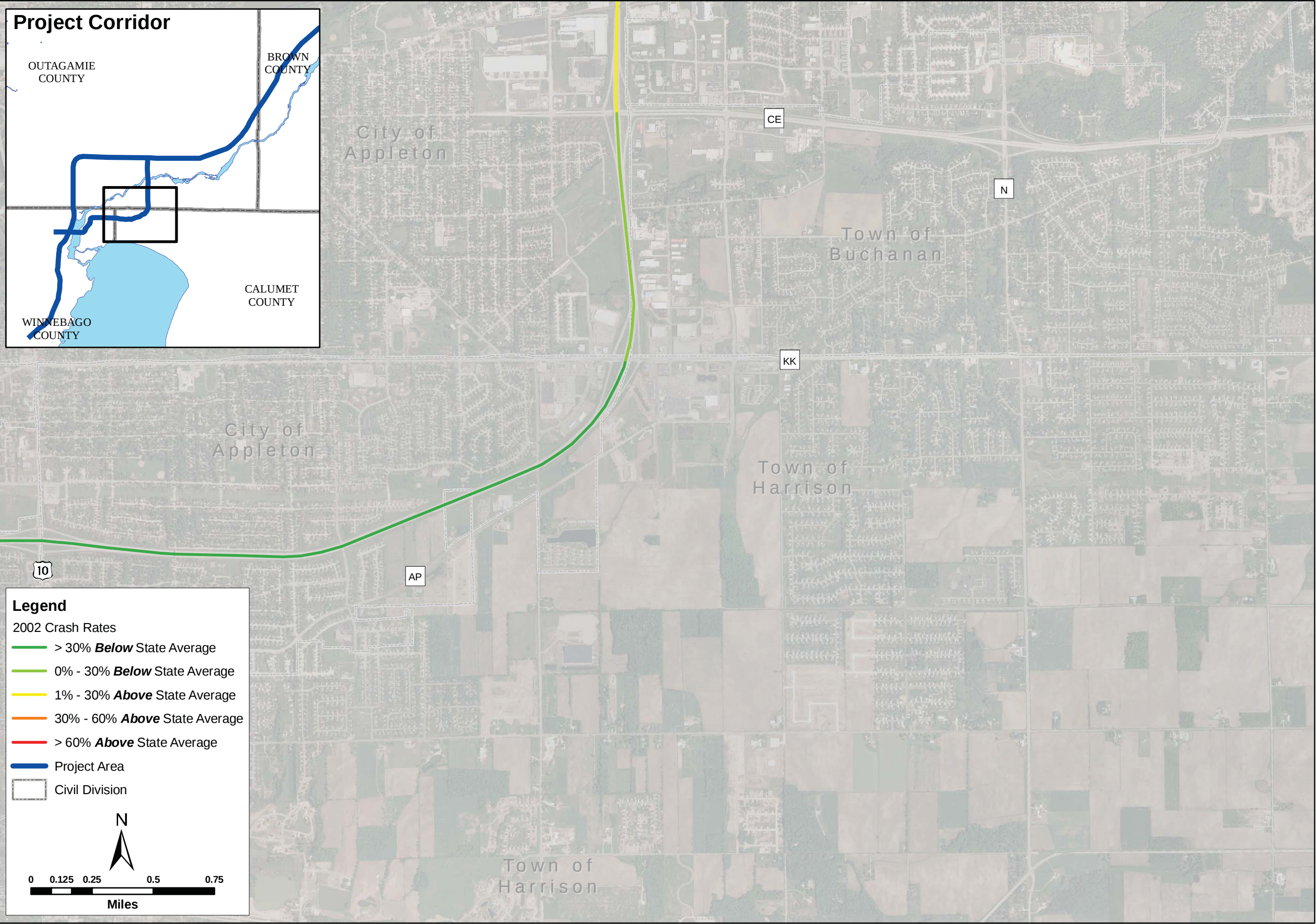
CRASH RATES (2002)

HNTB

Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

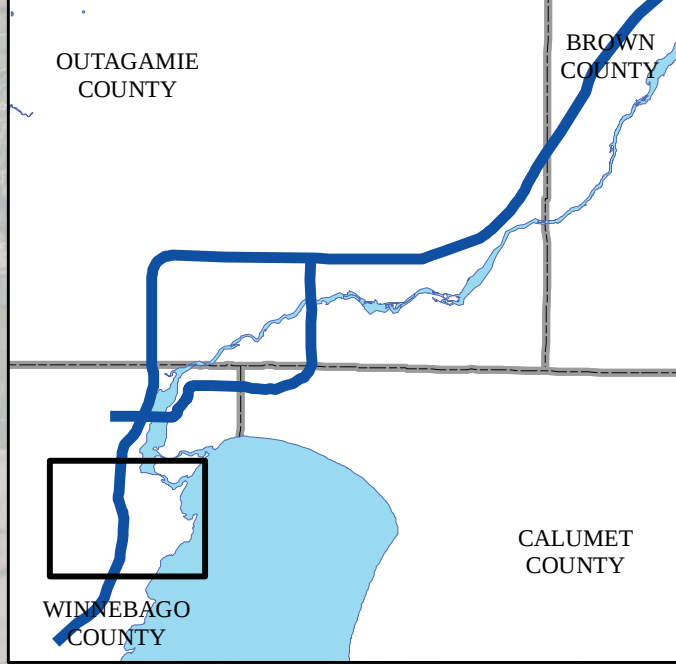
Page 15



WIS 441
CRASH RATES (2002)



Project Corridor



Legend

2003 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average
- Project Area
- Civil Division

N

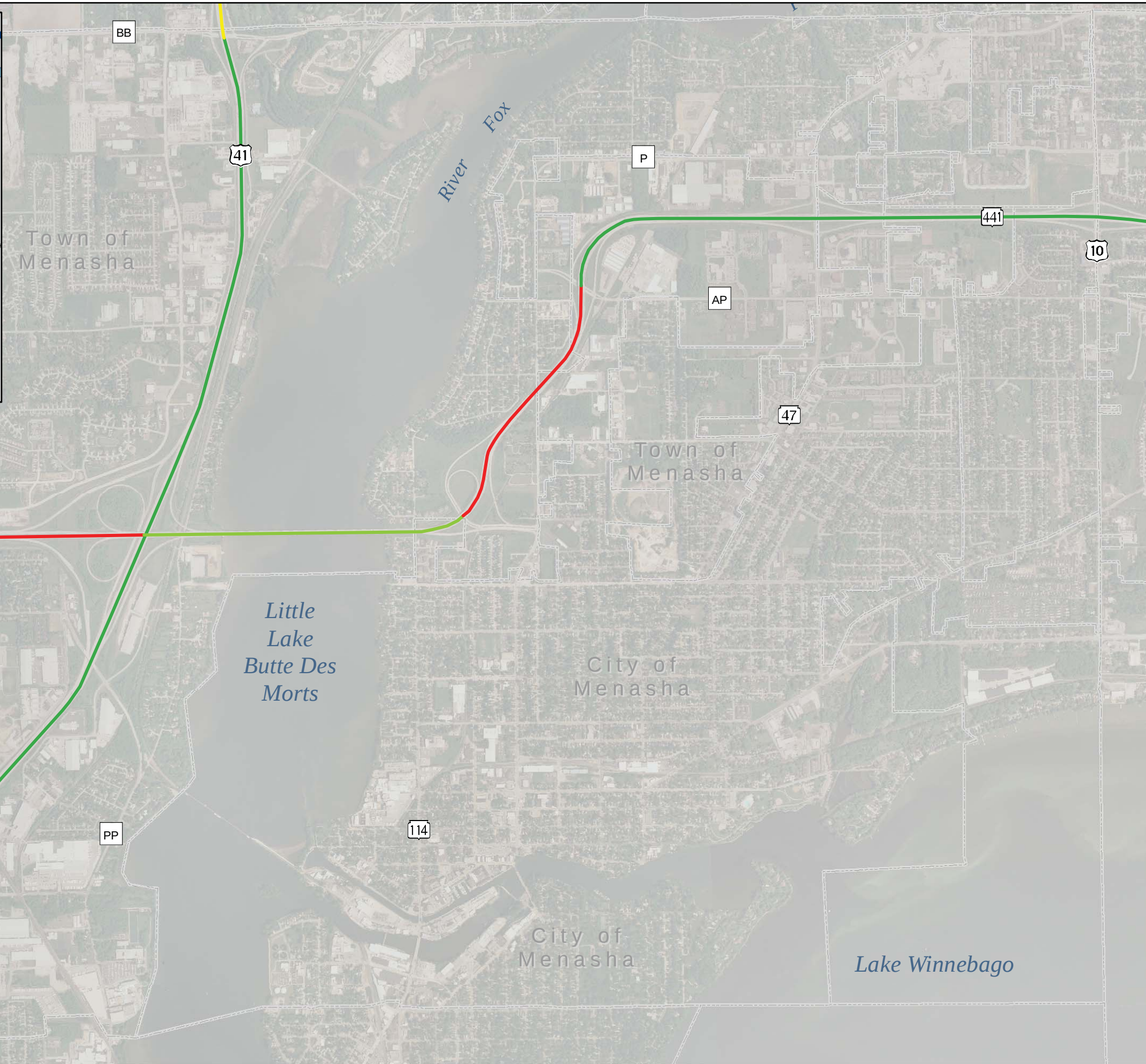
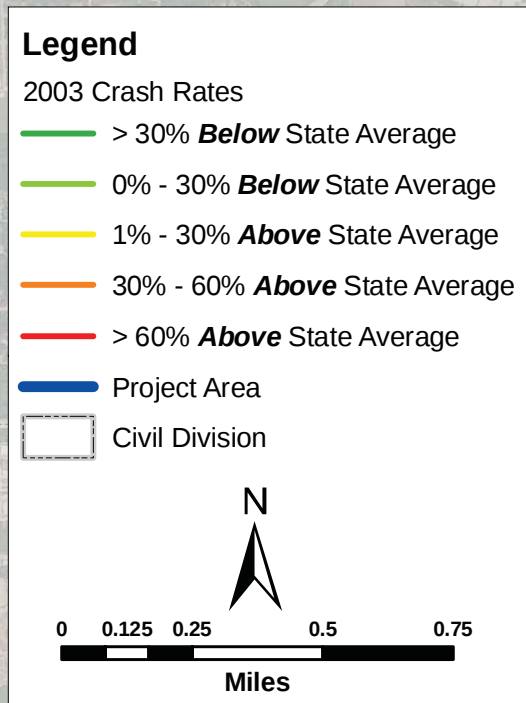
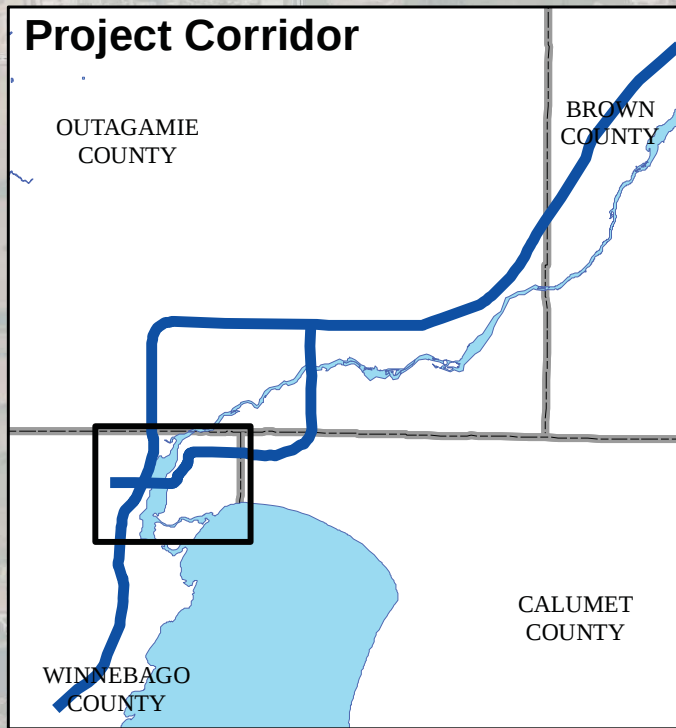
0 0.125 0.25 0.5 0.75

Miles



US 41/WIS 441 CRASH RATES (2003)

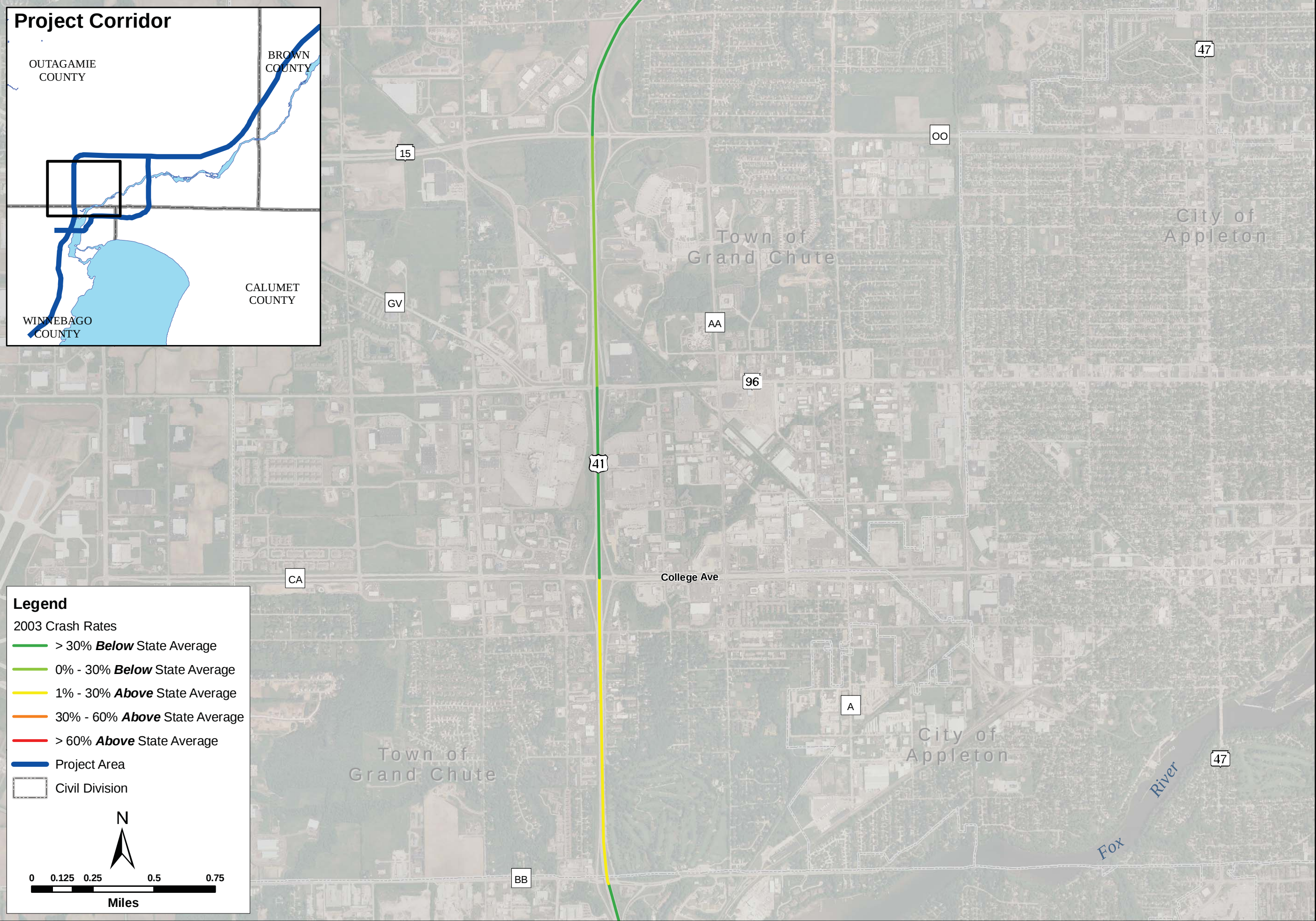
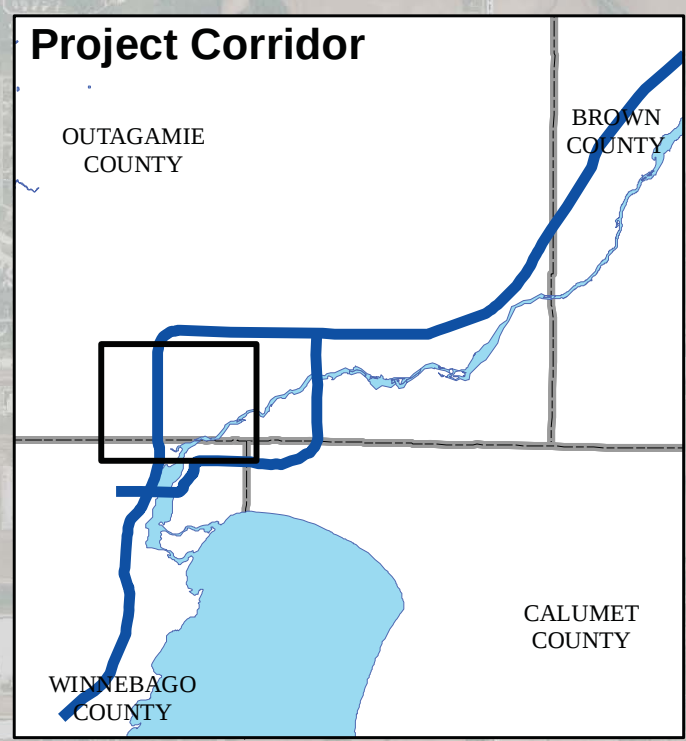




US 41/WIS 441

CRASH RATES (2003)





Legend

2003 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

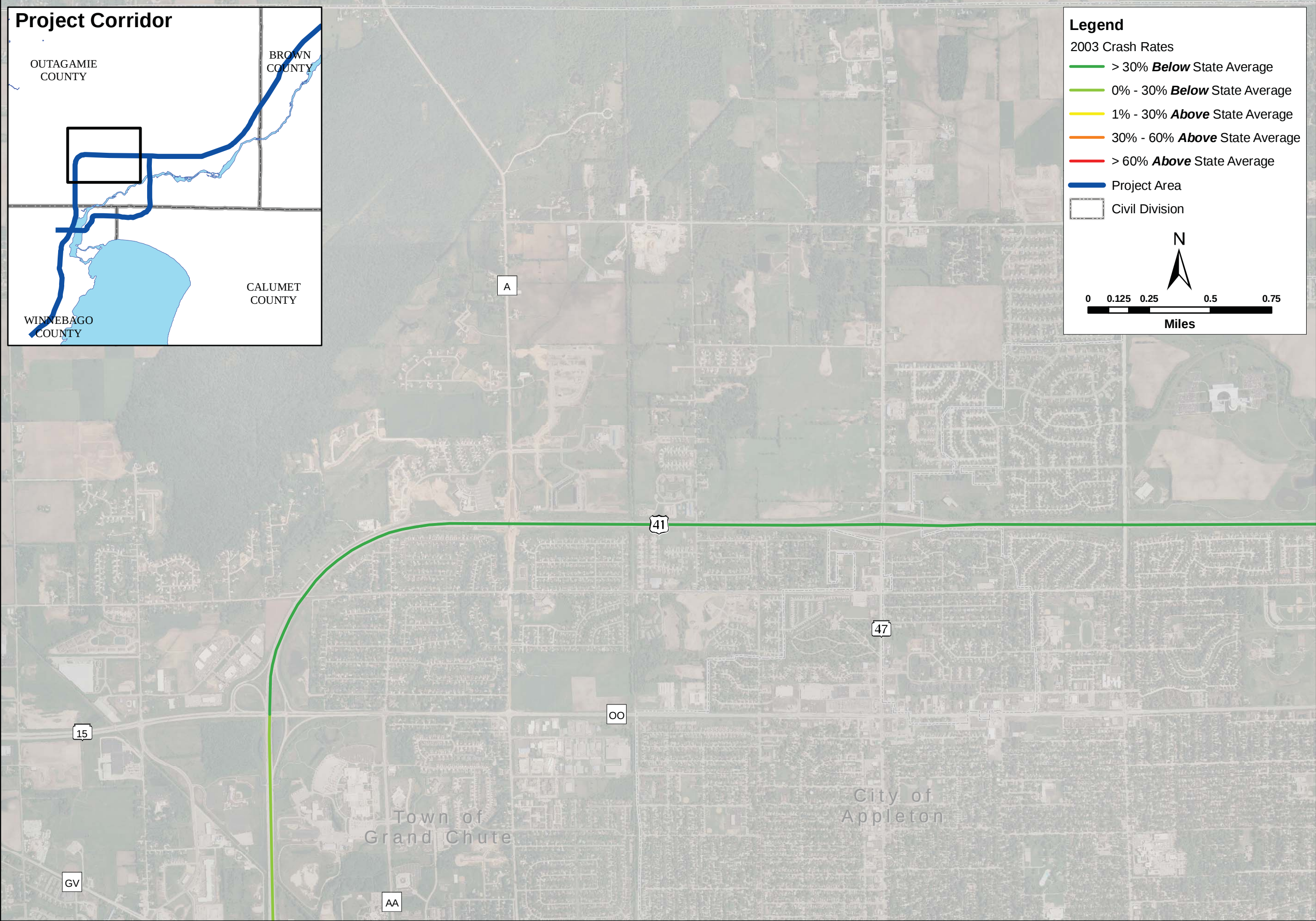
Project Area

Civil Division

N

0 0.125 0.25 0.5 0.75

Miles



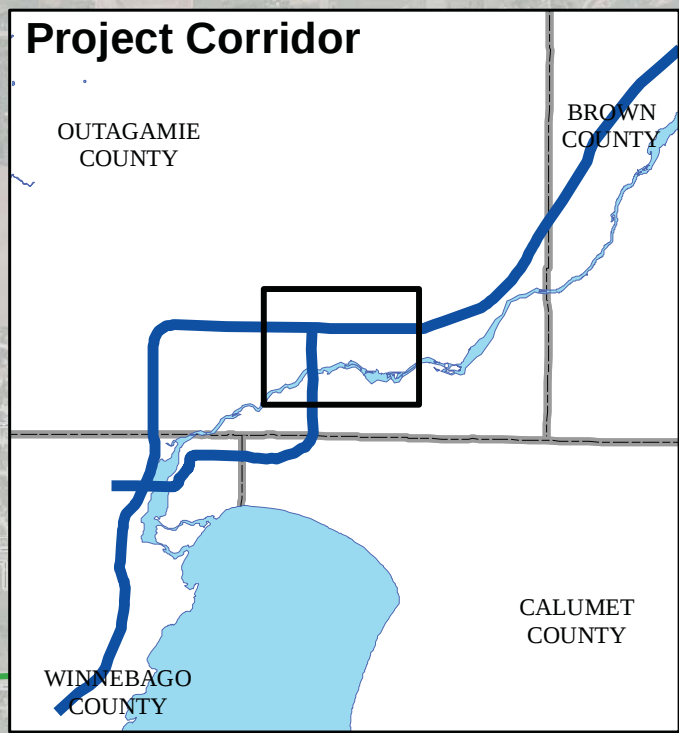
US 41/WIS 441

CRASH RATES (2003)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT



Legend

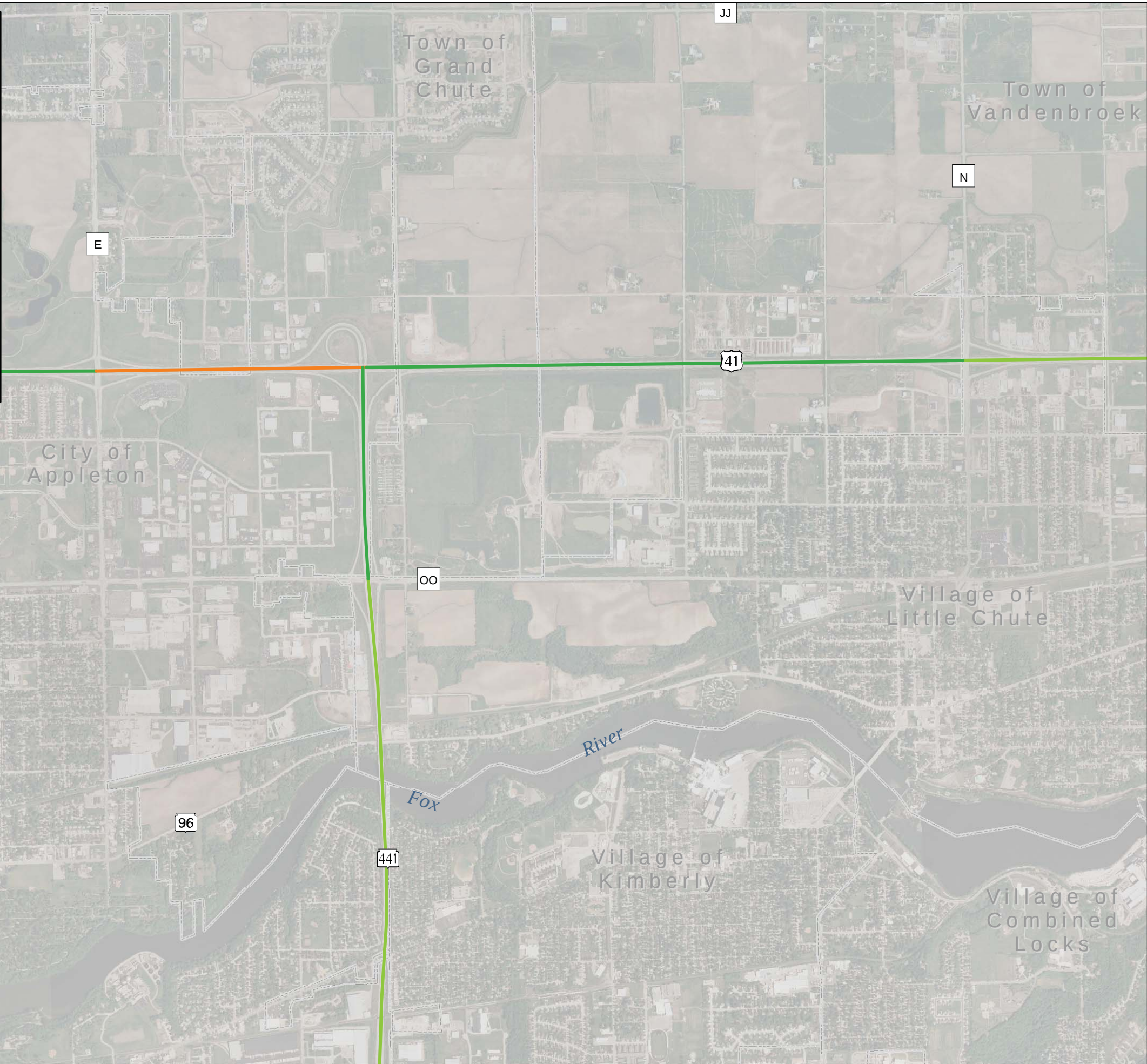
2003 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average
- Project Area
- Civil Division

N

0 0.125 0.25 0.5 0.75

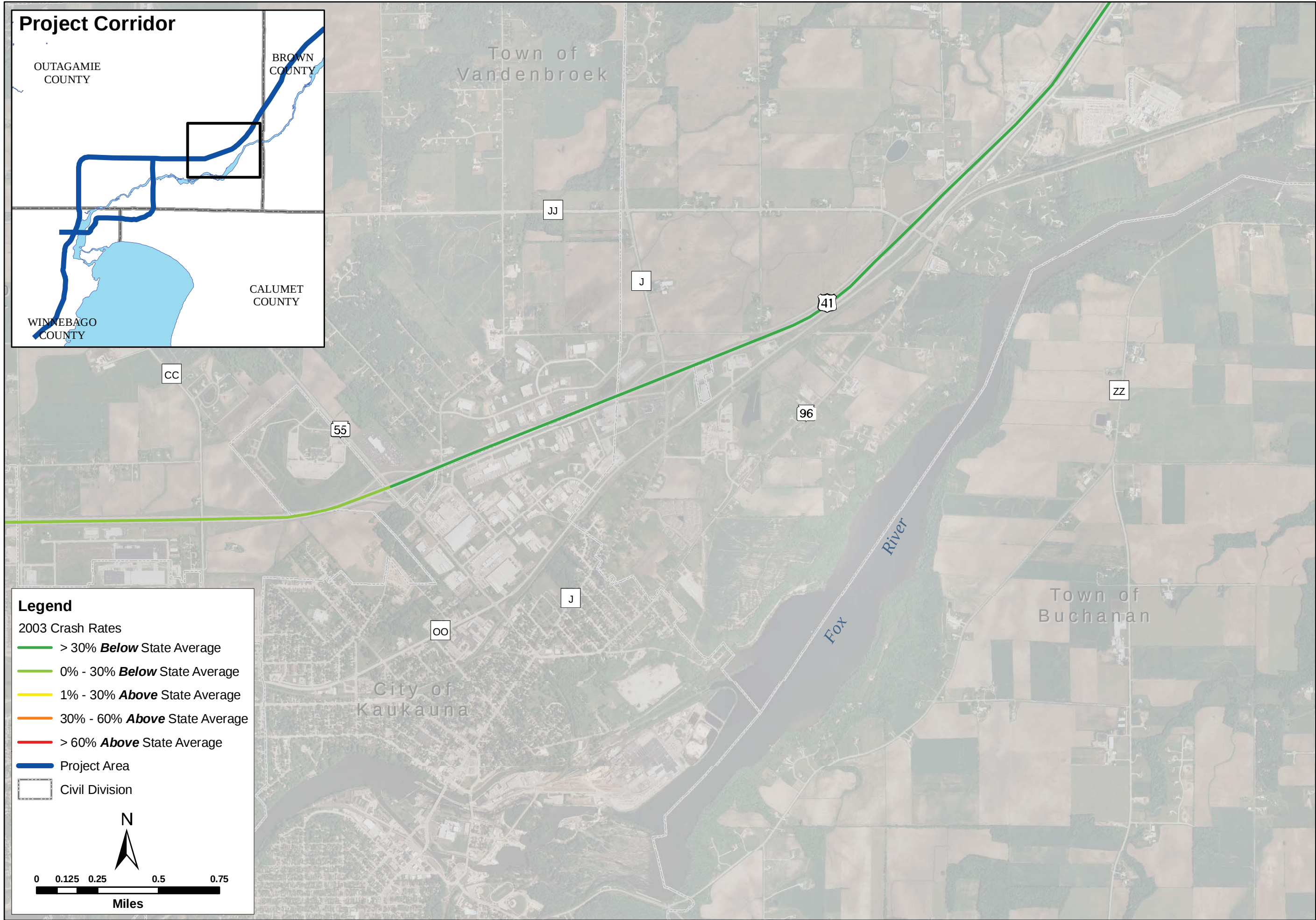
Miles



US 41/WIS 441

CRASH RATES (2003)

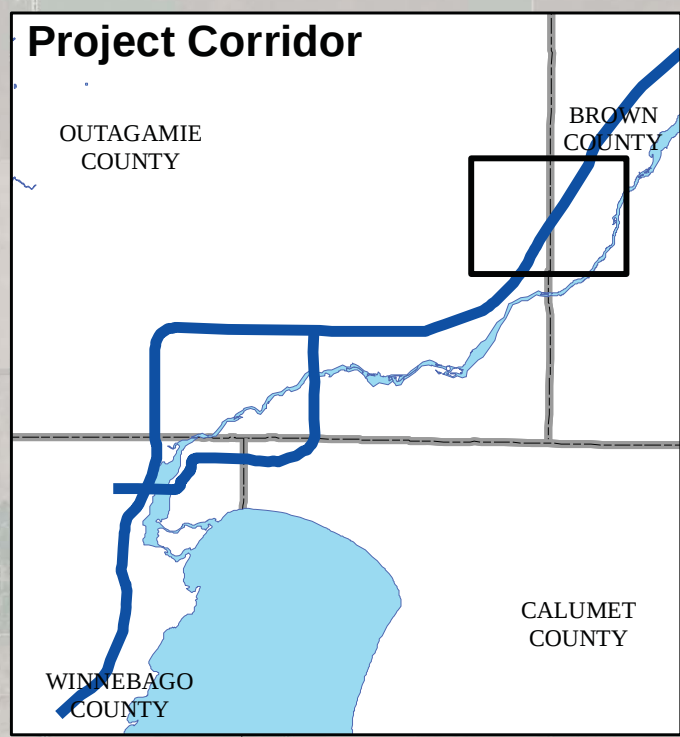




US 41/WIS 441

CRASH RATES (2003)





Legend

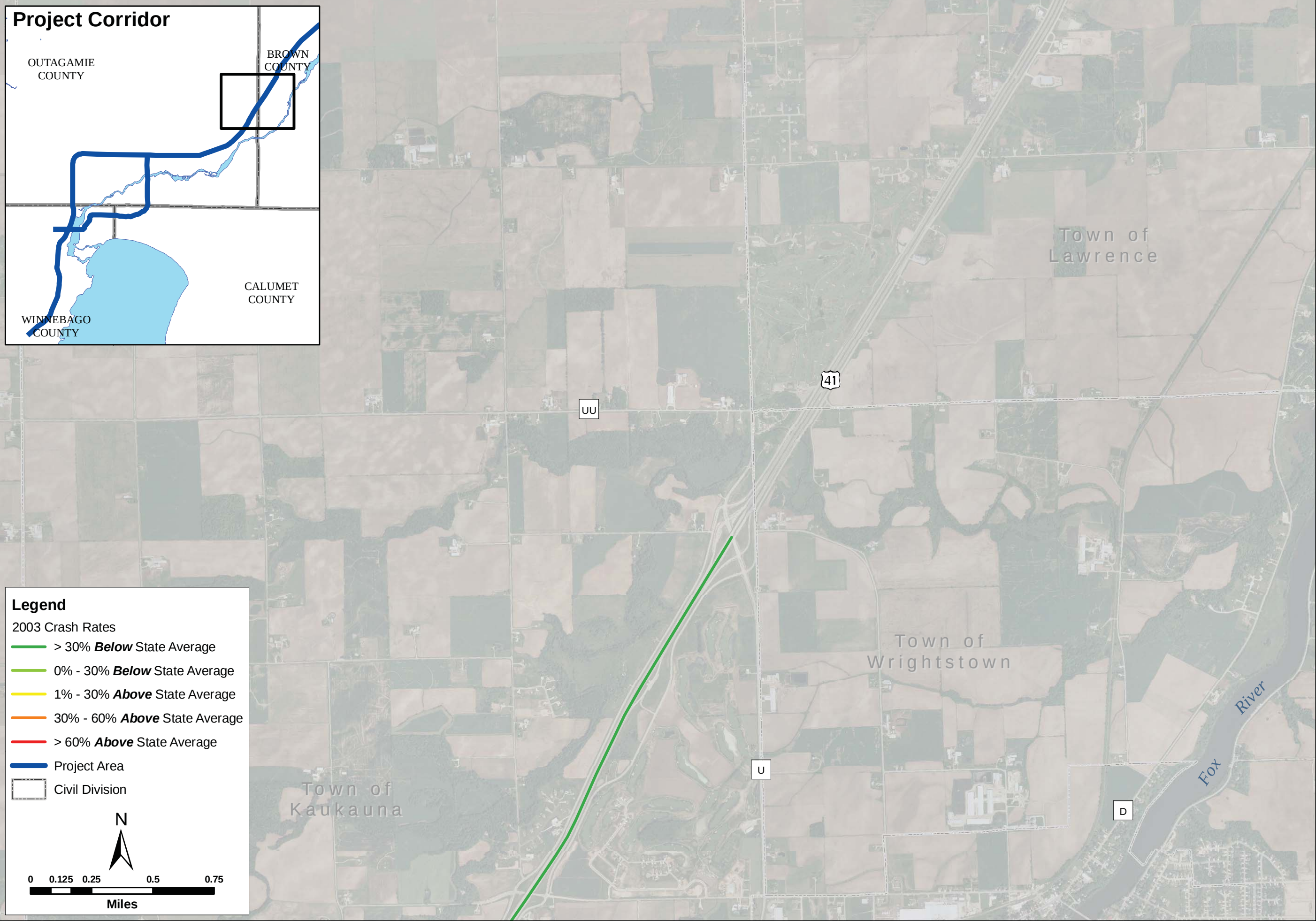
2003 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

Project Area

Civil Division

0 0.125 0.25 0.5 0.75
Miles



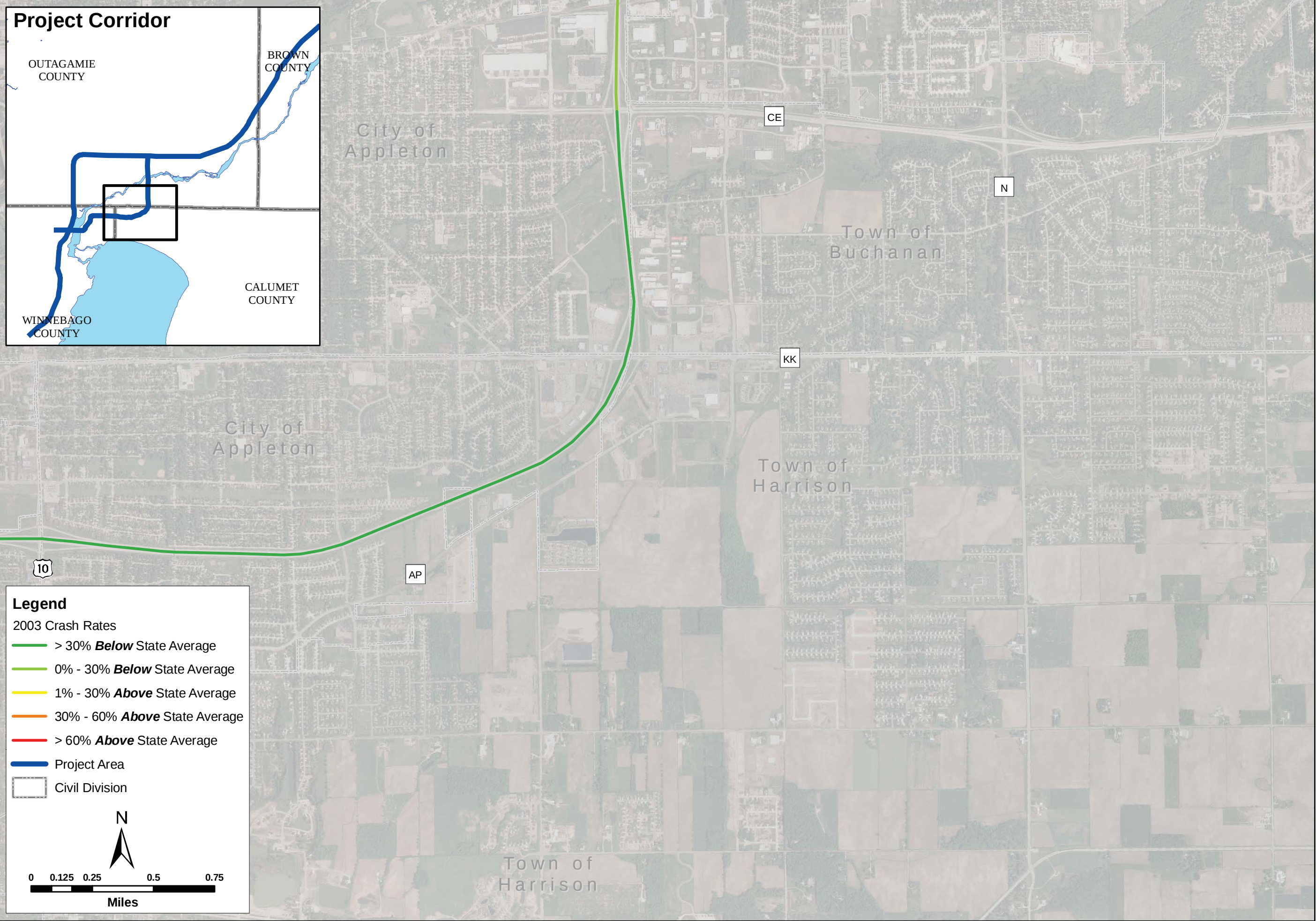
US 41/WIS 441

CRASH RATES (2003)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

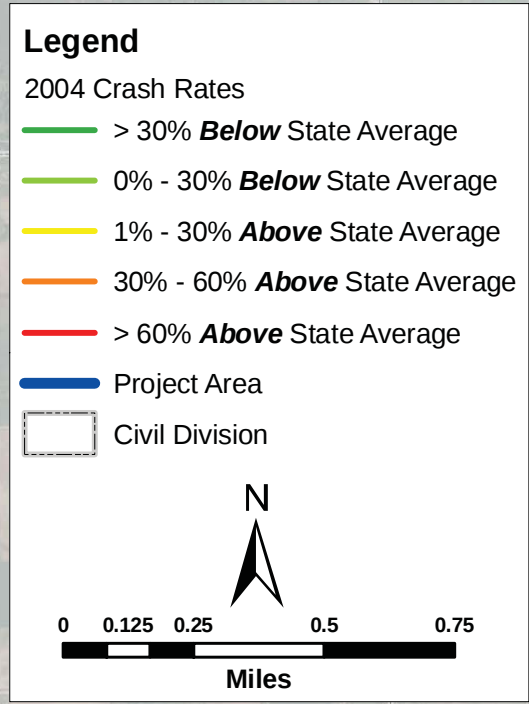
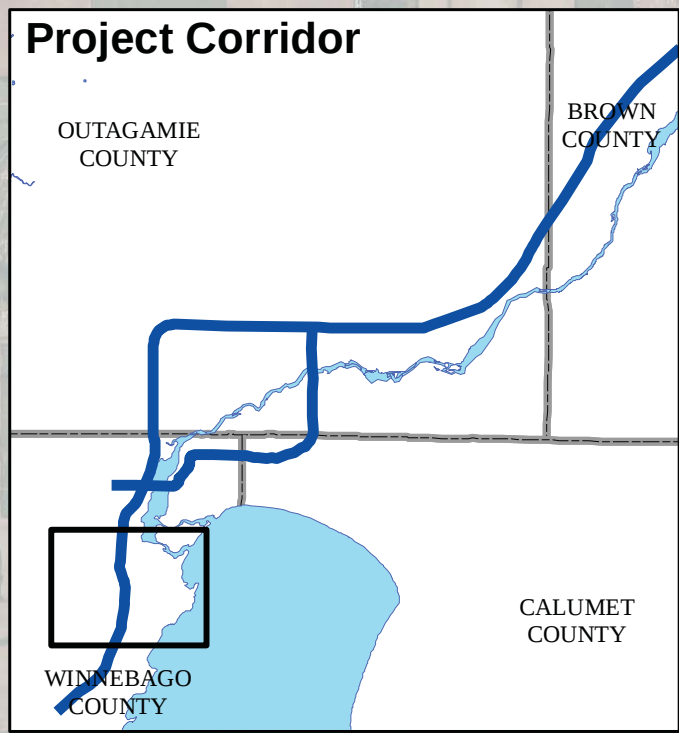


WIS 441
CRASH RATES (2003)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT



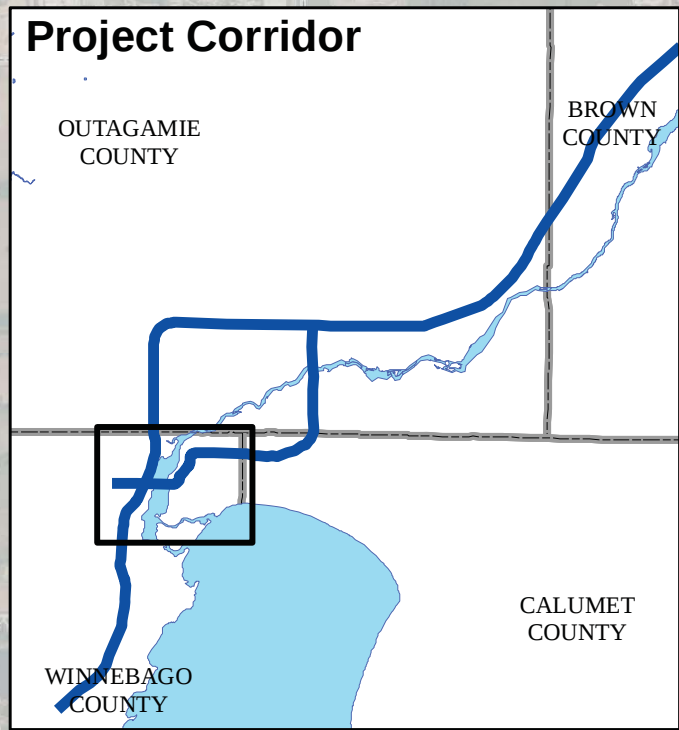
US 41/WIS 441

CRASH RATES (2004)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT



Legend

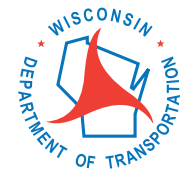
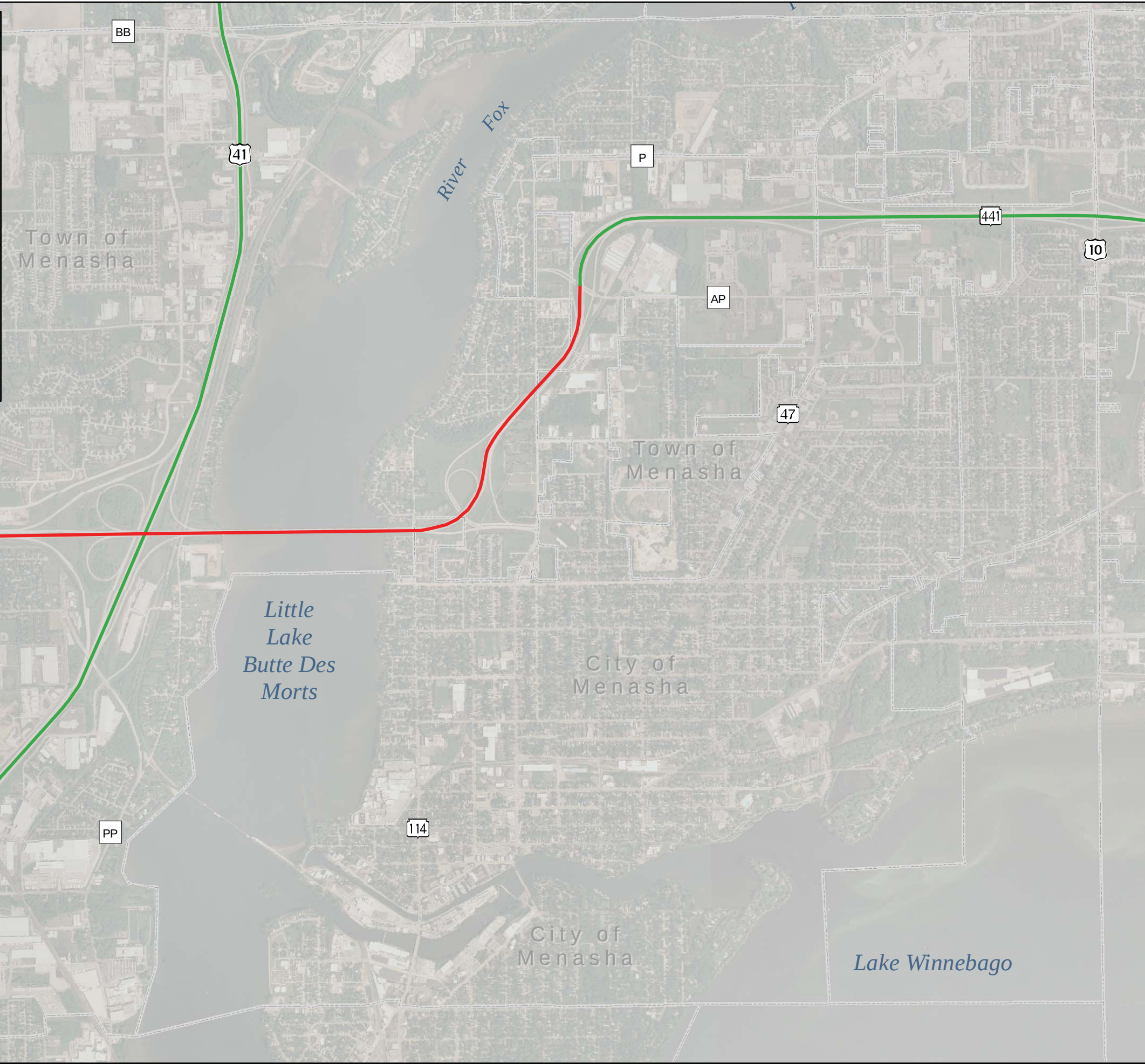
2004 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average
- Project Area
- Civil Division

N

0 0.125 0.25 0.5 0.75

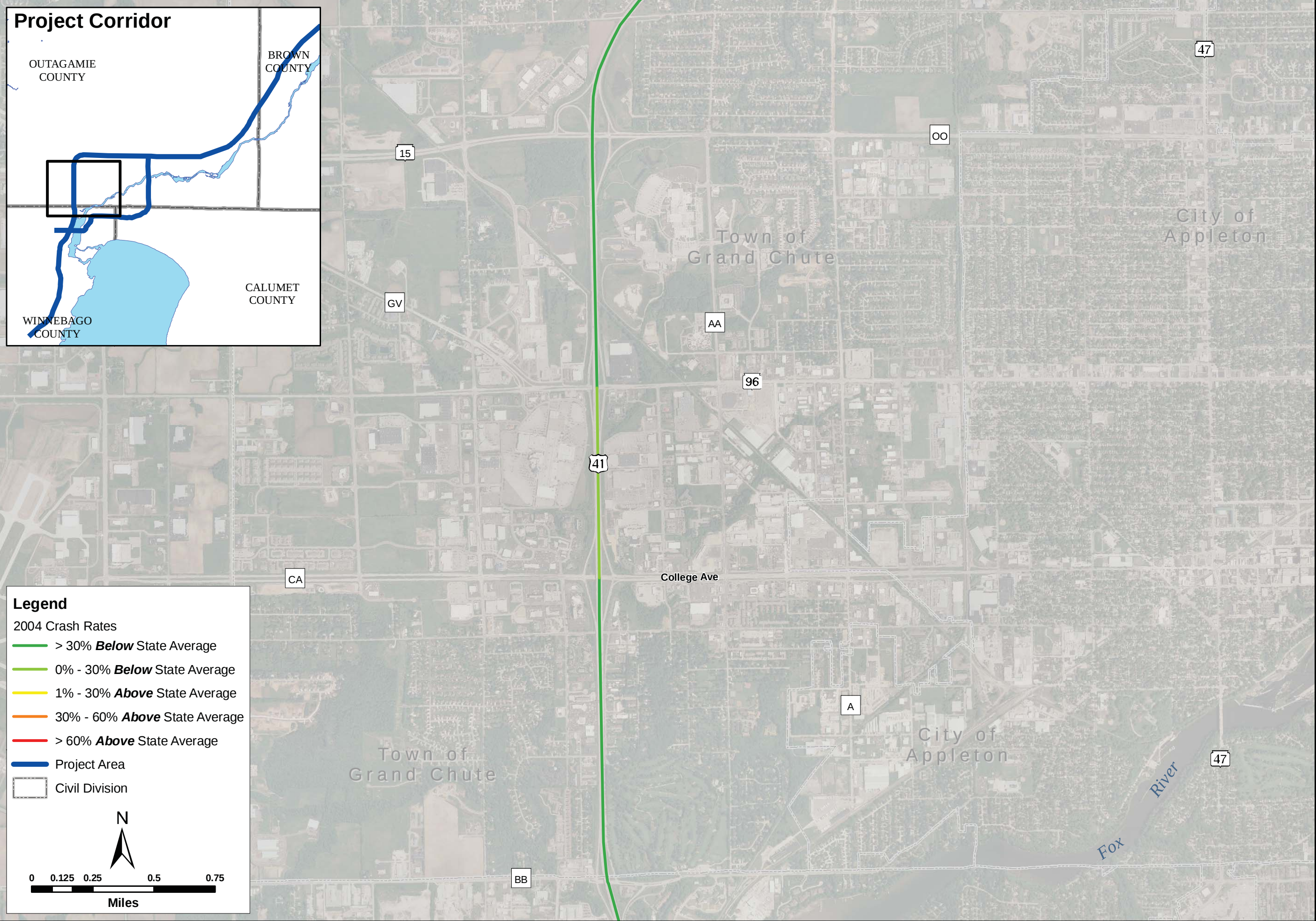
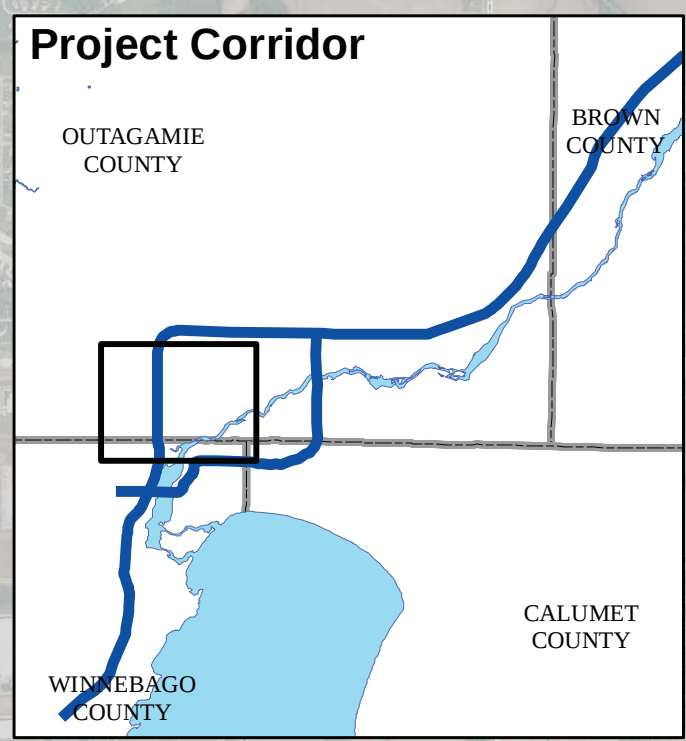
Miles



US 41/WIS 441

CRASH RATES (2004)





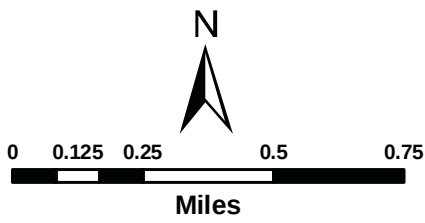
Legend

2004 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

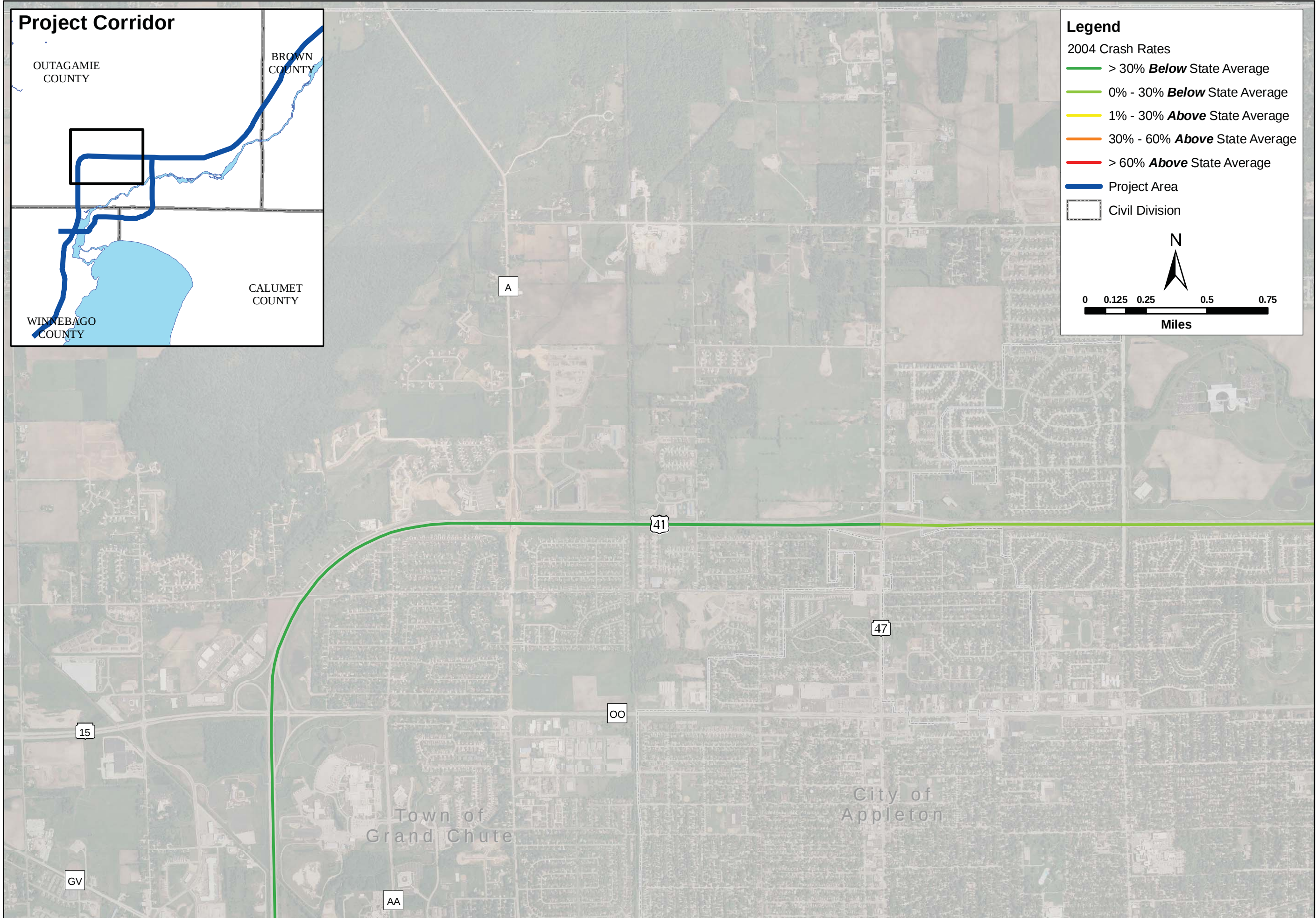
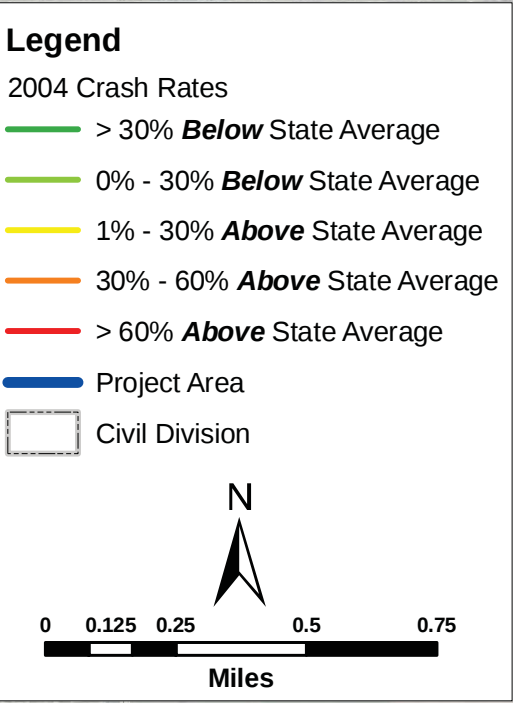
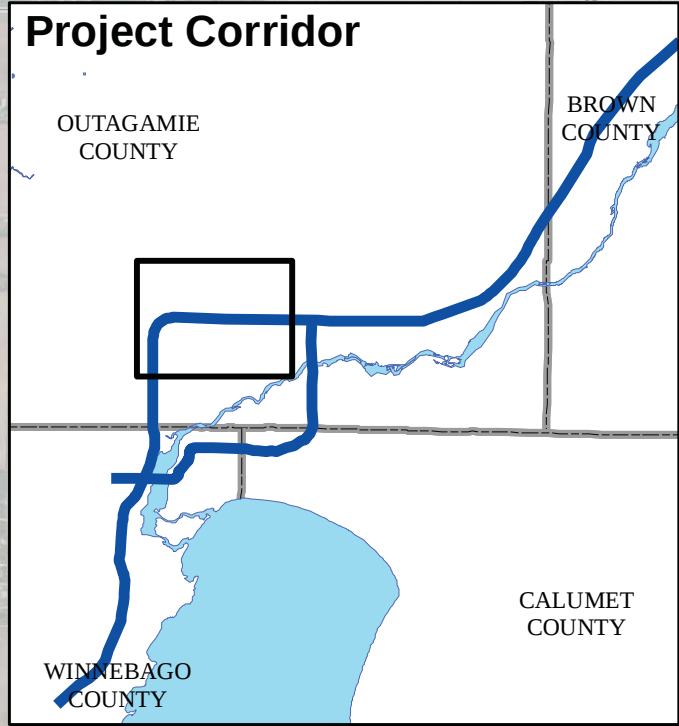
Project Area

Civil Division



US 41/WIS 441
CRASH RATES (2004)





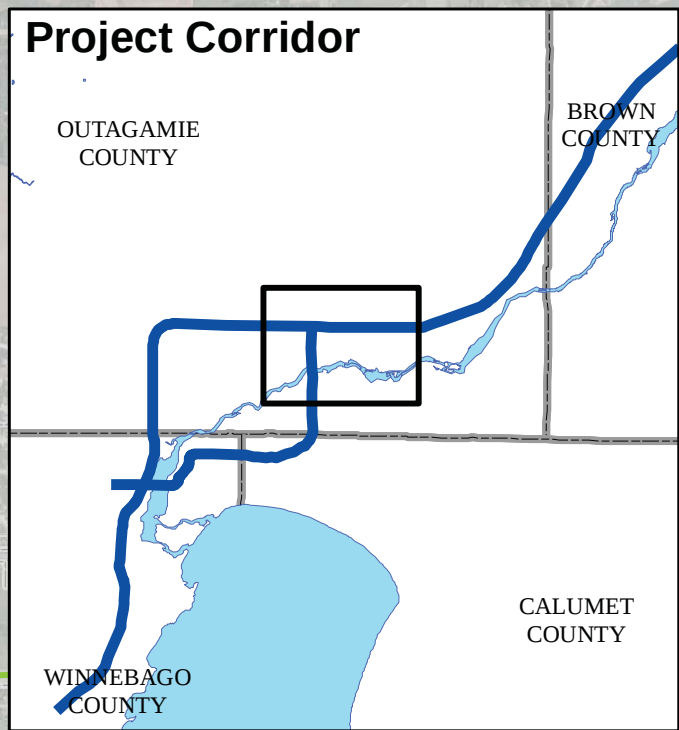
US 41/WIS 441

CRASH RATES (2004)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT



Legend

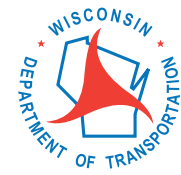
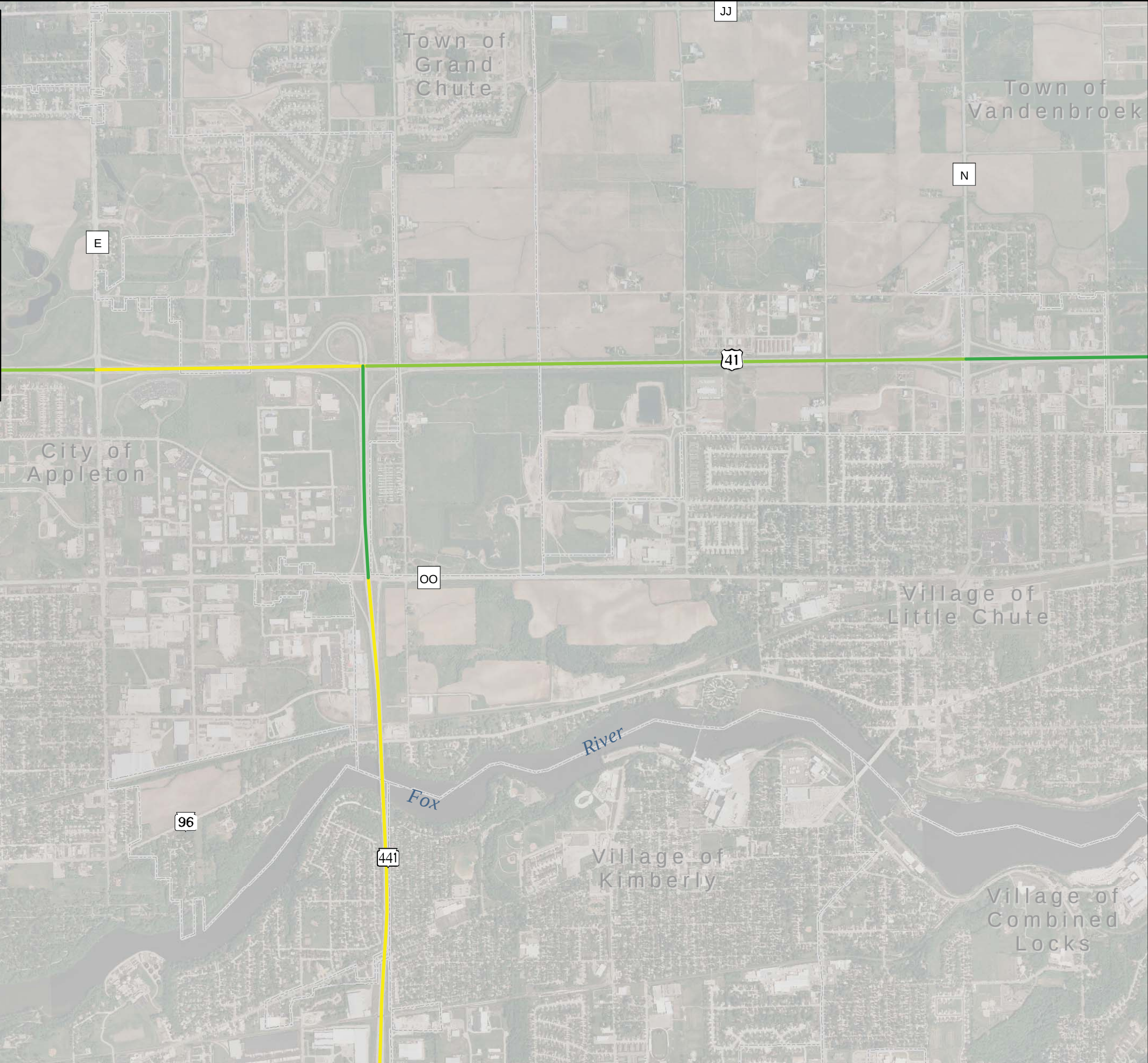
2004 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average
- Project Area
- Civil Division

N

0 0.125 0.25 0.5 0.75

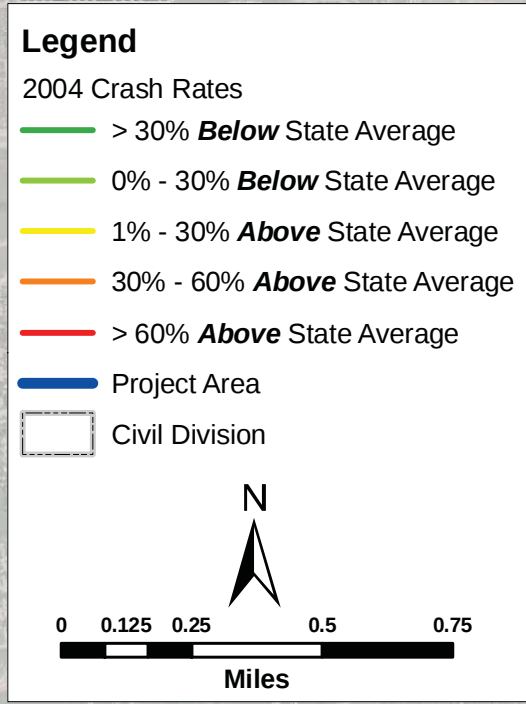
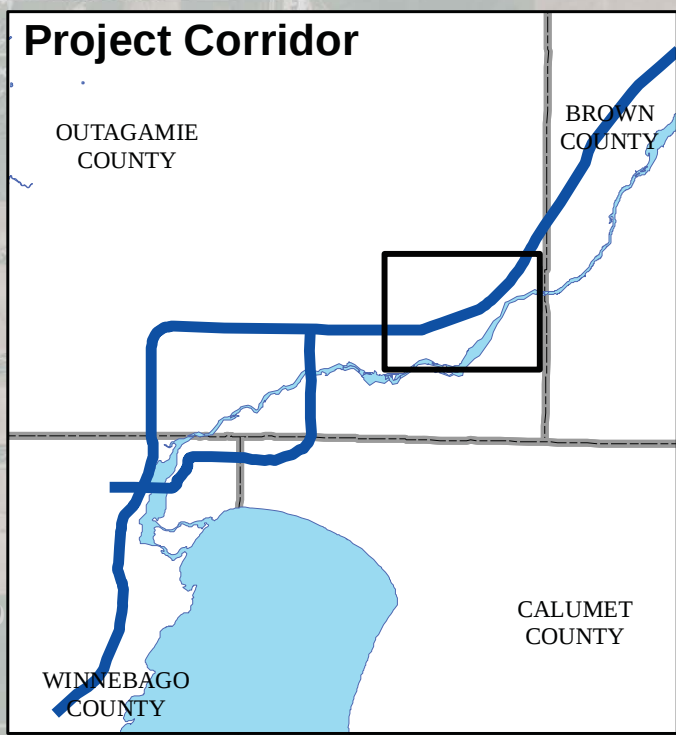
Miles



US 41/WIS 441

CRASH RATES (2004)





Town of
Vandenbroek

JJ

J

41

96

ZZ

55

CC

J

OO

City of
Kaukauna

Fox
River

Town of
Buchanan



US 41/WIS 441

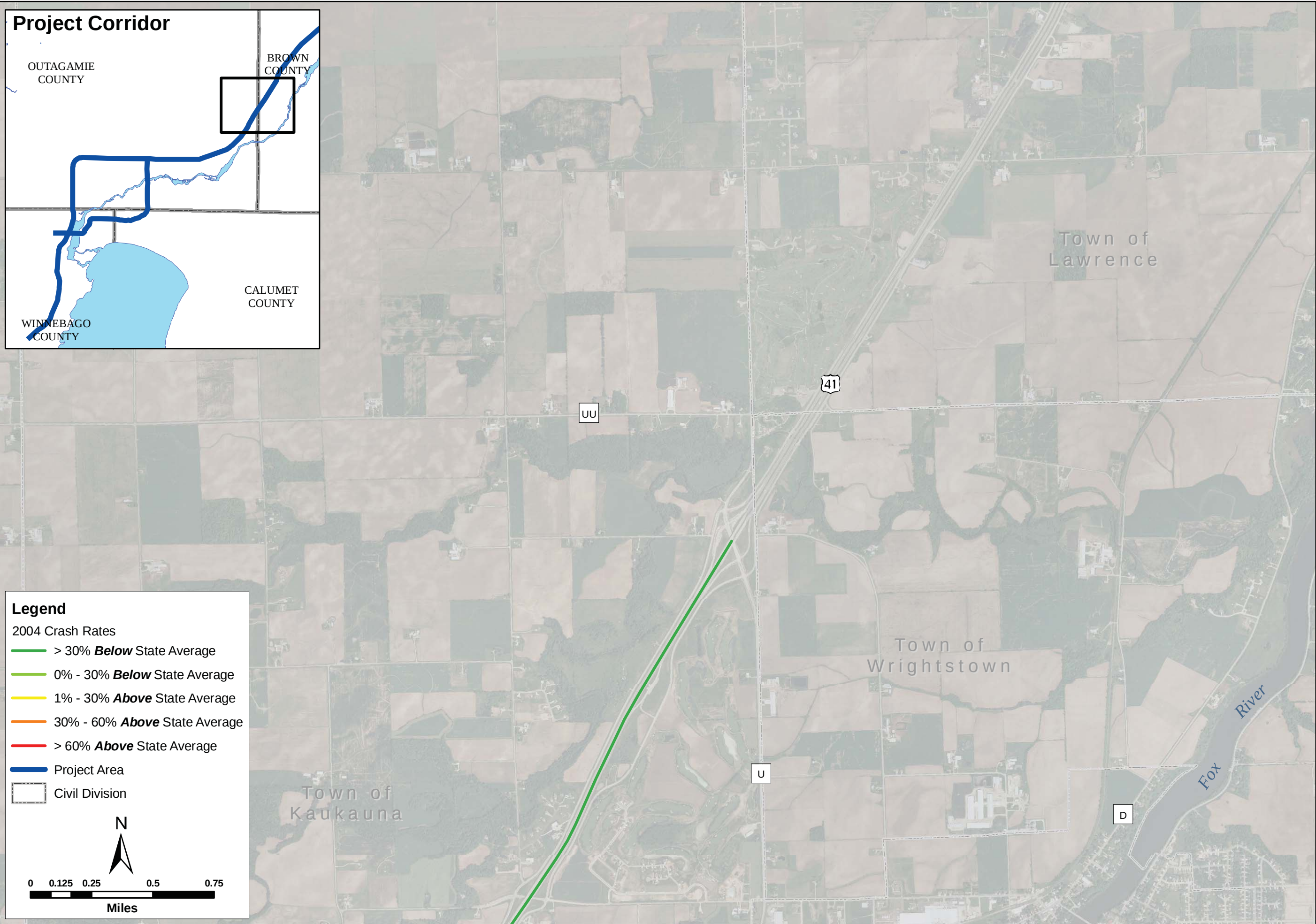
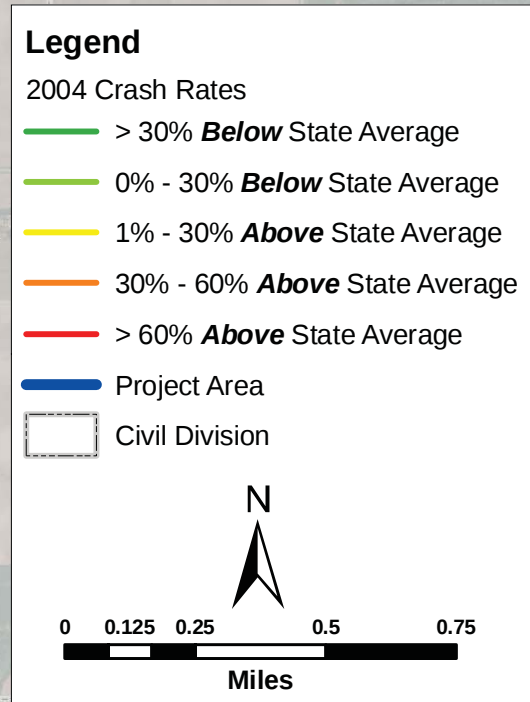
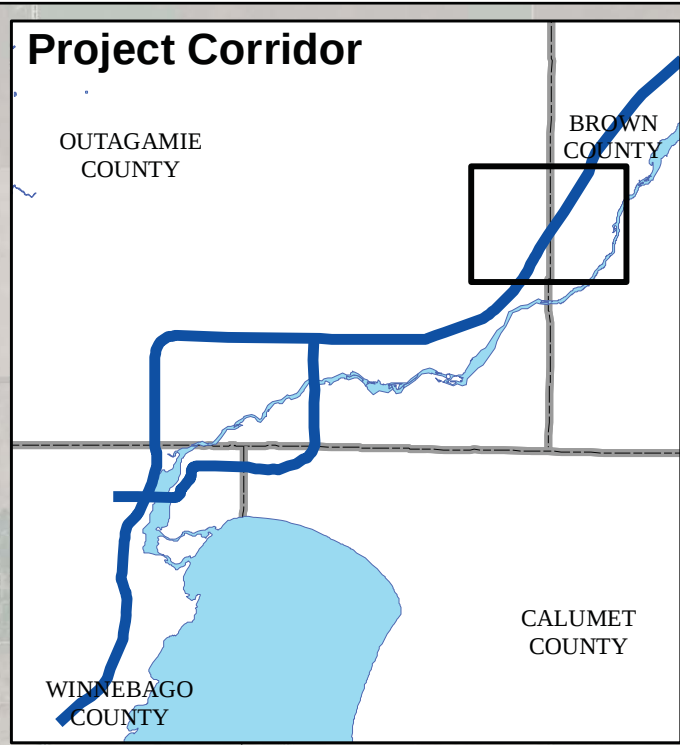
CRASH RATES (2004)

HNTB

Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

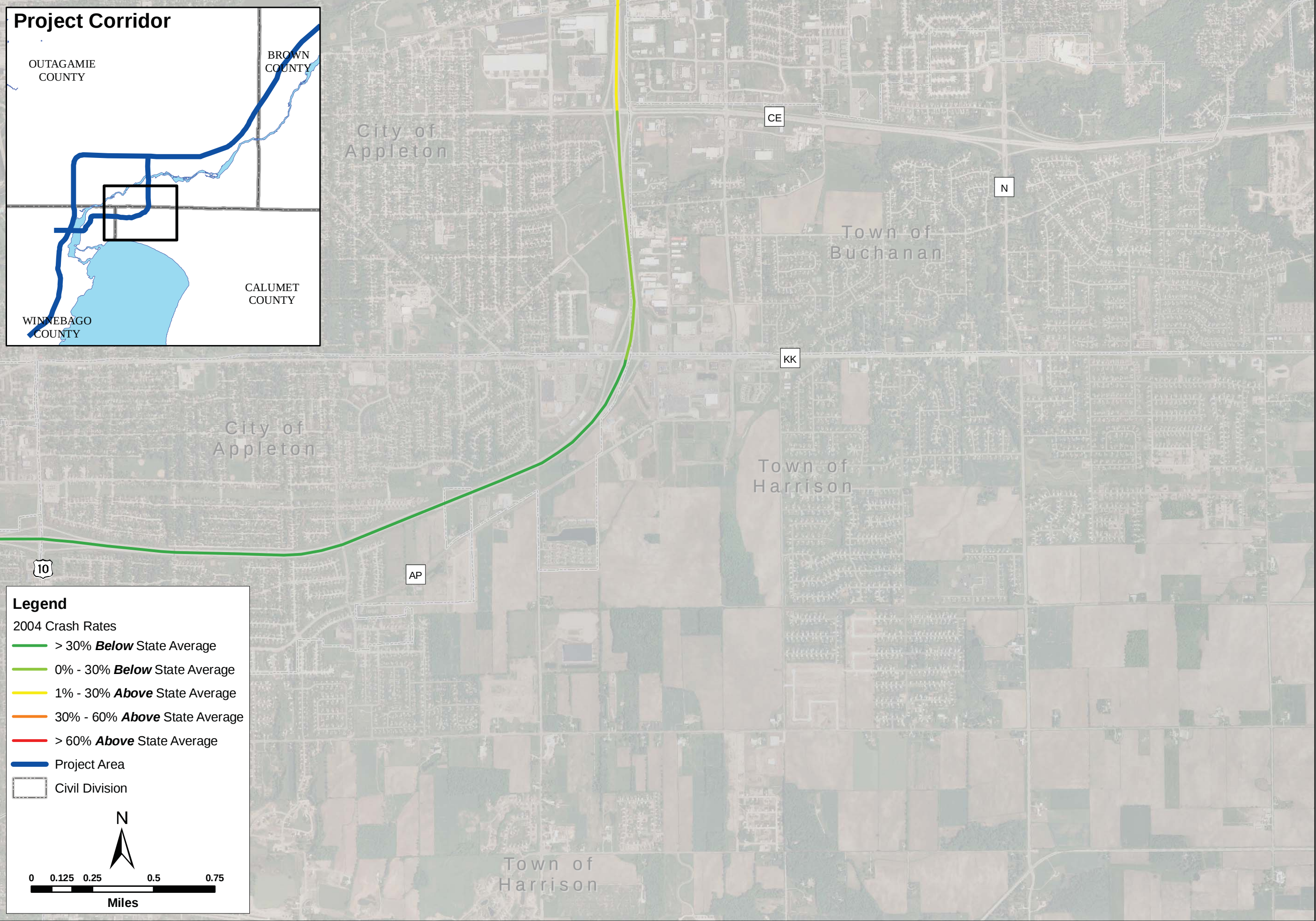
Page 30



US 41/WIS 441

CRASH RATES (2004)





WIS 441
CRASH RATES (2004)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

Project Corridor

OUTAGAMIE
COUNTY

BROWN
COUNTY

CALUMET
COUNTY

WINNEBAGO
COUNTY

CB

Town of
Neenah

Winneconne Ave

JJ

City of
Neenah

Lake Winnebago

Breezewood Ln

A

G

Legend

2005 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

Project Area

Civil Division



0 0.125 0.25 0.5 0.75

Miles



US 41/WIS 441

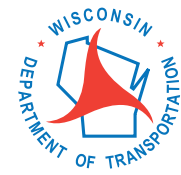
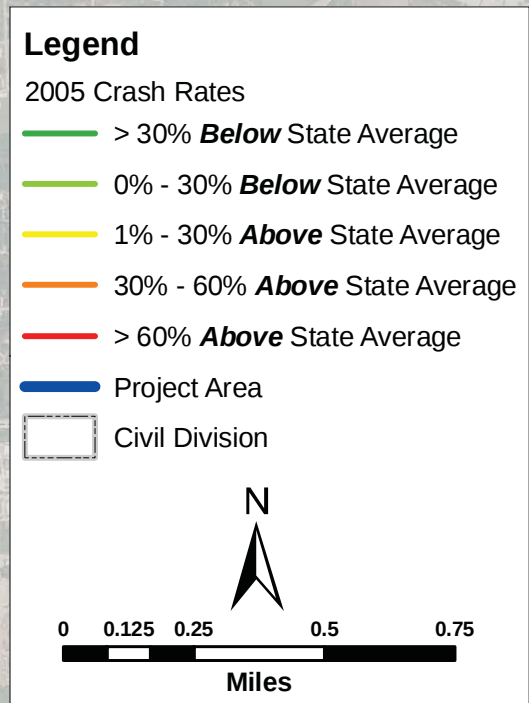
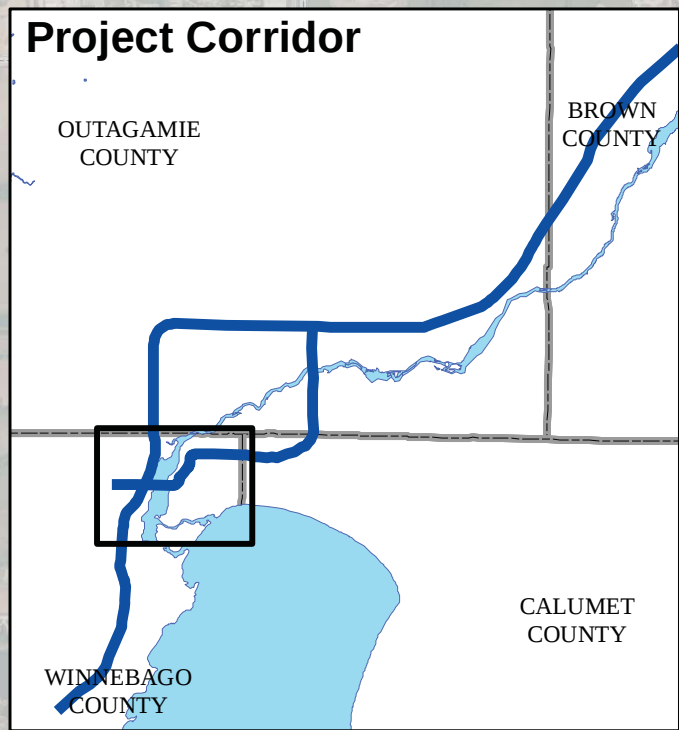
CRASH RATES (2005)

HNTB

Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

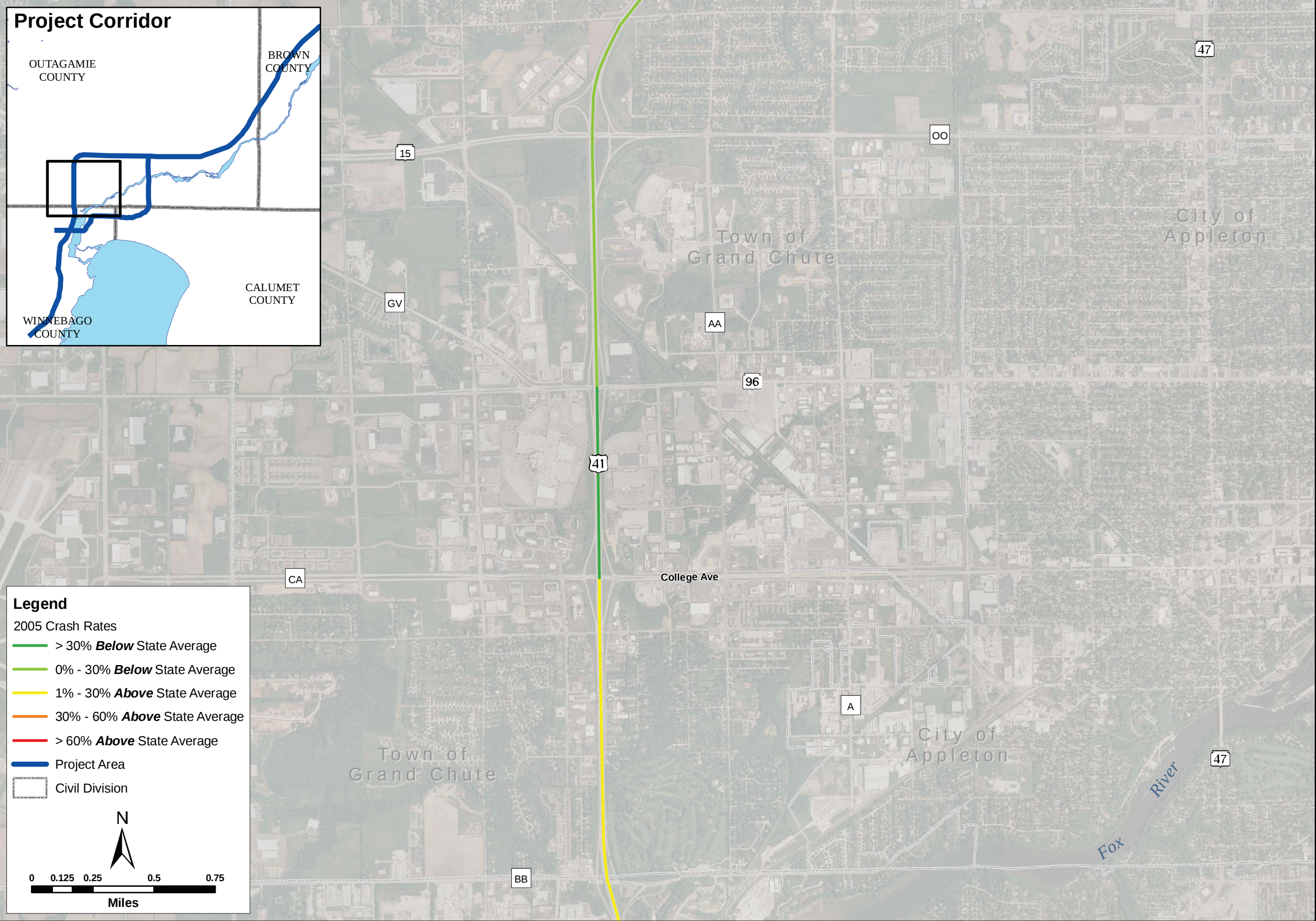
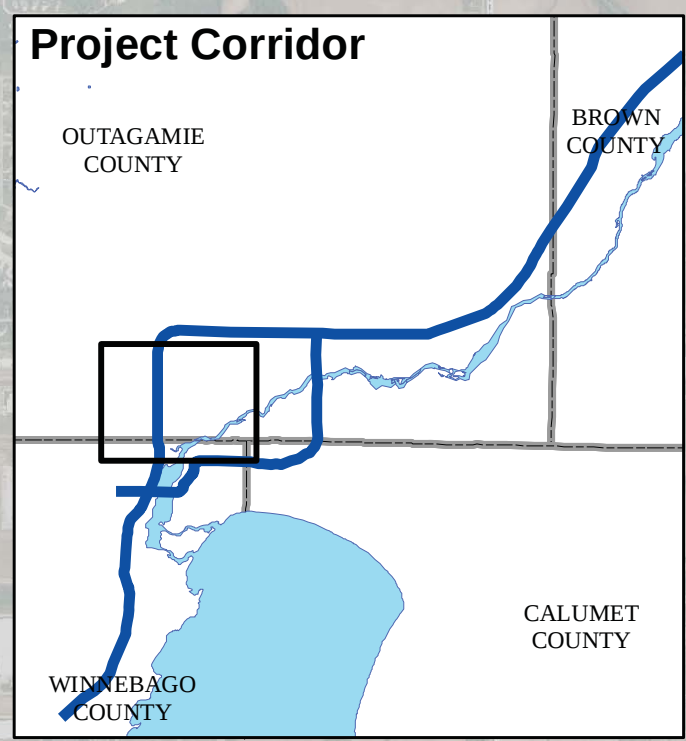
Page 33



US 41/WIS 441

CRASH RATES (2005)





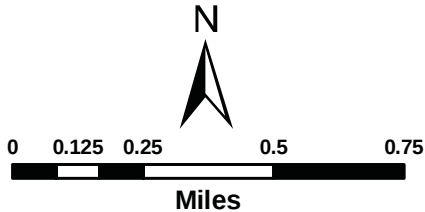
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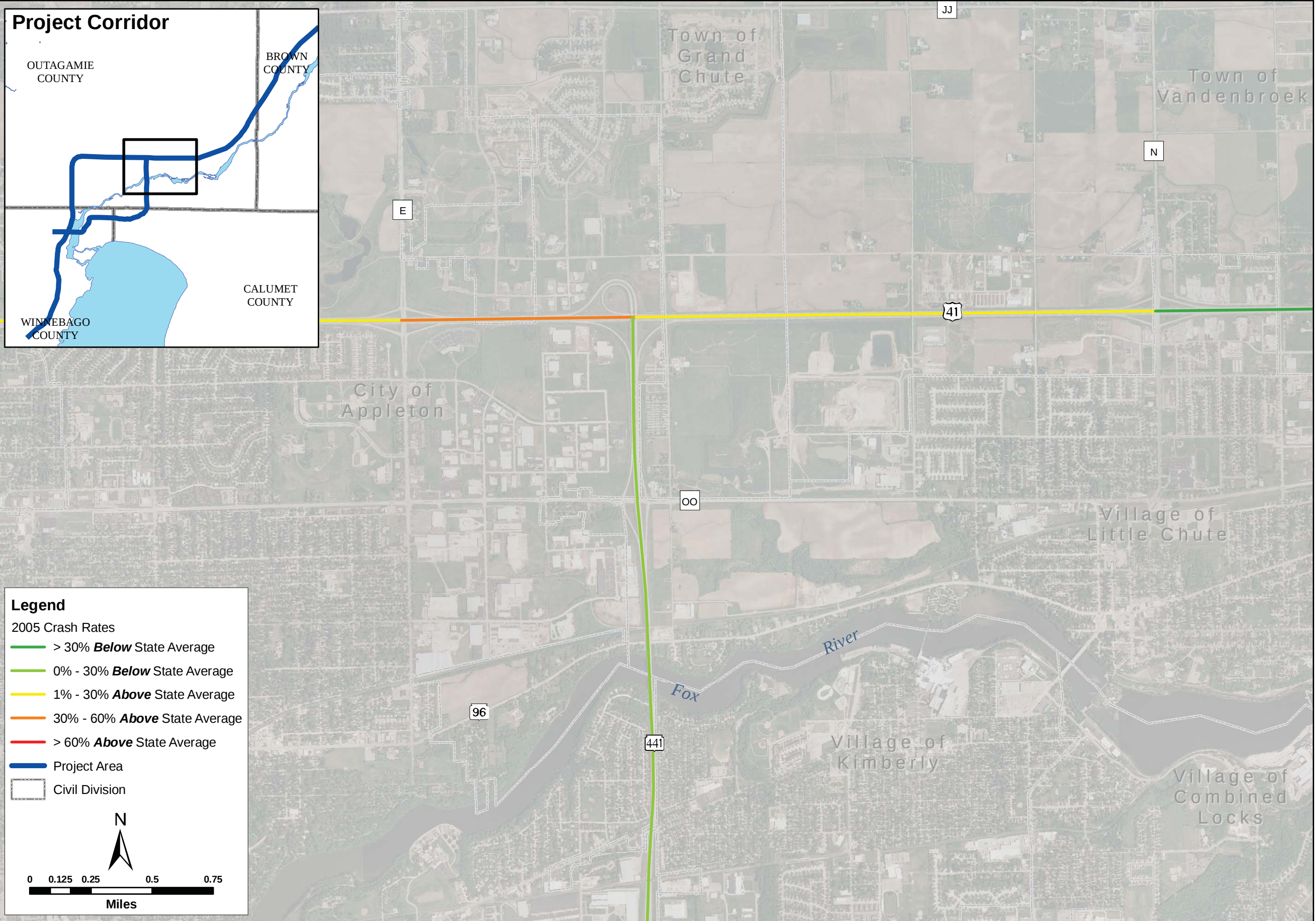
2005 Crash Rates

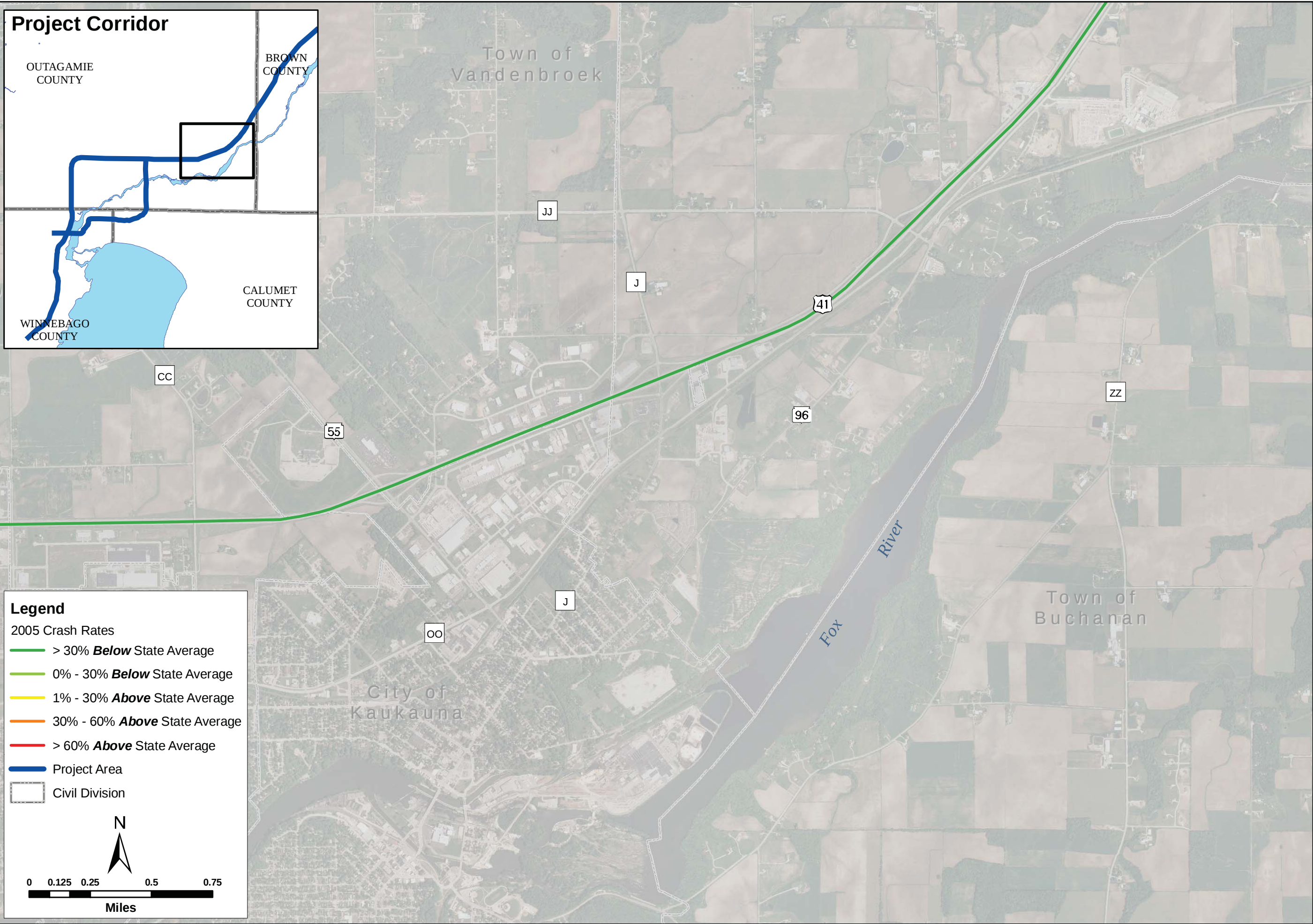
- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

Project Area

Civil Division

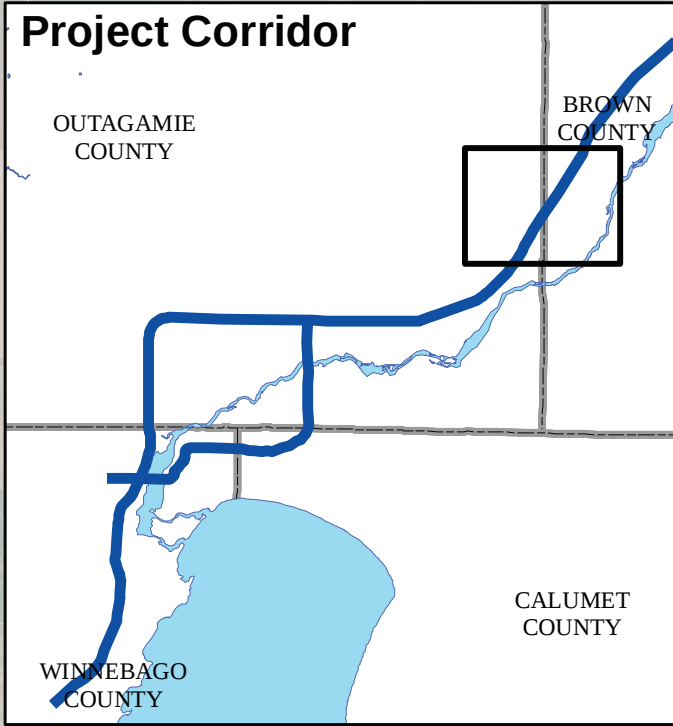






US 41/WIS 441
CRASH RATES (2005)





Legend

2005 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

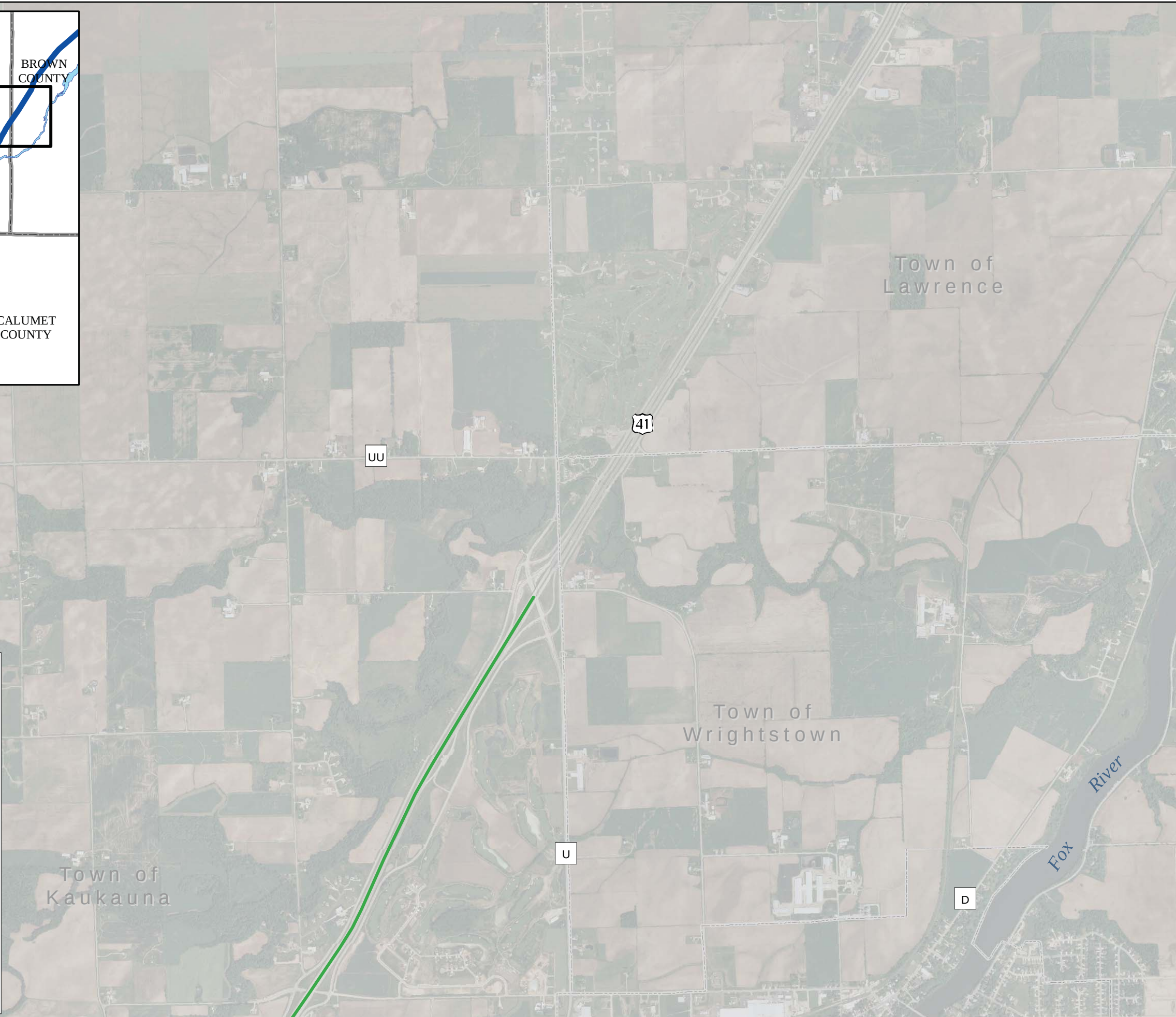
Project Area

Civil Division

N

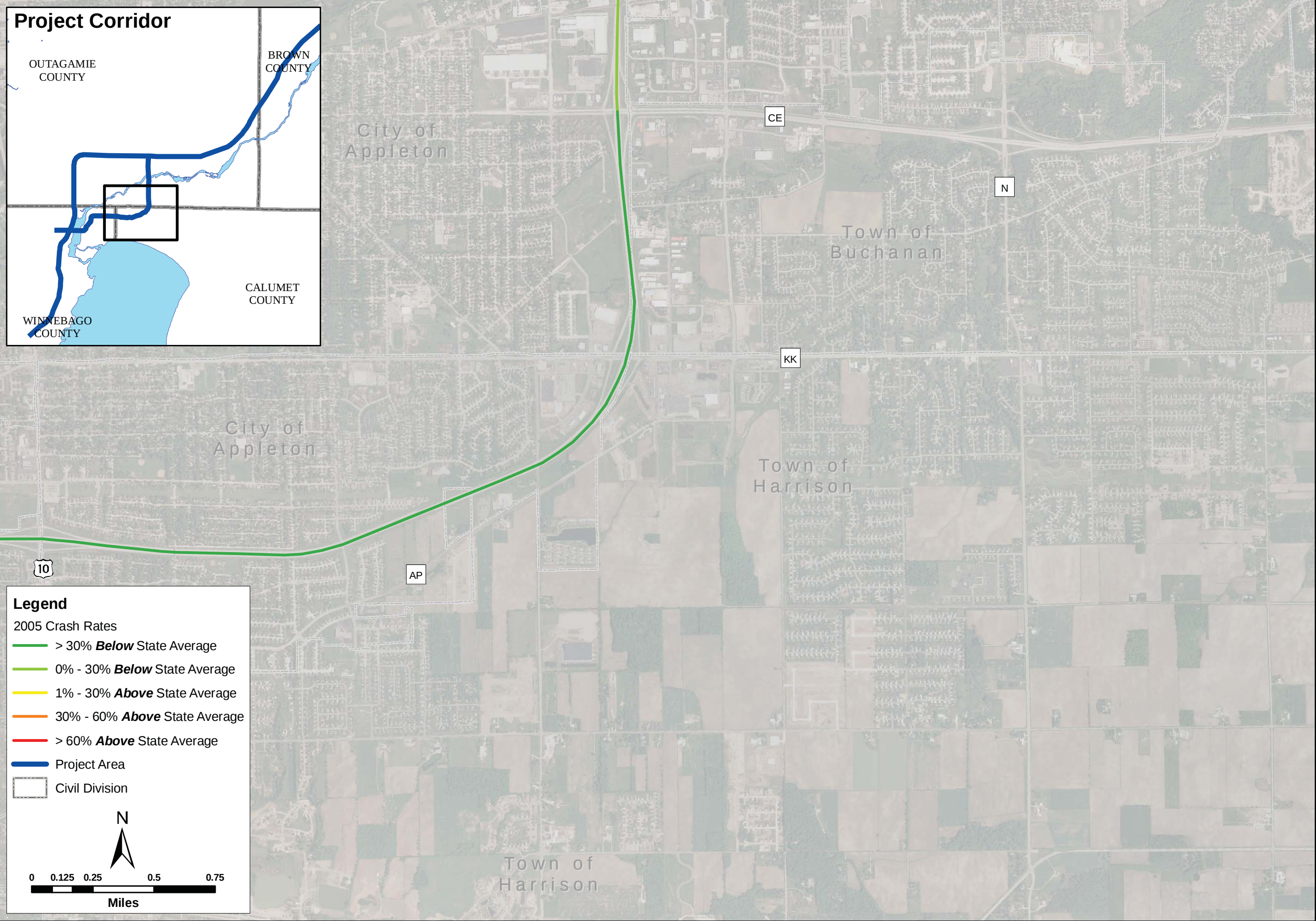
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Miles



US 41/WIS 441

CRASH RATES (2005)



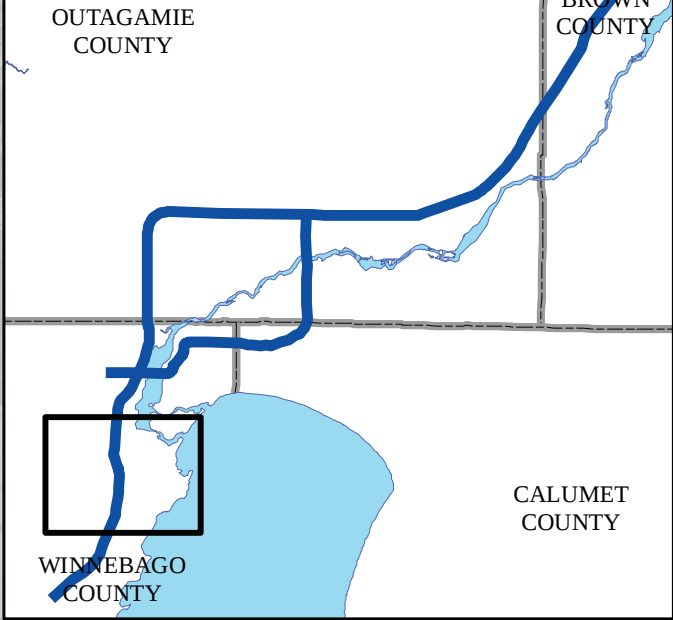
WIS 441
CRASH RATES (2005)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
PRELIMINARY REPORT

Project Corridor



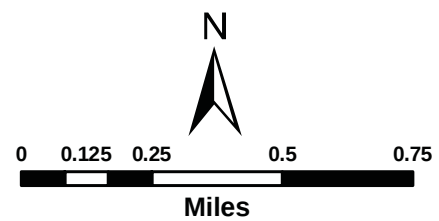
Legend

2006 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

— Project Area

Civil Division



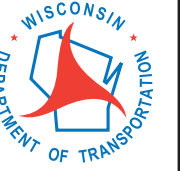
Town of Neenah

Winneconne Ave

Breezewood Ln

City of Neenah

Lake Winnebago



US 41/WIS 441 CRASH RATES (2006)

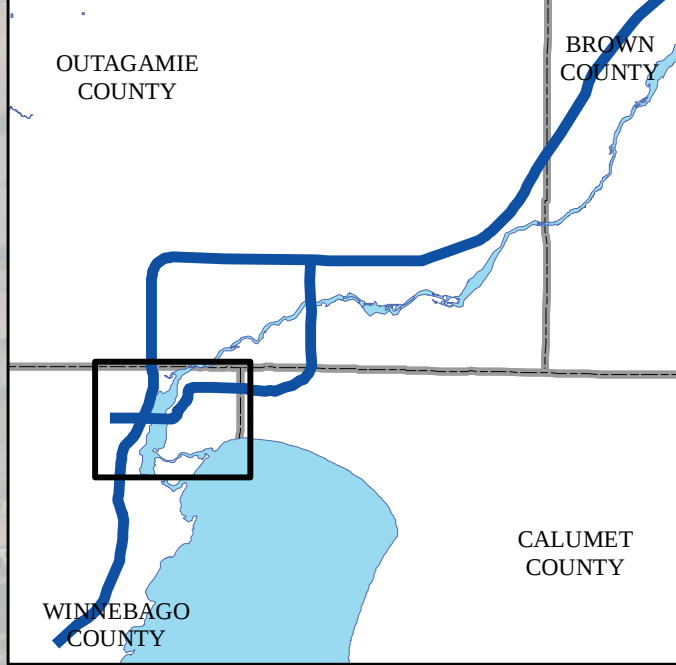
HNTB

Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
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Page 41

Project Corridor



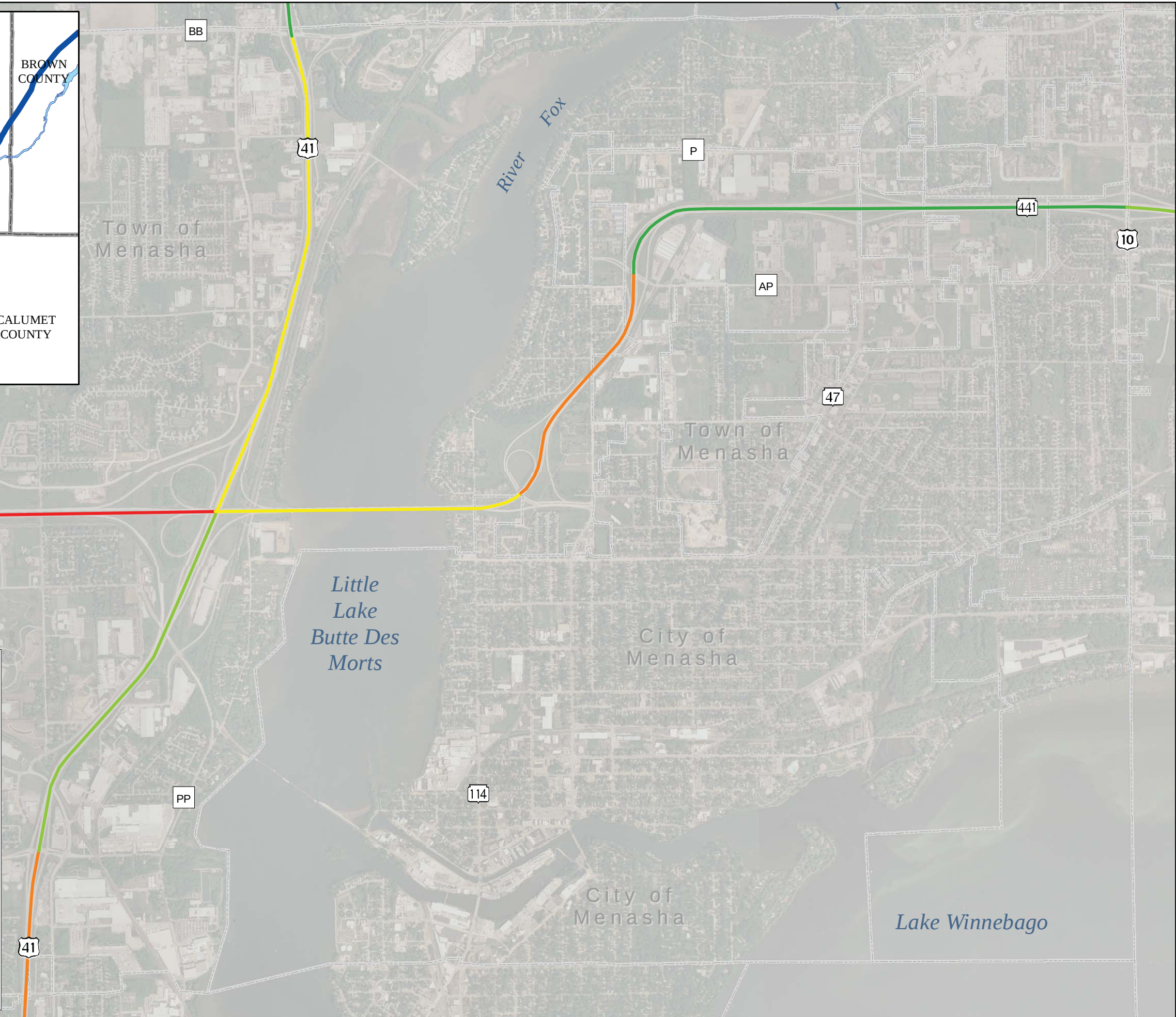
Legend

2006 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average
- Project Area
- Civil Division

0 0.125 0.25 0.5 0.75
Miles

N



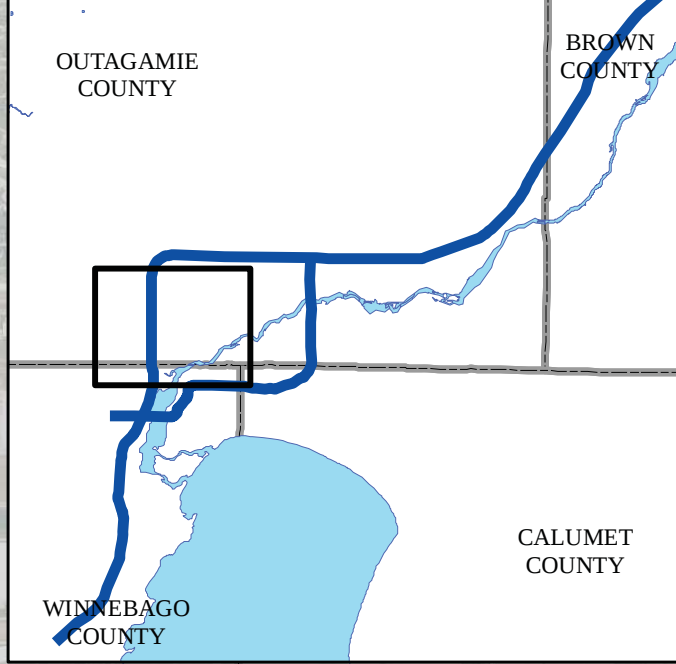
US 41/WIS 441 CRASH RATES (2006)



Exhibit C-4

Operational Needs
Assessment
US 41 and WIS 441
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Project Corridor



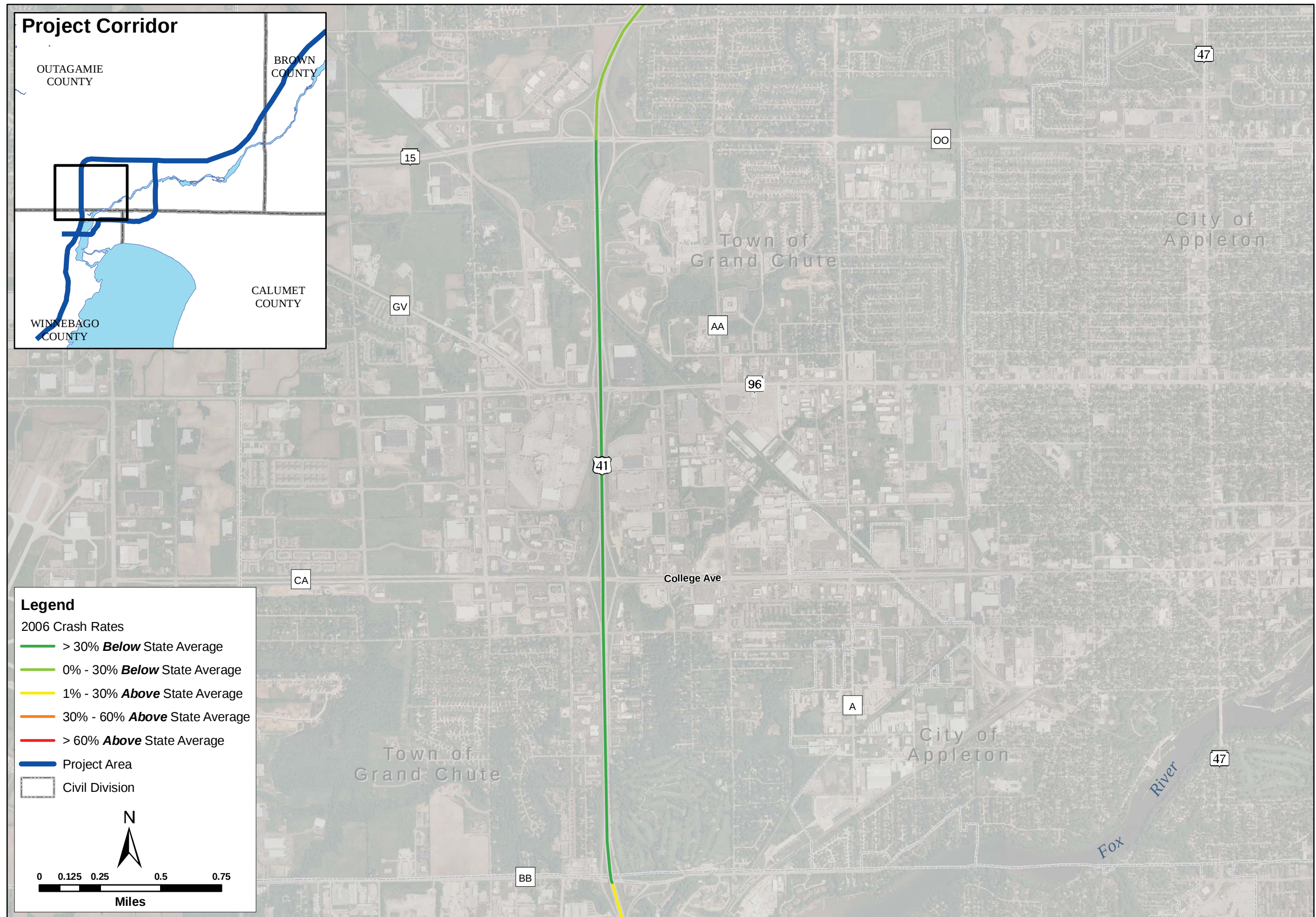
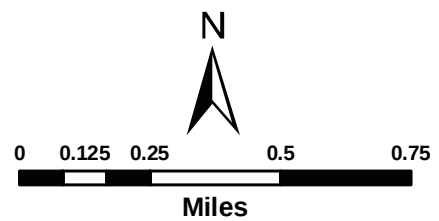
Legend

2006 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

Project Area

Civil Division



US 41/WIS 441

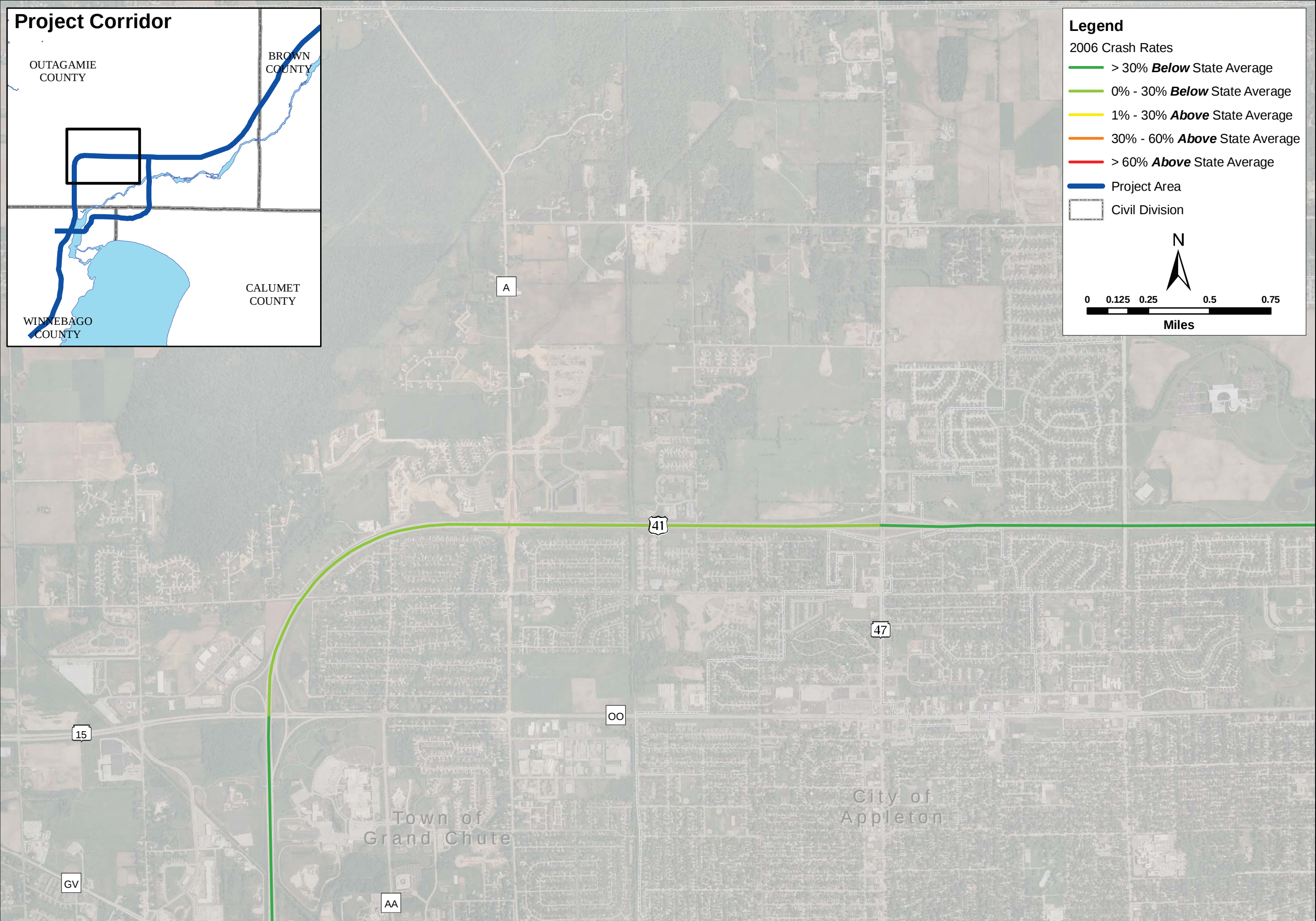
CRASH RATES (2006)

HNTB

Exhibit C-4

Operational Needs
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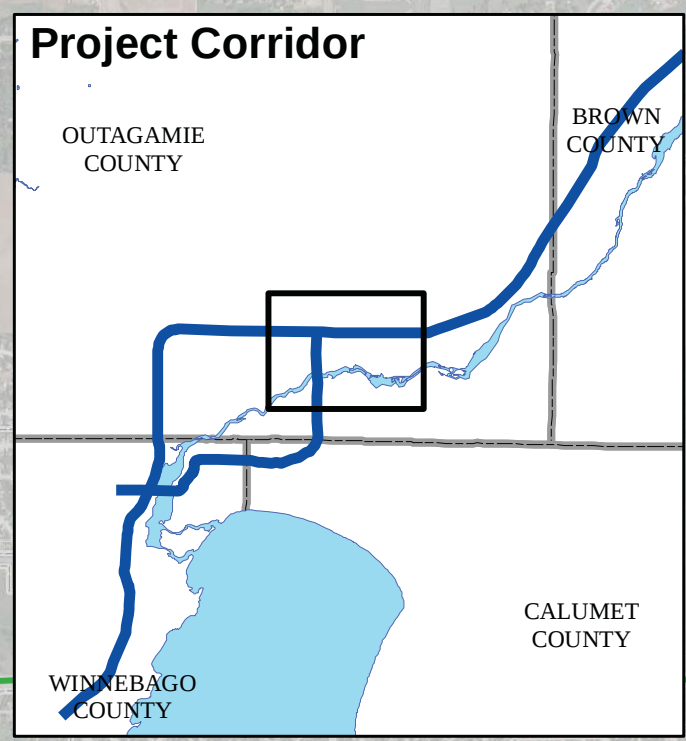
Page 43



US 41/WIS 441

CRASH RATES (2006)





Legend

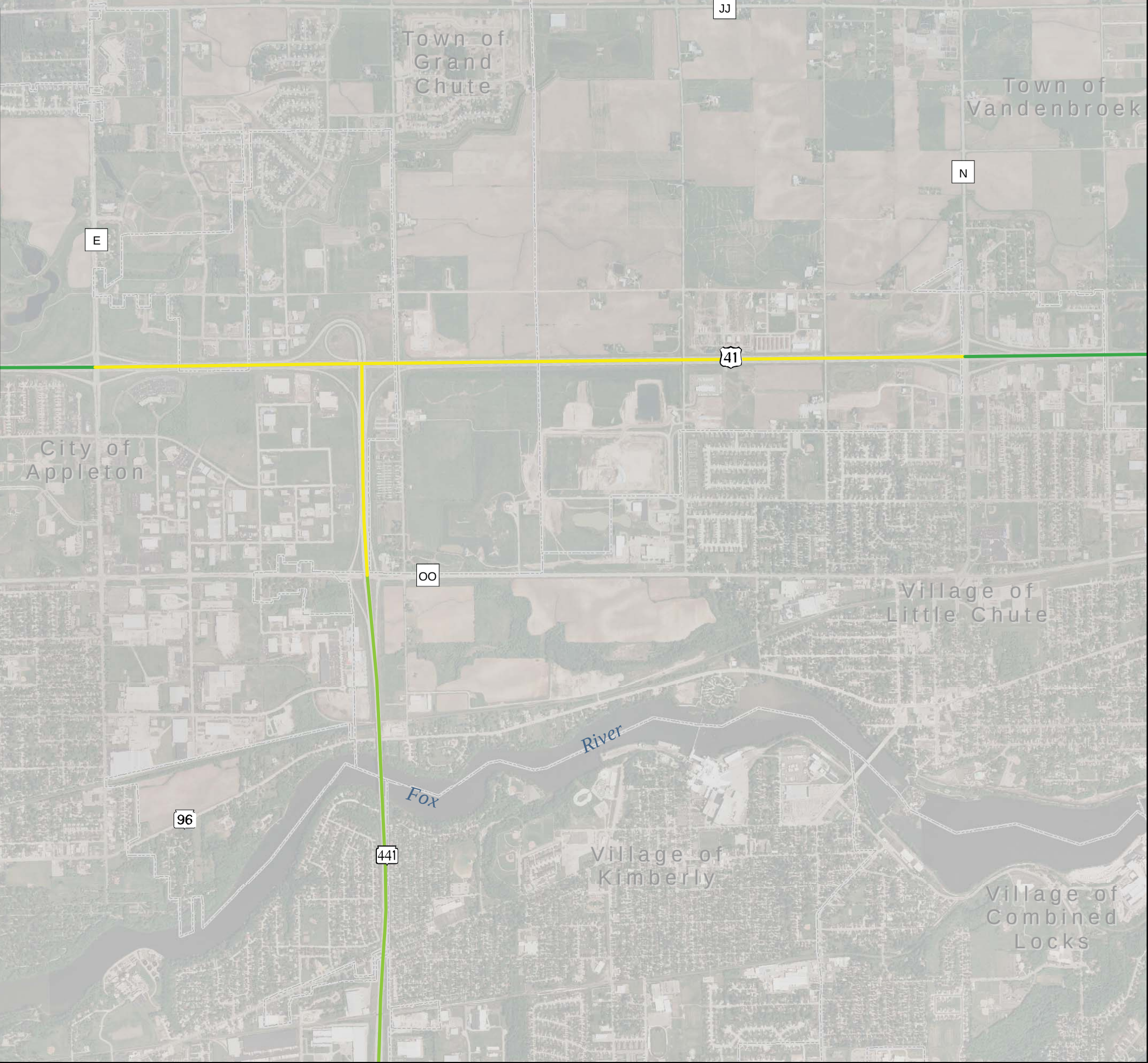
2006 Crash Rates

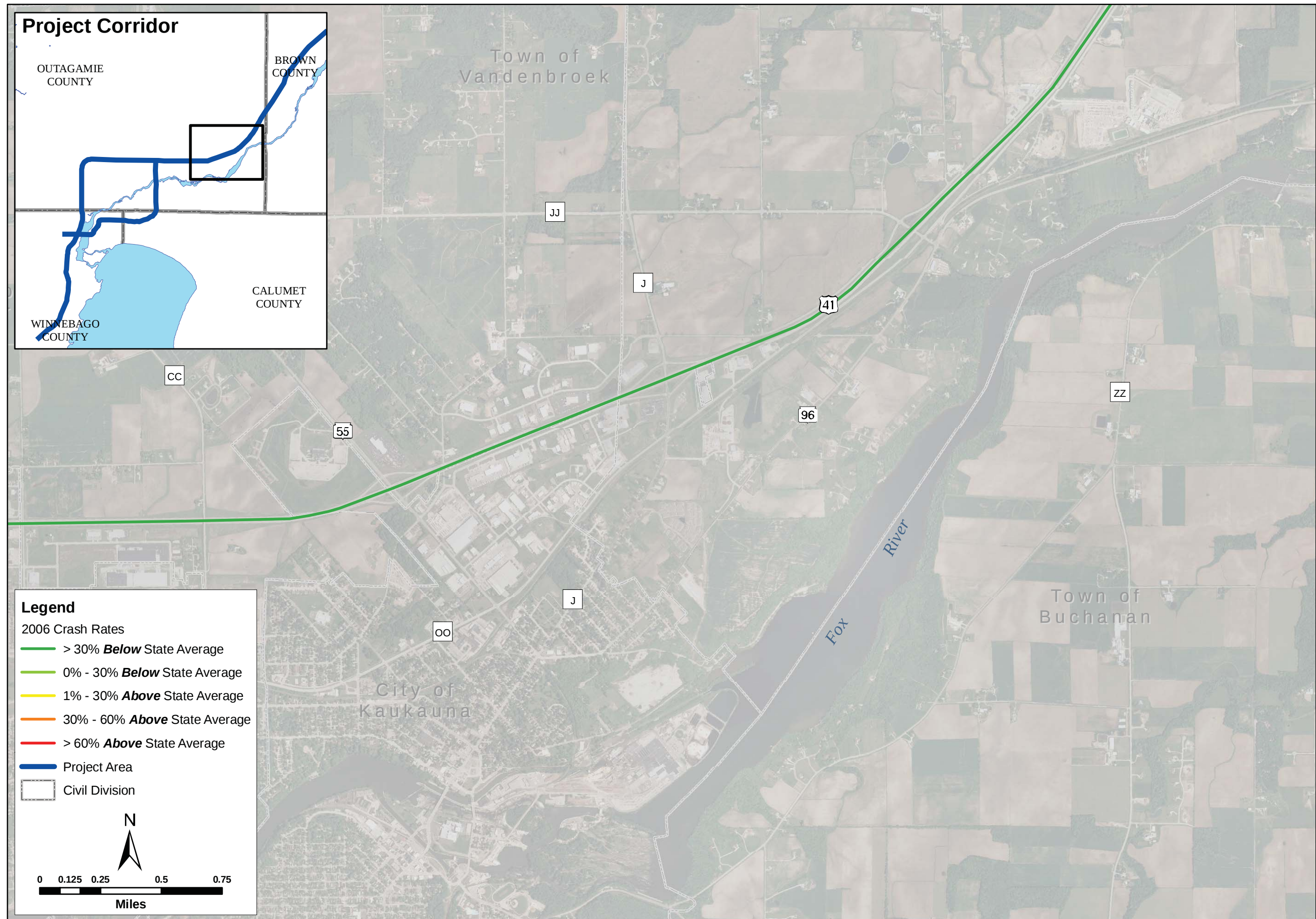
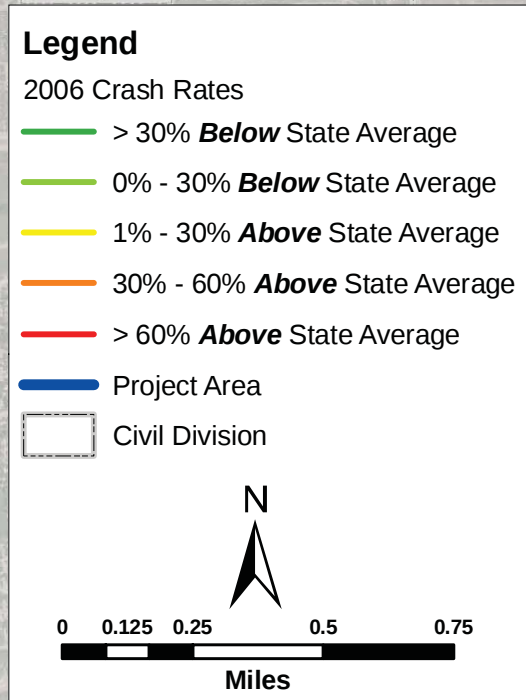
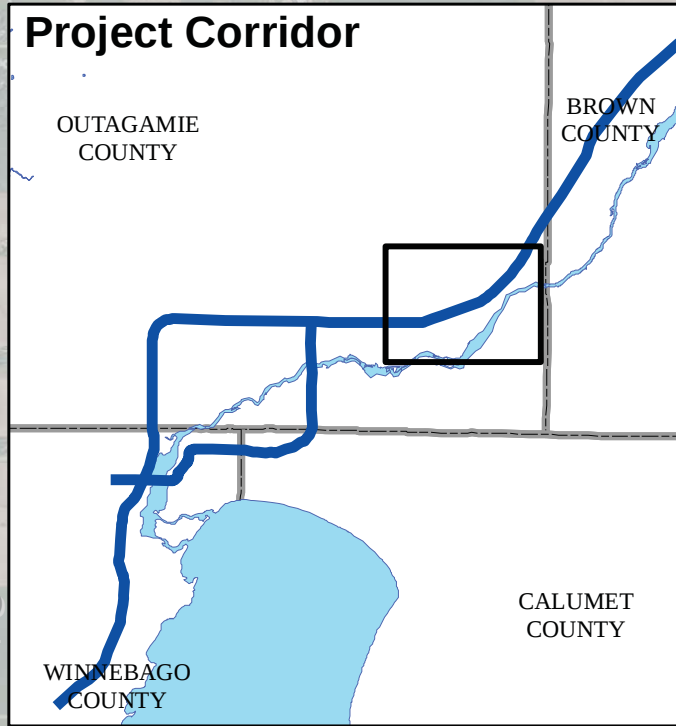
- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

Project Area

Civil Division

0 0.125 0.25 0.5 0.75
Miles





US 41/WIS 441

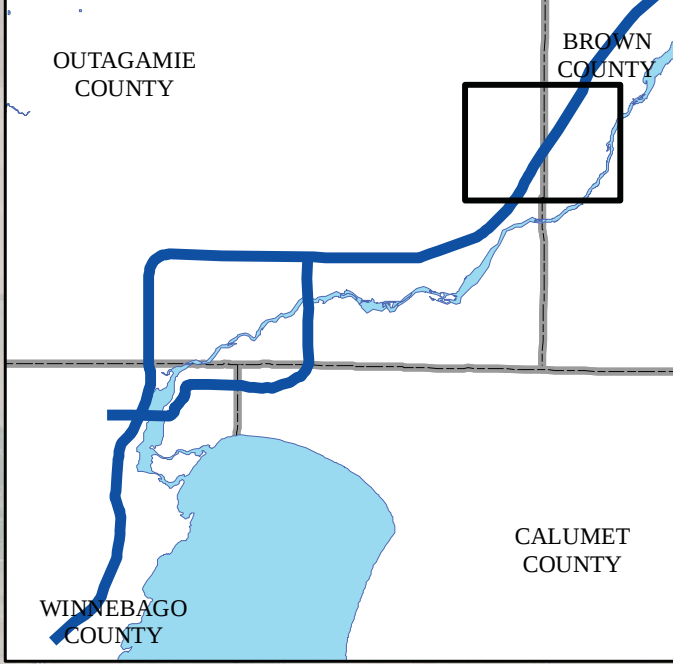
CRASH RATES (2006)



Exhibit C-4

Operational Needs
Assessment
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Project Corridor



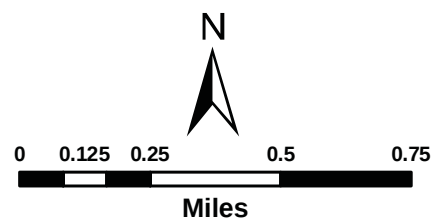
Legend

2006 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

— Project Area

Civil Division



US 41/WIS 441

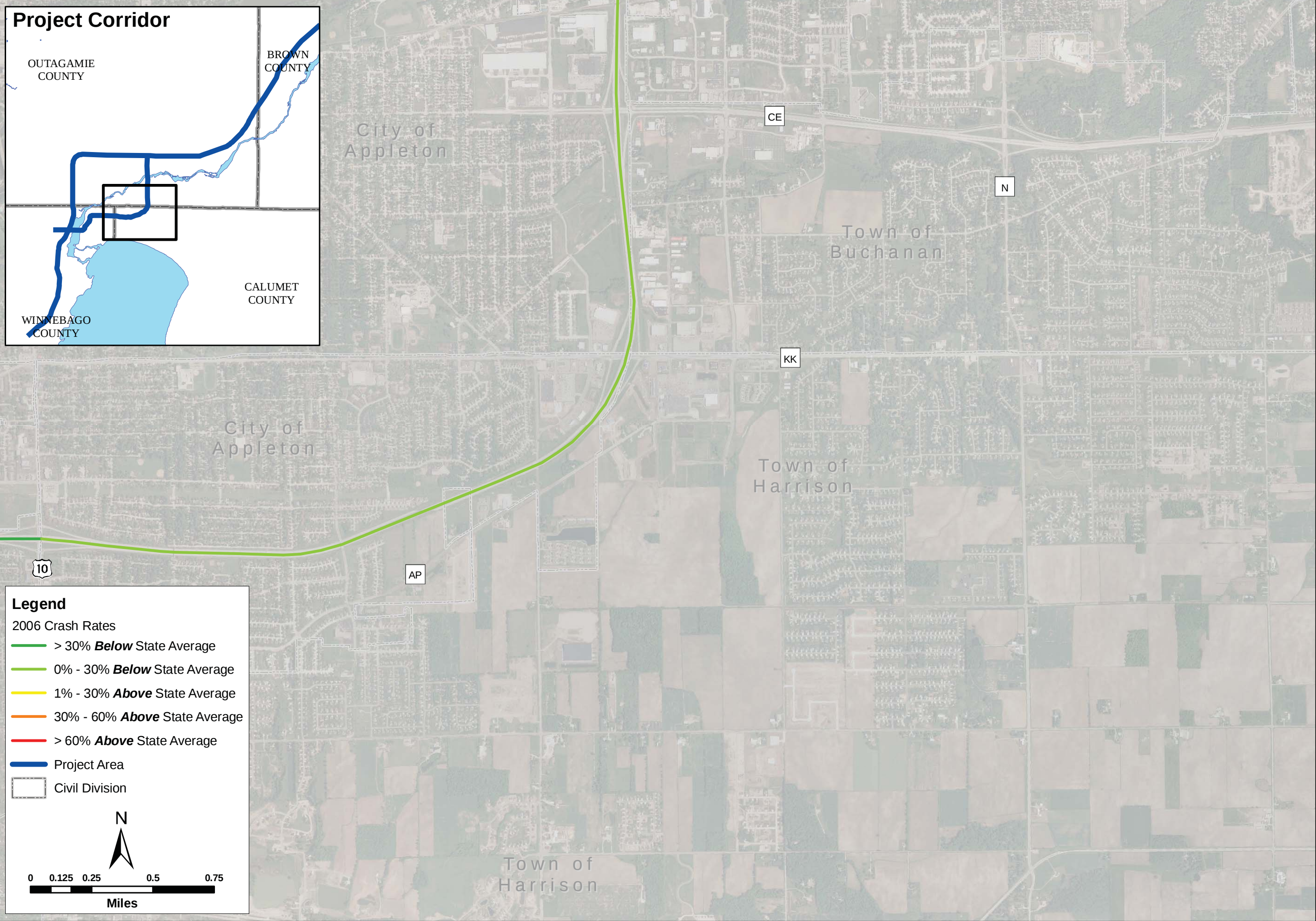
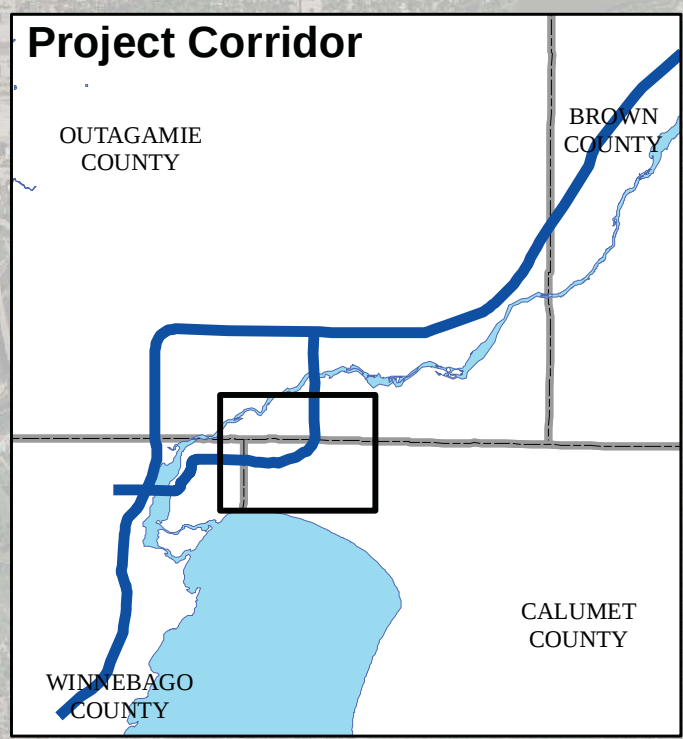
CRASH RATES (2006)

HNTB

Exhibit C-4

Operational Needs
Assessment
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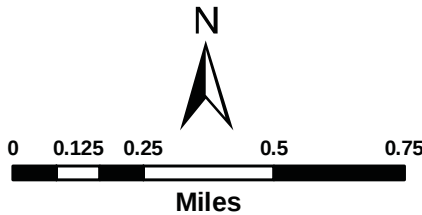
Legend

2006 Crash Rates

- > 30% **Below** State Average
- 0% - 30% **Below** State Average
- 1% - 30% **Above** State Average
- 30% - 60% **Above** State Average
- > 60% **Above** State Average

Project Area

Civil Division



WIS 441
CRASH RATES (2006)

HNTB

Exhibit C-4

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Exhibit C5

Interchange Crash Summary

Ramp Movement	Influence Area	Crashes (5yr total)	5 yr Avg. Crash Rate	Severity Rate	Entering Traffic (AADT)
USH 41 & Breezewood Lane / Bell Street - Diamond					
NB off-ramp	(diverge)	22	86	0.32	27,900
NB on-ramp	(merge)	16	50	0.31	35,200
SB off-ramp	(diverge)	15	47	0.53	34,700
SB on-ramp	(merge)	26	103	0.31	27,700
NB Ramp Terminals	(intersection)	15	0.46	0.33	17,850
SB Ramp Terminals	(intersection)	25	0.55	0.32	24,850
Total/Average		119		0.35	
USH 41 & WIS 114 / CTH J - Diamond					
NB off-ramp	(diverge)	24	75	0.33	35,200
NB on-ramp	(merge)	23	61	0.04	41,500
SB off-ramp	(diverge)	27	75	0.44	39,300
SB on-ramp	(merge)	29	91	0.24	34,800
NB Ramp Terminals	(intersection)	12	0.30	0.42	22,250
SB Ramp Terminals	(intersection)	28	0.56	0.36	27,350
Total/Average		143		0.31	
USH 41 & Oakridge Road / Main Street - Quarter Diamond & Quarter Cloverleaf					
NB off-ramp	(diverge)	9	26	0.44	37,600
SB off-ramp	(diverge)	23	59	0.30	42,800
NB Ramp Terminals	(intersection)	10	0.74	0.20	7,400
SB Ramp Terminals	(intersection)	5	0.26	0.20	10,500
Total/Average		47		0.29	
USH 41 & Winchester Road - Diamond					
NB off-ramp	(diverge)	20	60	0.35	36,500
NB on-ramp	(merge)	35	90	0.43	42,500
SB off-ramp	(diverge)	28	66	0.32	46,400
SB on-ramp	(merge)	24	60	0.38	43,700
NB Ramp Terminals	(intersection)	15	0.53	0.47	15,550
SB Ramp Terminals	(intersection)	8	0.25	0.13	17,550
Total/Average		130		0.35	
USH 10/USH 41 Interchange - Diamond & Half Cloverleaf					
EB 10 off-ramp to SB 41	(diverge)	7	70	0.86	11,000
SB 41 on-ramp from EB 10	(merge)	22	89	0.36	27,100
NB 41 off-ramp to EB 10/441	(diverge)	34	84	0.35	44,400
EB 10/441 on-ramp from NB 41	(merge)	24	118	0.13	22,300
WB 10/441 off-ramp to NB 41	(diverge)	29	97	0.24	32,800
NB 41 on-ramp from WB 10/441	(merge)	13	35	0.38	40,400
SB 41 off-ramp to EB/WB 10	(diverge)	16	48	0.56	36,900
WB 10 off-ramp to SB 41	(diverge)	25	119	0.24	23,000
EB 10/441 on-ramp from SB 41	(merge)	7	44	0.14	17,600
WB 10 on-ramp from SB 41	(merge)	4	43	0.00	10,100
SB 41 off-ramp & WB 10 off-ramp aux. lane north of 441	(diverge)	3	13	0.33	25,200
SB 41 on-ramp & EB 10 on-ramp aux. lane south of 441	(diverge)	2	9	0.50	25,200
Total/Average		186		0.34	
USH 41 & Prospect Avenue - Diamond					
NB off-ramp	(diverge)	24	69	0.21	38,100
NB on-ramp	(merge)	19	56	0.32	37,200
SB off-ramp	(diverge)	14	39	0.07	39,100
SB on-ramp	(merge)	42	114	0.29	40,500
NB Ramp Terminals	(intersection)	5	0.12	0.20	23,000
SB Ramp Terminals	(intersection)	20	0.52	0.35	21,100
Total/Average		124		0.24	
USH 41 & College Avenue - Diamond					
NB off-ramp	(diverge)	34	100	0.44	37,200
NB on-ramp	(merge)	9	34	0.22	28,800
SB off-ramp	(diverge)	8	25	0.13	35,200
SB on-ramp	(merge)	17	43	0.35	43,500
NB Ramp Terminals	(intersection)	42	0.55	0.36	42,000
SB Ramp Terminals	(intersection)	33	0.55	0.30	32,900
Total/Average		143		0.30	
USH 41 & Wisconsin Avenue - Diamond					
NB off-ramp	diverge	17	55	0.41	33,700
NB on-ramp	merge	13	45	0.31	32,000
SB off-ramp	diverge	23	84	0.57	30,100
SB on-ramp	merge	9	30	0.44	32,500
NB Ramp Terminals	intersection	37	0.55	0.19	36,600
SB Ramp Terminals	intersection	36	0.58	0.33	34,300
Total/Average		135		0.38	

Crash Rate KEY
 = Good (<56)
 = Fair (56 - 73)
 = Poor (>73)

**Intersection
Crash Rate KEY**
 = Good (<1.0)
 = Fair (1.0 - 1.3)
 = Poor (>1.3)

Severity Rate KEY
 = Good (<0.3)
 = Fair (0.3 - 0.5)
 = Poor (>0.5)

Exhibit C5 Continued

Ramp Movement	Influence Area	Crashes (5yr total)	Crash Rate	Severity Rate	Entering Traffic (AADT)
USH 41 & Northland Avenue - Half Diamond & Partial Cloverleaf					
NB off-ramp	(diverge)	11	41	0.09	29,500
NB on-ramp	(merge)	16	65	0.63	26,800
SB off-ramp	(diverge)	6	20	0.50	32,500
SB on-ramp	(merge)	4	13	0.50	34,400
NB Ramp Terminals	(intersection)	9	0.13	0.33	36,600
SB Ramp Terminals	(intersection)	53	0.87	0.36	33,400
Total/Average		99		0.40	
USH 41 & Richmond Street - Diamond					
NB off-ramp	(diverge)	13	48	0.62	29,700
NB on-ramp	(merge)	12	43	0.33	30,800
SB off-ramp	(diverge)	23	83	0.39	30,200
SB on-ramp	(merge)	29	107	0.41	29,600
NB Ramp Terminals	(intersection)	9	0.24	0.33	20,850
SB Ramp Terminals	(intersection)	11	0.28	0.27	21,850
Total/Average		97		0.39	
USH 41 & Ballard Road - Diamond					
NB off-ramp	(diverge)	10	39	0.60	27,900
NB on-ramp	(merge)	13	53	0.31	26,900
SB off-ramp	(diverge)	10	46	0.10	23,600
SB on-ramp	(merge)	14	61	0.50	25,000
NB Ramp Terminals	(intersection)	36	0.75	0.33	26,300
SB Ramp Terminals	(intersection)	41	0.90	0.29	25,000
Total/Average		124		0.36	
USH 41/WIS 441 Interchange - Partial Diamond & Partial Cloverleaf					
41 NB off-ramp	(diverge)	14	65	0.50	23,600
41 NB on-ramp	(merge)	16	79	0.19	22,100
41 SB off-ramp	(diverge)	25	102	0.52	26,900
41 SB on-ramp	(merge)	21	76	0.48	30,200
441 NB off-ramp	(diverge)	5	39	0.12	14,100
441 SB on-ramp	(merge)	4	27	0.25	16,000
Total/Average		85		0.34	
USH 41 & Freedom Road - Diamond					
NB off-ramp	(diverge)	9	37	0.44	26,800
NB on-ramp	(merge)	8	37	0.38	23,700
SB off-ramp	(diverge)	14	63	0.43	24,200
SB on-ramp	(merge)	10	41	0.20	26,900
NB Ramp Terminals	(intersection)	16	0.67	0.44	13,100
SB Ramp Terminals	(intersection)	17	0.92	0.41	10,100
Total/Average		74		0.38	
USH 41 & Delenglade Street - Diamond					
NB off-ramp	(diverge)	6	28	0.17	23,700
NB on-ramp	(merge)	5	27	0.80	20,200
SB off-ramp	(diverge)	4	21	0.25	20,400
SB on-ramp	(merge)	15	70	0.33	23,500
NB Ramp Terminals	(intersection)	6	0.25	0.17	13,250
SB Ramp Terminals	(intersection)	0	0.00	0.00	9,750
Total/Average		36		0.29	
USH 41 & CTH J - Diamond					
NB off-ramp	(diverge)	5	27	0.00	20,000
NB on-ramp	(merge)	16	91	0.25	19,300
SB off-ramp	(diverge)	7	35	0.29	21,700
SB on-ramp	(merge)	11	54	0.36	22,500
NB Ramp Terminals	(intersection)	2	0.15	1.00	7,300
SB Ramp Terminals	(intersection)	8	0.65	0.88	6,700
Total/Average		49		0.46	
USH 41 & County Line Road - Diamond					
NB off-ramp	(diverge)	13	75	0.15	19,000
NB on-ramp	(merge)	11	63	0.00	19,100
SB off-ramp	(diverge)	7	40	0.29	19,200
SB on-ramp	(merge)	9	51	0.33	19,200
NB Ramp Terminals	(intersection)	2	0.25	0.50	4,450
SB Ramp Terminals	(intersection)	1	0.12	0.00	4,550
Total/Average		43		0.21	

Crash Rate KEY
 = Good (<56)
 = Fair (56 - 73)
 = Poor (>73)

Intersection
 Crash Rate KEY
 = Good (<1.0)
 = Fair (1.0 - 1.3)
 = Poor (>1.3)

Severity Rate KEY
 = Good (<0.3)
 = Fair (0.3 - 0.5)
 = Poor (>0.5)

Exhibit C5 Continued

Ramp Movement	Influence Area	Crashes (5yr total)	Crash Rate	Severity Rate	Entering Traffic (AADT)
USH 10 & CTH CB - Diamond					
EB off-ramp	(diverge)	0	0	0.00	7,200
EB on-ramp	(merge)	7	67	0.43	11,400
WB off-ramp	(diverge)	6	59	0.67	11,200
WB on-ramp	(merge)	0	0	0.00	6,600
EB Ramp Terminals	(intersection)	1	0.04	0.00	13,900
WB Ramp Terminals	(intersection)	2	0.06	0.50	18,400
Total/Average		16		0.27	
WIS 441 & CTH P (Racine Road) -					
EB/NB off-ramp	(diverge)	1	3	0.00	32,800
EB/NB on-ramp	(merge)	4	17	0.75	26,200
WB/SB off-ramp	(diverge)	29	137	0.55	23,200
WB/SB on-ramp	(merge)	23	87	0.35	29,100
Ramp Terminals at CTH P	(intersection)	8	0.18	0.13	24,100
Total/Average		65		0.36	
WIS 441 & CTH AP (Midway Road) - Diamond					
NB off-ramp	(diverge)	18	85	0.67	23,200
NB on-ramp	(merge)	0	0	0.00	19,870
SB off-ramp	(diverge)	0	0	0.00	19,300
SB on-ramp	(merge)	19	94	0.47	22,100
NB Ramp Terminals	(intersection)	5	0.25	0.20	11,000
SB Ramp Terminals	(intersection)	1	0.07	0.00	7,800
Total/Average		43		0.22	
WIS 441 & Appleton Road - Diamond					
NB off-ramp	(diverge)	2	10	0.50	22,200
NB on-ramp	(merge)	0	0	0.00	22,600
SB off-ramp	(diverge)	4	19	0.50	22,500
SB on-ramp	(merge)	0	0	0.00	22,900
NB Ramp Terminals	(intersection)	5	0.12	0.20	23,300
SB Ramp Terminals	(intersection)	8	0.19	0.25	23,400
Total/Average		19		0.24	
WIS 441 & Oneida Street - Diamond					
NB off-ramp	(diverge)	1	5	0.00	23,800
NB on-ramp	(merge)	6	27	0.33	17,700
SB off-ramp	(diverge)	2	13	0.00	16,500
SB on-ramp	(merge)	6	28	0.67	23,100
NB Ramp Terminals	(intersection)	40	0.62	0.53	35,100
SB Ramp Terminals	(intersection)	36	0.69	0.42	28,700
Total/Average		91		0.33	
WIS 441 & Calumet Street - Diamond					
NB off-ramp	(diverge)	9	56	0.22	17,700
NB on-ramp	(merge)	6	33	0.83	19,900
SB off-ramp	(diverge)	4	22	0.00	19,500
SB on-ramp	(merge)	7	44	0.29	17,600
NB Ramp Terminals	(intersection)	32	0.56	0.53	31,500
SB Ramp Terminals	(intersection)	36	0.60	0.42	33,100
Total/Average		94		0.38	
WIS 441 & College Avenue - Diamond					
NB off-ramp	(diverge)	8	41	0.25	21,300
NB on-ramp	(merge)	9	40	0.44	24,400
SB off-ramp	(diverge)	4	21	0.25	20,800
SB on-ramp	(merge)	9	54	0.44	18,400
NB Ramp Terminals	(intersection)	37	0.60	0.30	33,800
SB Ramp Terminals	(intersection)	41	0.61	0.49	37,000
Total/Average		108		0.36	
WIS 441 & Northland Avenue - Diamond					
NB off-ramp	(diverge)	10	51	0.40	21,700
NB on-ramp	(merge)	5	23	0.80	23,600
SB off-ramp	(diverge)	3	25	1.00	13,100
SB on-ramp	(merge)	28	128	0.32	24,000
NB Ramp Terminals	(intersection)	22	0.32	0.27	37,800
SB Ramp Terminals	(intersection)	26	0.51	0.31	28,100
Total/Average		94		0.52	

Crash Rate KEY
 = Good (<56)
 = Fair (56 - 73)
 = Poor (>73)

**Intersection
Crash Rate KEY**
 = Good (<1.0)
 = Fair (1.0 - 1.3)
 = Poor (>1.3)

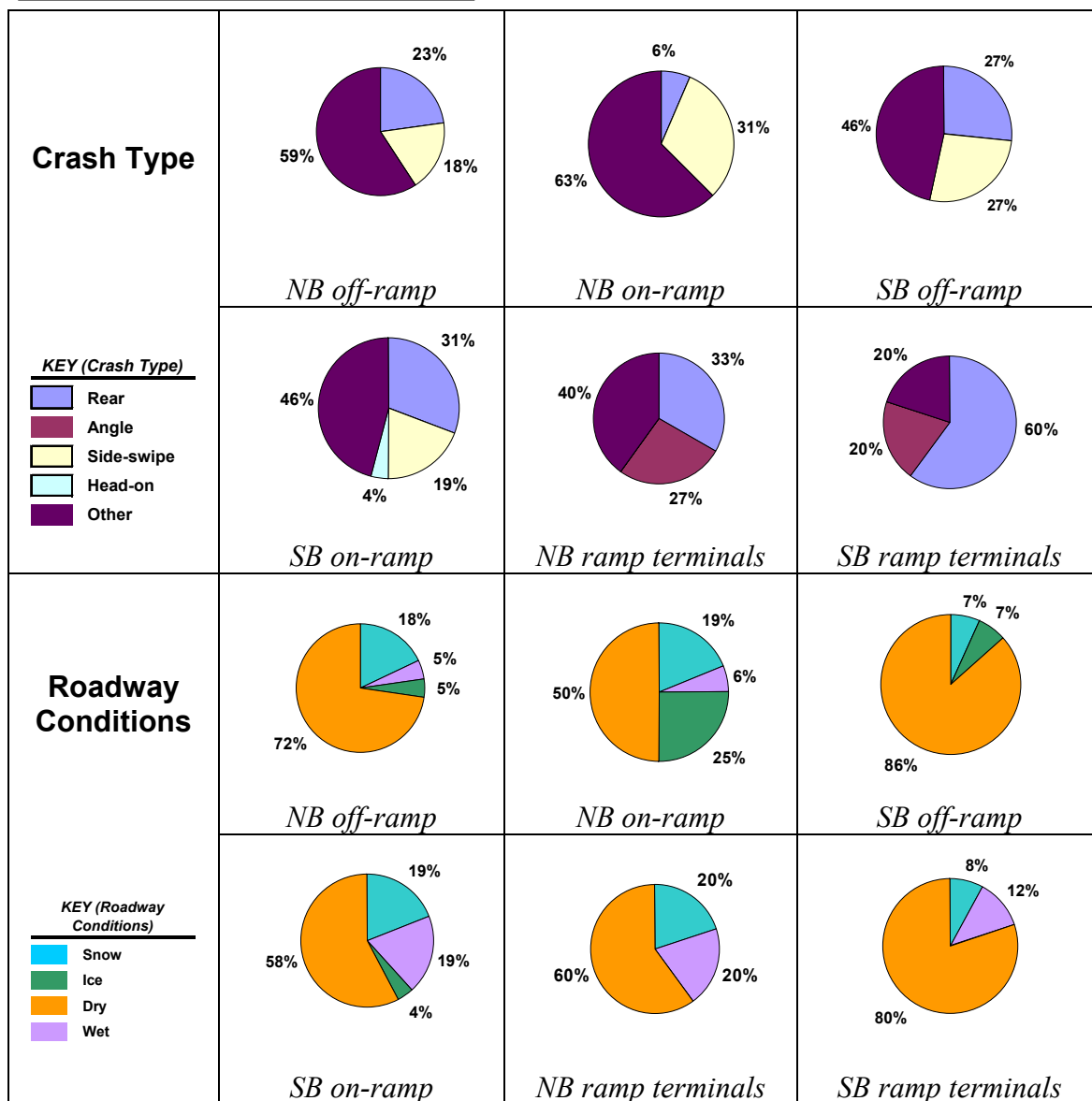
Severity Rate KEY
 = Good (<0.3)
 = Fair (0.3 - 0.5)
 = Poor (>0.5)

Exhibit C-6: Intersection Crash Breakdown

▪ USH 41 & Breezewood Lane	52 - 53
▪ USH 41 & Winneconne Avenue	54 - 55
▪ USH 41 & Main Street	56 - 57
▪ USH 41 & Winchester Road	58 - 59
▪ USH 41/ US 10/ WIS 441 Interchange	60 - 63
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▪ USH 441 Northland Avenue	100 - 101

1 – US 41 and Breezewood Lane

- Majority of crash types were 'other' and occurred in dry conditions
- The average annual crash rate is high for the SB on-ramp
- The crash severity is high for the SB off-ramp



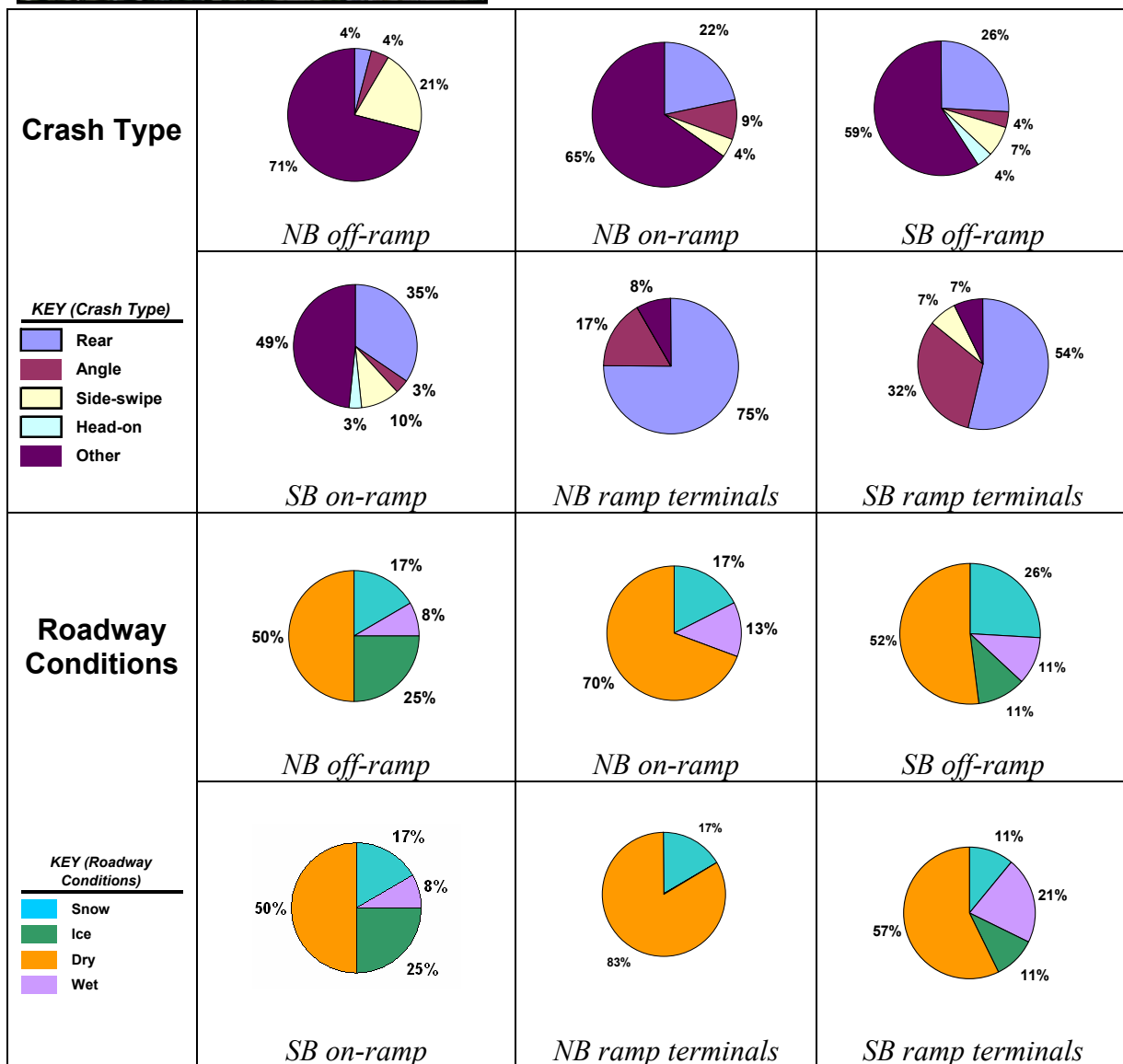
Interchange Crash Information: US 41 & Breezewood Ln.

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	1	0	1	0	2	3	1	0	27900	0	0	0	4	1	3	79	0.25	4
	2003	0	0	0	0	1	1	0	0		1	0	0	0	1	0	20	0.00	1
	2004	0	0	1	0	1	2	0	0		0	0	0	2	1	1	39	0.00	2
	2005	1	0	2	0	4	4	3	0		3	0	1	3	4	3	137	0.43	7
	2006	3	0	0	0	5	5	3	0		0	1	0	7	2	6	157	0.38	8
	Totals	5	0	4	0	13	15	7	0		4	1	1	16	9	13	86	0.32	22
NB on-ramp Type: merge	2002	0	0	1	0	2	3	0	0	35200	1	1	0	1	2	1	47	0.00	3
	2003	0	0	0	0	1	0	1	0		0	0	0	1	1	0	16	1.00	1
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	1	0	3	0	5	6	3	0		2	0	4	3	5	4	140	0.33	9
	2006	0	0	1	0	2	2	1	0		0	0	0	3	1	2	47	0.33	3
	Totals	1	0	5	0	10	11	5	0		3	1	4	8	9	7	50	0.31	16
SB off-ramp Type: diverge	2002	0	0	0	0	2	1	1	0	34700	0	0	0	2	2	0	32	0.50	2
	2003	1	0	2	0	0	1	2	0		0	0	0	3	0	3	47	0.67	3
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	3	0	0	0	3	3	3	0		1	0	1	4	3	3	95	0.50	6
	2006	0	0	2	0	2	2	2	0		0	0	0	4	2	2	63	0.50	4
	Totals	4	0	4	0	7	7	8	0		1	0	1	13	7	8	47	0.53	15
SB on-ramp Type: merge	2002	4	0	1	0	2	5	2	0	27700	0	3	0	4	1	6	138	0.29	7
	2003	1	0	0	0	1	1	1	0		0	0	0	2	1	1	40	0.50	2
	2004	0	0	0	0	1	0	1	0		0	0	0	1	0	1	20	1.00	1
	2005	2	0	4	1	6	10	3	0		5	1	0	7	4	9	257	0.23	13
	2006	1	0	0	0	2	2	1	0		0	1	1	1	3	0	59	0.33	3
	Totals	8	0	5	1	12	18	8	0		5	5	1	15	9	17	103	0.31	26
NB Ramp Terminals	2002	0	1	0	0	0	1	0	0	17850	1	0	0	0	0	1	0.15	0.00	1
	2003	1	1	0	0	1	2	1	0		1	0	0	2	0	3	0.46	0.33	3
	2004	1	1	0	0	0	0	2	0		0	0	0	2	0	2	0.31	1.00	2
	2005	0	1	0	0	3	3	1	0		1	2	0	1	0	4	0.61	0.25	4
	2006	3	0	0	0	2	4	1	0		0	1	0	4	0	5	0.77	0.20	5
	Totals	5	4	0	0	6	10	5	0		3	3	0	9	0	15	0.46	0.33	15
SB Ramp Terminals	2002	4	1	0	0	0	3	2	0	24850	0	1	0	4	0	5	0.55	0.40	5
	2003	2	0	0	0	0	2	0	0		0	0	0	2	0	2	0.22	0.00	2
	2004	7	1	0	0	0	4	4	0		1	2	0	5	0	8	0.88	0.50	8
	2005	1	1	0	0	2	2	2	0		1	0	0	3	0	4	0.44	0.50	4
	2006	1	2	0	0	3	6	0	0		0	0	0	6	2	4	0.66	0.00	6
	Totals	15	5	0	0	5	17	8	0		2	3	0	20	2	23	0.55	0.32	25

2 – US 41 and WIS 114/CTH JJ (Winneconne Avenue)



- Majority of crashes occurred in dry conditions
- Crash rate above state average for all merge and diverge locations



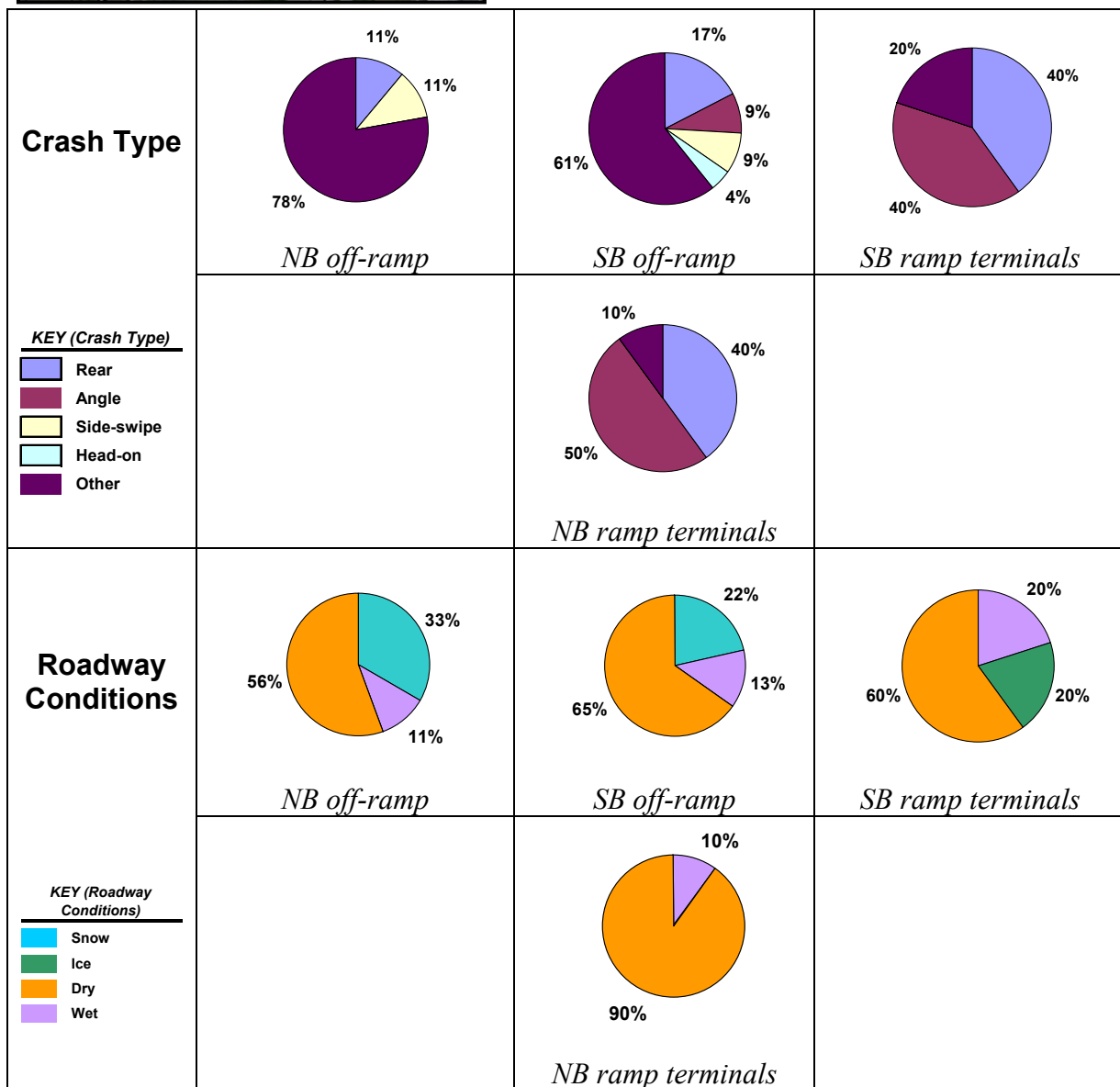
Interchange Crash Information: US 41 & WIS 114 / CTH JJ (Winneconne Ave.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	0	0	1	0	2	3	0	0	35200	1	0	0	2	0	3	47	0.00	3
	2003	0	0	1	0	5	3	2	1		2	0	0	4	3	3	93	0.50	6
	2004	0	0	1	0	3	3	1	0		1	1	1	1	2	2	62	0.25	4
	2005	1	1	2	0	3	5	1	1		0	1	3	3	4	3	109	0.29	7
	2006	0	0	0	0	4	2	2	0		0	0	2	2	4		62	0.50	4
	Totals	1	1	5	0	17	16	6	2		4	2	6	12	13	11	75	0.33	24
NB on-ramp Type: merge	2002	1	0	0	0	3	4	0	0	41500	0	1	0	3	0	4	53	0.00	4
	2003	0	1	0	0	0	1	0	0		0	0	0	1	0	1	13	0.00	1
	2004	0	0	1	0	1	2	0	0		0	0	0	2	1	1	26	0.00	2
	2005	3	1	0	0	6	9	1	0		1	1	0	8	2	8	132	0.10	10
	2006	1	0	0	0	5	6	0	0		3	1	0	2	2	4	79	0.00	6
	Totals	5	2	1	0	15	22	1	0		4	3	0	16	5	18	61	0.04	23
SB off-ramp Type: diverge	2002	2	0	0	1	5	4	4	0	39300	1	3	0	4	3	5	112	0.50	8
	2003	1	0	1	0	1	2	1	0		2	0	0	1	2	1	42	0.33	3
	2004	0	0	0	0	3	2	1	0		1	0	1	1	1	2	42	0.33	3
	2005	2	1	0	0	4	3	2	2		0	0	2	5	3	4	98	0.57	7
	2006	2	0	1	0	3	4	2	0		3	0	0	3	3	3	84	0.33	6
	Totals	7	1	2	1	16	15	10	2		7	3	3	14	12	15	75	0.44	27
SB on-ramp Type: merge	2002	2	0	0	1	4	4	3	0	34800	0	4	0	3	2	5	110	0.43	7
	2003	1	0	0	0	2	1	2	0		0	0	0	3	2	1	47	0.67	3
	2004	1	0	1	0	1	3	0	0		0	0	1	2	2	1	47	0.00	3
	2005	3	1	0	0	4	6	2	0		1	0	0	7	0	8	126	0.25	8
	2006	3	0	2	0	3	8	0	0		5	1	0	2	1	7	126	0.00	8
	Totals	10	1	3	1	14	22	7	0		6	5	1	17	7	22	91	0.24	29
NB Ramp Terminals	2002	1	0	0	0	1	2	0	0	22250	2	0	0	0	0	2	0.25	0.00	2
	2003	2	0	0	0	0	1	1	0		0	0	0	2	0	2	0.25	0.50	2
	2004	3	0	0	0	0	2	1	0		0	0	0	3	0	3	0.37	0.33	3
	2005	2	2	0	0	0	2	2	0		0	0	0	4	1	3	0.49	0.50	4
	2006	1	0	0	0	0	0	1	0		0	0	0	1	0	1	0.12	1.00	1
	Totals	9	2	0	0	1	7	5	0		2	0	0	10	1	11	0.30	0.42	12
SB Ramp Terminals	2002	3	3	0	0	0	4	2	0	27350	1	0	0	5	2	4	0.60	0.33	6
	2003	2	2	0	0	1	3	2	0		1	1	1	2	1	4	0.50	0.40	5
	2004	3	2	0	0	0	3	2	0		0	2	0	3	0	5	0.50	0.40	5
	2005	5	2	2	0	1	8	2	0		1	3	2	4	1	9	1.00	0.20	10
	2006	2	0	0	0	0	0	2	0		0	0	0	2	0	2	0.20	1.00	2
	Totals	15	9	2	0	2	18	10	0		3	6	3	16	4	24	0.56	0.36	28

3 – US 41 and Main Street/Oakridge Road



- Majority of crashes occurred in dry conditions
- High number of ‘angle’ crashes at the ramp terminal locations



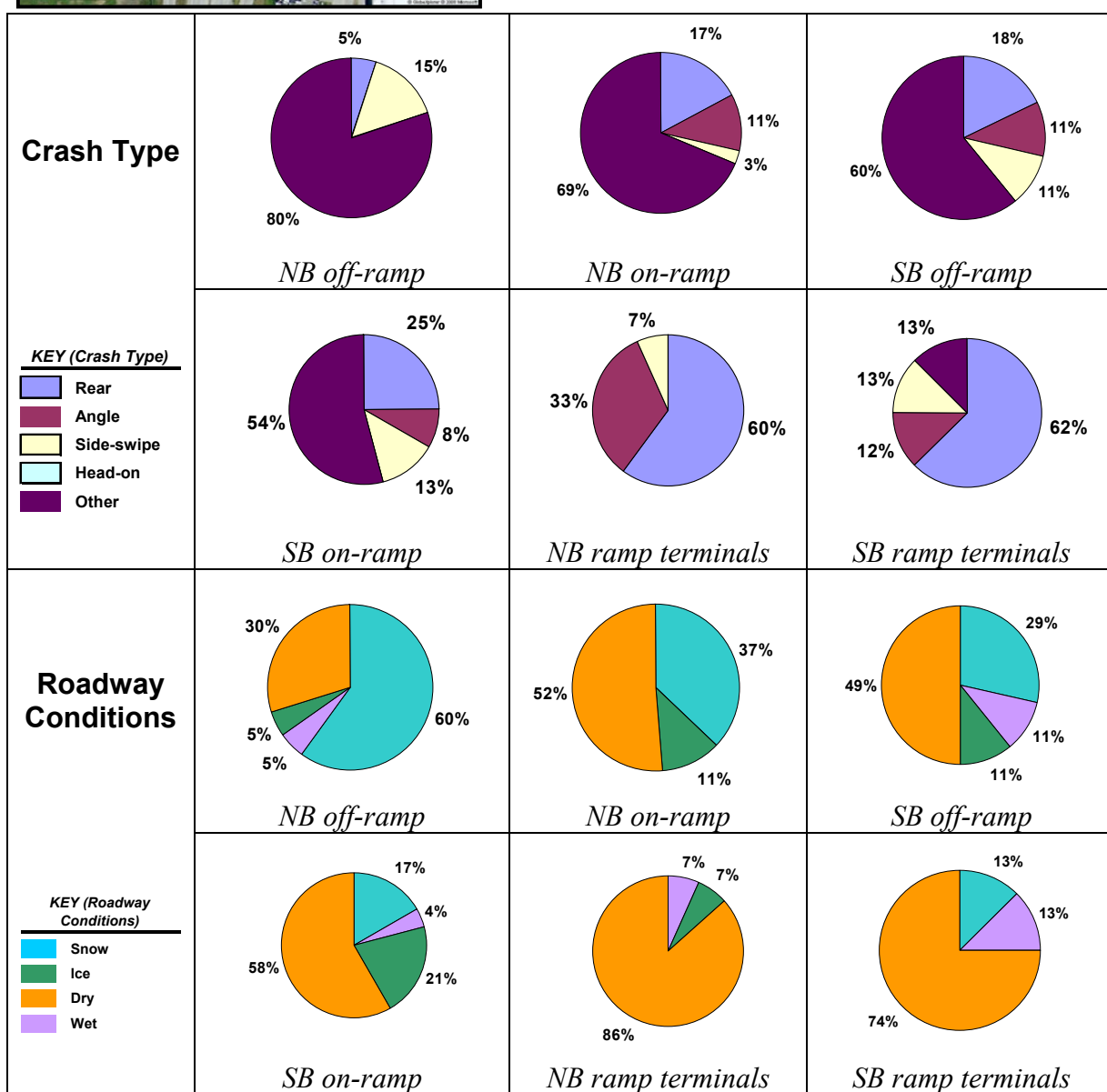
Interchange Crash Information: US 41 & Main St. / Oakridge Rd..

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	1	0	1	0	3	4	1	0	37600	2	1	0	2	1	4	73	0.20	5
	2003	0	0	0	0	1	0	1	0		0	0	0	1	1	0	15	1.00	1
	2004	0	0	0	0	2	1	1	0		0	0	0	2	0	2	29	0.50	2
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	1	0	1	0		1	0	0	0	0	1	15	1.00	1
	Totals	1	0	1	0	7	5	4	0		3	1	0	5	2	7	26	0.44	9
SB off-ramp Type: diverge	2002	0	0	0	0	1	1	0	0	42800	0	1	0	0	0	1	13	0.00	1
	2003	0	0	1	0	3	3	1	0		1	0	0	3	2	2	51	0.25	4
	2004	2	2	1	1	3	4	5	0		2	1	0	6	2	7	115	0.56	9
	2005	1	0	0	0	4	5	0	0		0	1	0	4	1	4	64	0.00	5
	2006	1	0	0	0	3	3	1	0		2	0	0	2	3	1	51	0.25	4
	Totals	4	2	2	1	14	16	7	0		5	3	0	15	8	15	59	0.30	23
NB Ramp Terminals	2002	0	0	0	0	0	0	0	0	7400	0	0	0	0	0	0	0.00	0.00	0
	2003	0	1	0	0	0	0	1	0		0	0	0	1	0	1	0.37	0.00	1
	2004	1	1	0	0	0	1	1	0		0	0	0	2	0	2	0.74	0.50	2
	2005	2	0	0	0	1	2	1	0		0	0	0	3	1	2	1.11	0.33	3
	2006	1	3	0	0	0	4	0	0		0	1	0	3	0	4	1.48	0.00	4
	Totals	4	5	0	0	1	8	2	0		0	1	0	9	1	9	0.74	0.20	10
SB Ramp Terminals	2002	0	0	0	0	0	0	0	0	10500	0	0	0	0	0	0	0.00	0.00	0
	2003	0	1	0	0	0	1	0	0		0	0	0	1	0	1	0.26	0.00	1
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2005	2	0	0	0	1	2	1	0		0	1	1	1	1	2	0.78	0.33	3
	2006	0	1	0	0	0	1	0	0		0	0	0	1	0	1	0.26	0.00	1
	Totals	2	2	0	0	1	4	1	0		0	1	1	3	1	4	0.26	0.20	5

4 – US 41 and CTH II (Winchester Road)



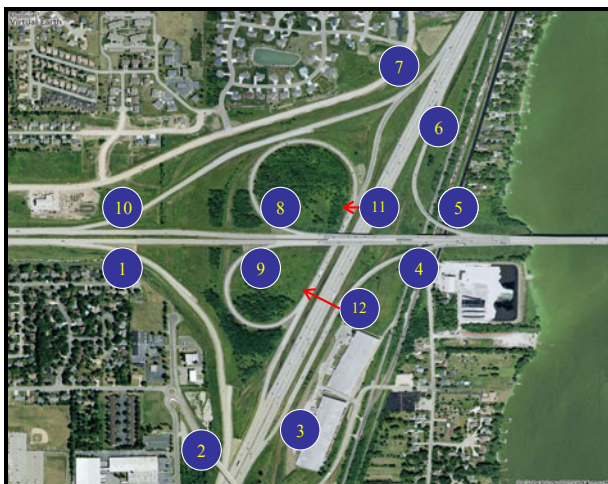
- Majority of crash types were other or rear end and occurred in dry conditions
- 35 crashes in five years at the northbound on-ramp merge



Interchange Crash Information: US 41 & CTH II (Winchester Rd.)

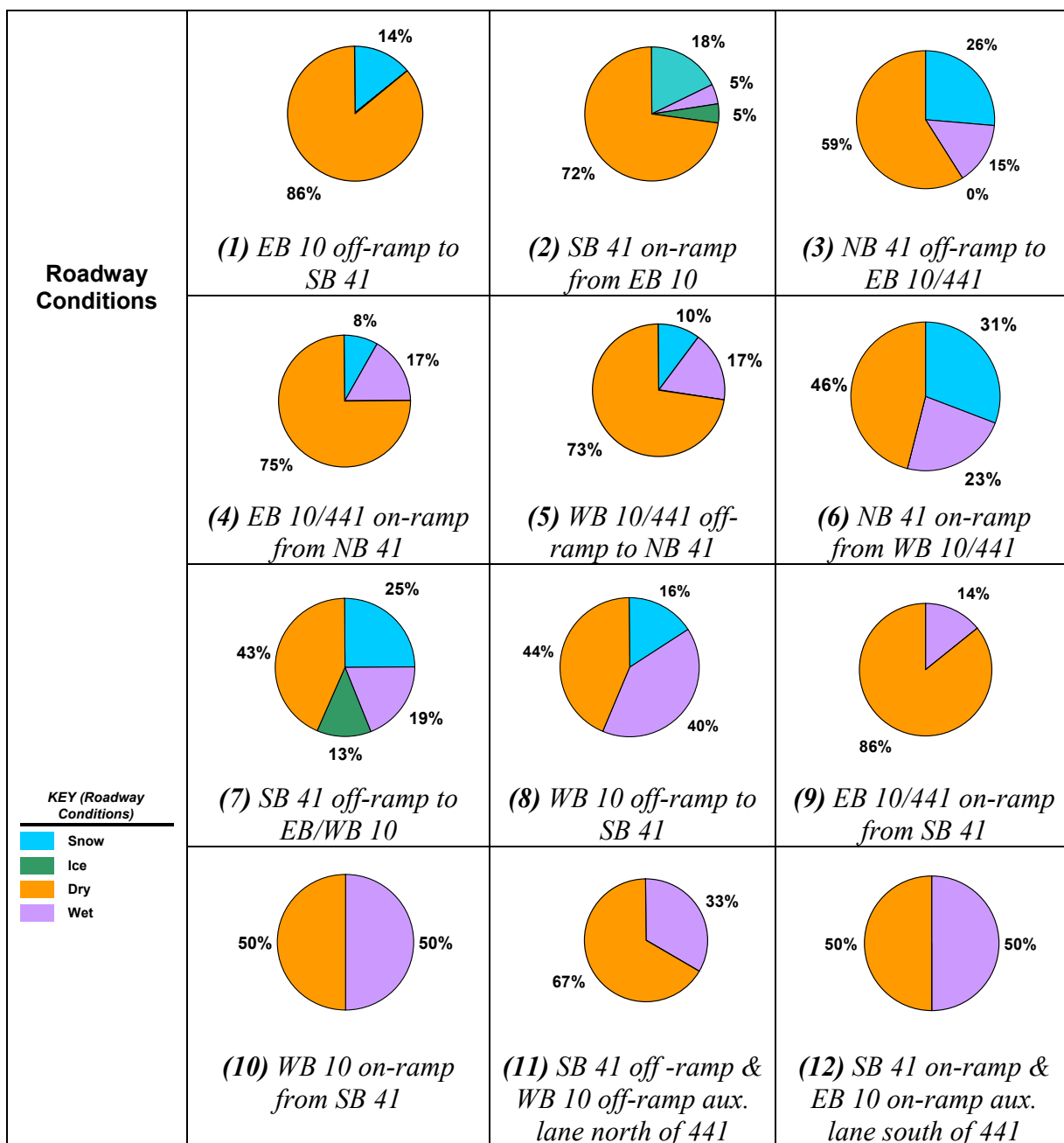
Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	0	0	0	0	6	1	5	0	36500	5	0	0	1	2	4	90	0.83	6
	2003	0	0	1	0	3	3	1	0		0	1	1	2	1	3	60	0.25	4
	2004	0	0	1	0	1	2	0	0		2	0	0	0	0	2	30	0.00	2
	2005	0	0	1	0	1	2	0	0		2	0	0	0	1	1	30	0.00	2
	2006	1	0	0	0	5	5	1	0		3	0	0	3	2	4	90	0.17	6
	Totals	1	0	3	0	16	13	7	0		12	1	1	6	6	14	60	0.35	20
NB on-ramp Type: merge	2002	0	1	0	0	4	2	3	0	42500	2	0	2	1	4	1	64	0.60	5
	2003	2	0	0	0	1	1	2	0		0	0	1	2	0	3	39	0.67	3
	2004	1	0	0	0	1	1	1	0		0	0	0	2	1	1	26	0.50	2
	2005	1	3	0	0	15	13	6	0		9	0	1	9	9	10	245	0.32	19
	2006	2	0	1	0	3	3	3	0		2	0	0	4	4	2	77	0.50	6
	Totals	6	4	1	0	24	20	15	0		13	0	4	18	18	17	90	0.43	35
SB off-ramp Type: diverge	2002	1	0	1	0	3	4	1	0	46400	1	0	1	3	2	3	59	0.20	5
	2003	0	0	0	0	1	1	0	0		1	0	0	0	0	1	12	0.00	1
	2004	1	0	0	0	1	2	0	0		1	0	1	0	1	1	24	0.00	2
	2005	0	2	0	0	10	8	4	0		4	2	0	6	7	5	142	0.33	12
	2006	3	1	2	0	2	4	4	0		1	1	1	5	4	4	94	0.50	8
	Totals	5	3	3	0	17	19	9	0		8	3	3	14	14	14	66	0.32	28
SB on-ramp Type: merge	2002	2	1	0	0	3	5	1	0	43700	0	0	3	3	4	2	75	0.17	6
	2003	0	0	0	0	3	1	2	0		0	0	0	3	2	1	38	0.67	3
	2004	0	1	0	0	2	3	0	0		1	1	0	1	1	2	38	0.00	3
	2005	1	0	1	0	3	2	3	0		1	0	0	4	2	3	63	0.60	5
	2006	3	0	2	0	2	4	3	0		2	0	2	3	0	7	88	0.43	7
	Totals	6	2	3	0	13	15	9	0		4	1	5	14	9	15	60	0.38	24
NB Ramp Terminals	2002	3	2	0	0	0	3	2	0	15550	0	0	0	5	0	5	0.88	0.40	5
	2003	4	0	1	0	0	2	3	0		0	1	0	4	0	5	0.88	0.60	5
	2004	1	0	0	0	0	1	0	0		0	0	0	1	0	1	0.18	0.00	1
	2005	1	3	0	0	0	2	2	0		0	0	1	3	0	4	0.70	0.50	4
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	9	5	1	0	0	8	7	0		0	1	1	13	0	15	0.53	0.47	15
SB Ramp Terminals	2002	2	0	0	0	0	2	0	0	17550	0	1	0	1	0	2	0.31	0.00	2
	2003	1	0	1	0	0	1	1	0		0	0	0	2	0	2	0.31	0.50	2
	2004	0	1	0	0	0	1	0	0		0	0	0	1	1	0	0.16	0.00	1
	2005	1	0	0	0	0	1	0	0		0	0	0	1	0	1	0.16	0.00	1
	2006	1	0	0	0	1	2	0	0		1	0	0	1	0	2	0.31	0.00	2
	Totals	5	1	1	0	1	7	1	0		1	1	0	6	1	7	0.25	0.13	8

5 – US 10/US 41/WIS 441 Interchange



- Majority of crash types occurred in dry conditions
- The average annual crash rate was high for locations 4, 5, & 8
- High severity rate at location 1

Crash Type			
	(1) EB 10 off-ramp to SB 41	(2) SB 41 on-ramp from EB 10	(3) NB 41 off-ramp to EB 10/441
KEY (Crash Type)			
	(4) EB 10/441 on-ramp from NB 41	(5) WB 10/441 off-ramp to NB 41	(6) NB 41 on-ramp from WB 10/441
	Roadway Conditions	(7) SB 41 off-ramp to EB/WB 10	(8) WB 10 off-ramp to SB 41
KEY (Crash Type)			
	(10) WB 10 on-ramp from SB 41	(11) SB 41 off-ramp & WB 10 off-ramp aux. lane north of 441	(12) SB 41 on-ramp & EB 10 on-ramp aux. lane south of 441
	KEY (Crash Type)		



Interchange Crash Information: US 10 & US 41

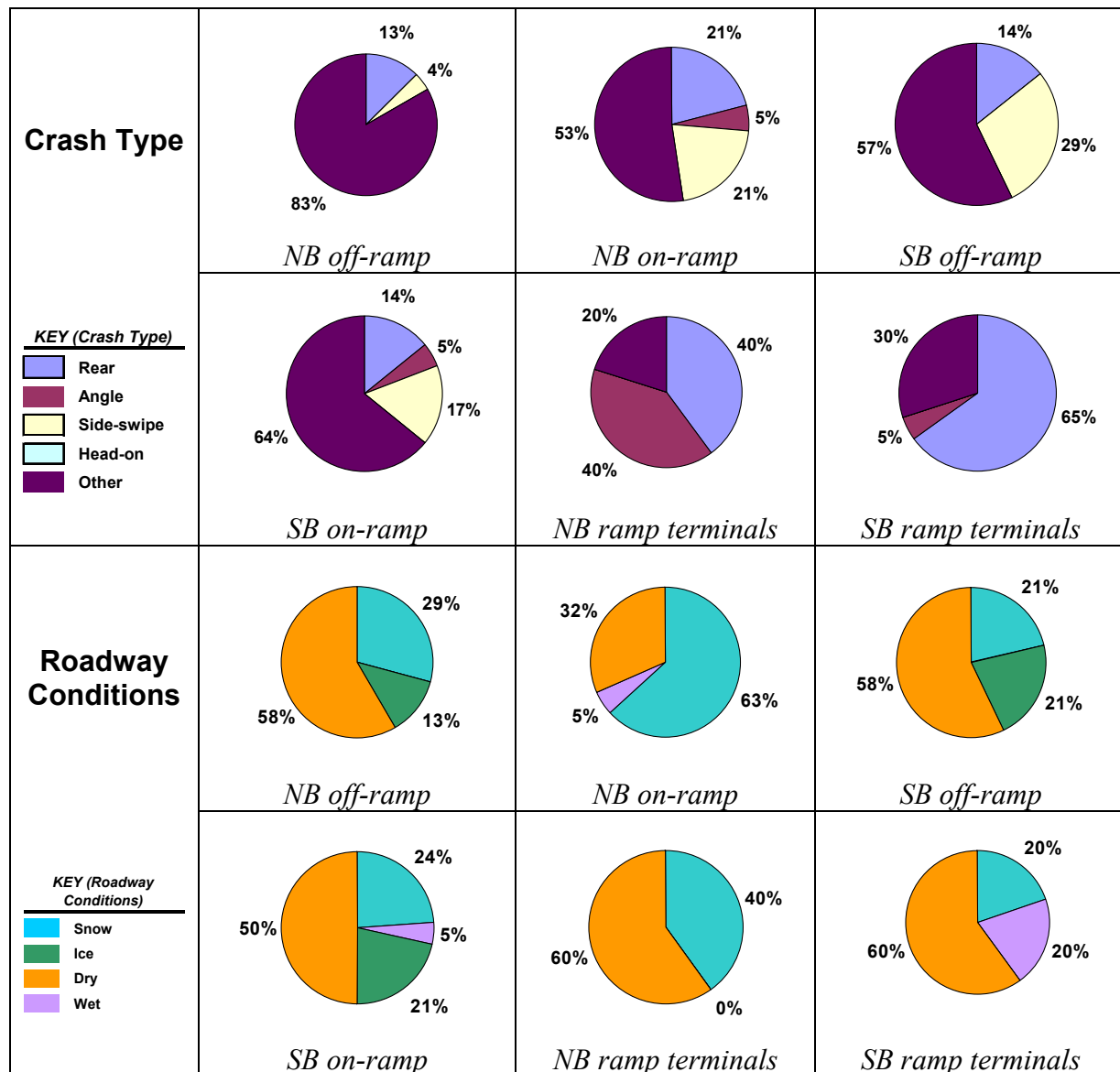
	Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
			Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
1	EB 10 off-ramp to SB 41 Type: diverge	2002	0	0	0	0	0	0	0	0	11000	0	0	0	0	0	0	0	0.00	0
		2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		2004	0	0	0	0	2	1	1	0		1	0	0	1	0	2	100	0.50	2
		2005	5	0	0	0	0	0	5	0		0	0	0	5	0	5	249	1.00	5
		2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		Totals	5	0	0	0	2	1	6	0		1	0	0	6	0	7	70	0.86	7
2	SB 41 on-ramp from EB 10 Type: merge	2002	0	1	0	0	1	1	0	1	27100	0	0	0	2	2	0	40	0.50	2
		2003	1	0	0	0	1	2	0	0		0	1	0	1	1	1	40	0.00	2
		2004	1	0	1	0	5	5	2	0		3	0	0	4	0	7	142	0.29	7
		2005	4	0	1	0	3	4	4	0		1	0	1	6	1	7	162	0.50	8
		2006	2	0	1	0	0	2	1	0		0	0	0	3	2	1	61	0.33	3
		Totals	8	1	3	0	10	14	7	1		4	1	1	16	6	16	89	0.36	22
3	NB 41 off-ramp to EB 10/441 Type: diverge	2002	2	0	1	0	1	3	1	0	44400	2	0	0	2	2	2	49	0.25	4
		2003	1	1	1	0	2	3	2	0		0	2	0	3	1	4	62	0.40	5
		2004	0	0	4	0	4	8	0	0		3	1	0	4	0	8	99	0.00	8
		2005	5	0	4	0	1	4	6	0		3	1	0	6	3	7	123	0.60	10
		2006	2	0	1	0	4	4	3	0		1	1	0	5	4	3	86	0.43	7
		Totals	10	1	11	0	12	22	12	0		9	5	0	20	10	24	84	0.35	34
4	EB 10/441 on-ramp from NB 41 Type: merge	2002	0	0	0	0	0	0	0	0	22300	0	0	0	0	0	0	0	0.00	0
		2003	1	0	0	0	4	4	1	0		0	3	0	2	0	5	123	0.20	5
		2004	4	0	0	0	4	7	1	0		2	1	0	5	0	8	197	0.13	8
		2005	5	0	0	0	3	8	0	0		0	0	0	8	1	7	197	0.00	8
		2006	1	0	2	0	0	2	1	0		0	0	0	3	0	3	74	0.33	3
		Totals	11	0	2	0	11	21	3	0		2	4	0	18	1	23	118	0.13	24
5	WB 10/441 off-ramp to NB 41 Type: diverge	2002	0	0	0	0	0	0	0	0	32800	0	0	0	0	0	0	0	0.00	0
		2003	0	0	2	0	2	4	0	0		1	1	0	2	0	4	67	0.00	4
		2004	5	1	0	0	4	7	3	0		1	3	0	6	0	10	167	0.30	10
		2005	0	0	0	0	3	3	0	0		1	0	0	2	0	3	50	0.00	3
		2006	1	0	0	0	11	8	4	0		0	1	0	11	0	12	200	0.33	12
		Totals	6	1	2	0	20	22	7	0		3	5	0	21	0	29	97	0.24	29
6	NB 41 on-ramp from WB 10/441 Type: merge	2002	0	1	0	0	2	1	2	0	40400	1	0	0	2	1	2	41	0.67	3
		2003	0	0	0	0	1	1	0	0		0	1	0	0	1	0	14	0.00	1
		2004	0	0	0	0	3	2	1	0		0	1	0	2	0	3	41	0.33	3
		2005	1	0	1	0	2	3	1	0		2	1	0	1	2	2	54	0.25	4
		2006	1	0	0	0	1	1	1	0		1	0	0	1	0	2	27	0.50	2
		Totals	2	1	1	0	9	8	5	0		4	3	0	6	4	9	35	0.38	13

Interchange US 10 & US 41 continued

	Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
			Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
7	SB 41 off-ramp to EB/WB 10 Type: diverge	2002	0	0	0	0	3	1	2	0	36900	2	0	0	1	0	3	45	0.67	3
		2003	0	0	0	0	2	1	1	0		0	1	0	1	2	0	25	0.50	2
		2004	0	0	0	0	1	0	1	0		0	1	0	0	0	1	12	1.00	1
		2005	1	0	0	0	4	3	2	0		0	0	2	3	3	2	62	0.40	5
		2006	0	1	0	0	4	2	3	0		2	1	0	2	1	4	62	0.60	5
		Totals	1	1	0	0	14	7	9	0		4	3	2	7	6	10	48	0.56	16
8	WB 10 off-ramp to SB 41 Type: diverge	2002	0	0	0	0	0	0	0	0	23000	0	0	0	0	0	0	0	0.00	0
		2003	2	0	0	0	3	4	1	0		2	1	0	2	0	5	119	0.20	5
		2004	1	2	1	0	11	11	4	0		0	8	0	7	0	15	357	0.27	15
		2005	1	0	0	0	2	2	1	0		2	0	0	1	0	3	71	0.33	3
		2006	1	0	0	0	1	2	0	0		0	1	0	1	0	2	48	0.00	2
		Totals	5	2	1	0	17	19	6	0		4	10	0	11	0	25	119	0.24	25
9	EB 10/441 on-ramp from SB 41 Type: merge	2002	0	0	0	0	0	0	0	0	17600	0	0	0	0	0	0	0	0.00	0
		2003	0	0	0	0	1	1	0	0		0	0	0	1	0	1	31	0.00	1
		2004	0	0	0	0	1	1	0	0		0	0	0	1	0	1	31	0.00	1
		2005	0	0	0	0	2	1	1	0		0	0	0	2	0	2	62	0.50	2
		2006	1	0	1	0	1	3	0	0		0	1	0	2	0	3	93	0.00	3
		Totals	1	0	1	0	5	6	1	0		0	1	0	6	0	7	44	0.14	7
10	WB 10 on-ramp from SB 41 Type: merge	2002	0	0	0	0	0	0	0	0	10100	0	0	0	0	0	0	0	0.00	0
		2003	1	0	0	0	0	1	0	0		0	0	0	1	0	1	54	0.00	1
		2004	0	0	0	0	2	2	0	0		0	2	0	0	0	2	109	0.00	2
		2005	0	0	0	0	1	1	0	0		0	0	0	1	0	1	54	0.00	1
		2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		Totals	1	0	0	0	3	4	0	0		0	2	0	2	0	4	43	0.00	4
11	SB 41 off-ramp & WB 10 off-ramp aux. lane north of 441 Type: diverge	2002	0	0	0	0	1	1	0	0	25200	0	1	0	0	0	1	22	0.00	1
		2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		2005	1	0	0	0	0	0	1	0		0	0	0	1	0	1	22	1.00	1
		2006	1	0	0	0	0	1	0	0		0	0	0	1	0	1	22	0.00	1
		Totals	2	0	0	0	1	2	1	0		0	1	0	2	0	3	13	0.33	3
12	SB 41 on-ramp & EB 10 on-ramp aux. lane south of 441 Type: diverge	2002	0	0	0	0	0	0	0	0	25200	0	0	0	0	0	0	0	0.00	0
		2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		2005	0	1	1	0	0	1	1	0		0	1	0	1	1	1	43	0.50	2
		2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
		Totals	0	1	1	0	0	1	1	0		0	1	0	1	1	1	9	0.50	2

6 – US 41 and CTH BB (Prospect Avenue)

- 42 crashes in 5 years on the southbound on-ramp
- Majority of crashes occurred under dry roadway conditions

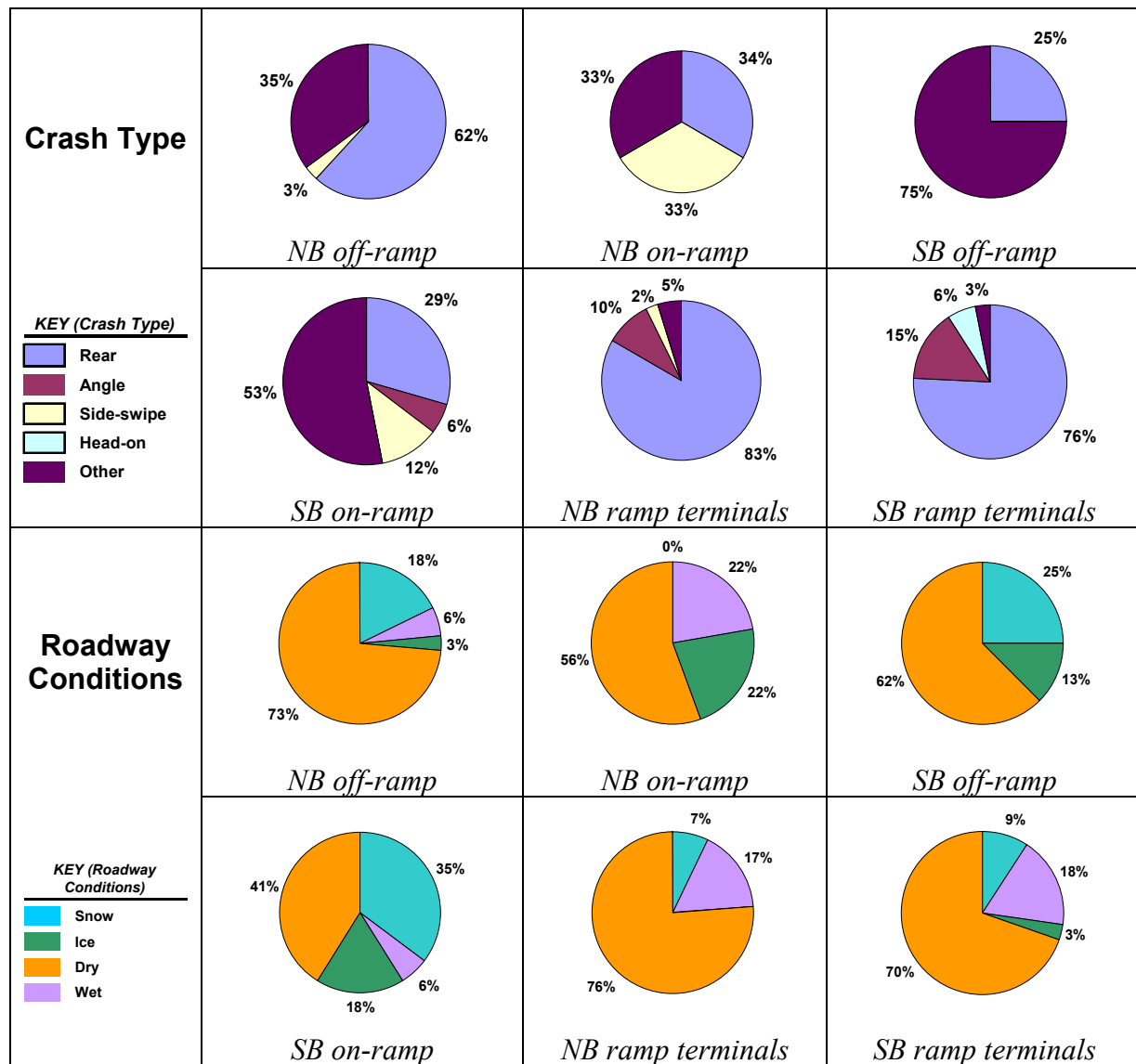


Interchange Crash Information: US 41 & CTH BB (Prospect Ave.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	2	0	1	0	6	6	3	0	38100	2	0	0	7	5	4	129	0.33	9
	2003	1	0	0	0	2	2	1	0		0	0	1	2	2	1	43	0.33	3
	2004	0	0	0	0	1	1	0	0		1	0	0	0	0	1	14	0.00	1
	2005	0	0	0	0	8	7	1	0		3	0	2	3	5	3	115	0.13	8
	2006	0	0	0	0	3	3	0	0		1	0	0	2	2	1	43	0.00	3
	Totals	3	0	1	0	20	19	5	0		7	0	3	14	14	10	69	0.21	24
NB on-ramp Type: merge	2002	1	0	0	0	2	3	0	0	37200	2	0	0	1	2	1	44	0.00	3
	2003	1	1	3	0	1	2	4	0		4	0	0	2	0	6	88	0.67	6
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	2	0	0	0	6	7	1	0		4	1	0	3	3	5	118	0.13	8
	2006	0	0	1	0	1	1	1	0		2	0	0	0	0	2	29	0.50	2
	Totals	4	1	4	0	10	13	6	0		12	1	0	6	5	14	56	0.32	19
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	39100	0	0	0	0	0	0	0	0.00	0
	2003	1	0	0	0	2	3	0	0		0	0	0	3	2	1	42	0.00	3
	2004	0	0	0	0	2	2	0	0		0	0	2	0	2	0	28	0.00	2
	2005	1	0	3	0	1	4	1	0		2	0	1	2	2	3	70	0.20	5
	2006	0	0	1	0	3	4	0	0		1	0	0	3	0	4	56	0.00	4
	Totals	2	0	4	0	8	13	1	0		3	0	3	8	6	8	39	0.07	14
SB on-ramp Type: merge	2002	0	0	2	0	5	6	1	0	40500	3	0	1	3	1	6	95	0.14	7
	2003	0	0	1	0	2	1	2	0		0	0	1	2	2	1	41	0.67	3
	2004	0	1	0	0	4	5	0	0		3	0	1	1	3	2	68	0.00	5
	2005	3	1	0	0	7	7	4	0		3	1	1	6	7	4	149	0.36	11
	2006	3	0	4	0	9	11	5	0		1	1	5	9	7	9	216	0.31	16
	Totals	6	2	7	0	27	30	12	0		10	2	9	21	20	22	114	0.29	42
NB Ramp Terminals	2002	0	1	0	0	0	1	0	0	23000	1	0	0	0	0	1	0.12	0.00	1
	2003	1	1	0	0	0	1	1	0		1	0	0	1	0	2	0.24	0.50	2
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2005	1	0	0	0	0	1	0	0		0	0	0	1	0	1	0.12	0.00	1
	2006	0	0	0	0	1	1	0	0		0	0	0	1	1	0	0.12	0.00	1
	Totals	2	2	0	0	1	4	1	0		2	0	0	3	1	4	0.12	0.20	5
SB Ramp Terminals	2002	3	0	0	0	2	2	3	0	21100	1	1	0	3	1	4	0.65	0.60	5
	2003	3	0	0	0	3	6	0	0		3	2	0	1	0	6	0.78	0.00	6
	2004	2	0	0	0	0	0	2	0		0	0	0	2	0	2	0.26	1.00	2
	2005	4	0	0	0	0	3	1	0		0	0	0	4	2	2	0.52	0.25	4
	2006	1	1	0	0	1	2	1	0		0	1	0	2	1	2	0.39	0.33	3
	Totals	13	1	0	0	6	13	7	0		4	4	0	12	4	16	0.52	0.35	20

7 – US 41 and WIS 125/CTH CA (College Avenue)

- High percentage of rear end crashes at the ramp terminals
- 75 crashes in five years at the ramp terminals
- The crash rate for the northbound off-ramp is 78% higher than the state average

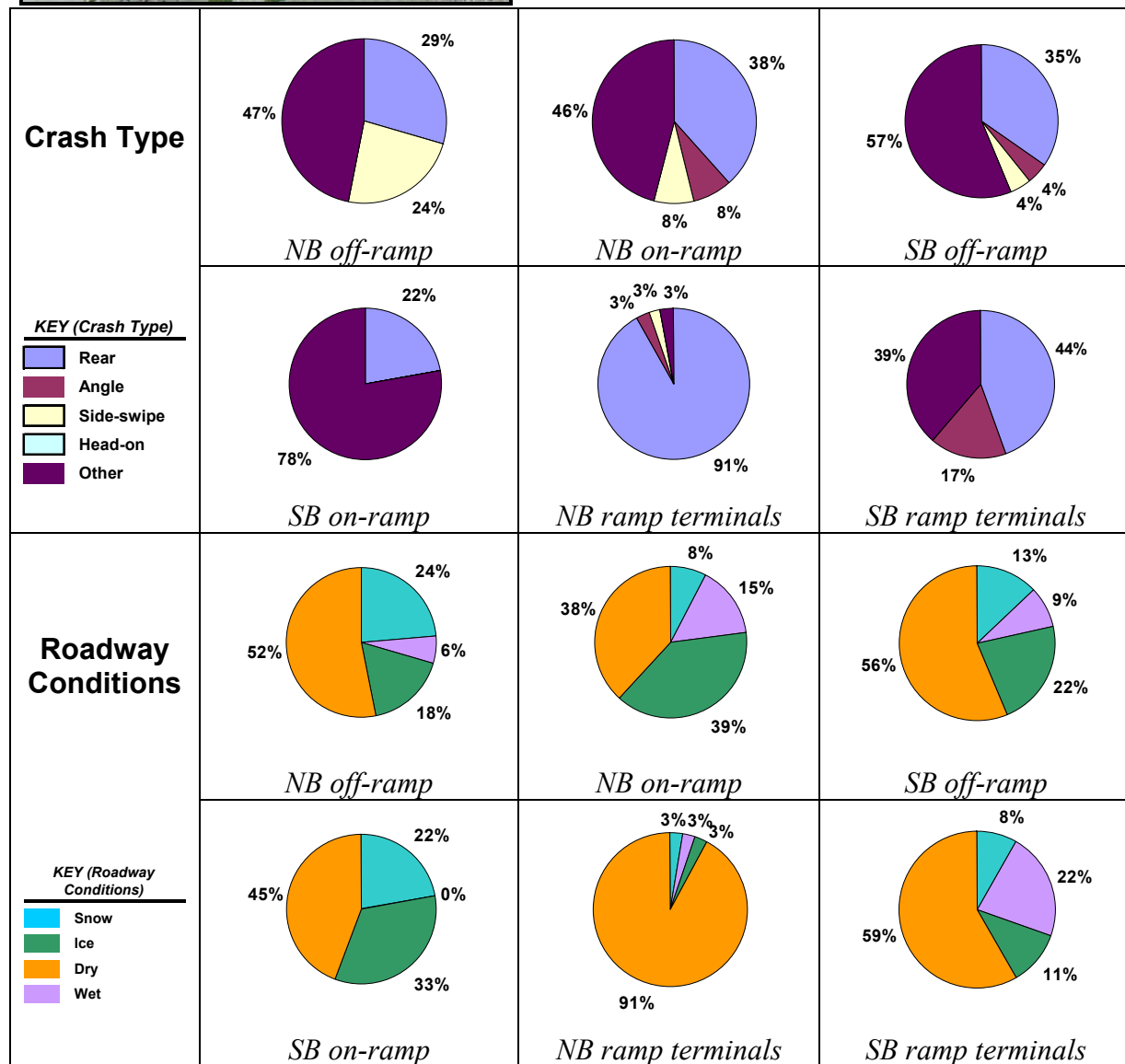


Interchange Crash Information: US 41 & WIS 125 / CTH CA (College Ave.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	5	0	0	0	3	3	5	0	37200	2	1	0	5	2	6	118	0.63	8
	2003	4	0	0	0	3	6	1	0		2	0	0	5	3	4	103	0.14	7
	2004	4	0	0	0	2	4	2	0		0	0	0	6	1	5	88	0.33	6
	2005	5	0	0	0	3	3	5	0		0	1	1	6	3	5	118	0.63	8
	2006	3	0	1	0	1	3	2	0		2	0	0	3	1	4	74	0.40	5
	Totals	21	0	1	0	12	19	15	0		6	2	1	25	10	24	100	0.44	34
NB on-ramp Type: merge	2002	2	0	0	0	1	2	1	0	28800	0	1	0	2	1	2	57	0.33	3
	2003	0	0	2	0	1	3	0	0		0	0	2	1	0	3	57	0.00	3
	2004	1	0	0	0	1	1	1	0		0	1	0	1	0	2	38	0.50	2
	2005	0	0	1	0	0	1	0	0		0	0	0	1	0	1	19	0.00	1
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	3	0	3	0	3	7	2	0		0	2	2	5	1	8	34	0.22	9
SB off-ramp Type: diverge	2002	0	0	0	0	1	1	0	0	35200	0	0	1	0	1	0	16	0.00	1
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	1	0	0	0	1	2	0	0		1	0	0	1	0	2	31	0.00	2
	2005	1	0	0	0	2	2	1	0		1	0	0	2	2	1	47	0.33	3
	2006	0	0	0	0	2	2	0	0		0	0	0	2	1	1	31	0.00	2
	Totals	2	0	0	0	6	7	1	0		2	0	1	5	4	4	25	0.13	8
SB on-ramp Type: merge	2002	0	1	0	0	2	2	1	0	43500	0	0	3	0	3	0	38	0.33	3
	2003	2	0	2	0	3	6	1	0		2	1	0	4	2	5	88	0.14	7
	2004	0	0	0	0	1	0	1	0		1	0	0	0	0	1	13	1.00	1
	2005	1	0	0	0	3	2	2	0		3	0	0	1	1	3	50	0.50	4
	2006	2	0	0	0	0	1	1	0		0	0	0	2	1	1	25	0.50	2
	Totals	5	1	2	0	9	11	6	0		6	1	3	7	7	10	43	0.35	17
NB Ramp Terminals	2002	12	0	1	0	0	7	6	0	42000	0	3	0	10	1	12	0.85	0.46	13
	2003	5	0	0	0	0	2	3	0		0	1	0	4	0	5	0.33	0.60	5
	2004	7	3	0	0	0	5	5	0		1	2	0	7	0	10	0.65	0.50	10
	2005	7	1	0	0	2	9	1	0		2	0	0	8	1	9	0.65	0.10	10
	2006	4	0	0	0	0	4	0	0		0	1	0	3	1	3	0.26	0.00	4
	Totals	35	4	1	0	2	27	15	0		3	7	0	32	3	39	0.55	0.36	42
SB Ramp Terminals	2002	12	2	0	1	1	11	5	0	32900	2	4	1	9	1	15	1.33	0.31	16
	2003	3	1	0	0	0	3	1	0		1	0	0	3	0	4	0.33	0.25	4
	2004	6	1	0	1	0	7	1	0		0	1	0	7	0	8	0.67	0.13	8
	2005	3	1	0	0	0	2	2	0		0	1	0	3	1	3	0.33	0.50	4
	2006	1	0	0	0	0	0	1	0		0	0	0	1	1	0	0.08	1.00	1
	Totals	25	5	0	2	1	23	10	0		3	6	1	23	3	30	0.55	0.30	33

8 – US 41 and WIS 96 (Wisconsin Avenue)

- High number of rear end crashes at the ramp terminals
- 77% of all crashes occurred during the day
- Ramp merge/diverge crashes have declined since 2002

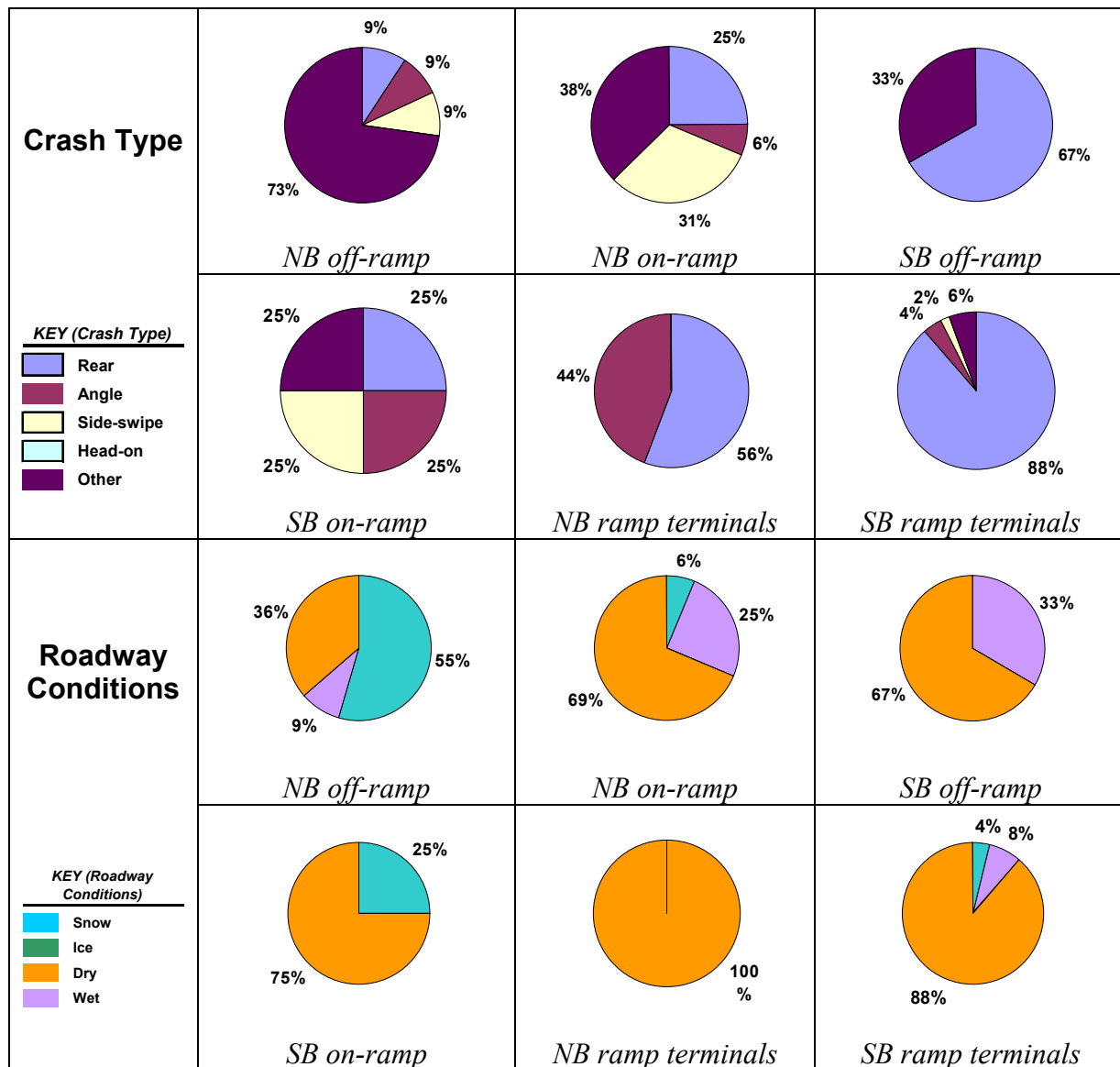


Interchange Crash Information: US 41 & WIS 96 (Wisconsin Ave.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	5	0	0	0	3	3	5	0	33700	2	1	0	5	2	6	130	0.63	8
	2003	0	0	1	0	2	2	1	0		0	0	2	1	1	2	49	0.33	3
	2004	0	0	1	0	2	2	1	0		1	0	1	1	2	1	49	0.33	3
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	2	0	1	3	0	0		1	0	0	2	2	1	49	0.00	3
	Totals	5	0	4	0	8	10	7	0		4	1	3	9	7	10	55	0.41	17
NB on-ramp Type: merge	2002	3	0	0	0	1	2	2	0	32000	0	1	1	2	1	3	68	0.50	4
	2003	1	0	0	0	4	4	1	0		0	1	3	1	1	4	86	0.20	5
	2004	0	0	0	0	1	0	1	0		0	0	1	0	0	1	17	1.00	1
	2005	1	1	1	0	0	3	0	0		1	0	0	2	0	3	51	0.00	3
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	5	1	1	0	6	9	4	0		1	2	5	5	2	11	45	0.31	13
SB off-ramp Type: diverge	2002	4	0	0	0	2	2	4	0	30100	0	1	1	4	1	5	109	0.67	6
	2003	2	0	0	0	3	3	2	0		0	0	2	3	1	4	91	0.40	5
	2004	0	0	0	0	2	2	0	0		0	1	1	0	1	1	36	0.00	2
	2005	1	0	1	0	3	2	3	0		2	0	1	2	1	4	91	0.60	5
	2006	1	1	0	0	3	1	4	0		1	0	0	4	2	3	91	0.80	5
	Totals	8	1	1	0	13	10	13	0		3	2	5	13	6	17	84	0.57	23
SB on-ramp Type: merge	2002	1	0	0	0	3	2	2	0	32500	1	0	1	2	1	3	67	0.50	4
	2003	0	0	0	0	1	0	1	0		0	0	1	0	0	1	17	1.00	1
	2004	0	0	0	0	2	2	0	0		1	0	1	0	2	0	34	0.00	2
	2005	1	0	0	0	1	1	1	0		0	0	0	2	1	1	34	0.50	2
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	2	0	0	0	7	3	4	0		2	0	3	4	4	5	30	0.44	9
NB Ramp Terminals	2002	7	0	0	0	1	5	3	0	36600	0	0	0	8	1	7	0.60	0.38	8
	2003	8	0	0	0	0	8	0	0		0	0	1	7	0	8	0.60	0.00	8
	2004	6	0	1	0	0	5	2	0		1	1	0	5	0	7	0.52	0.29	7
	2005	8	0	0	0	0	7	1	0		0	0	0	8	2	6	0.60	0.13	8
	2006	5	1	0	0	0	5	1	0		0	0	0	6	2	4	0.45	0.17	6
	Totals	34	1	1	0	1	30	7	0		1	1	1	34	5	31	0.55	0.19	37
SB Ramp Terminals	2002	1	0	0	0	2	3	0	0	34300	0	1	1	1	0	3	0.24	0.00	3
	2003	3	0	0	0	4	4	3	0		1	1	2	3	1	6	0.56	0.43	7
	2004	6	0	0	0	0	2	4	0		0	1	0	5	0	6	0.48	0.67	6
	2005	3	1	0	0	3	5	2	0		2	1	1	3	4	3	0.56	0.29	7
	2006	3	5	0	0	5	10	3	0		0	4	0	9	1	12	1.04	0.23	13
	Totals	16	6	0	0	14	24	12	0		3	8	4	21	6	30	0.58	0.33	36

9 – US 41 and WIS 15/CTH OO (Northland Avenue)

- Majority of crash occurred under dry road conditions
- 53 crashes in 5 years at the southbound ramp terminal
 - 88% rear end indicate a potential sight distance problem

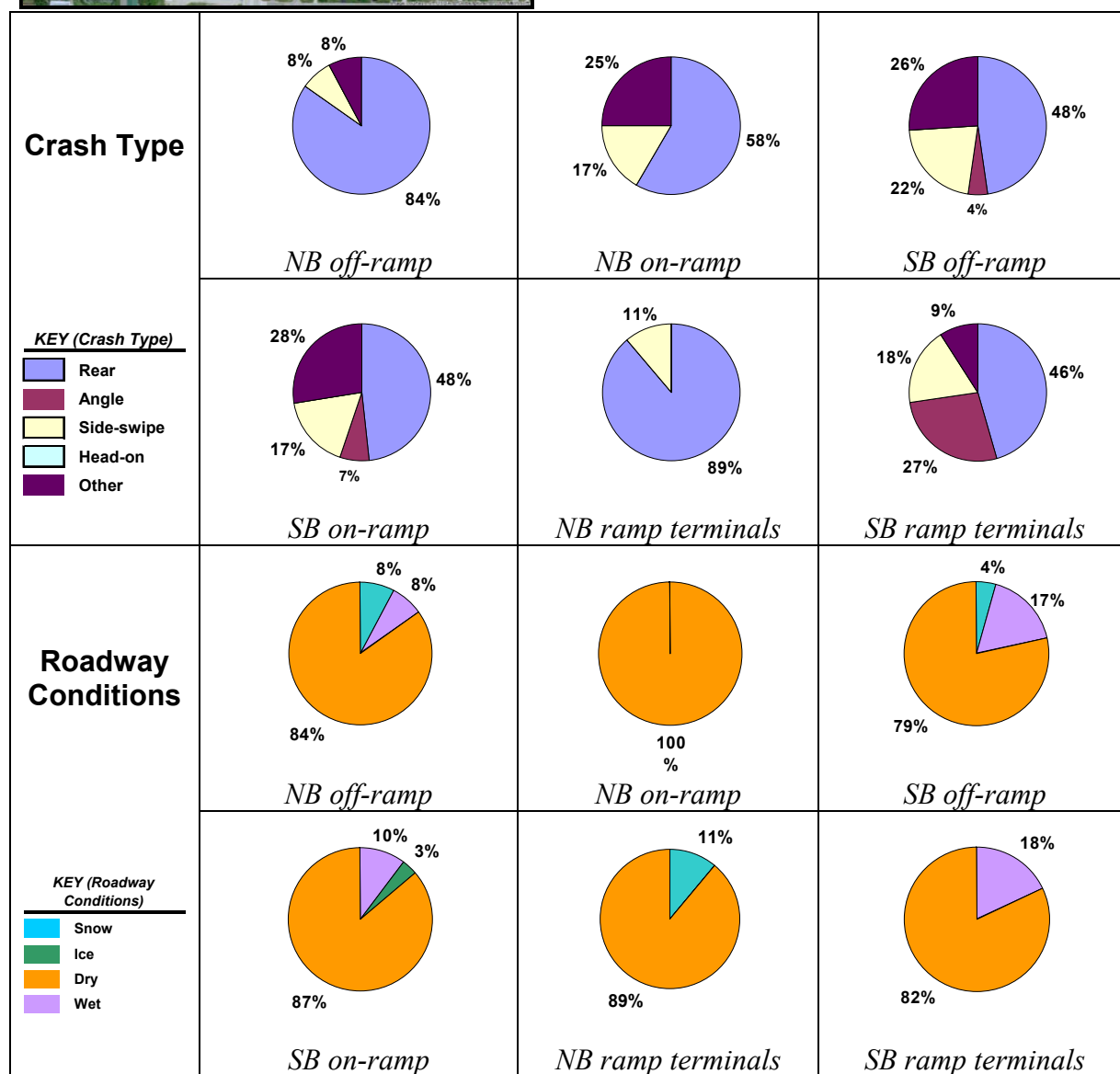


Interchange Crash Information: US 41 & WIS 15 / CTH 00 (Northland Ave.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	1	0	0	0	1	2	0	0	29500	0	0	0	2	1	1	37	0.00	2
	2003	0	0	1	0	0	1	0	0		0	0	0	1	1	0	19	0.00	1
	2004	0	1	0	0	3	3	1	0		4	0	0	0	2	2	74	0.25	4
	2005	0	0	0	0	2	2	0	0		1	1	0	0	2	0	37	0.00	2
	2006	0	0	0	0	2	2	0	0		1	0	0	1	1	1	37	0.00	2
	Totals	1	1	1	0	8	10	1	0		6	1	0	4	7	4	41	0.09	11
NB on-ramp Type: merge	2002	1	1	2	0	1	2	3	0	26800	1	0	0	4	1	4	102	0.60	5
	2003	0	0	1	0	1	1	1	0		0	1	0	1	1	1	41	0.50	2
	2004	2	0	0	0	0	1	1	0		0	0	0	2	0	2	41	0.50	2
	2005	1	0	0	0	1	0	2	0		0	1	0	1	0	2	41	1.00	2
	2006	0	0	2	0	3	2	3	0		0	2	0	3	2	3	102	0.60	5
	Totals	4	1	5	0	6	6	10	0		1	4	0	11	4	12	65	0.63	16
SB off-ramp Type: diverge	2002	0	0	0	0	1	0	1	0	32500	0	0	0	1	0	1	17	1.00	1
	2003	3	0	0	0	1	2	2	0		0	1	0	3	1	3	67	0.50	4
	2004	1	0	0	0	0	1	0	0		0	1	0	0	0	1	17	0.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	4	0	0	0	2	3	3	0		0	2	0	4	1	5	20	0.50	6
SB on-ramp Type: merge	2002	0	1	0	0	0	1	0	0	34400	0	0	0	1	0	1	16	0.00	1
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	1	0	0	0	1	0		1	0	0	0	0	1	16	1.00	1
	2006	1	0	0	0	1	1	1	0		0	0	0	2	1	1	32	0.50	2
	Totals	1	1	1	0	1	2	2	0		1	0	0	3	1	3	13	0.50	4
NB Ramp Terminals	2002	1	1	0	0	0	1	1	0	36600	0	0	0	2	0	2	0.15	0.50	2
	2003	1	0	0	0	0	1	0	0		0	0	0	1	0	1	0.07	0.00	1
	2004	2	2	0	0	0	3	1	0		0	0	0	4	1	3	0.30	0.25	4
	2005	1	1	0	0	0	1	1	0		0	0	0	2	0	2	0.15	0.50	2
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	5	4	0	0	0	6	3	0		0	0	0	9	1	8	0.13	0.33	9
SB Ramp Terminals	2002	9	0	0	0	0	6	3	0	33400	1	0	0	8	1	8	0.74	0.33	9
	2003	9	0	1	0	1	7	4	0		1	0	0	10	0	11	0.90	0.36	11
	2004	11	0	0	0	0	8	3	0		0	2	0	9	0	11	0.90	0.27	11
	2005	18	2	0	0	1	12	9	0		0	1	0	20	1	20	1.72	0.43	21
	2006	0	0	0	0	1	1	0	0		0	1	0	0	1	0	0.08	0.00	1
	Totals	47	2	1	0	3	34	19	0		2	4	0	47	3	50	0.87	0.36	53

10 – US 41 and WIS 47 (Richmond Street)

- Majority of crashes were rear end collisions
- The average annual crash rate is high on the mainline merge from the southbound on-ramp

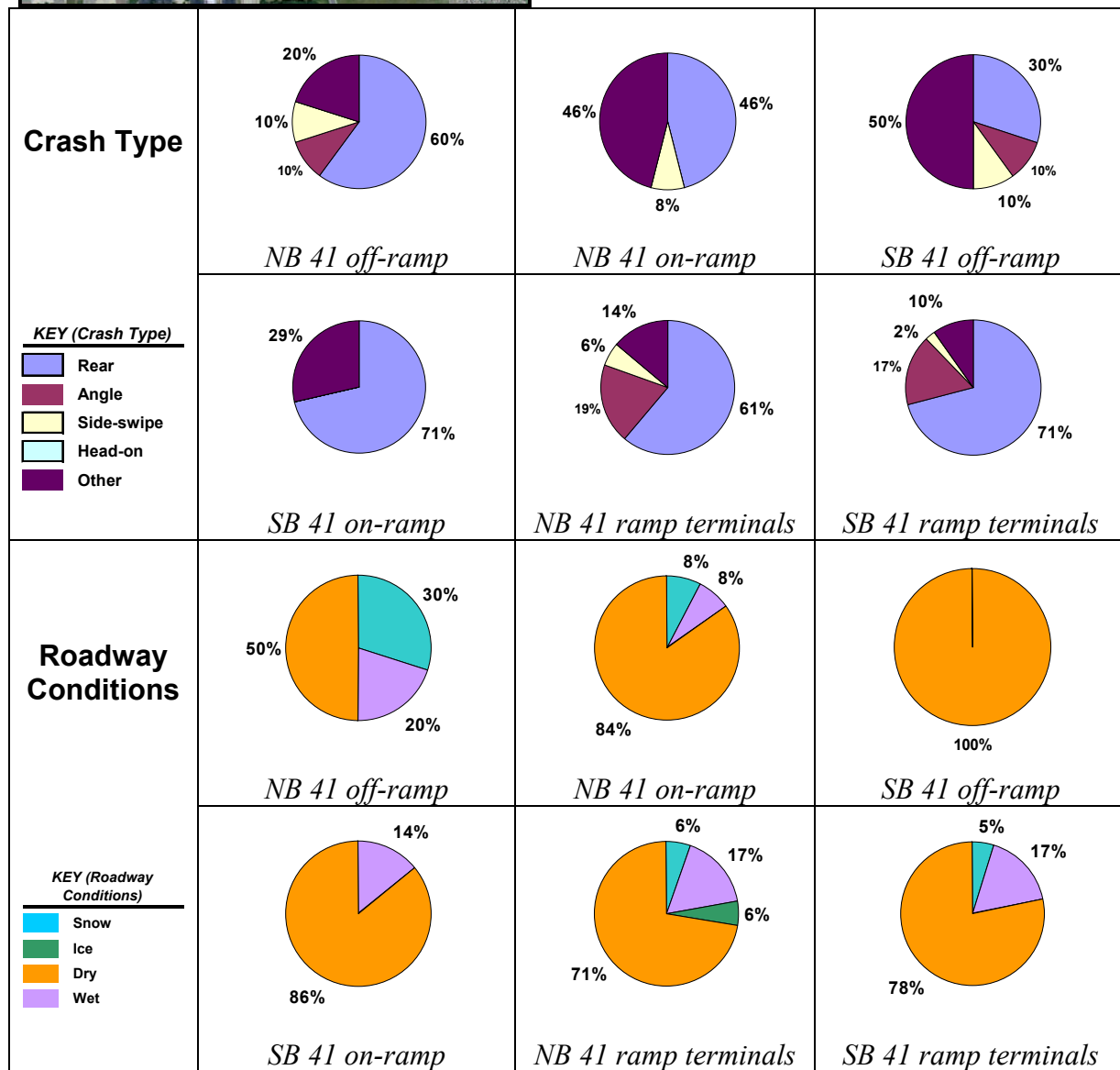


Interchange Crash Information: US 41 & WIS 47 (Richmond St.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	2	0	1	0	1	2	2	0	29700	0	0	0	4	0	4	74	0.50	4
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	1	0	0	0	0	1	0	0		0	0	0	1	0	1	18	0.00	1
	2005	6	0	0	0	0	1	5	0		1	1	0	4	0	6	111	0.83	6
	2006	2	0	0	0	0	1	1	0		0	0	0	2	0	2	37	0.50	2
	Totals	11	0	1	0	1	5	8	0		1	1	0	11	0	13	48	0.62	13
NB on-ramp Type: merge	2002	0	0	0	0	1	0	1	0	30800	0	0	0	1	0	1	18	1.00	1
	2003	1	0	0	0	1	2	0	0		0	0	0	2	0	2	36	0.00	2
	2004	2	0	1	0	0	3	0	0		0	0	0	3	0	3	53	0.00	3
	2005	3	0	1	0	1	2	3	0		0	0	0	5	1	4	89	0.60	5
	2006	1	0	0	0	0	1	0	0		0	0	0	1	0	1	18	0.00	1
	Totals	7	0	2	0	3	8	4	0		0	0	0	12	1	11	43	0.33	12
SB off-ramp Type: diverge	2002	3	0	0	0	1	3	1	0	30200	0	0	0	4	2	2	73	0.25	4
	2003	0	0	1	0	0	1	0	0		0	0	0	1	0	1	18	0.00	1
	2004	3	0	1	0	1	4	1	0		0	0	0	5	0	5	91	0.20	5
	2005	1	1	1	0	2	2	2	1		0	1	0	4	1	4	91	0.60	5
	2006	4	0	2	0	2	4	4	0		1	3	0	4	0	8	145	0.50	8
	Totals	11	1	5	0	6	14	8	1		1	4	0	18	3	20	83	0.39	23
SB on-ramp Type: merge	2002	4	0	3	0	2	5	4	0	29600	0	1	1	7	1	8	167	0.44	9
	2003	3	1	0	0	2	3	3	0		0	1	0	5	3	3	111	0.50	6
	2004	4	0	0	0	0	2	2	0		0	0	0	4	0	4	74	0.50	4
	2005	2	1	2	0	1	4	2	0		0	1	0	5	2	4	111	0.33	6
	2006	1	0	0	0	3	3	1	0		0	0	0	4	0	4	74	0.25	4
	Totals	14	2	5	0	8	17	12	0		0	3	1	25	6	23	107	0.41	29
NB Ramp Terminals	2002	1	0	0	0	0	0	1	0	20850	0	0	0	1	1	0	0.13	1.00	1
	2003	0	0	1	0	0	1	0	0		1	0	0	0	0	1	0.13	0.00	1
	2004	4	0	0	0	0	3	1	0		0	0	0	4	0	4	0.53	0.25	4
	2005	3	0	0	0	0	2	1	0		0	0	0	3	0	3	0.39	0.33	3
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	8	0	1	0	0	6	3	0		1	0	0	8	1	8	0.24	0.33	9
SB Ramp Terminals	2002	3	2	1	0	1	5	2	0	21850	0	1	0	6	1	6	0.88	0.29	7
	2003	1	0	0	0	0	1	0	0		0	0	0	1	0	1	0.13	0.00	1
	2004	1	0	0	0	0	0	1	0		0	0	0	1	0	1	0.13	1.00	1
	2005	0	1	0	0	0	1	0	0		0	1	0	0	0	1	0.13	0.00	1
	2006	0	0	1	0	0	1	0	0		0	0	0	1	0	1	0.13	0.00	1
	Totals	5	3	2	0	1	8	3	0		0	2	0	9	1	10	0.28	0.27	11

11 – US 41 and CTH E (Ballard Road)

- Large number of crashes at the ramp terminals
- Majority of crash types were rear end collisions and occurred under dry roadway conditions

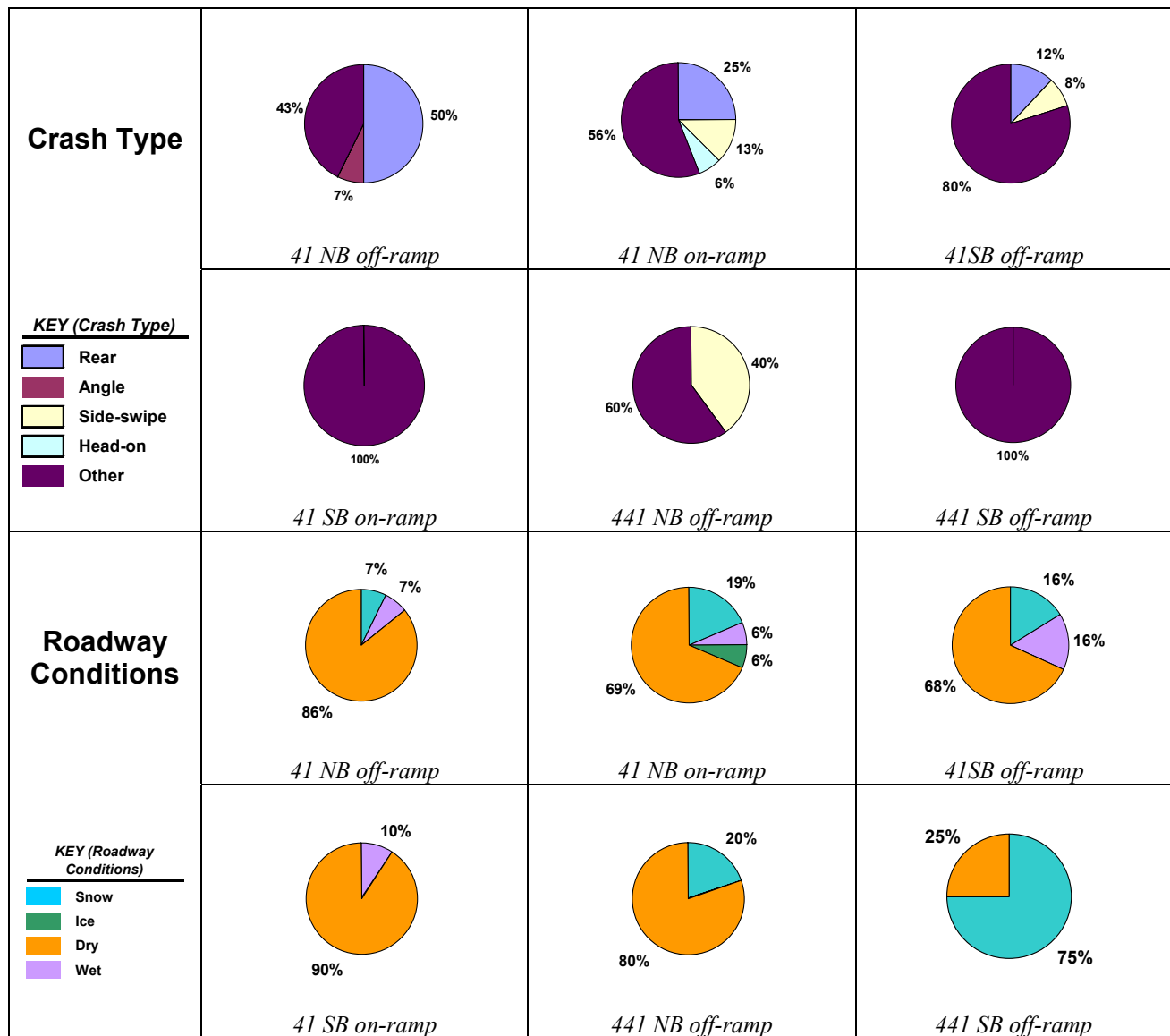


Interchange Crash Information: US 41 & CTH E (Ballard Rd.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	2	0	0	0	0	1	1	0	27900	0	0	0	2	0	2	39	0.50	2
	2003	1	0	1	0	0	0	2	0		0	1	0	1	0	2	39	1.00	2
	2004	1	1	0	0	1	1	2	0		2	0	0	1	1	2	59	0.67	3
	2005	1	0	0	0	1	2	0	0		1	0	0	1	1	1	39	0.00	2
	2006	1	0	0	0	0	0	1	0		0	1	0	0	1	0	20	1.00	1
	Totals	6	1	1	0	2	4	6	0		3	2	0	5	3	7	39	0.60	10
NB on-ramp Type: merge	2002	1	0	0	0	0	1	0	0	26900	0	1	0	0	0	1	20	0.00	1
	2003	2	0	0	0	2	4	0	0		1	0	0	3	3	1	81	0.00	4
	2004	2	0	0	0	1	3	0	0		0	0	0	3	0	3	61	0.00	3
	2005	0	0	0	0	1	0	1	0		0	0	0	1	0	1	20	1.00	1
	2006	1	0	1	0	2	1	3	0		0	0	0	4	1	3	81	0.75	4
	Totals	6	0	1	0	6	9	4	0		1	1	0	11	4	9	53	0.31	13
SB off-ramp Type: diverge	2002	0	1	1	0	0	2	0	0	23600	0	0	0	2	0	2	46	0.00	2
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	1	1	0	0		0	0	0	1	1	0	23	0.00	1
	2005	0	0	0	0	4	4	0	0		0	0	0	4	2	2	93	0.00	4
	2006	3	0	0	0	0	2	1	0		0	0	0	3	0	3	70	0.33	3
	Totals	3	1	1	0	5	9	1	0		0	0	0	10	3	7	46	0.10	10
SB on-ramp Type: merge	2002	0	0	0	0	1	0	1	0	25000	0	0	0	1	0	1	22	1.00	1
	2003	2	0	0	0	0	1	1	0		0	0	0	2	2	0	44	0.50	2
	2004	1	0	0	0	1	1	1	0		0	0	0	2	0	2	44	0.50	2
	2005	4	0	0	0	2	3	3	0		0	2	0	4	1	5	132	0.50	6
	2006	3	0	0	0	0	2	1	0		0	0	0	3	0	3	66	0.33	3
	Totals	10	0	0	0	4	7	7	0		0	2	0	12	3	11	61	0.50	14
NB Ramp Terminals	2002	4	1	0	0	0	2	3	0	26300	0	2	0	3	0	5	0.52	0.60	5
	2003	5	2	0	0	1	6	2	0		0	0	1	7	1	7	0.83	0.25	8
	2004	5	2	1	0	1	8	1	0		0	3	0	6	0	9	0.94	0.11	9
	2005	2	2	0	0	2	3	3	0		2	0	0	4	2	4	0.63	0.50	6
	2006	6	0	1	0	1	5	3	0		0	1	1	6	2	6	0.83	0.38	8
	Totals	22	7	2	0	5	24	12	0		2	6	2	26	5	31	0.75	0.33	36
SB Ramp Terminals	2002	5	3	1	0	1	8	2	0	25000	0	1	0	9	0	10	1.10	0.20	10
	2003	2	1	0	0	0	1	2	0		0	1	0	2	0	3	0.33	0.67	3
	2004	4	0	0	0	0	3	1	0		1	0	0	3	0	4	0.44	0.25	4
	2005	8	1	0	0	1	5	5	0		0	2	0	8	0	10	1.10	0.50	10
	2006	10	2	0	0	2	12	2	0		1	3	0	10	2	12	1.53	0.14	14
	Totals	29	7	1	0	4	29	12	0		2	7	0	32	2	39	0.90	0.29	41

12 – US 41/WIS 441 Interchange

- High annual crash rate at the US 41 southbound off-ramp (diverge)
- Majority of crash types were other and occurred in dry roadway conditions

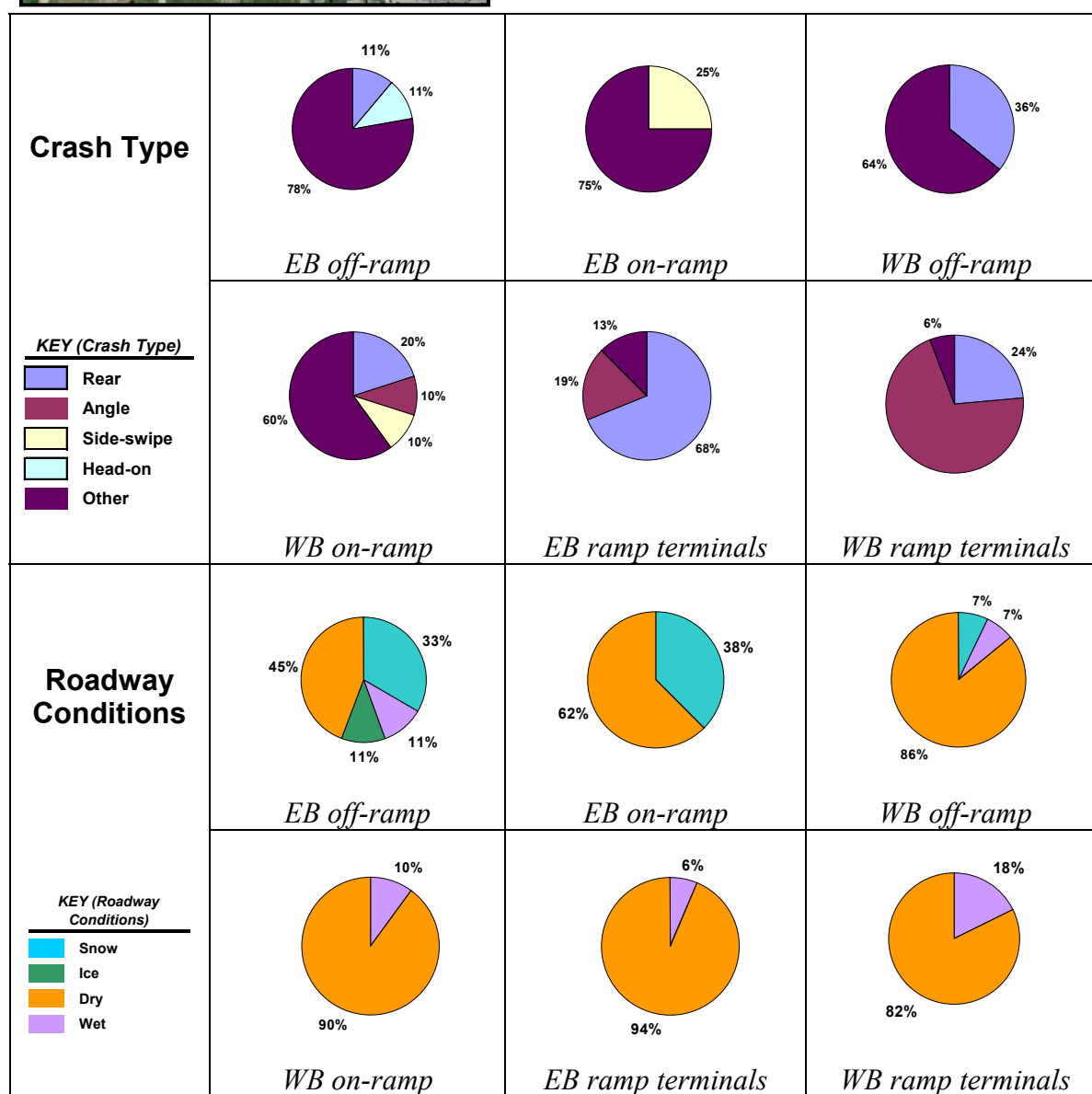


Interchange Crash Information: US 41 & WIS 441

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
41 NB off-ramp Type: diverge	2002	1	0	0	0	0	0	1	0	23600	0	0	0	1	0	1	23	1.00	1
	2003	1	0	0	0	2	2	1	0		0	1	0	2	1	2	70	0.33	3
	2004	2	1	0	0	1	3	1	0		1	0	0	3	0	4	93	0.25	4
	2005	2	0	0	0	0	2	0	0		0	0	0	2	1	1	46	0.00	2
	2006	1	0	0	0	3	0	4	0		0	0	0	4	0	4	93	1.00	4
	Totals	7	1	0	0	6	7	7	0		1	1	0	12	2	12	65	0.50	14
41 NB on-ramp Type: merge	2002	2	0	0	0	2	2	2	0	22100	2	0	0	2	0	4	99	0.50	4
	2003	0	0	0	0	1	1	0	0		0	0	0	1	0	1	25	0.00	1
	2004	2	0	1	1	0	3	1	0		1	0	0	3	1	3	99	0.25	4
	2005	0	0	1	0	4	5	0	0		0	1	0	4	1	4	124	0.00	5
	2006	0	0	0	0	2	2	0	0		0	0	1	1	1	1	50	0.00	2
	Totals	4	0	2	1	9	13	3	0		3	1	1	11	3	13	79	0.19	16
41 SB off-ramp Type: diverge	2002	1	0	0	0	3	1	3	0	26900	2	1	0	1	1	3	81	0.75	4
	2003	0	0	0	0	2	2	0	0		0	0	0	2	1	1	41	0.00	2
	2004	1	0	1	0	2	3	1	0		1	1	0	2	2	2	81	0.25	4
	2005	1	0	0	0	3	3	1	0		1	1	0	2	1	3	81	0.25	4
	2006	0	0	1	0	10	3	6	2		0	1	0	10	6	5	224	0.73	11
	Totals	3	0	2	0	20	12	11	2		4	4	0	17	11	14	102	0.52	25
41 SB on-ramp Type: merge	2002	0	0	0	0	5	1	4	0	30200	0	0	0	5	0	5	91	0.80	5
	2003	0	0	0	0	6	4	1	1		0	1	0	5	0	6	109	0.33	6
	2004	0	0	0	0	4	2	2	0		0	0	0	4	0	4	73	0.50	4
	2005	0	0	0	0	6	4	2	0		0	1	0	5	0	6	109	0.33	6
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	21	11	9	1		0	2	0	19	0	21	76	0.48	21
441 NB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	14100	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	1	0	3	4	0	0		1	0	0	3	1	3	155	0.00	4
	2006	0	0	1	0	0	1	0	0		0	0	0	1	0	1	39	0.00	1
	Totals	0	0	2	0	3	5	0	0		1	0	0	4	1	4	39	0.00	5
441 SB on-ramp Type: merge	2002	0	0	0	0	2	1	1	0	16000	1	0	0	1	0	2	68	0.50	2
	2003	0	0	0	0	1	1	0	0		1	0	0	0	0	1	34	0.00	1
	2004	0	0	0	0	1	1	0	0		1	0	0	0	0	1	34	0.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	4	3	1	0		3	0	0	1	0	4	27	0.25	4

13 – US 41 and CTH N (Freedom Road)

- High severity rate for the ramp terminal locations
- Most crashes occurred during the day under dry roadway conditions



Interchange Crash Information: US 41 & CTH N (Freedom Rd.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
EB off-ramp Type: diverge	2002	0	0	0	0	1	1	0	0	26800	0	0	0	1	1	0	20	0.00	1
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	3	3	0	0		2	0	0	1	1	2	61	0.00	3
	2005	1	0	0	0	2	0	3	0		1	1	1	0	1	2	61	1.00	3
	2006	0	0	0	1	1	1	1	0		0	0	0	2	1	1	41	0.50	2
	Totals	1	0	0	1	7	5	4	0		3	1	1	4	4	5	37	0.44	9
EB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	23700	0	0	0	0	0	0	0	0.00	0
	2003	0	0	1	0	2	1	2	0		1	0	0	2	2	1	69	0.67	3
	2004	0	0	1	0	2	2	1	0		1	0	0	2	0	3	69	0.33	3
	2005	0	0	0	0	1	1	0	0		1	0	0	0	0	1	23	0.00	1
	2006	0	0	0	0	1	1	0	0		0	0	0	1	0	1	23	0.00	1
	Totals	0	0	2	0	6	5	3	0		3	0	0	5	2	6	37	0.38	8
WB off-ramp Type: diverge	2002	0	0	0	0	1	0	1	0	24200	0	0	0	1	0	1	23	1.00	1
	2003	0	0	0	0	1	1	0	0		1	0	0	0	1	0	23	0.00	1
	2004	3	0	0	0	1	3	1	0		0	0	0	4	1	3	91	0.25	4
	2005	1	0	0	0	3	2	2	0		0	0	0	4	1	3	91	0.50	4
	2006	1	0	0	0	3	2	1	1		0	1	0	3	1	3	91	0.50	4
	Totals	5	0	0	0	9	8	5	1		1	1	0	12	4	10	63	0.43	14
WB on-ramp Type: merge	2002	0	1	0	0	2	3	0	0	26900	0	0	0	3	0	3	61	0.00	3
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	1	1	0	0		0	1	0	0	1	0	20	0.00	1
	2005	1	0	1	0	0	1	1	0		0	0	0	2	1	1	41	0.50	2
	2006	1	0	0	0	3	3	1	0		0	0	0	4	0	4	81	0.25	4
	Totals	2	1	1	0	6	8	2	0		0	1	0	9	2	8	41	0.20	10
EB Ramp Terminals	2002	1	0	0	0	0	1	0	0	13100	0	0	0	1	0	1	0.21	0.00	1
	2003	2	2	0	0	0	1	3	0		0	0	0	4	0	4	0.84	0.75	4
	2004	5	0	0	0	1	3	3	0		0	1	0	5	2	4	1.25	0.50	6
	2005	2	1	0	0	1	4	0	0		0	0	0	4	1	3	0.84	0.00	4
	2006	1	0	0	0	0	0	1	0		0	0	0	1	0	1	0.21	1.00	1
	Totals	11	3	0	0	2	9	7	0		0	1	0	15	3	13	0.67	0.44	16
WB Ramp Terminals	2002	0	0	0	0	0	0	0	0	10100	0	0	0	0	0	0	0.00	0.00	0
	2003	1	3	0	0	0	2	2	0		0	0	0	4	1	3	1.09	0.50	4
	2004	0	2	0	0	0	1	1	0		0	0	0	2	0	2	0.54	0.50	2
	2005	1	4	0	0	1	4	2	0		0	1	0	5	1	5	1.63	0.33	6
	2006	2	3	0	0	0	3	2	0		0	2	0	3	1	4	1.36	0.40	5
	Totals	4	12	0	0	1	10	7	0		0	3	0	14	3	14	0.92	0.41	17

14 – US 41 and WIS 55 (Delanglade Street)

- Low number of crashes at this intersection
- Only potential trouble spot is the merge at the southbound on-ramp

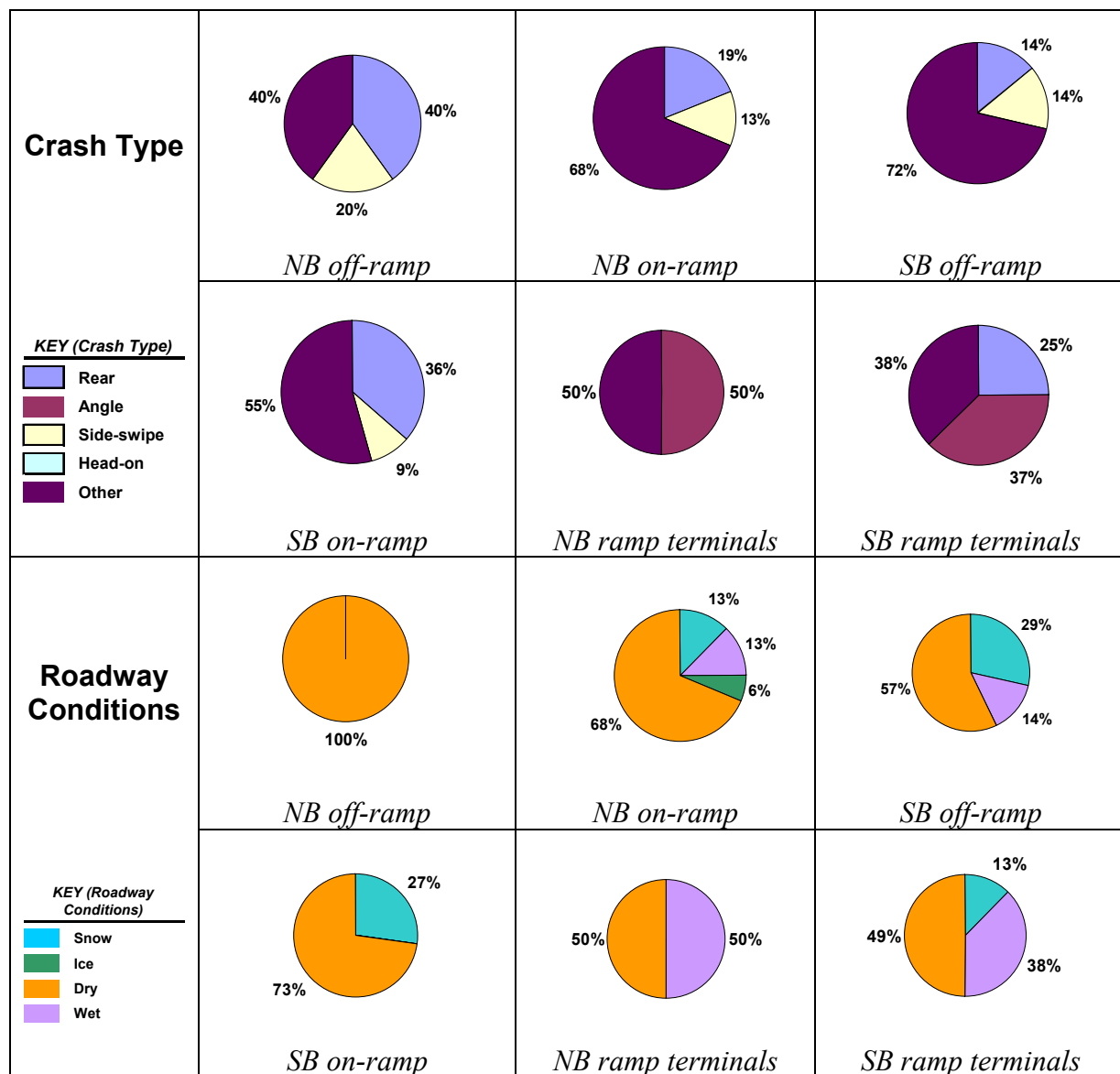
Crash Type	<i>NB off-ramp</i>	<i>NB on-ramp</i>	<i>SB off-ramp</i>
	KEY (Crash Type) - Rear - Angle - Side-swipe - Head-on - Other <i>SB on-ramp</i>	<i>NB ramp terminals</i>	DATA N/A <i>SB ramp terminals</i>
Roadway Conditions	<i>NB off-ramp</i>	<i>NB on-ramp</i>	<i>SB off-ramp</i>
	KEY (Roadway Conditions) - Snow - Ice - Dry - Wet <i>SB on-ramp</i>	<i>NB ramp terminals</i>	DATA N/A <i>SB ramp terminals</i>

Interchange Crash Information: US 41 & WIS 55 (Delanglade St.)																			
Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	0	0	0	1	1	1	1	0	23700	0	0	0	2	1	1	46	0.50	2
	2003	0	0	0	0	3	3	0	0		0	1	0	2	3	0	69	0.00	3
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	1	0	0	0	0	1	0	0		0	0	0	1	0	1	23	0.00	1
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	1	0	0	1	4	5	1	0		0	1	0	5	4	2	28	0.17	6
NB on-ramp Type: merge	2002	0	0	0	0	1	0	1	0	20200	0	1	0	0	0	1	27	1.00	1
	2003	0	0	0	0	1	0	1	0		0	0	1	0	1	0	27	1.00	1
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	1	0	0	0	1	0		0	0	0	1	0	1	27	1.00	1
	2006	0	0	0	0	2	1	1	0		1	1	0	0	1	1	54	0.50	2
	Totals	0	0	1	0	4	1	4	0		1	2	1	1	2	3	27	0.80	5
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	20400	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	1	0	1	2	0	0		0	0	0	2	2	0	54	0.00	2
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	2	0	0	0	1	1	0		1	0	0	1	1	1	54	0.50	2
	Totals	0	2	1	0	1	3	1	0		1	0	0	3	3	1	21	0.25	4
SB on-ramp Type: merge	2002	2	0	0	0	2	4	0	0	23500	1	1	1	1	2	2	93	0.00	4
	2003	1	1	1	1	0	1	3	0		1	0	0	3	3	1	93	0.75	4
	2004	2	0	0	0	2	3	1	0		1	0	0	3	0	4	93	0.25	4
	2005	0	0	0	0	1	0	1	0		0	0	0	1	1	0	23	1.00	1
	2006	2	0	0	0	0	2	0	0		0	0	0	2	1	1	47	0.00	2
	Totals	7	1	1	1	5	10	5	0		3	1	1	10	7	8	70	0.33	15
NB Ramp Terminals	2002	0	0	0	0	1	1	0	0	13250	0	0	0	1	0	1	0.21	0.00	1
	2003	1	0	0	0	0	1	0	0		0	1	0	0	0	1	0.21	0.00	1
	2004	3	0	0	0	1	3	1	0		0	0	0	4	1	3	0.83	0.25	4
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	4	0	0	0	2	5	1	0		0	1	0	5	1	5	0.25	0.17	6
SB Ramp Terminals	2002	0	0	0	0	0	0	0	0	9750	0	0	0	0	0	0	0.00	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0

15 – US 41 and CTH J (Lawe Street)



- Low number of crashes at this intersection

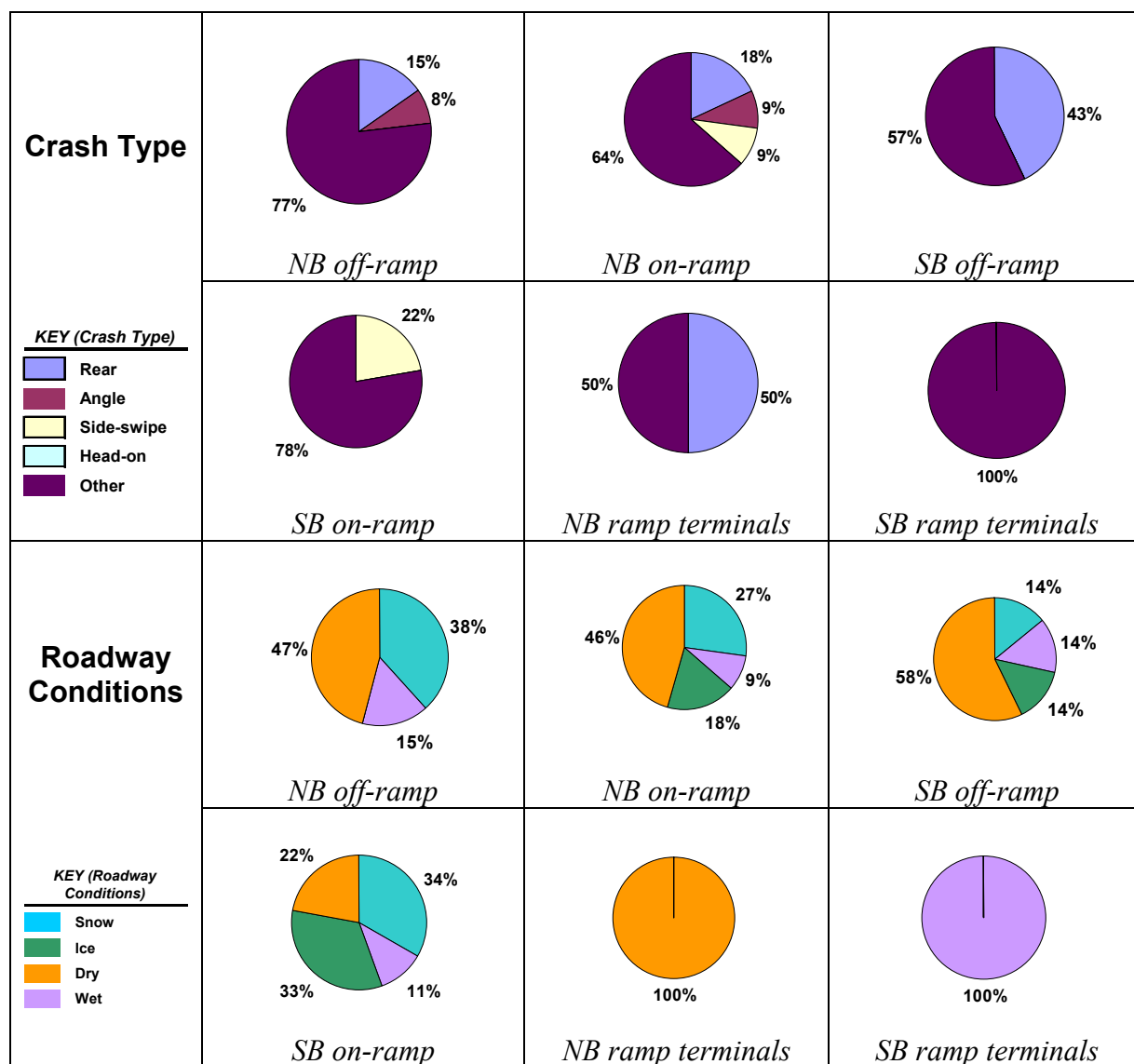


Interchange Crash Information: US 41 & CTH J (Lowe St.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	20000	0	0	0	0	0	0	0	0.00	0
	2003	1	0	1	0	1	3	0	0		0	0	0	3	0	3	82	0.00	3
	2004	0	0	0	0	1	1	0	0		0	0	0	1	0	1	27	0.00	1
	2005	1	0	0	0	0	1	0	0		0	0	0	1	0	1	27	0.00	1
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	2	0	1	0	2	5	0	0		0	0	0	5	0	5	27	0.00	5
NB on-ramp Type: merge	2002	1	0	1	0	4	5	1	0	19300	2	0	0	4	1	5	170	0.17	6
	2003	0	0	0	0	1	1	0	0		0	0	1	0	1	0	28	0.00	1
	2004	0	0	0	0	3	3	0	0		0	1	0	2	0	3	85	0.00	3
	2005	1	0	0	0	2	2	1	0		0	0	0	3	0	3	85	0.33	3
	2006	1	0	1	0	1	1	2	0		0	1	0	2	1	2	85	0.67	3
	Totals	3	0	2	0	11	12	4	0		2	2	1	11	3	13	91	0.25	16
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	21700	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	3	2	1	0		0	1	0	2	0	3	76	0.33	3
	2004	1	0	0	0	0	0	1	0		0	0	0	1	0	1	25	1.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	1	0	2	3	0	0		2	0	0	1	0	3	76	0.00	3
	Totals	1	0	1	0	5	5	2	0		2	1	0	4	0	7	35	0.29	7
SB on-ramp Type: merge	2002	1	0	0	0	1	1	1	0	22500	0	0	0	2	0	2	49	0.50	2
	2003	1	0	0	0	0	1	0	0		0	0	0	1	0	1	24	0.00	1
	2004	1	0	0	0	2	1	1	1		0	0	0	3	0	3	73	0.67	3
	2005	0	0	0	0	2	2	0	0		2	0	0	0	1	1	49	0.00	2
	2006	1	0	1	0	1	2	1	0		1	0	0	2	0	3	73	0.33	3
	Totals	4	0	1	0	6	7	3	1		3	0	0	8	1	10	54	0.36	11
NB Ramp Terminals	2002	0	0	0	0	0	0	0	0	7300	0	0	0	0	0	0	0.00	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2004	0	1	0	0	0	0	1	0		0	1	0	0	0	1	0.38	1.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2006	0	0	0	0	1	0	1	0		0	0	0	1	1	0	0.38	1.00	1
	Totals	0	1	0	0	1	0	2	0		0	1	0	1	1	1	0.15	1.00	2
SB Ramp Terminals	2002	0	0	0	0	0	0	0	0	6700	0	0	0	0	0	0	0.00	0.00	0
	2003	0	2	0	0	0	1	1	0		0	1	0	1	2	0	0.82	0.50	2
	2004	1	1	0	0	1	0	3	0		0	0	0	3	1	2	1.23	1.00	3
	2005	1	0	0	0	2	0	3	0		1	2	0	0	1	2	1.23	1.00	3
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	2	3	0	0	3	1	7	0		1	3	0	4	4	4	0.65	0.88	8

16 – US 41 and CTH U (County Line Road)

- Majority of crash types were other occurred in dry conditions



Interchange Crash Information: US 41 & CTH U (County Line Rd.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	0	1	0	0	2	2	1	0	19000	2	1	0	0	2	1	87	0.33	3
	2003	1	0	0	0	1	2	0	0		0	0	0	2	0	2	58	0.00	2
	2004	0	0	0	0	1	1	0	0		0	0	0	1	1	0	29	0.00	1
	2005	1	0	0	0	5	5	0	1		3	1	0	2	4	2	173	0.17	6
	2006	0	0	0	0	1	1	0	0		0	0	0	1	0	1	29	0.00	1
	Totals	2	1	0	0	10	11	1	1		5	2	0	6	7	6	75	0.15	13
NB on-ramp Type: merge	2002	0	0	1	0	0	1	0	0	19100	1	0	0	0	0	1	29	0.00	1
	2003	0	0	0	0	3	3	0	0		0	0	0	3	2	1	86	0.00	3
	2004	0	0	0	0	2	2	0	0		0	1	0	1	0	2	57	0.00	2
	2005	2	1	0	0	2	5	0	0		2	0	2	1	2	3	143	0.00	5
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	2	1	1	0	7	11	0	0		3	1	2	5	4	7	63	0.00	11
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	19200	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	2	0	0	0	0	1	1	0		0	1	0	1	0	2	57	0.50	2
	2005	0	0	0	0	1	1	0	0		0	0	0	1	1	0	29	0.00	1
	2006	1	0	0	0	3	3	1	0		1	0	1	2	2	2	114	0.25	4
	Totals	3	0	0	0	4	5	2	0		1	1	1	4	3	4	40	0.29	7
SB on-ramp Type: merge	2002	0	0	1	0	1	0	2	0	19200	0	0	0	2	1	1	57	1.00	2
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	2	2	0	0		1	0	1	0	1	1	57	0.00	2
	2005	0	0	1	0	1	2	0	0		2	0	0	0	1	1	57	0.00	2
	2006	0	0	0	0	3	2	1	0		0	1	2	0	2	1	86	0.33	3
	Totals	0	0	2	0	7	6	3	0		3	1	3	2	5	4	51	0.33	9
NB Ramp Terminals	2002	0	0	0	0	0	0	0	0	4450	0	0	0	0	0	0	0.00	0.00	0
	2003	1	0	0	0	0	0	1	0		0	0	0	1	0	1	0.62	0.00	1
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2006	0	0	0	0	1	0	1	0		0	0	0	1	0	1	0.62	1.00	1
	Totals	1	0	0	0	1	1	1	0		0	0	0	2	0	2	0.25	0.50	2
SB Ramp Terminals	2002	0	0	0	0	0	0	0	0	4550	0	0	0	0	0	0	0.00	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2005	0	0	0	0	1	1	0	0		0	1	0	0	1	0	0.60	0.00	1
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	0	0	0	0	1	1	0	0		0	1	0	0	1	0	0.12	0.00	1

17 – US 10 and CTH CB

- Low number of reported crashes at this interchange

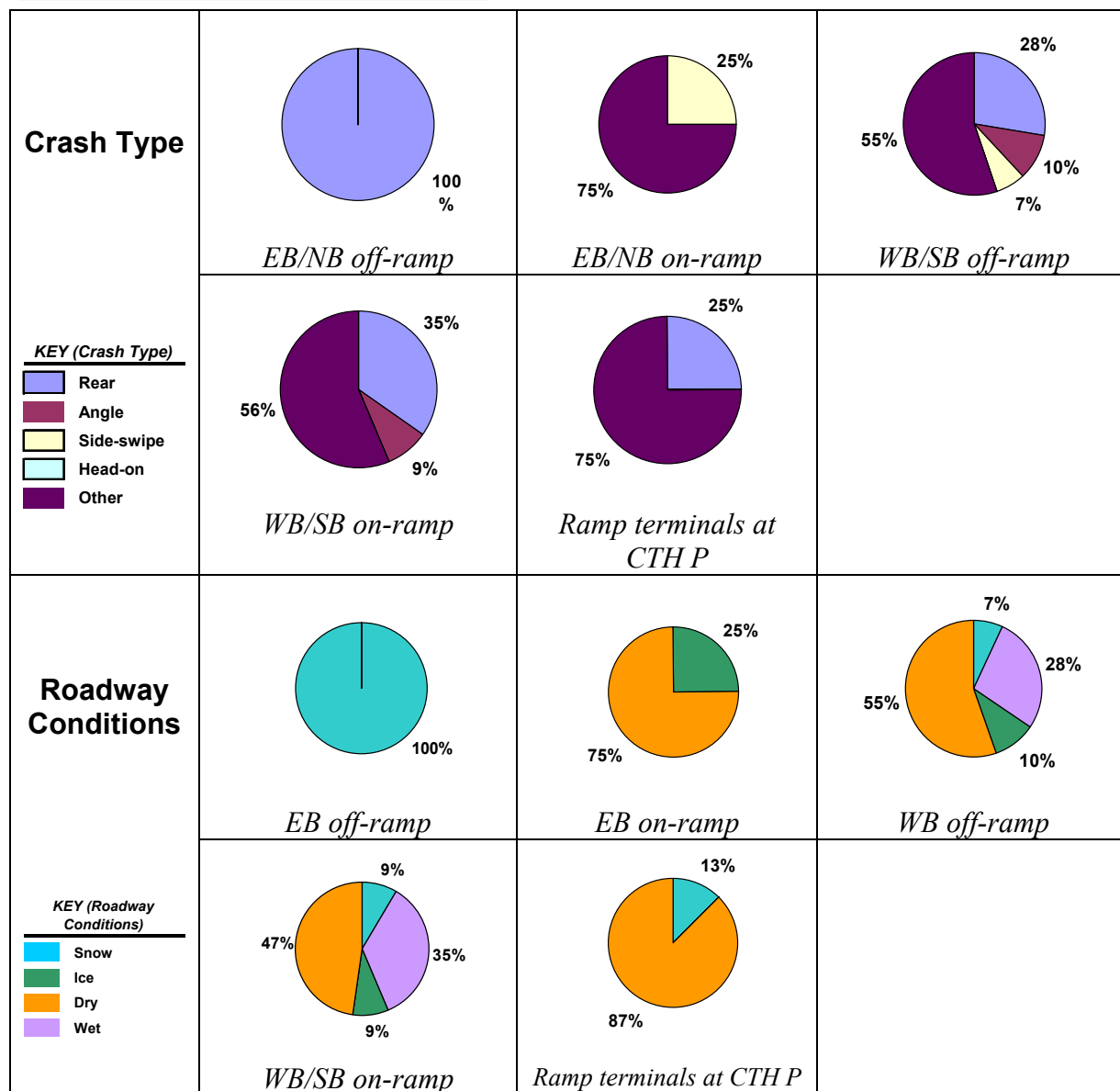
Crash Type	DATA N/A		
	<i>EB off-ramp</i>	<i>EB on-ramp</i>	<i>WB off-ramp</i>
KEY (Crash Type) 	DATA N/A		
	<i>WB on-ramp</i>	<i>EB ramp terminals</i>	<i>WB ramp terminals</i>
Roadway Conditions	DATA N/A		
	<i>EB off-ramp</i>	<i>EB on-ramp</i>	<i>WB off-ramp</i>
KEY (Roadway Conditions) 	DATA N/A		
	<i>WB on-ramp</i>	<i>EB ramp terminals</i>	<i>WB ramp terminals</i>

Interchange Crash Information: US 10 & CTH CB

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
Eastbound off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	7200	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
Eastbound on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	11400	0	0	0	0	0	0	0	0.00	0
	2003	2	0	0	0	0	0	1	1		1	0	0	1	1	1	96	0.50	2
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	1	0	1	0	0	1	1	0		0	0	0	2	0	2	96	0.50	2
	2006	2	0	0	0	1	2	1	0		1	0	0	2	0	3	144	0.33	3
	Totals	5	0	1	0	1	4	3	0		2	0	0	5	1	6	67	0.43	7
Westbound off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	11200	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	4	0	1	0	0	2	3	0		0	1	0	4	0	5	245	0.60	5
	2006	1	0	0	0	0	0	1	0		0	0	0	1	0	1	49	1.00	1
	Totals	5	0	1	0	0	2	4	0		0	1	0	5	0	6	59	0.67	6
Westbound on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	6600	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
EB ramp terminals	2002	0	0	0	0	0	0	0	0	13900	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	1	1	0	0		0	0	0	1	0	1	0	0.00	1
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	1	1	0	0		0	0	0	1	0	1	0	0.00	1
WB ramp terminals	2002	0	0	0	0	0	0	0	0	18400	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	2	0	0	0	0	1	1	0		0	0	0	2	0	2	0	0.50	2
	Totals	2	0	0	0	0	1	1	0		0	0	0	2	0	2	0	0.50	2

18 – WIS 441 and CTH P (Racine Street)

- Majority of crash types were ‘other’ and occurred in dry conditions
- High crash rate for the southbound off-ramp and southbound loop on-ramp
- 43% of crashes at the southbound loop on-ramp occurred at night and 35% occurred on wet pavement



Interchange Crash Information: East-West US 10 / North-South WIS 441 & CTH P (Racine St)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
EB/NB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	32800	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	1	0	0	0	0	1	0	0		1	0	0	0	1	0	17	0.00	1
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	1	0	0	0	0	1	0	0		1	0	0	0	1	0	3	0.00	1
EB/NB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	26200	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	1	0	1		0	0	1	0	1	0	21	1.00	1
	2004	0	0	0	0	1	0	1	0		0	0	0	1	1	0	21	1.00	1
	2005	0	0	1	0	0	1	0	0		0	0	0	1	0	1	21	0.00	1
	2006	0	0	0	0	1	0	1	0		0	0	0	1	0	1	21	1.00	1
	Totals	0	0	1	0	3	1	3	0		0	0	1	3	2	2	17	0.75	4
WB/SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	23200	0	0	0	0	0	0	0	0.00	0
	2003	1	1	0	0	6	2	6	0		0	3	2	3	3	5	189	0.75	8
	2004	5	1	0	0	4	5	5	0		1	2	0	7	2	8	236	0.50	10
	2005	1	0	1	0	2	2	2	0		0	0	0	4	0	4	94	0.50	4
	2006	1	1	1	0	4	4	3	0		1	3	1	2	3	4	165	0.43	7
	Totals	8	3	2	0	16	13	16	0		2	8	3	16	8	21	137	0.55	29
WB/SB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	29100	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	3	1	2	0		1	0	0	2	2	1	56	0.67	3
	2004	2	2	0	0	3	5	2	0		0	3	0	4	2	5	132	0.29	7
	2005	5	0	0	0	4	7	2	0		1	2	2	4	4	5	169	0.22	9
	2006	1	0	0	0	3	2	2	0		0	3	0	1	2	2	75	0.50	4
	Totals	8	2	0	0	13	15	8	0		2	8	2	11	10	13	87	0.35	23
Ramp Terminals at CTH P	2002	0	0	0	0	0	0	0	0	24100	0	0	0	0	0	0	0.00	0.00	0
	2003	0	0	0	0	2	2	0	0		0	0	0	2	0	2	0.23	0.00	2
	2004	1	0	0	0	2	2	1	0		1	0	0	2	0	3	0.34	0.33	3
	2005	1	0	0	0	2	3	0	0		0	0	0	3	0	3	0.34	0.00	3
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	2	0	0	0	6	7	1	0		1	0	0	7	0	8	0.18	0.13	8

19 – WIS 441 and CTH AP (Midway Road)

- Majority of crash types were other and occurred in dry conditions
- High crash rate at the merge on the southbound on-ramp
- High crash severity for the northbound off-ramp

Crash Type KEY (Crash Type) 	<i>NB off-ramp</i>	DATA N/A	DATA N/A
	<i>SB on-ramp</i>	<i>NB ramp terminals</i>	<i>SB ramp terminals</i>
Roadway Conditions KEY (Roadway Conditions) 	<i>NB off-ramp</i>	DATA N/A	DATA N/A
	<i>SB on-ramp</i>	<i>NB ramp terminals</i>	<i>SB ramp terminals</i>

Interchange Crash Information: East-West USH 10 / North-South WIS 441 & CTH AP (Midway Rd.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
NB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	23200	0	0	0	0	0	0	0	0.00	0
	2003	1	0	0	0	3	2	2	0		1	1	0	2	1	3	94	0.50	4
	2004	0	0	1	0	3	3	1	0		1	1	0	2	1	3	94	0.25	4
	2005	2	0	0	0	6	1	7	0		0	2	1	5	3	5	189	0.88	8
	2006	0	0	0	0	2	0	2	0		0	1	0	1	1	1	47	1.00	2
	Totals	3	0	1	0	14	6	12	0		2	5	1	10	6	12	85	0.67	18
NB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	19870	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	19300	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
SB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	22100	0	0	0	0	0	0	0	0.00	0
	2003	0	0	1	0	2	2	1	0		0	1	0	2	0	3	74	0.33	3
	2004	0	1	0	0	5	3	2	1		1	3	1	1	5	1	149	0.50	6
	2005	3	0	0	0	3	4	2	0		1	1	0	4	1	5	149	0.33	6
	2006	2	0	0	0	2	1	3	0		1	0	2	1	1	3	99	0.75	4
	Totals	5	1	1	0	12	10	8	1		3	5	3	8	7	12	94	0.47	19
NB Ramp Terminals	2002	0	0	0	0	0	0	0	0	11000	0	0	0	0	0	0	0.00	0.00	0
	2003	0	0	1	0	0	1	0	0		0	0	0	1	1	0	0.25	0.00	1
	2004	0	0	0	0	1	1	0	0		0	0	0	1	0	1	0.25	0.00	1
	2005	1	1	0	0	0	1	1	0		0	0	0	2	0	2	0.50	0.50	2
	2006	1	0	0	0	0	1	0	0		0	0	0	1	0	1	0.25	0.00	1
	Totals	2	1	1	0	1	4	1	0		0	0	0	5	1	4	0.25	0.20	5
SB Ramp Terminals	2002	0	0	0	0	0	0	0	0	7800	0	0	0	0	0	0	0.00	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2004	0	0	0	0	1	1	0	0		0	0	0	1	0	1	0.35	0.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	Totals	0	0	0	0	1	1	0	0		0	0	0	1	0	1	0.07	0.00	1

20 – WIS 441 and WIS 47 (Appleton Road)

- Low crash rates for this interchange

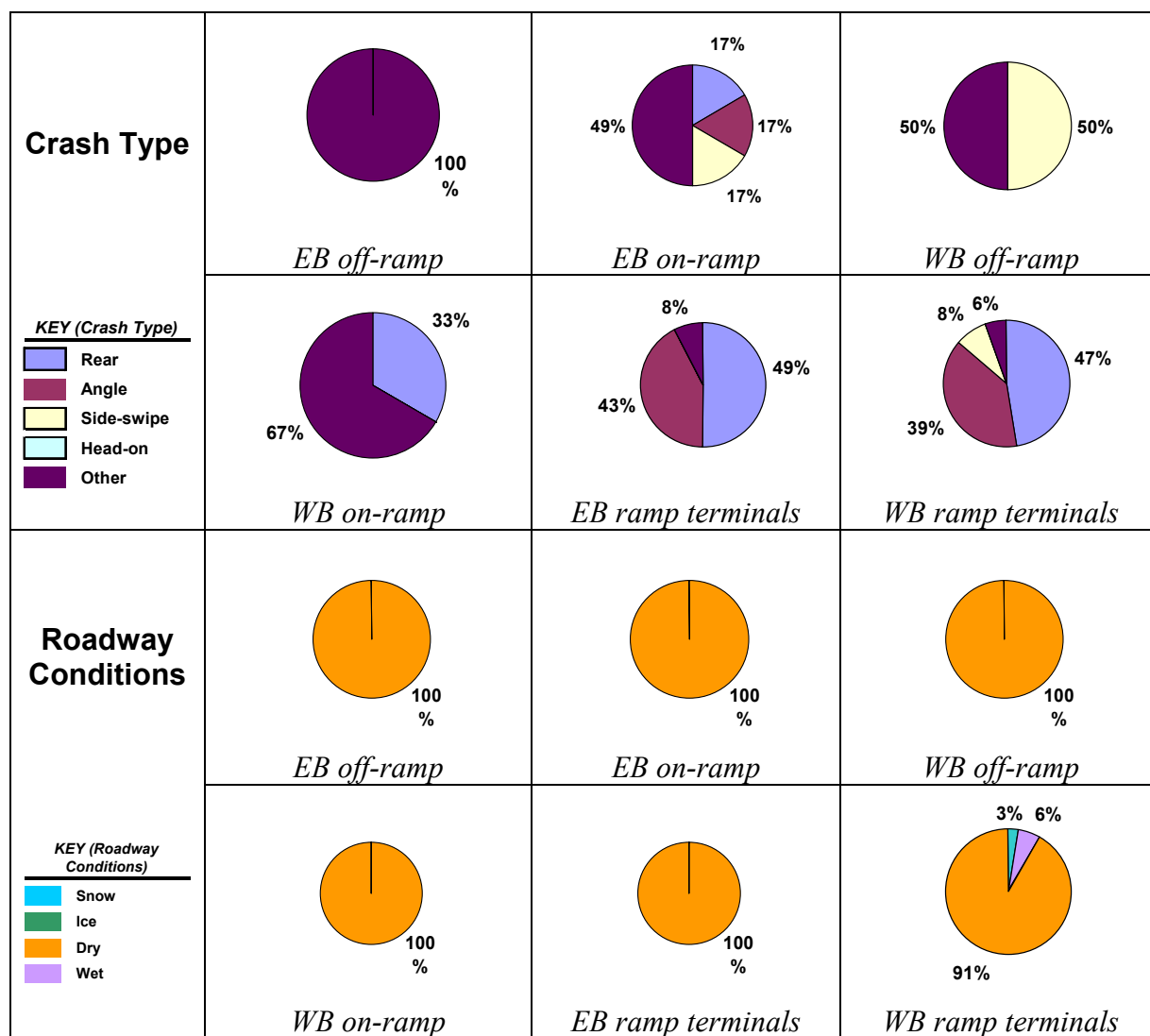
Crash Type	100% <i>EB off-ramp</i>	Data N/A	25% 25% 50% <i>WB off-ramp</i>
	KEY (Crash Type) - Rear - Angle - Side-swipe - Head-on - Other Data N/A <i>WB on-ramp</i>	40% 60% <i>EB ramp terminals</i>	25% 25% 13% 37% <i>WB ramp terminals</i>
	Roadway Conditions 50% 50% <i>EB off-ramp</i>	Data N/A	100% <i>WB off-ramp</i>
	KEY (Roadway Conditions) - Snow - Ice - Dry - Wet Data N/A <i>WB on-ramp</i>	100% <i>EB ramp terminals</i>	100% <i>WB ramp terminals</i>

Interchange Crash Information: East-West USH 10 / North-South WIS 441 & WIS 47 (Appleton Rd.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
EB/NB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	22200	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	1	0	0	0	0	0	1	0		0	1	0	0	1	0	25	1.00	1
	2005	1	0	0	0	0	1	0	0		0	0	1	0	1	0	25	0.00	1
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	2	0	0	0	0	1	1	0		0	1	1	0	2	0	10	0.50	2
EB/NB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	22600	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
WB/SB off-ramp Type: diverge	2002	0	0	0	0	1	0	1	0	22500	0	0	0	1	0	1	24	1.00	1
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	1	0	0	0	0	0	1		0	0	0	1	0	1	24	1.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	2	0	0	2	0	0		0	0	0	2	1	1	49	0.00	2
	Totals	0	1	2	0	1	2	1	1		0	0	0	4	1	3	19	0.50	4
WB/SB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	22900	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
EB/NB ramp terminals	2002	0	1	0	0	0	0	1	0	23300	0	0	0	1	0	1	0.12	1.00	1
	2003	1	1	0	0	0	2	0	0		0	0	0	2	0	2	0.24	0.00	2
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0.00	0.00	0
	2005	0	1	0	0	0	1	0	0		0	0	0	1	0	1	0.12	0.00	1
	2006	1	0	0	0	0	1	0	0		0	0	0	1	0	1	0.12	0.00	1
	Totals	2	3	0	0	0	4	1	0		0	0	0	5	0	5	0.12	0.20	5
WB/SB ramp terminals	2002	1	0	0	0	0	1	0	0	23400	0	0	0	1	0	1	0.12	0.00	1
	2003	0	2	0	0	1	2	1	0		0	0	0	3	0	3	0.35	0.33	3
	2004	0	0	1	0	0	1	0	0		0	0	0	1	0	1	0.12	0.00	1
	2005	1	0	0	0	0	0	1	0		0	0	0	1	0	1	0.12	1.00	1
	2006	1	0	0	0	1	2	0	0		0	0	0	2	0	2	0.23	0.00	2
	Totals	3	2	1	0	2	6	2	0		0	0	0	8	0	8	0.19	0.25	8

21 – WIS 441 and Oneida Street

- Large number of crashes (~ 50% are rear end) at the ramp terminal locations
- Large majority of crashes occurred on dry pavement during the day

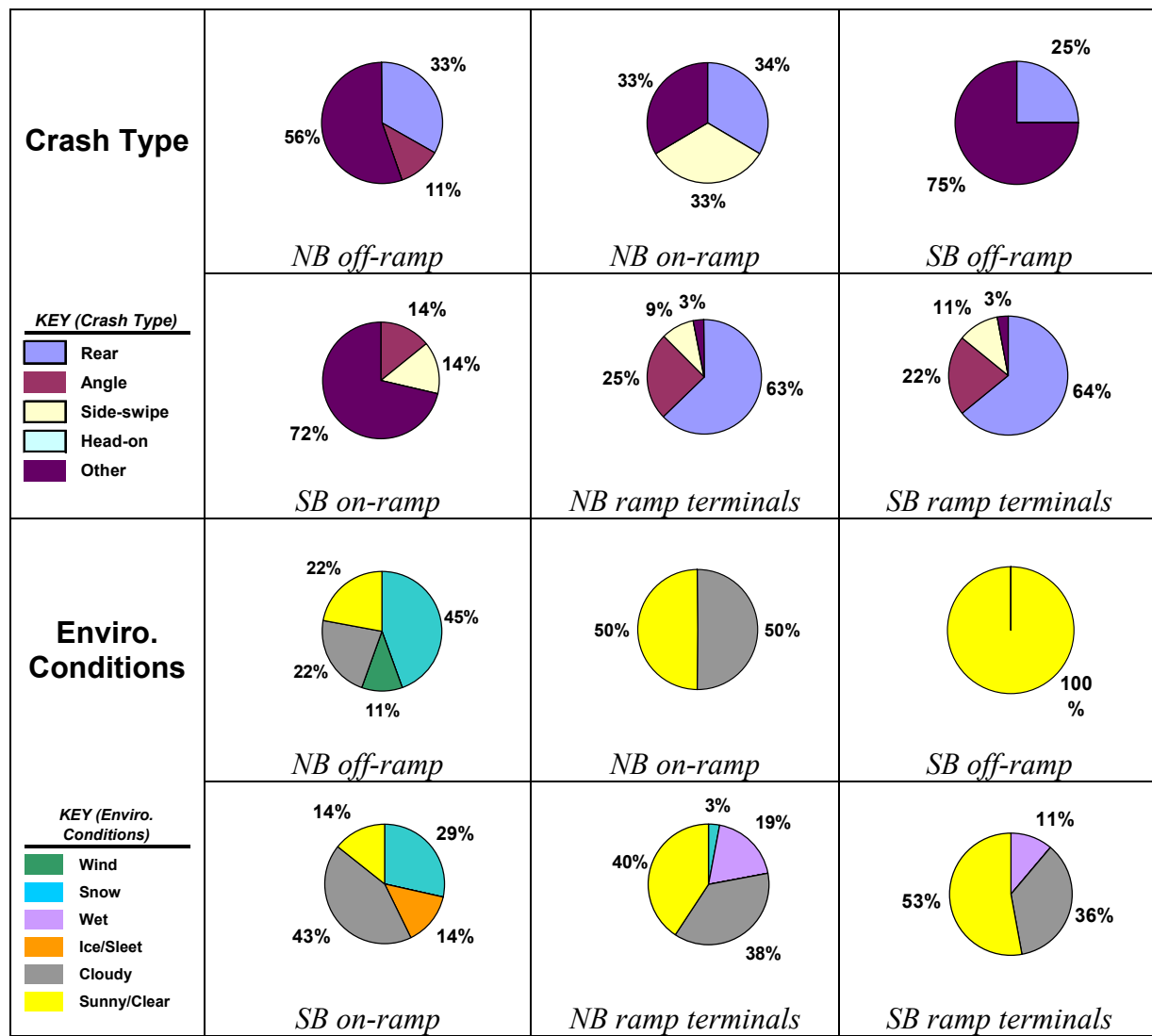


Interchange Crash Information: East-West USH 10 / North-South WIS 441 & Oneida St.

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway Condition				Light Condition		Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Ice	Dry	Dark	Light			
EB/NB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	23800	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	1	1	0	0		0	0	0	1	1	0	23	0.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	0	0	0	0	1	1	0	0		0	0	0	1	1	0	5	0.00	1
EB/NB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	17700	0	0	0	0	0	0	0	0.00	0
	2003	0	1	0	0	0	1	0	0		0	0	0	1	0	1	31	0.00	1
	2004	0	0	0	0	1	1	0	0		0	0	0	1	0	1	31	0.00	1
	2005	0	0	1	0	2	2	1	0		0	0	0	3	0	3	93	0.33	3
	2006	1	0	0	0	0	0	1	0		0	0	0	1	0	1	31	1.00	1
	Totals	1	1	1	0	3	4	2	0		0	0	0	6	0	6	37	0.33	6
WB/SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	16500	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	1	0	0	1	0	0		0	0	0	1	0	1	33	0.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	1	1	0	0		0	0	0	1	0	1	33	0.00	1
	Totals	0	0	1	0	1	2	0	0		0	0	0	2	0	2	13	0.00	2
WB/SB on-ramp Type: merge	2002	0	0	0	0	1	1	0	0	23100	0	0	0	1	0	1	24	0.00	1
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	2	0	0	0	2	1	3	0		0	0	0	4	0	4	95	0.75	4
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	1	0	1	0		0	0	0	1	0	1	24	1.00	1
	Totals	2	0	0	0	4	2	4	0		0	0	0	6	0	6	28	0.67	6
EB/NB ramp terminals	2002	2	2	0	0	1	1	4	0	35100	0	0	0	5	0	5	0.39	0.80	5
	2003	1	4	0	0	0	0	5	0		0	0	0	5	0	5	0.39	1.00	5
	2004	7	4	0	0	1	7	5	0		0	0	0	12	0	12	0.94	0.42	12
	2005	6	5	0	0	0	8	3	0		0	0	0	11	0	11	0.86	0.27	11
	2006	4	2	0	0	1	3	4	0		0	0	0	7	0	7	0.55	0.57	7
	Totals	20	17	0	0	3	19	21	0		0	0	0	40	0	40	0.62	0.53	40
WB/SB ramp terminals	2002	2	2	0	0	0	3	1	0	28700	0	0	0	4	0	4	0.38	0.25	4
	2003	3	4	0	0	1	2	6	0		0	0	0	8	0	8	0.76	0.75	8
	2004	4	4	1	0	1	8	2	0		1	1	0	8	1	9	0.95	0.20	10
	2005	3	4	0	0	0	3	4	0		0	0	0	7	0	7	0.67	0.57	7
	2006	5	0	2	0	0	5	2	0		0	1	0	6	1	6	0.67	0.29	7
	Totals	17	14	3	0	2	21	15	0		1	2	0	33	2	34	0.69	0.42	36

22 – WIS 441 and CTH KK (Calumet Street)

- Large number of crashes (68 total) at the ramp terminal locations
- High severity rate at the northbound ramp terminal and on-ramp merge

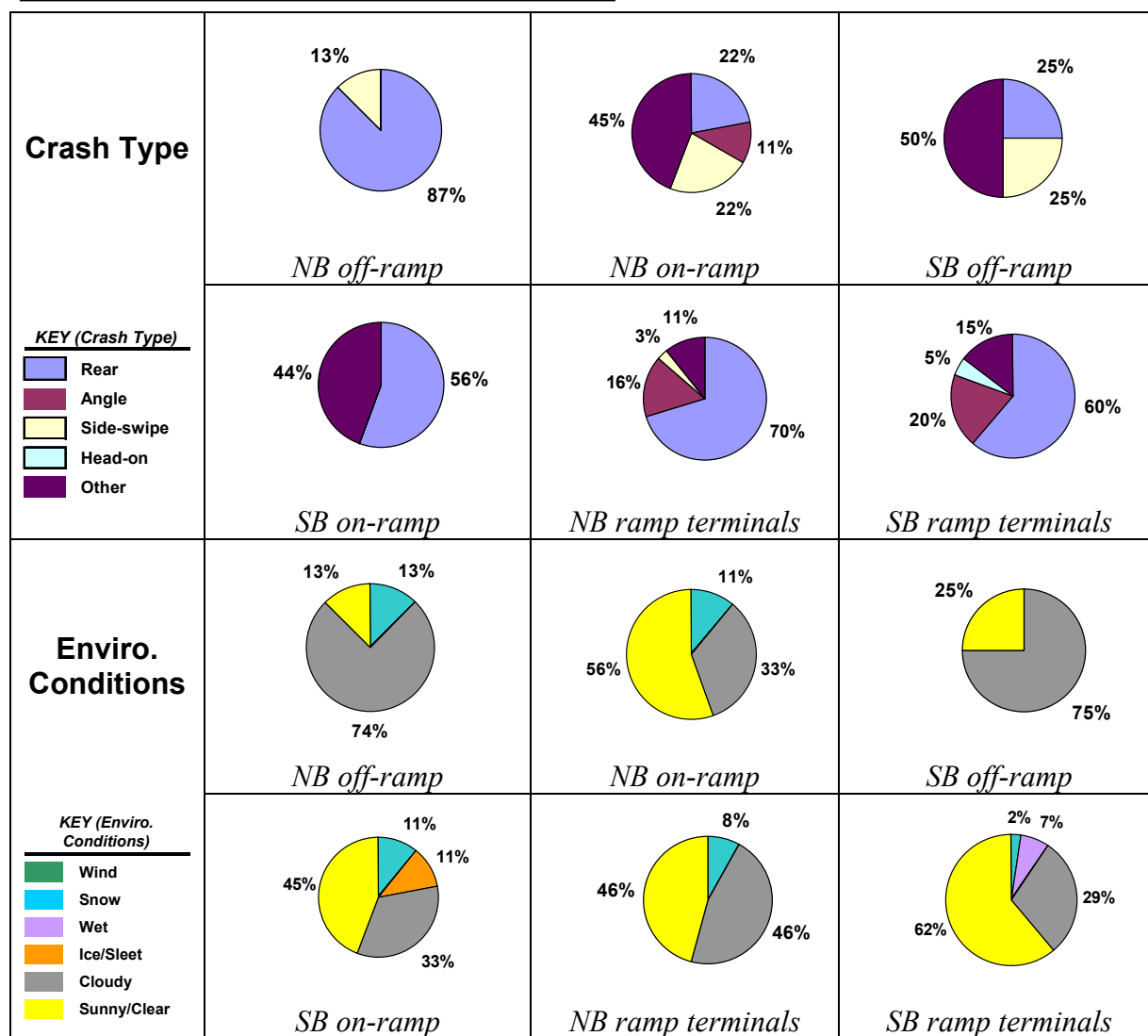


Interchange Crash Information: STH 441 & CTH KK (Calumet St.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway & Light Condition						Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Wind	Ice/Sleet	Cloudy	Sunny			
NB off-ramp Type: diverge	2002	0	0	0	0	2	2	0	0	17700	2	0	0	0	0	0	62	0.00	2
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	2	0	0	0	0	1	1	0		0	0	1	0	1	0	62	0.50	2
	2005	0	1	0	0	3	3	1	0		1	0	0	0	1	2	124	0.25	4
	2006	1	0	0	0	0	1	0	0		1	0	0	0	0	0	31	0.00	1
	Totals	3	1	0	0	5	7	2	0		4	0	1	0	2	2	56	0.22	9
NB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	19900	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	1	0	2	0	1	1	3	0		0	0	0	0	2	2	110	0.75	4
	2005	1	0	0	0	0	0	1	0		0	0	0	0	1	0	28	1.00	1
	2006	0	0	0	0	1	0	1	0		0	0	0	0	0	1	28	1.00	1
	Totals	2	0	2	0	2	1	5	0		0	0	0	0	3	3	33	0.83	6
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	19500	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	1	1	0		0	0	0	0	0	1	28	0.00	1
	2004	1	0	0	0	1	2	0	0		0	0	0	0	0	2	56	0.00	2
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	0	0	0	1	1	0	0		0	0	0	0	0	1	28	0.00	1
	Totals	1	0	0	0	3	4	0	0		0	0	0	0	0	4	22	0.00	4
SB on-ramp Type: merge	2002	0	0	0	0	0	0	0	0	17600	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	1	0	1	0		0	0	0	1	0	0	31	1.00	1
	2004	0	0	0	0	2	1	1	0		0	0	0	0	1	1	62	0.50	2
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	0	1	1	0	2	4	0	0		2	0	0	0	2	0	125	0.00	4
	Totals	0	1	1	0	5	5	2	0		2	0	0	1	3	1	44	0.29	7
NB Ramp Terminals	2002	2	1	1	0	0	3	1	0	31500	0	1	0	0	2	1	0.35	0.25	4
	2003	4	2	0	0	0	2	4	0		0	1	0	0	1	4	0.52	0.67	6
	2004	1	1	0	0	1	2	1	0		0	1	0	0	1	1	0.26	0.33	3
	2005	7	0	0	0	0	2	5	0		0	1	0	0	4	2	0.61	0.71	7
	2006	6	4	2	0	0	6	6	0		1	2	0	0	4	5	1.04	0.50	12
	Totals	20	8	3	0	1	15	17	0		1	6	0	0	12	13	0.56	0.53	32
SB Ramp Terminals	2002	3	1	0	0	0	4	0	0	33100	0	0	0	0	0	4	0.33	0.00	4
	2003	2	2	0	0	0	2	2	0		0	0	0	0	1	3	0.33	0.50	4
	2004	2	1	1	0	0	2	2	0		0	1	0	0	2	1	0.33	0.50	4
	2005	7	2	1	0	1	6	5	0		0	2	0	0	3	6	0.91	0.45	11
	2006	9	2	2	0	0	7	6	0		0	1	0	0	7	5	1.08	0.46	13
	Totals	23	8	4	0	1	21	15	0		0	4	0	0	13	19	0.60	0.42	36

23 – WIS 441 and CTH CE (College Avenue)

- 78 total crashes in five years at the northbound and southbound ramp terminals
- Only 10% of crashes involved poor roadway conditions

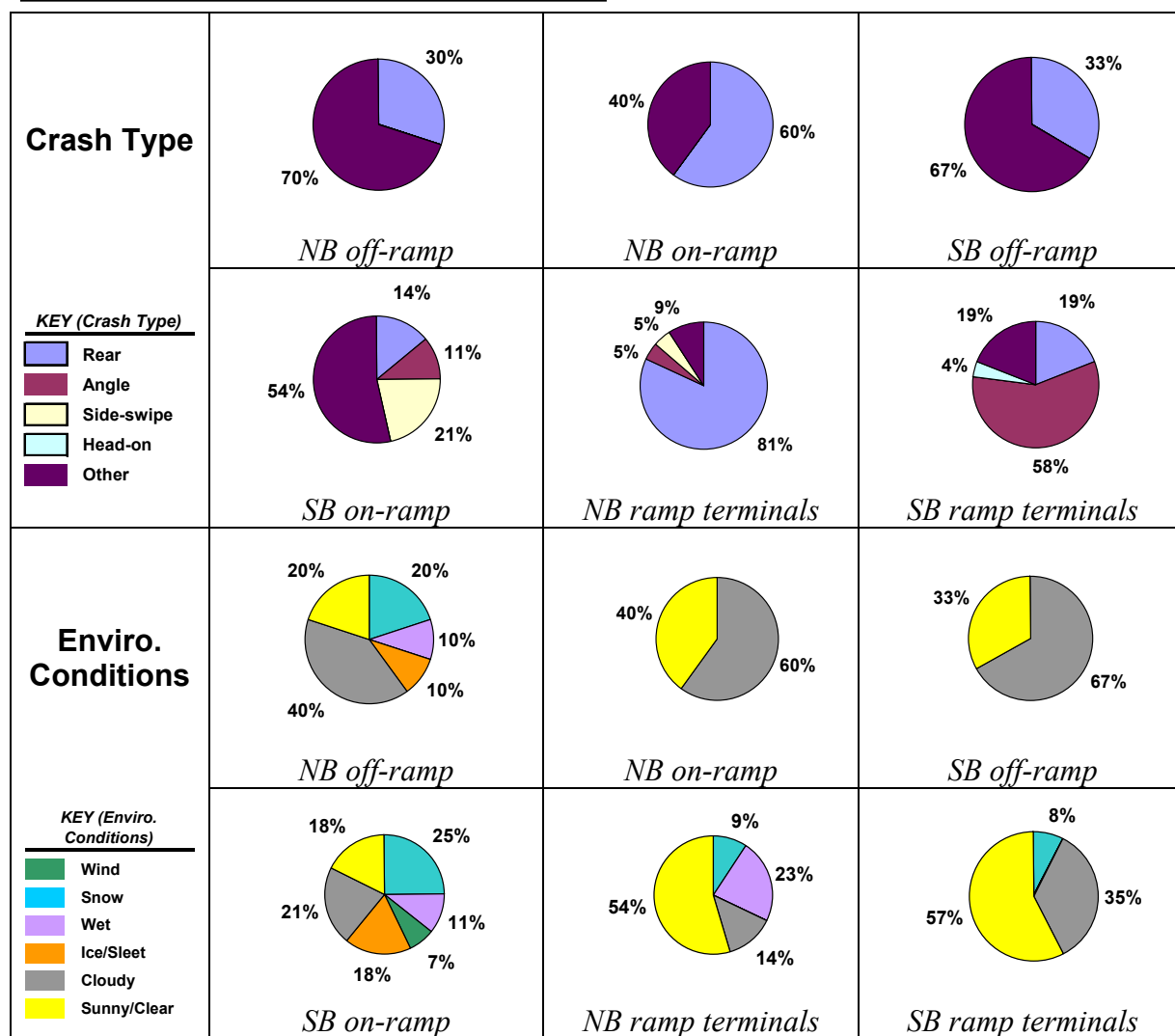


Interchange Crash Information: STH 441 & CTH CE (College Ave.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway & Light Condition						Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Wind	Ice	Cloudy	Sunny			
NB off-ramp Type: diverge	2002	4	0	0	0	0	2	2	0	21300	0	0	0	0	3	1	103	0.50	4
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	1	0	0	0	0	1	0	0		0	0	0	0	1	0	26	0.00	1
	2006	2	0	1	0	0	3	0	0		1	0	0	0	2	0	77	0.00	3
	Totals	7	0	1	0	0	6	2	0		1	0	0	0	6	1	41	0.25	8
NB on-ramp Type: merge	2002	2	0	1	0	1	3	1	0	24400	0	0	0	0	1	3	90	0.25	4
	2003	0	1	0	0	1	1	1	0		1	0	0	0	0	1	45	0.50	2
	2004	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2005	0	0	0	0	1	1	0	0		0	0	0	0	1	0	22	0.00	1
	2006	0	0	1	0	1	0	2	0		0	0	0	0	1	1	45	1.00	2
	Totals	2	1	2	0	4	5	4	0		1	0	0	0	3	5	40	0.44	9
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	20800	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	1	0	1	1	1	0		0	0	0	0	2	0	53	0.50	2
	2005	1	0	0	0	1	2	0	0		0	0	0	0	1	1	53	0.00	2
	2006	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	Totals	1	0	1	0	2	3	1	0		0	0	0	0	3	1	21	0.25	4
SB on-ramp Type: merge	2002	1	0	0	0	1	0	2	0	18400	0	0	0	0	1	1	60	1.00	2
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	1	0	0	0	1	1	1	0		0	0	0	0	2	0	60	0.50	2
	2005	1	0	0	0	2	2	1	0		0	0	0	1	0	2	89	0.33	3
	2006	2	0	0	0	0	2	0	0		1	0	0	0	0	1	60	0.00	2
	Totals	5	0	0	0	4	5	4	0		1	0	0	1	3	4	54	0.44	9
NB Ramp Terminals	2002	3	2	0	0	0	5	0	0	33800	0	0	0	0	3	2	0.41	0.00	5
	2003	5	2	0	0	1	4	4	0		0	0	0	0	2	6	0.65	0.50	8
	2004	5	0	0	0	1	5	1	0		1	0	0	0	4	1	0.49	0.17	6
	2005	10	1	1	0	1	9	4	0		1	0	0	0	8	4	1.05	0.31	13
	2006	3	1	0	0	1	3	2	0		1	0	0	0	0	4	0.41	0.40	5
	Totals	26	6	1	0	4	26	11	0		3	0	0	0	17	17	0.60	0.30	37
SB Ramp Terminals	2002	1	2	0	0	0	1	2	0	37000	0	0	0	0	0	3	0.22	0.67	3
	2003	5	1	0	1	0	5	2	0		0	0	0	0	0	7	0.52	0.29	7
	2004	5	2	0	1	1	7	2	0		1	3	0	0	4	1	0.67	0.22	9
	2005	7	1	0	0	2	5	5	0		0	0	0	0	4	6	0.74	0.50	10
	2006	7	2	0	0	3	3	9	0		0	0	0	0	4	8	0.89	0.75	12
	Totals	25	8	0	2	6	21	20	0		1	3	0	0	12	25	0.61	0.49	41

24 – WIS 441 and CTH OO (Northland Avenue)

- High average annual crash rate on the southbound on-ramp
- 58% of crashes at the southbound ramp terminal were 'angle crashes'
- The crash severity is high for the northbound on-ramp and the southbound off-ramp



Interchange Crash Information: STH 441 & CTH 00 (Northland Ave.)

Location	Year	Crash Type					Crash Severity			Entering Traffic AADT	Roadway & Light Condition						Average Annual Crash Rate	Crash Severity	Total Crashes
		Rear	Angle	Side-swipe	Head-on	Other	PDO	Injury	Fatal		Snow	Wet	Wind	Ice/Sleet	Cloudy	Sunny			
NB off-ramp Type: diverge	2002	0	0	0	0	2	2	0	0	21700	0	1	0	1	0	0	51	0.00	2
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	2	0	0	0	2	2	2	0		1	0	0	0	3	0	101	0.50	4
	2005	0	0	0	0	1	1	0	0		0	0	0	0	0	1	25	0.00	1
	2006	1	0	0	0	2	1	2	0		1	0	0	0	1	1	76	0.67	3
	Totals	3	0	0	0	7	6	4	0		2	1	0	1	4	2	51	0.40	10
NB on-ramp Type: merge	2002	1	0	0	0	0	0	1	0	23600	0	0	0	0	0	1	23	1.00	1
	2003	0	0	0	0	1	0	1	0		0	0	0	0	1	0	23	1.00	1
	2004	0	0	0	0	1	1	0	0		0	0	0	0	1	0	23	0.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	2	0	0	0	0	0	2	0		0	0	0	0	1	1	46	1.00	2
	Totals	3	0	0	0	2	1	4	0		0	0	0	0	3	2	23	0.80	5
SB off-ramp Type: diverge	2002	0	0	0	0	0	0	0	0	13100	0	0	0	0	0	0	0	0.00	0
	2003	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2004	0	0	0	0	1	0	1	0		0	0	0	0	0	1	42	1.00	1
	2005	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0.00	0
	2006	1	0	0	0	1	0	2	0		0	0	0	0	2	0	84	1.00	2
	Totals	1	0	0	0	2	0	3	0		0	0	0	0	2	1	25	1.00	3
SB on-ramp Type: merge	2002	1	1	0	0	3	3	2	0	24000	1	0	1	1	2	0	114	0.40	5
	2003	0	1	2	0	3	3	3	0		1	2	0	1	1	1	137	0.50	6
	2004	0	1	2	0	6	6	3	0		4	1	1	1	1	1	205	0.33	9
	2005	1	0	2	0	3	5	1	0		1	0	0	2	2	1	137	0.17	6
	2006	2	0	0	0	0	0	2	0		0	0	0	0	0	2	46	0.00	2
	Totals	4	3	6	0	15	19	9	0		7	3	2	5	6	5	128	0.32	28
NB Ramp Terminals	2002	5	0	0	0	1	5	1	0	37800	0	2	0	0	1	3	0.43	0.17	6
	2003	4	0	0	0	0	2	2	0		0	1	0	0	0	3	0.29	0.50	4
	2004	4	1	0	0	0	4	1	0		0	0	0	0	0	5	0.36	0.20	5
	2005	3	0	0	0	0	3	0	0		1	1	0	0	1	0	0.22	0.00	3
	2006	2	0	1	0	1	2	2	0		1	1	0	0	1	1	0.29	0.50	4
	Totals	18	1	1	0	2	16	6	0		2	5	0	0	3	12	0.32	0.27	22
SB Ramp Terminals	2002	0	1	0	0	0	0	1	0	28100	0	0	0	0	1	0	0.10	1.00	1
	2003	1	0	0	0	0	1	0	0		0	0	0	0	0	1	0.10	0.00	1
	2004	1	4	0	0	2	5	2	0		1	0	0	0	2	4	0.68	0.29	7
	2005	2	4	0	0	1	4	3	0		0	0	0	0	3	4	0.68	0.43	7
	2006	1	6	0	1	2	8	2	0		1	0	0	0	3	6	0.97	0.20	10
	Totals	5	15	0	1	5	18	8	0		2	0	0	0	9	15	0.51	0.31	26