

APPENDIX H – LEVEL OF SERVICE

Level of Service

This report section presents the result of the Level of Service (LOS) analysis for the project corridor. LOS is defined by the Highway Capacity Manual as being a scale of A through F based on average vehicle control delay. The report team separated the project corridors into categories based on their distinguishing features such as mainline segments, merging/diverging location, and ramp terminals. WisDOT provided the criteria presented in Appendix F (Geometric Deficiency) by which the report team analyzed the LOS.

A LOS rating of “A”, “B” or “C” indicates that congestion on the roadway is reasonable and the existing conditions meet the desirable criteria. At LOS “C”, most experienced drivers are comfortable, roads remain safely below but efficiently close to the facility capacity, and posted speed is sustained. A LOS rating of “D,” moderate congestion, indicates that the existing conditions do not meet the desirable criteria, but they are still above the minimum standards. LOS of “E” or “F” indicates that the existing conditions are below the minimum standards and improvements are needed. LOS “E” and “F” are associated with severe and extreme congestion, respectively.

The team analyzed the existing conditions using two software programs: Highway Capacity Software (HCS) for all free flowing movements within the corridor; and Synchro for all intersections (ramp terminals and crossroads), both signalized and un-signalized.

The quantifiable results for each study segment obtained from HCS and Synchro were compared to the geometric deficiency criteria presented in **Exhibit F** and rated according to the LOS rating system. The color-coded results presented in **Exhibits H-1** through **H-4** provide a clear representation of the existing problem areas within the project corridor that require further improvement consideration. A total of three analysis years were tested to determine no-build conditions for the future traffic conditions on US 41 and WIS 441. Using existing balanced traffic volumes, a forecasting method was used to calculate estimated volumes for year 2020 and 2035.

Peak-Hour Factor and Truck Percentage

The analysis of level of service is based on peak rates of flow occurring within the peak hour because short-term fluctuations typically occur during a given hour. During the morning and afternoon peak hour, these fluctuations can become more common and at times more severe. To effectively quantify how much the traffic changes within a given period, a peak hour factor (PHF) is calculated using:

$$PHF = \frac{V}{4 * V_{15}}$$

Where: V = peak-hour volume (vehicles per hour)

V_{15} = volume during the peak 15 minutes of flow (vehicles per 15 minutes)

Peak-hour factors in urban areas generally range between 0.80 and 0.98. Lower values signify greater variability of flow within the peak hour, and higher values signify little flow variation. Peak-hour factors over 0.95 are often indicative of high traffic volumes, sometimes with capacity limitations on flow during the peak hour.

Truck percentages were used due to their large effect on the overall workability of the freeway. Trucks take up more physical space and do not accelerate, brake, or maneuver as well as passenger vehicles, and their presence tends to make traveling through a given roadway system more difficult. Truck traffic within the corridor increases congestion and directly effects the LOS.

Exhibits H-5 through H-7 present the PHF and truck percentages for the US 41 and WIS 441 freeway corridor as well as the ramp terminals and cross streets at their respective interchanges.

Exhibits H-8 and H-9 show level of service maps for the years 2020 and 2035 for all roadway segments within the US 41/WIS 441 study area. Similar data for existing roadway segments is located in **Exhibit 3** of the report.

Exhibit H-1

Freeway LOS and Density
WIS 441

Facility	Direction	Segment (from)	Segment (to)	AM Peak						PM Peak					
				Existing		2020 (no build)		2035 (no build)		Existing		2020 (no build)		2035 (no build)	
				LOS	Density *	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
US 10	EB	CTH CB on-ramp	US 41 (south interchange)	A	7.4	A	7.9	A	9.1	A	8.4	B	13.3	B	14.9
WIS 441	NB	US 41 (south interchange)	CTH P (Racine Road)	C	22.2	C	22.7	C	24.4	D	33.3	E	43.2	F	> 45
		CTH P (Racine Road)	CTH Ap (Midway Road)	C	18.3	C	19.4	C	19.8	D	28.2	D	34.4	E	38.1
		CTH Ap (Midway Road)	WIS 47 (Appleton Road)	B	15.3	B	16.2	C	18.3	D	26.1	D	28.7	D	33.8
		WIS 47 (Appleton Road)	Oneida (US 10)	B	11.3	B	12.4	B	17.2	D	27.9	D	31.3	E	36.3
		Oneida (US 10)	CTH KK (Calumet Street)	A	8.7	A	9.7	A	10.9	C	18.7	C	21.3	C	23.8
		CTH KK (Calumet Street)	CTH CE (College Avenue)	B	14.0	B	15.9	B	17.9	B	16.3	C	19.6	C	23.6
		CTH CE (College Avenue)	CTH OO (Northland Avenue)	C	19.0	C	23.9	D	27.7	B	13.9	B	17.5	C	18.9
		CTH OO (Northland Avenue)	US 41 (north interchange)	B	14.6	B	17.2	C	19.4	A	10.5	B	12.8	B	15
WIS 441	SB	US 41 (north interchange)	CTH OO (Northland Avenue)	A	10.0	B	15.6	B	17.5	B	14.0	B	17.8	C	19.8
		CTH OO (Northland Avenue)	CTH CE (College Avenue)	B	13.2	C	18.3	C	19.9	C	19.7	C	24.2	D	29
		CTH CE (College Avenue)	CTH KK (Calumet Street)	B	12.7	B	17.8	C	19.4	B	14.5	B	17.9	C	22.1
		CTH KK (Calumet Street)	Oneida (US 10)	B	15.8	C	21.2	C	22.3	A	9.9	A	10.4	B	13.8
		Oneida (US 10)	WIS 47 (Appleton Road)	C	20.8	C	25.8	D	33.2	B	14.3	B	17.6	C	22.6
		WIS 47 (Appleton Road)	CTH Ap (Midway Road)	C	22.8	D	29.7	D	33.1	B	15.5	B	16.5	C	21.4
		CTH Ap (Midway Road)	CTH P (Racine Road)	C	25.0	D	32.3	E	36.3	C	18.5	C	20	C	24.7
		CTH P (Racine Road)	US 41 (south interchange)	D	30.9	E	41.3	F	> 45	C	22.3	C	23.9	D	28.3
US 10	WB	US 41 (south interchange)	CTH CB off-ramp	A	9.5	B	16.8	C	20.9	A	7.9	A	10.1	B	12

* Units: Passenger cars per lane per mile
Key: Yellow: LOS D Orange: LOS E Red: LOS F



Exhibit H-1 Continued

Freeway LOS and Density
US 41

Facility	Direction	Segment (from)	Segment (to)	AM Peak						PM Peak					
				Existing		2020		2035		Existing		2020		2035	
				LOS	Density*	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
US 41	NB	Breezewood Lane	WIS 114 (Winneconne Ave)	B	16.3	C	18	C	20	B	17.4	C	22.7	D	30.4
		WIS 114 (Winneconne Ave)	Oakridge Rd (Main St)	C	19.5	C	20.7	C	22.2	C	20.6	C	25.8	D	33.3
		Oakridge Rd (Main St)	CTH II (Winchester Rd)	C	18.7	C	19.7	C	21.4	C	20.0	C	25.1	D	32
		CTH II (Winchester Rd)	WIS 441 / US10	C	19.5	B	15.1	B	17	C	23.7	C	21.3	C	25.7
		WIS 441 / US10	CTH BB (Prospect Ave)	C	19.2	C	20.7	C	22.7	C	21.0	C	25.2	E	35.9
		CTH BB (Prospect Ave)	WIS 125 (College Ave)	C	20.6	C	22.1	C	24.5	C	22.8	D	29.5	E	43.5
		WIS 125 (College Ave)	WIS 96 (Wisconsin Ave)	B	16.3	B	18	C	20.9	C	20.8	D	26.8	E	37.6
		WIS 96 (Wisconsin Ave)	WIS 15 (Northland Ave)	B	13.9	B	15.8	B	17.9	C	19.8	C	26	E	38
		WIS 15 (Northland Ave)	WIS 47 (Richmond St)	C	19.3	C	22.3	D	26.6	D	28.6	E	40.3	F	> 45
		WIS 47 (Richmond St)	CTH E (Ballard Rd)	C	22.2	C	24.2	D	27	D	27.9	E	35.2	F	> 45
		CTH E (Ballard Rd)	WIS 441	C	19.6	C	23.2	D	26.3	D	28.6	E	35.9	F	> 45
		WIS 441	CTH N (Freedom Rd)	C	19.8	C	21.9	C	23	C	24.5	D	27.8	E	37.9
		CTH N (Freedom Rd)	WIS 55 (Delanglade St)	C	19.4	C	21.3	C	23.1	C	21.2	D	27.5	E	39.8
		WIS 55 (Delanglade St)	CTH J	B	17.6	C	19.1	C	20.1	C	18.7	C	22.6	D	31.7
US 41	SB	CTH J	CTH U (County Line Rd)	C	18.1	C	20	C	20.5	B	17.7	C	22.5	D	32.8
		CTH U (County Line Rd)	CTH J	C	18.2	D	29	E	38.6	B	17.9	C	22.1	D	31
		CTH J	WIS 55 (Delanglade St)	C	18.4	D	28.1	E	35.5	B	17.9	C	21.5	D	29.1
		WIS 55 (Delanglade St)	CTH N (Freedom Rd)	C	19.3	C	25.5	D	29.9	C	19.7	C	23.4	D	30.8
		CTH N (Freedom Rd)	WIS 441	C	20	C	25.7	D	30.2	C	20.4	C	23	D	29.4
		WIS 441	CTH E (Ballard Rd)	C	25.5	D	33.6	E	43.3	C	20.4	C	24.5	D	27.1
		CTH E (Ballard Rd)	WIS 47 (Richmond St)	C	24.2	D	28.6	D	34.7	C	22.5	C	25.7	D	27.5
		WIS 47 (Richmond St)	WIS 15 (Northland Ave)	D	29.7	E	37.8	E	39.8	C	21.5	C	25	D	28.7
		WIS 15 (Northland Ave)	WIS 96 (Wisconsin Ave)	B	17.7	C	22.6	C	25.9	B	13.7	B	16	C	18.8
		WIS 96 (Wisconsin Ave)	WIS 125 (College Ave)	B	17.2	C	22.6	C	23.1	B	13.2	B	15.8	C	21.2
		WIS 125 (College Ave)	CTH BB (Prospect Ave)	B	17.3	C	23.2	C	24.5	C	18.1	C	21	D	26.6
		CTH BB (Prospect Ave)	WIS 441 / US10	C	18	C	23.5	C	25.3	C	21.1	C	23.9	D	29.6
		WIS 441 / US10	CTH II (Winchester Rd.)	B	17.8	C	21.8	C	21.8	B	15.3	B	16.9	C	19.4
		CTH II (Winchester Rd.)	Oakridge Rd (Main St.)	C	21.5	D	26.9	D	27.5	C	20.3	C	22.6	D	26.5
		Oakridge Rd (Main St.)	WIS 114 (Winneconne Ave.)	C	19.8	C	25	C	25.6	C	18.7	C	20.7	C	25.3
		WIS 114 (Winneconne Ave.)	Breezewood Lane	B	17.6	C	23.5	C	25.2	B	16.5	C	19.5	C	24.1

* Units: Passenger cars per lane per mile
Key: Yellow: LOS D Orange: LOS E Red: LOS F



Exhibit H-2

Ramp Merge/Diverge LOS and Density
WIS 441

Facility	Direction	Interchange	Type	AM Peak						PM Peak					
				Existing		2020		2035		Existing		2020		2035	
				LOS	Density *	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
US 10	EB	US 41 SB	Merge	C	24.7	C	25.7	C	27.6	F	40.6	F	47.4	F	53.4
WIS 441	NB	US41NB	Merge	D	28.3	D	29.9	D	32.3	F	38.8	F	44.4	F	51.9
		RACINE-CTHP	Diverge	C	23	C	23.6	C	25.2	D	33.7	F	39.6	F	45.4
			Merge	C	20	-	-	-	-	D	28.4	-	-	-	-
		MIDWAY-CTHAP	Diverge	B	16.2	-	-	-	-	C	26	-	-	-	-
			Merge	B	15.9	B	17.2	B	19.2	C	25.8	D	28.6	D	33.6
		APPLETON-WIS47	Diverge	B	17.9	B	18.8	C	20.9	D	28.5	D	31.1	E	35.8
			Merge	B	15.7	B	17.6	B	19.7	D	30.2	D	33.6	F	38.1
		ONEIDA-US10	Diverge	B	16.4	B	17.7	B	19.6	D	30.1	D	33.4	E	37.4
			Merge	B	13.9	B	15.3	B	17	C	24	C	26.7	D	30
		CALUMET-CTHKK	Diverge	B	10.1	B	11.2	B	10.1	C	21.5	C	24.5	C	27.2
			Merge	C	24.4	D	29	D	31.4	C	23	D	29	D	34.6
		COLLEGE-CTHCE	Diverge	B	19.7	C	22	C	24.4	C	21.8	C	25.7	D	30.3
			Merge	D	30.3	F	38.6	F	43.2	C	21.4	C	26.2	D	29.5
		NORTHLAND-CTHOO	Diverge	C	25.7	D	31.2	D	34.8	B	19.1	C	23.2	C	24.9
			Merge	B	18.2	-	-	-	-	B	13.5	-	-	-	-
		US41NB	Diverge	C	20.2	-	-	-	-	B	15	-	-	-	-
		WIS 441	SB	US41SB	Merge	A	8.3	B	11.5	B	14.1	A	3	A	5.8
US41SB	Merge			A	10	B	18.9	C	21.8	B	16.4	C	22.5	C	22.5
US41NB	Merge			B	17.2	C	24.8	C	27.4	C	24.3	D	30	D	32.6
NORTHLAND-CTHOO	Diverge			B	13.9	C	20	C	22.2	B	19	C	23.4	C	25.7
	Merge			B	18.8	C	26.4	D	28.5	D	28.3	D	34.7	F	40.1
COLLEGE-CTHCE	Diverge			B	17.4	C	22.9	C	24.7	C	25.5	D	30.6	E	35
	Merge			B	18.5	C	24.9	C	27.2	B	19.8	C	23.9	D	28.3
CALUMET-CTHKK	Diverge			B	14	B	19.6	C	21.3	B	16.7	C	20.6	C	25.5
	Merge			C	22.7	D	30.9	D	32.5	B	14.8	B	15.7	C	20.1
ONEIDA-US10	Diverge			C	20.2	C	26.1	C	27.4	B	14.2	B	14.8	B	18.7
	Merge			D	29.4	E	35.1	F	41.6	B	19.2	C	22.7	C	27.9
APPLETON-WIS47	Diverge			C	25.5	D	31	E	36.6	B	16.7	B	20	C	24.8
	Merge			C	23.8	D	31.2	D	34.6	B	18.8	C	20.1	C	25
MIDWAY-CTHAP	Diverge			C	21.8	D	28.3	D	31.5	B	15.4	B	16.4	C	21.2
	Merge			C	25.8	-	-	-	-	C	21.7	-	-	-	-
RACINE-CTHP	Diverge			C	26.6	-	-	-	-	C	21.1	-	-	-	-
	Merge			E	35.6	F	45.4	F	45.8	C	27.6	D	28.5	D	33.1
US 10	WB	US41NB	Diverge	D	31.3	E	39.1	F	43	C	24	C	25.5	D	29.8
		US41SB	Diverge	D	30.7	B	17.1	F	42.5	C	23.5	C	25	D	29.3
		CTHCB	Diverge	B	10.2	E	38.6	C	21.1	A	9.4	B	11.7	B	13.9
				B	11.8	B	18.7	C	22.5	B	10.5	B	12.7	B	14.6

* Units: Passenger cars per lane per mile
Key: Yellow: LOS D Orange: LOS E Red: LOS F



Exhibit H-2 Continued

Ramp Merge/Diverge LOS and Density
US 41 NB Ramps

Facility	Direction	Interchange	Type	AM Peak						PM Peak					
				Existing		2020		2035		Existing		2020		2035	
				LOS	Density *	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
US 41	NB	WIS 114 (Winneconne Ave)	Diverge	B	17.7	C	20.3	C	23	B	19.4	C	25.5	D	32.3
		CTH II (Winchester Rd)	Diverge	C	24.6	C	25.9	C	27.7	C	25.6	D	30.5	D	34.8
			Merge	B	13	-	-	-	-	C	20.3	-	-	-	-
		WIS 441/ US 10	Diverge	C	25.1	-	-	-	-	D	30.7	-	-	-	-
			Merge	C	26.9	D	28.6	D	31	C	25.9	D	30.3	F	37.2
		CTH BB (Prospect Ave)	Diverge	B	18.7	C	20.3	C	22.1	C	20.1	C	23.8	D	29.6
			Merge	C	26.2	D	29.2	D	32.3	D	28.5	F	37.5	F	45.2
		WIS 125 (College Ave)	Diverge	C	26.2	D	28.7	D	31.5	D	28.1	E	35.3	F	41.2
			Merge	C	24.2	-	-	-	-	E	35.4	-	-	-	-
		WIS 96 (Wisconsin Ave)	Diverge	C	23.7	-	-	-	-	E	35.7	-	-	-	-
			Merge	B	17.6	C	20.4	C	23.5	C	25.2	D	34.7	F	45.7
		WIS 15 (Northland Ave)	Merge	C	25.4	D	30.1	D	34.9	D	34.7	F	43.5	F	48.4
		WIS 47 (Richmond St)	Diverge	C	23.2	C	26.7	D	31.1	D	32.6	F	39.8	F	44
			Merge	D	32	E	35.2	E	38	E	35.5	F	40.7	F	46.2
		CTH E (Ballard Rd)	Diverge	C	27.2	D	29.4	D	32.2	D	32.7	E	37.9	F	42.8
			Merge	C	27	-	-	-	-	E	36.7	-	-	-	-
		To SB WIS 441	Diverge	C	25.3	-	-	-	-	D	34.4	-	-	-	-
		From NB WIS 441	Merge	D	28.2	D	30.8	D	32.8	D	31.5	E	35.5	F	43.2
		CTH N (Freedom Rd)	Diverge	C	24	C	26.3	C	27.6	D	28.9	D	32.1	E	38.9
			Merge	C	25.8	C	27.9	D	30.4	C	26.3	D	34.2	F	43.3
		WIS 55 (Delanglade St)	Diverge	C	22.6	C	24.8	C	26.8	C	24.3	D	30.9	F	38.9
			Merge	C	22.1	C	24.8	C	26.1	C	22.9	C	27.5	E	35.7
		CTH J	Diverge	C	21	C	22.7	C	23.9	C	21.9	C	26.3	D	34.7
			Merge	C	23.9	C	26.8	C	27.7	C	22.3	D	28.8	E	37.9
		CTH U (County Line Rd)	Diverge	C	23.7	C	25.9	C	26.4	C	22.9	D	28.4	E	37.6

* Units: Passenger cars per lane per mile

Key: Yellow: LOS D Orange: LOS E Red: LOS F



Exhibit H-2 Continued

Ramp Merge/Diverge LOS and Density
US 41 SB Ramps

Facility	Direction	Interchange	Type	AM Peak						PM Peak					
				Existing AM		2020		2035		Existing AM		2020		2035	
				LOS	Density *	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
US 41	SB	CTH U (County Line Rd)	Merge	C	21.9	D	32.9	F	37.6	C	20.7	C	25.4	D	34.4
		CTH J	Diverge	C	22.2	D	34.1	F	39.2	C	21.5	C	26.4	D	34.7
			Merge	C	24.4	D	34.4	E	39.1	C	23.7	C	27.8	D	34.9
		WIS 55 (Delanglade St)	Diverge	C	23.7	D	33.9	E	38.9	C	22.8	C	27	D	34.5
			Merge	C	25.3	D	31.7	E	35.5	C	26.6	D	31.3	E	37.8
		CTH N (Freedom Rd)	Diverge	C	24.4	D	31.2	E	35	C	24.5	D	28.8	E	35.4
			Merge	C	25.8	D	31.6	E	36.1	C	25.7	D	29.1	D	34.9
		To SB WIS 441	Diverge	C	26.5	D	32.6	E	36.4	C	26.6	D	29.5	E	35.6
		From NB WIS 441	Merge	F	37.7	-	-	-	-	D	29.1	-	-	-	-
		CTH E (Ballard Rd)	Diverge	D	30.9	-	-	-	-	C	25	-	-	-	-
			Merge	D	32.5	E	37.1	F	41.5	D	31.5	E	35.4	E	37.7
		WIS 47 (Richmond St)	Diverge	D	29.3	D	33.4	E	37.6	C	27.2	D	30.6	D	32.2
			Merge	F	40.2	F	47.3	F	49.4	D	30.9	E	35.2	F	38.4
		WIS 15 (Northland Ave)	Diverge	D	33.1	F	38	F	38.9	C	24.9	D	28.7	D	32.1
		WIS 96 (Wisconsin Ave)	Diverge	C	22.1	D	29.2	D	33.4	B	18.1	C	21	C	24.4
			Merge	C	23.6	-	-	-	-	B	19.2	-	-	-	-
		WIS 125 (College Ave)	Diverge	C	24.7	-	-	-	-	C	20.2	-	-	-	-
			Merge	C	24.1	D	31.3	D	33.3	D	30.1	D	33.4	F	39.5
		CTH BB (Prospect Ave)	Diverge	C	20.4	C	27.9	D	29.9	C	24.7	D	28.7	E	35.7
			Merge	C	20.4	C	26.4	D	28.3	C	26.6	D	29.6	D	34.7
		WIS 441_US 10	Diverge	C	24.8	D	30	D	31.6	D	29.6	D	32.6	E	36.5
		From SB WIS 44_US 10	Merge	E	36.8	F	42.8	F	43.2	D	30.7	D	32.9	E	35.9
		WIS 114 (Winneconne Ave)	Diverge	C	27.4	D	32	D	32.7	C	26.9	D	29.3	D	33.4
			Merge	C	21.3	D	28.7	D	30.6	C	21	C	24.5	D	29.4

* Units: Passenger cars per lane per mile
Key: Yellow: LOS D Orange: LOS E Red: LOS F

Exhibit H-3

Freeway Weaving LOS and Density

US 41 & WIS 441

Facility	Direction	Segment (from)	Segment (to)	AM Peak						PM Peak					
				Existing		2020		2035		Existing		2020		2035	
				LOS	Density *	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
US 10	EB	CTH CB on-ramp	Off-ramp to SB US 41	B	13.1	B	16	B	19.2	B	14.7	C	24.5	D	31.8
US 41	NB	STH 114 (Winneconne) on-ramp	Oakridge (Main) off-ramp	E	39.8	F	46.2	F	51.3	E	42.2	F	55.6	F	70.2
US 41	SB	Winchester on-ramp	Oakridge (Main) off-ramp	E	41.7	F	57.5	F	60.3	F	43.1	F	51	F	61.2
US 41	NB	College Ave on-ramp	Wisconsin Ave off-ramp	-	-	F	52.4	F	62.2	-	-	F	102.3	F	134.2
US 41	SB	Wisconsin Ave on-ramp	College Ave off-ramp	-	-	F	69.2	F	74.1	-	-	E	41.5	F	57
US 41	NB	CTH E on-ramp	SB WIS 441 off-ramp	-	-	F	44.7	F	51	-	-	F	64.7	F	72
US 41	SB	NB WIS 441 on-ramp	CTH E off-ramp	-	-	F	62.3	F	73.6	-	-	E	42.6	F	48
WIS 441	NB	CTH P (Racine) on-ramp	CTH AP (Midway) off-ramp	-	-	C	25.9	C	27.2	-	-	F	47.7	F	54.4
WIS 441	SB	CTH AP on-ramp	CTH P off-ramp	-	-	E	40.6	F	46.5	-	-	C	27.7	E	35.8
WIS 441	NB	Northland (CTH OO) on-ramp	US 41 NB off-ramp	-	-	E	36.3	E	42.7	-	-	C	26.3	D	34.5

* Units: Passenger cars per lane per mile

Key: Yellow: LOS D Orange: LOS E Red: LOS F



Cross Street & Ramp Terminal LOS and Delay

US 41

Intersection	Traffic Control	Peak Hour	Level of Service & Delay (seconds)												Intersection LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Breezewood Ln. (E-W) and Bergstrom Rd. (N-S)	Stop Sign	AM	A 0.8			A 2.2				F 92.5			F 793.3		F 67.6
		PM	A 8.7			A 8.7				B 14.5			F 229.6		D 28.9
Breezewood Ln. (E-W) and Harrison St. (N-S)	Traffic Signal	AM		B 13.0			A 5.1						C 32.8	C 30.7	B 12.6
		PM		A 3.3			A 5.4						C 33.1	C 31.4	A 9.6
WIS 114/ CTH JJ (Winneconne Ave.E-W) and Meadow Ln. (N-S)	Traffic Signal	AM	B 13.9	B 17.4		B 11.2	B 14.4	B 12.9		C 20.6	C 20.9	B 16.7	B 14.9		B 15.9
		PM	B 17.4	B 19.8	B 16.9	B 14.2	C 22.5	B 16.3		C 20.3	C 20.8	B 15.8	B 13.1		C 20.1
WIS 114/ CTH JJ (Winneconne Ave.E-W) and Green Bay Rd. (N-S)	Traffic Signal	AM	D 40.6	D 35.9	E 65.0	C 25.4	D 42.0		B 17.2	C 21.9	C 20.9	B 18.8	C 21.9	C 21.6	D 35.1
		PM	F 80.2	C 32.5	E 63.8	C 21.3	D 54.4		C 23.2	C 26.4	C 23.3	C 20.4	C 24.0	C 24.1	D 41.4
Main St./ Oakridge Rd. (E-W) and Green Bay Rd. (N-S)	Traffic Signal	AM	B 15.3	E 72.3		C 21.4	B 18.0	B 17.1		B 13.4			B 13.6		D 38.3
		PM	B 16.2	D 36.7		C 20.7	B 18.2	B 17.2		B 12.3			B 12.3		C 23.5
CTH II (Winchester Rd. E-W) and Zeh Ave. (N-S)	Stop Sign	AM		A 0.0			A 0.0					C 15.4			A 0.6
		PM		A 0.5			A 0.0					B 13.5			A 0.3
CTH II (Winchester Rd. E-W) and Green Bay Rd. (N-S)	Traffic Signal	AM	C 24.6	C 22.8	E 59.0	B 19.2	B 18.7		C 26.4	C 22.8		C 33.6	C 33.5		C 29.4
		PM	C 22.0	C 21.4	D 44.9	C 24.4	C 24.9		D 37.6	B 15.1		C 34.4	C 33.9		C 31.2
CTH BB (Prospect Ave. E-W) and Nicolet Rd. (N-S)	Traffic Signal	AM		C 33.0		C 21.9	A 6.4	A 4.9	C 33.0	C 34.8	C 34.7	C 34.0	D 35.5		C 25.9
		PM		C 26.4		C 23.0	B 11.1	A 9.1	B 19.9	C 21.0	C 27.9	B 19.6	C 21.0		C 22.8
CTH BB (Prospect Ave. E-W) and Northern Rd. (N-S)	Stop Sign	AM		A 0.0		A 8.3	A 0.0			C 16.2					A 2.0
		PM		A 0.0		A 8.4	A 0.0			C 16.4					A 2.6
WIS 125/ CTH CA (College Ave. E-W) and Nicolet Rd. (N-S)	Traffic Signal	AM	B 18.5	C 20.8	B 18.2	B 16.1	B 15.9	D 40.5		D 43.1	C 30.9	E 58.6	D 35.9		C 27.0
		PM	C 23.3	D 49.9	C 24.1	C 34.4	C 23.8	C 22.8		D 40.8	D 52.1	F 226.2	C 28.8		E 66.4
WIS 125/ CTH CA (College Ave. E-W) and Westhill Blvd. (N-S)	Traffic Signal	AM	B 11.2	B 16.3	C 25.2	A 9.6	B 12.5	B 10.0	D 36.7	C 33.0		C 32.9	C 30.5	C 30.6	B 18.1
		PM	F 92.6	B 13.6	B 12.8	B 16.2	C 26.2	B 16.5	C 33.6	C 29.0		C 31.4	C 28.6	C 31.6	C 30.0
WIS 96 (Wisconsin Ave. E-W) and Greenville Dr. (N-S)	Traffic Signal	AM		B 16.6	B 14.1	A 8.6	A 8.0	A 7.4	C 33.5	C 33.1	C 32.8	C 28.8	C 28.7		B 14.7
		PM	C 20.1	C 27.5	C 20.8	B 18.3	B 14.3	A 8.1	D 53.0	D 53.5	D 48.5	F 1265.1	F 1738.8		F 217.4
WIS 96 (Wisconsin Ave. E-W) and Westhill Blvd. (N-S)	Traffic Signal	AM		B 17.1	B 12.9	A 8.2	A 6.3		B 18.4		B 18.3				B 12.8
		PM		C 20.0	B 17.0	B 19.6	A 9.4		D 39.4		D 35.4				C 20.1
WIS 15/ CTH OO (Northland Ave.) & Casaloma Dr.	Traffic Signal	AM	B 11.7	C 23.0	B 13.4	D 38.9	A 9.4	A 5.2	C 34.0	C 34.4	C 34.2	C 33.1	C 24.8		B 19.7
		PM	B 13.9	C 20.2	B 13.4	D 42.5	B 14.7	A 4.3	D 38.5	D 40.4	D 53.0	D 35.0	C 28.0		C 23.9
WIS 15/ CTH OO (Northland Ave.) & Bluemound Dr.	Traffic Signal	AM	A 8.2	B 12.2	A 7.9	C 20.8	B 13.3	B 10.1	D 38.3	D 38.4	D 35.4	D 35.4	D 45.2		B 16.6
		PM	C 25.9	C 22.9	A 6.2	C 29.2	C 29.9	C 20.0	D 35.8	D 35.7	C 29.4	D 36.6	D 40.1		C 27.1
WIS 47 (Richmond St.) & Evergreen Dr.	Traffic Signal	AM		A 0.0		C 28.7	C 20.4			A 7.1	A 6.4	A 6.1	A 8.4		B 12.0
		PM		A 0.0		C 23.0	B 19.2			A 5.7	A 4.7	A 4.5	A 4.9		A 7.9

KEY: Yellow = LOS D Orange = LOS E Red = LOS F



Cross Street & Ramp Terminal LOS and Delay

US 41

Intersection	Traffic Control	Peak Hour	Level of Service & Delay (seconds)												Intersection LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
WIS 47 (Richmond St.) & Capitol Dr.	Traffic Signal	AM	C 24.9	B 19.3		B 17.6	B 18.6		A 9.1	B 12.5		A 9.2	B 12.4		B 14.5
		PM	C 32.2	C 23.6		C 21.2	C 22.4		A 9.3	B 11.7		B 10.1	B 14.6		B 16.6
CTH E (Ballard Rd.) & Evergreen Dr.	Traffic Signal	AM				D 43.6		C 29.4		B 13.1		B 15.2	A 7.0		B 15.1
		PM				E 68.8		C 27.6		A 4.9		A 8.7	A 7.7		B 18.8
CTH E (Ballard Rd.) & Capitol Dr.	Traffic Signal	AM		F 221.5	C 28.4		F 92.7	C 28.5	B 12.0	B 19.0		C 33.4	A 5.4		D 50.8
		PM		D 47.7	C 27.8		C 28.5	C 27.8	A 9.0	B 15.1		A 3.9	A 4.4		B 15.5
CTH N (Freedom Rd.) & Evergreen Dr.	Stop Sign	AM		B 10.7			B 14.3			A 1.3			A 0.2		A 3.0
		PM		B 12.0			C 17.8			A 0.7			A 0.6		A 4.5
CTH N (Freedom Rd.) & Moasis Dr.	Stop Sign	AM	F 82.8	C 20.5			C 18.3		A 8.3	A 0.0	A 0.0	A 8.8	A 0.0	A 0.0	A 8.1
		PM	E 46.9	B 11.1			B 14.3		A 9.5	A 0.0	A 0.0	A 8.2	A 0.0	A 0.0	A 3.2
WIS 55 (Delanglade St.) & Edgewood St.	Stop Sign	AM		B 12.2			B 13.5			A 1.7	A 0.0		A 0.7	A 0.0	A 6.0
		PM		B 12.6			B 12.3			A 1.5	A 0.0		A 0.7	A 0.0	A 4.9
WIS 55 (Delanglade St.) & Gertrude St.	Stop Sign	AM		E 47.9			D 25.0	B 12.2		A 0.0	A 0.0		A 3.2	A 0.0	A 6.7
		PM		F 102.5			F 69.3	B 12.8		A 0.2	A 0.0		A 3.9	A 0.0	A 9.3
CTH J (Lawe St.) & East Frontage Rd.	Stop Sign	AM		A 9.1			A 8.4			B 12.5			B 10.5		B 11.4
		PM		A 9.3			A 9.1			B 12.5			C 21.8		C 17.9
CTH J (Lawe St.) & West Frontage Rd.	Stop Sign	AM		A 9.2			C 20.4		A 2.7	A 0.0		A 0.0	A 0.0		A 5.7
		PM		B 10.3			C 22.7		A 2.1	A 0.0		A 0.0	A 0.0		A 6.7
CTH U (County Line Rd. W-E) & East Frontage Rd. (N-S)	Stop Sign	AM		B 11.6			B 12.7			A 0.3			A 1.6	A 0.0	A 2.7
		PM		B 10.3			A 8.9			A 0.0			A 0.5	A 0.0	A 0.9
CTH U (County Line Rd. W-E) & West Frontage Rd. (N-S)	Stop Sign	AM		A 9.3			A 9.8			A 1.1			A 0.0		A 1.9
		PM		A 9.2			B 10.1			A 0.7			A 0.0		A 2.0
Breezewood Ln. & NB ramps	Traffic Signal	AM	B 16.0	A 2.5			D 42.9	D 54.4		D 35.9	F 98.8				C 32.8
		PM	C 30.8	A 1.7			C 20.7	C 31.6		D 39.2	C 34.7				C 22.3
Breezewood Ln. & SB ramps	Traffic Signal	AM		C 30.5		B 18.1	A 4.6					C 34.6	C 34.0	C 24.3	C 24.4
		PM		C 22.8		C 31.8	A 5.0					C 32.2	C 32.2	C 28.7	C 22.2
WIS 114/ CTH JJ (Winneconne Ave.) & NB ramps	Traffic Signal	AM	B 11.0	A 0.3			D 35.9	F 126.4		C 32.8	C 32.9				D 39.7
		PM	B 18.4	A 0.1			B 18.6	B 13.2		D 35.9	C 32.4				B 13.9
WIS 114/ CTH JJ (Winneconne Ave.) & SB ramps	Traffic Signal	AM		C 25.8	C 22.4	B 10.5	A 0.5					D 35.1	D 35.1	C 29.3	C 22.3
		PM		C 26.8	C 22.8	B 15.6	A 5.2					D 38.7	D 38.8	D 41.9	C 24.0
Main St/ Oakridge Rd. & NB ramps	Stop Sign	AM		A 0.0	A 0.0	A 0.0	A 0.0			B 11.7					A 1.8
		PM		A 0.0	A 0.0	A 0.0	A 0.0			B 11.1					A 1.6

KEY: Yellow = LOS D Orange = LOS E Red = LOS F



Cross Street & Ramp Terminal LOS and Delay

US 41

Intersection	Traffic Control	Peak Hour	Level of Service & Delay (seconds)												Intersection LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Main St./ Oakridge Rd. & SB ramps	Stop Sign	AM		A 0.0			A 0.0		C 15.6						A 6.0
		PM		A 0.0			A 0.0		B 12.9	B 12.9					A 5.5
CTH II (Winchester Rd.) & NB ramps	Traffic Signal	AM	B 14.1	B 11.8			C 21.7	C 24.9		C 24.6	C 22.2				B 18.5
		PM	A 6.7	A 2.7			A 9.9	C 27.2		D 40.3	C 31.6				B 19.8
CTH II (Winchester Rd.) & SB ramps	Traffic Signal	AM		C 27.0	C 25.0	B 16.1	B 14.1						C 31.4	C 23.2	C 24.5
		PM		C 34.3	C 29.9	A 1.8	A 0.4						D 41.0	C 32.5	C 23.8
CTH BB (Prospect Ave.) & NB offramp	Traffic Signal	AM		A 3.2			A 7.1		D 43.9		D 37.6				B 11.6
		PM		A 1.1			A 7.6		D 37.6		C 32.3				A 9.5
CTH BB (Prospect Ave.) & NB onramp	Traffic Signal	AM	C 22.6	A 0.2			B 15.0	A 4.3				A 0.0			B 13.1
		PM	C 26.6	A 0.3			B 18.3	A 7.2				A 0.0			B 15.6
CTH BB (Prospect Ave.) & SB ramps	Traffic Signal	AM		B 18.0	A 9.4	A 7.4	A 0.4						D 43.9	D 41.9	B 11.9
		PM		C 26.4	B 11.5	C 32.0	A 0.8						D 36.2	C 34.0	B 18.2
WIS 125/ CTH CA (College Ave.) & NB ramps	Traffic Signal	AM	A 0.5	A 0.2			D 44.1	F 101.7	D 38.8	D 38.8	F 165.4				E 63.4
		PM	B 11.4	A 0.1			D 49.5	F 155.8	E 65.2	E 65.2	F 168.6				E 62.9
WIS 125/ CTH CA (College Ave.) & SB ramps	Traffic Signal	AM		C 34.7	F 104.3	A 2.0	A 0.3						D 48.0	E 79.5	C 33.7
		PM		C 28.2	C 28.6	B 17.0	A 0.5						D 38.9	D 46.1	B 19.3
WIS 96 (Wisconsin Ave.) & NB ramps	Traffic Signal	AM	B 16.2	A 9.3			C 28.8	C 24.9	C 21.9	C 21.9	C 31.2		A 0.0		C 21.4
		PM	C 25.2	A 3.5			D 41.5	E 79.1	C 34.2	C 34.2	D 43.3		A 0.0		C 31.6
WIS 96 (Wisconsin Ave.) & SB ramps	Traffic Signal	AM		C 28.4	C 25.4	B 16.5	A 1.1						D 37.4	C 28.2	C 20.0
		PM		C 26.9	E 58.4	C 32.7	A 4.0						D 41.3	F 86.3	C 30.8
WIS 15/ CTH OO (Northland Ave.) & NB ramps	Traffic Signal	AM	E 76.1	B 12.1			E 61.9	C 30.9		C 21.8	F 102.0				D 51.5
		PM	C 29.6	B 14.1			D 39.0	C 31.3		C 32.5	F 104.7				D 40.6
WIS 15/ CTH OO (Northland Ave.) & SB ramps	Traffic Signal	AM	B 18.1	A 8.5			B 10.5	E 66.7				C 23.6		C 25.2	C 21.1
		PM	F 252.4	A 7.3			A 6.5	A 1.0				C 30.3		F 104.2	D 46.2
WIS 47 (Richmond St.) & NB ramps	Traffic Signal	AM	D 46.5	D 46.5	D 35.1					C 25.1	C 24.9		A 6.6		C 21.0
		PM	D 36.1	D 36.1	C 29.7					C 31.2	C 27.3		A 1.6		C 21.6
WIS 47 (Richmond St.) & SB ramps	Traffic Signal	AM		A 0.0		D 42.9	D 42.9	C 32.4		B 15.6			C 20.8	C 21.2	C 22.6
		PM		A 0.0		C 33.4	C 33.5	C 25.9		B 19.4			C 24.4	C 23.9	C 24.3
CTH E (Ballard Rd.) & NB ramps	Traffic Signal	AM	D 42.8	D 42.8	D 42.9		A 0.0			C 22.3	C 20.8	A 1.7	A 0.1		C 20.5
		PM	D 41.6	D 41.6	C 33.7		A 0.0			C 20.7	A 8.3	A 2.5	A 0.1		B 15.7
CTH E (Ballard Rd.) & SB ramps	Traffic Signal	AM		A 0.0		D 37.1	D 37.2	F 135.5	A 1.6	A 0.5			C 25.1	C 23.4	C 31.8
		PM		A 0.0		D 36.2	D 36.2	C 33.7	B 11.3	A 0.4			C 28.2	C 24.1	B 18.2

KEY: Yellow = LOS D Orange = LOS E Red = LOS F



Cross Street & Ramp Terminal LOS and Delay
US 41

Intersection	Traffic Control	Peak Hour	Level of Service & Delay (seconds)												Intersection LOS & Delay
			LT	Eastbound TH	RT	LT	Westbound TH	RT	LT	Northbound TH	RT	LT	Southbound TH	RT	
CTH N (Freedom Rd.) & NB ramps	Traffic Signal	AM		C 27.9	C 27.1		A 0.0			C 23.8	C 23.5	A 0.4	A 0.2		B 18.4
		PM		C 28.2	C 25.3		A 0.0			C 25.5	C 25.5	A 1.9	A 2.0		B 19.1
CTH N (Freedom Rd.) & SB ramps	Traffic Signal	AM		A 0.0			C 27.7	C 25.3	B 15.5	A 6.8			C 24.4	C 22.5	B 18.7
		PM		A 0.0			C 23.9	C 22.4	D 35.4	B 16.3			C 24.4	C 21.9	C 24.3
WIS 55 (Delanglade St.) & NB ramps	Stop Sign	AM		A 0.6			A 0.0			A 0.0			B 12.1		A 4.0
		PM		A 0.2			A 0.0			A 0.0			C 19.4		A 6.2
WIS 55 (Delanglade St.) & SB ramps	Stop Sign	AM		A 0.0			A 0.0			A 2.4			B 14.9		A 3.7
		PM		A 0.0			A 0.0			A 6.7			F 256.0		F 53.6
CTH J (Lawe St.) & NB ramps	Stop Sign	AM		B 13.7						A 0.0			A 1.3		A 3.8
		PM		B 13.8						A 0.0			A 1.6		A 5.0
CTH J (Lawe St.) & SB ramps	Stop Sign	AM					B 12.6			A 0.5			A 0.0		A 1.1
		PM					C 15.2			A 1.3			A 0.0		A 2.5
CTH U (County Line Rd. W-E) & NB ramps	Stop Sign	AM		A 9.8						A 0.0	A 0.0	A 8.0	A 0.0		A 1.8
		PM		B 10.4						A 0.0	A 0.0	A 7.6	A 0.0		A 3.1
CTH U (County Line Rd. W-E) & SB ramps	Stop Sign	AM					B 11.2		A 7.7	A 0.0			A 0.0	A 0.0	A 5.7
		PM					B 11.1		A 7.5	A 0.0			A 0.0	A 0.0	A 5.6

KEY: Yellow = LOS D Orange = LOS E Red = LOS F



Cross Street & Ramp Terminal LOS and Delay

WIS 441

Intersection	Traffic Control	Peak Hour	Level of Service & Delay (seconds)												Intersection LOS & Delay
			LT	Eastbound TH	RT	LT	Westbound TH	RT	LT	Northbound TH	RT	LT	Southbound TH	RT	
CTH OO (Northland Ave. W-E) and French Rd. (N-S)	Stop Sign	AM	A 8.4	A 0.0	A 0.0	A 8.9	A 0.0	A 0.0		E 36.6			C 15.3		A 3.2
		PM	B 10.6	A 0.0	A 0.0	A 7.8	A 0.0	A 0.0		F 59.4			C 23.1		A 6.2
CTH OO (Northland Ave. W-E) and Conkey St. (N-S)	Stop Sign	AM	A 8.4	A 0.0	A 0.0	A 0.0	B 10.3	A 0.0		C 15.9			C 19.7		A 2.5
		PM	B 12.8	A 0.0	A 0.0	A 0.0	A 8.9	A 0.0		D 25.8			E 39.9		A 1.7
CTH CE (College Ave. W-E) and Eisenhower Dr. (N-S)	Traffic Signal	AM	F 92.4	C 31.8	C 28.3	C 24.1	E 65.3	C 30.2	C 26.3	C 30.9		C 27.4	D 35.2		D 49.6
		PM	C 26.0	F 139.9	D 35.9	F 95.3	C 34.3	C 29.8	C 29.1	C 31.9		C 28.2	D 37.3		E 74.7
CTH CE (College Ave. W-E) and Kensington Dr. (N-S)	Traffic Signal	AM	B 13.7	B 17.6	B 15.7	C 25.4	C 33.9	F 83.8		D 39.1		D 38.1	D 38.2	C 34.0	D 37.1
		PM	B 18.3	C 25.5	C 20.2	B 15.0	C 22.6	F 80.1		D 38.5		D 37.6	D 37.5	C 30.7	D 35.4
CTH KK (Calumet St. W-E) and Stonybrook Dr. (N-S)	Traffic Signal	AM	C 25.6	B 11.1	B 13.1	A 4.5	A 8.3		C 33.2	C 30.1	C 29.7	C 29.9	C 29.9	C 30.6	B 12.4
		PM	B 14.2	C 21.5	B 19.9	D 36.0	D 39.6		C 34.9	D 35.5	C 34.1	D 38.2	D 49.0	D 42.8	C 28.5
CTH KK (Calumet St. W-E) and Kensington Dr. (N-S)	Traffic Signal	AM	D 47.1	D 51.5	F 89.6	C 24.8	C 29.4	E 59.8	C 31.1	C 34.7	D 35.5	C 24.4	C 28.1		D 38.6
		PM	D 45.7	E 57.0	F 83.2	E 59.1	B 18.7	B 10.1	C 31.9	D 44.0	D 36.9	C 26.2	C 31.5		D 38.8
CTH KK (Calumet St. W-E) and Eisenhower Dr. (N-S)	Traffic Signal	AM	C 33.6	C 24.3	C 32.3	B 15.8	C 28.1		C 22.2	C 24.4	C 23.9	C 24.5	C 26.1	C 26.2	C 26.7
		PM	B 14.7	C 20.0	B 15.5	C 22.6	C 22.8		C 23.4	C 25.6	C 25.4	C 25.2	C 27.4	C 25.1	C 21.7
CTH KK (Calumet St. W-E) and South Lake Park Rd. (N-S)	Stop Sign	AM		E 39.7	D 31.0		C 18.0	A 4.1		A 5.0	A 4.5		A 4.5		C 24.8
		PM		C 24.0	C 17.8		D 25.4	C 2.3		B 14.0	B 12.6		B 12.4		C 22.9
US 10 (Oneida St. N-S) and Valley Rd.(W-E)	Traffic Signal	AM		D 37.3			D 39.8		A 1.0	A 1.7		A 5.6	A 7.0		B 10.2
		PM		D 39.1			D 40.3		A 2.8	A 7.0		A 5.0	A 8.3		B 13.9
US 10 (Oneida St. N-S) and Meadow Grove Blvd. (W-E)	Stop Sign	AM		A 0.0			C 19.5		A 0.0	A 0.0		B 11.5	A 0.0		A 1.7
		PM		A 0.0			B 14.5		A 0.0	A 0.0		A 9.6	A 0.0	A 0.0	A 1.3
WIS 47 (Appleton Rd.) and Drum Corps Dr.	Stop Sign	AM		C 15.8	A 9.6		B 10.9		A 8.6	A 0.0		A 9.2	A 0.0		A 1.1
		PM		E 39.6	B 11.1		C 15.1		B 10.6	A 0.0		A 9.9	A 0.0	A 0.0	A 3.1
WIS 47 (Appleton Rd.) and Valley Rd.	Traffic Signal	AM		D 35.0			C 34.1		A 2.3	A 2.1		A 8.3	A 9.0		B 11.6
		PM		C 34.1			C 31.9		B 11.4	A 3.5		B 11.1	B 16.7		B 17.7
CTH AP (Midway Rd.) and Earl St.	Stop Sign	AM		A 1.0	A 0.0		A 0.8	A 0.0		C 15.2			B 11.6		A 1.0
		PM		A 0.2	A 0.0		A 0.5	A 0.0		B 13.2			B 10.9		A 0.9
CTH AP (Midway Rd.) and Racine Rd.	Stop Sign	AM				C 15.4		B 10.0		A 0.0			A 3.0		A 3.6
		PM				C 20.1		B 10.2		A 0.0			A 3.8		A 5.1
CTH P (Racine St.) and 9th St.	Traffic Signal	AM	C 31.4	B 19.9		C 22.3	C 30.6			C 31.9		C 22.4	D 45.9		C 34.6
		PM	C 22.7	C 21.5		C 22.4	C 26.3		C 29.1	C 34.3		C 28.8	F 84.4		D 49.6
CTH P (Racine St.) and 12th St.	Stop Sign	AM		A 0.0			C 18.3			A 0.0			A 0.4		A 1.7
		PM		A 0.0			D 32.0			A 0.0			A 0.4		A 1.6

KEY: Yellow = LOS D Orange = LOS E Red = LOS F



Cross Street & Ramp Terminal LOS and Delay

US 41

Intersection	Traffic Control	Peak Hour	Level of Service & Delay (seconds)												Intersection LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
CTH OO (Northland Ave.) and NB ramps	Traffic Signal	AM	A 5.1	A 2.0			C 24.1	C 21.0	C 25.1	C 25.2	C 23.5		A 0.0		B 15.8
		PM	B 12.2	A 3.7			C 27.0	B 19.8	C 25.4	C 25.5	C 21.2		A 0.0		C 23.0
CTH OO (Northland Ave.) and SB ramps	Traffic Signal	AM		B 19.1	B 18.7	A 7.4	A 0.1						C 27.7	C 25.6	B 13.2
		PM		C 27.2	C 26.6	A 1.5	A 0.4			A 0.0			C 30.4	C 30.0	A 8.6
CTH CE (College Ave.) and NB ramps	Traffic Signal	AM	C 20.0	A 0.5			C 22.3	C 21.8		D 41.1	D 39.0				B 19.3
		PM	A 9.0	A 5.0			C 27.0	C 23.2		D 43.8	F 522.8		A 0.0		F 106.4
CTH CE (College Ave.) and SB ramps	Traffic Signal	AM		B 19.9	D 42.1	B 13.1	C 26.7					D 39.5	D 39.7	C 33.0	C 26.5
		PM		C 29.0	C 31.0	C 33.4	C 33.0			A 0.0		C 33.0	C 33.0	C 24.2	C 30.7
CTH KK (Calumet St.) and NB ramps	Traffic Signal	AM	D 50.7	A 0.3			B 10.5	A 4.7		D 40.1	D 37.6				B 17.7
		PM	C 21.9	A 4.0			C 25.5	D 44.0		D 42.5	F 402.7		A 0.0		F 82.9
CTH KK (Calumet St.) and SB ramps	Traffic Signal	AM		C 25.5	D 41.9	B 16.1	A 1.4			A 0.0		D 42.4	D 42.5	D 39.2	C 23.0
		PM		D 45.3	D 47.2	B 17.5	A 2.3			A 0.0		D 52.2	D 52.2	E 70.1	D 37.0
US 10 (Oneida St. N-S) NB ramps	Traffic Signal	AM	D 43.5	D 43.5	C 33.1		A 0.0			C 28.5	B 19.1	A 2.3	A 0.1		C 25.4
		PM	C 30.6	C 30.6	D 39.3		A 0.0			C 26.6	C 22.9	A 0.2	A 0.9		B 19.9
US 10 (Oneida St. N-S) SB ramps	Traffic Signal	AM		A 0.0		C 27.9	C 27.9	C 27.4	A 7.9	A 4.8			C 26.1	B 18.3	B 12.8
		PM		A 0.0		D 36.0	D 36.0	C 34.1	A 7.4	A 0.1			C 34.8	D 50.4	C 23.7
WIS 47 (Appleton Rd.) and NB ramps	Traffic Signal	AM	C 29.0	C 29.0	C 23.9		A 0.0			C 26.9	C 22.6	A 1.1	A 0.3		B 17.4
		PM	D 35.0	D 35.0	C 30.6		A 0.0			C 28.0	C 23.6	A 5.3	A 0.4		B 15.3
WIS 47 (Appleton Rd.) and SB ramps	Traffic Signal	AM		A 0.0			C 29.2	C 25.8	B 17.0	B 11.7			C 21.6	D 47.7	C 21.3
		PM		A 0.0			C 32.8	C 26.8	C 24.7	A 8.0			C 21.4	D 43.7	C 21.8
CTH AP (Midway Rd.) and NB ramps	Stop Sign	AM	A 8.0	A 0.0			A 0.0			B 12.6	B 10.5				A 5.8
		PM	A 8.4	A 0.0			A 0.0			B 14.0	B 10.1		B 10.1		A 4.1
CTH AP (Midway Rd.) and SB ramps	Stop Sign	AM		A 0.0		A 8.2	A 0.0						C 16.4		A 5.7
		PM		A 0.0		A 8.7	A 0.0						C 15.8		A 5.3
CTH P (Racine St.) and on ramps	Traffic Signal	AM	C 20.2		A 3.7				B 13.8	A 4.1			C 22.3	C 21.1	B 11.1
		PM	C 22.3		A 6.5				B 17.8	A 3.9			C 22.5	B 17.1	B 13.7
CTH P (Racine St.) and off ramps	Traffic Signal	AM	C 20.2		A 3.7				B 13.8	A 4.1			C 22.3	C 21.1	B 11.1
		PM	C 22.3		A 6.5				B 17.8	A 3.9			C 22.5	B 17.1	B 13.7

KEY: Yellow = LOS D Orange = LOS E Red = LOS F



Exhibit H-5
Mainline PHF and Truck Percentages
US 41 & WIS 441

MAINLINE	Approach	AM PHF	AM Truck %	PM PHF	PM Truck %
US 41 Mainline	NB	0.90	13.0%	0.96	10.0%
	SB	0.92	11.0%	0.93	10.0%
WIS 441 Mainline	NB	0.90	11.0%	0.96	9.0%
	SB	0.92	6.0%	0.93	6.0%

Exhibit H-6**Ramp PHF and Truck Percentages****WIS 441**

WIS 441 RAMPS		AM PHF	AM Truck %	PM PHF	PM Truck %
CTH CB	NB on	0.80	1.0%	0.88	1.0%
	NB off	0.75	1.0%	0.92	2.0%
	SB on	0.72	5.5%	0.81	1.0%
	SB off	0.80	1.0%	0.79	1.0%
CTH P (Racine St.)	offramps	0.90	1.0%	0.95	1.0%
	onramps	0.83	2.5%	0.87	1.5%
CTH AP (Midway Rd.)	NB on	0.83	1.5%	0.78	5.0%
	NB off	0.84	3.5%	0.90	1.0%
	SB on	0.82	6.0%	0.80	1.5%
	SB off	0.83	5.0%	0.74	2.0%
WIS 47 (Appleton Rd.)	NB on	0.85	1.0%	0.90	1.0%
	NB off	0.79	1.0%	0.97	2.0%
	SB on	0.86	1.5%	0.97	1.0%
	SB off	0.83	1.0%	0.88	1.0%
US 10 (Oneida St.)	NB on	0.81	1.0%	0.83	1.0%
	NB off	0.79	2.5%	0.89	1.0%
	SB on	0.85	2.0%	0.84	5.0%
	SB off	0.72	3.5%	0.74	1.0%
CTH KK (Calumet St.)	NB on	0.85	1.0%	0.82	1.0%
	NB off	0.82	1.0%	0.80	1.0%
	SB on	0.93	1.0%	0.90	1.0%
	SB off	0.87	1.0%	0.92	1.0%
CTH CE (College Ave.)	NB on	0.88	1.0%	0.82	1.0%
	NB off	0.76	1.0%	0.83	1.5%
	SB on	0.88	1.5%	0.96	2.5%
	SB off	0.79	1.0%	0.89	1.0%
CTH OO (Northland Ave.)	NB on	0.84	6.5%	0.82	3.5%
	NB off	0.81	1.0%	0.89	2.5%
	SB on	0.89	3.0%	0.92	1.0%
	SB off	0.83	8.0%	0.71	6.0%

Exhibit H-6 Continued

US 41

US 41 RAMPS		AM PHF	AM Truck %	PM PHF	PM Truck %
Breezewood Ln.	NB on	0.69	3.0%	0.89	1.0%
	NB off	0.73	1.5%	0.80	2.0%
	SB on	0.84	4.5%	0.96	9.0%
	SB off	0.84	1.0%	0.88	2.0%
WIS 114/CTH JJ (Winneconne Ave.)	NB on	0.80	1.0%	0.96	1.0%
	NB off	0.90	3.5%	0.96	2.5%
	SB on	0.90	2.0%	0.88	1.0%
	SB off	0.81	1.0%	0.69	1.0%
Main St./ Oakridge Rd.	NB off	0.77	1.5%	0.82	3.0%
	SB off	0.57	1.5%	0.75	1.0%
CTH II (Winchester Rd.)	NB on	0.86	8.5%	0.95	1.5%
	NB off	0.86	15.5%	0.88	8.0%
	SB on	0.91	9.0%	0.72	5.0%
	SB off	0.78	3.0%	0.82	6.5%
CTH BB (Prospect Ave.)	NB on	0.83	6.5%	0.87	1.5%
	NB off	0.75	2.0%	0.83	2.0%
	SB on	0.83	6.0%	0.79	3.0%
	SB off	0.77	9.0%	0.66	1.0%
WIS 125/ CTH CA (College Ave.)	NB on	0.90	1.5%	0.81	1.5%
	NB off	0.76	1.5%	0.91	1.5%
	SB on	0.87	1.5%	0.93	1.5%
	SB off	0.77	1.5%	0.85	1.5%
WIS 96 (Wisconsin Ave.)	NB on	0.77	1.5%	0.91	1.5%
	NB off	0.77	1.5%	0.87	1.5%
	SB on	0.83	1.5%	0.96	1.5%
	SB off	0.66	1.5%	0.88	1.5%
WIS 15/ CTH OO (Northland Ave.)	NB on	0.70	1.5%	0.73	1.0%
	NB off	0.80	2.5%	0.89	1.5%
	SB on	0.89	3.5%	0.93	1.0%
	SB off	0.72	1.5%	0.77	2.5%
WIS 47 (Richmond St.)	NB on	0.87	1.5%	0.83	1.5%
	NB off	0.78	1.5%	0.85	1.5%
	SB on	0.88	1.5%	0.74	1.5%
	SB off	0.81	1.5%	0.94	1.5%
CTH E (Ballard Rd.)	NB on	0.83	2.0%	0.90	1.0%
	NB off	0.71	2.0%	0.92	1.0%
	SB on	N/A	2.0%	N/A	1.0%
	SB off	N/A	2.0%	N/A	1.0%
CTH N (Freedom Rd.)	NB on	0.86	1.5%	0.95	5.0%
	NB off	0.89	2.0%	0.87	2.5%
	SB on	0.84	2.0%	0.89	1.0%
	SB off	0.75	2.5%	0.64	1.0%
WIS 55 (Delanglade St.)	NB on	0.78	5.0%	0.77	2.5%
	NB off	0.87	7.0%	0.80	4.5%
	SB on	0.92	1.0%	0.91	2.5%
	SB off	0.83	3.0%	0.76	2.5%
CTH J (Lawe St.)	NB on	0.84	5.5%	0.79	3.5%
	NB off	0.86	7.5%	0.83	2.0%
	SB on	0.70	1.5%	0.84	3.5%
	SB off	0.81	16.5%	0.70	6.0%
CTH U (County Line Rd.)	NB on	0.78	3.0%	0.76	4.5%
	NB off	0.78	1.5%	0.68	3.0%
	SB on	0.80	1.0%	0.71	1.0%
	SB off	0.80	1.5%	0.95	2.5%

Exhibit H-7

Intersection & Ramp Terminal PHF and Truck %

US 41

US 41 INTERSECTIONS		Approach	AM PHF	AM Truck %	PM PHF	PM Truck %
Breezewood Ln. (E-W) & Bergstrom Rd. (N-S)	North	0.74	0.95	1.5%	0.95	2.0%
	South			44.0%		8.5%
	West			1.0%		1.0%
	East			3.0%		7.0%
Breezewood Ln. (E-W) & Harrison St. (N-S)	North	0.88	0.91	1.0%	0.91	1.0%
	South			1.0%		1.0%
	West			1.0%		1.0%
	East			2.0%		1.5%
Breezewood Ln. & NB Ramps	North	0.71	0.88	1.0%	0.88	1.0%
	South			4.0%		2.0%
	West			1.0%		1.0%
	East			1.5%		1.0%
Breezewood Ln. & SB Ramps	North	0.88	0.96	1.0%	0.96	4.0%
	South			1.0%		1.0%
	West			1.0%		1.0%
	East			4.0%		3.5%
WIS 114/ CTH JJ (Winneconne Ave. E-W) & Meadow Ln. (N-S)	North	0.91	0.91	3.5%	0.91	1.0%
	South			1.0%		1.0%
	West			2.5%		1.0%
	East			2.0%		5.5%
WIS 114/ CTH JJ (Winneconne Ave. E-W) & Green Bay Rd. (N-S)	North	0.84	0.97	1.5%	0.97	1.0%
	South			1.0%		1.0%
	West			1.0%		1.0%
	East			1.0%		1.0%
WIS 114/ CTH JJ (Winneconne Ave.) & NB Ramps	North	0.82	0.95	1.0%	0.95	1.0%
	South			3.5%		2.5%
	West			1.5%		1.0%
	East			2.0%		1.0%
WIS 114/ CTH JJ (Winneconne Ave.) & SB Ramps	North	0.88	0.81	1.0%	0.81	1.0%
	South			1.0%		1.0%
	West			1.0%		1.0%
	East			1.0%		1.0%
Main St/ Oakridge Rd. (E-W) & Green Bay Rd. (N-S)	North	0.78	0.85	1.0%	0.85	1.0%
	South			3.0%		1.0%
	West			1.5%		1.0%
	East			2.0%		2.5%
Main St/ Oakridge & NB Ramp	North	0.90	0.93	1.0%	0.93	1.0%
	South			2.0%		3.0%
	West			1.5%		1.0%
	East			2.0%		1.0%
Main St/ Oakridge & SB Ramp	North	0.74	0.80	1.5%	0.80	1.5%
	South			1.0%		1.0%
	West			1.5%		1.0%
	East			1.5%		1.0%
CTH II (Winchester Rd. E-W) & Zeh Ave. (N-S)	North	0.90	0.91	1.0%	0.91	1.0%
	South			1.0%		1.0%
	West			3.5%		1.0%
	East			3.5%		4.0%
CTH II (Winchester Rd. E-W) & Green Bay Rd. (N-S)	North	0.89	0.94	12.0%	0.94	6.5%
	South			2.0%		1.0%
	West			6.0%		9.0%
	East			11.5%		3.0%
CTH II (Winchester Rd.) & NB Ramps	North	0.83	0.98	1.0%	0.98	1.0%
	South			15.5%		7.5%
	West			3.5%		4.0%
	East			10.5%		2.5%
CTH II (Winchester Rd.) & SB Ramps	North	0.86	0.92	3.0%	0.92	6.5%
	South			1.0%		1.0%
	West			2.0%		1.0%
	East			9.0%		5.5%
CTH BB (Prospect Ave. E-W) & Nicolet Rd. (N-S)	North	0.84	0.85	1.0%	0.85	1.0%
	South			2.0%		2.0%
	West			17.0%		1.0%
	East			20.0%		3.0%
CTH BB (Prospect Ave. E-W) & Northern Rd. (N-S)	North	0.84	0.94	1.0%	0.94	1.0%
	South			4.0%		2.0%
	West			1.0%		1.0%
	East			1.0%		1.0%

Exhibit H-7 Continued

US 41 INTERSECTIONS		Approach	AM PHF	AM Truck %	PM PHF	PM Truck %
CTH BB (Prospect Ave.) & NB Offramp	North	0.84	0.85	1.0%	1.0%	
	South			2.0%	1.5%	
	West			3.0%	1.5%	
	East			1.0%	3.0%	
CTH BB (Prospect Ave.) & NB Onramp	North	0.82	0.97	1.0%	1.0%	
	South			1.0%	1.0%	
	West			4.0%	1.5%	
	East			2.0%	2.5%	
CTH BB (Prospect Ave.) & SB Ramps	North	0.78	0.83	9.0%	1.0%	
	South			1.0%	1.0%	
	West			6.0%	3.5%	
	East			4.5%	4.5%	
WIS 125/CTH CA (College Ave. E-W) & Nicolet Rd. (N-S)	North	0.84	0.96	1.0%	1.0%	
	South			1.0%	1.0%	
	West			1.5%	1.0%	
	East			1.0%	1.0%	
WIS 125/CTH CA (College Ave. E-W) & Westhill Blvd. (N-S)	North	0.87	0.95	1.0%	1.0%	
	South			1.0%	1.0%	
	West			1.0%	1.0%	
	East			1.0%	1.0%	
WIS 125/CTH CA (College Ave.) & NB Ramps	North	0.86	0.97	1.0%	1.0%	
	South			1.5%	1.5%	
	West			1.0%	1.0%	
	East			1.5%	1.5%	
WIS 125/CTH CA (College Ave.) & SB Ramps	North	0.86	0.96	1.5%	3.0%	
	South			1.0%	1.0%	
	West			1.5%	1.5%	
	East			1.5%	1.0%	
WIS 96 (Wisconsin Ave. E-W) & Greenville Dr. (N-S)	North	0.90	0.94	1.0%	1.0%	
	South			1.0%	1.0%	
	West			1.0%	1.0%	
	East			1.5%	1.5%	
WIS 96 (Wisconsin Ave. E-W) & Westhill Blvd. (N-S)	North	0.91	0.94	1.0%	1.0%	
	South			1.0%	1.0%	
	West			1.5%	1.0%	
	East			1.0%	1.0%	
WIS 96 (Wisconsin Ave.) & NB Ramps	North	0.81	0.98	1.0%	1.0%	
	South			1.5%	1.5%	
	West			1.5%	1.5%	
	East			1.5%	1.5%	
WIS 96 (Wisconsin Ave.) & SB Ramps	North	0.78	0.98	1.5%	1.0%	
	South			1.0%	1.0%	
	West			1.5%	1.5%	
	East			1.5%	1.5%	
WIS 15/ CTH OO (Northland Ave. E-W) & Casaloma Dr. (N-S)	North	0.78	0.92	1.5%	1.5%	
	South			5.0%	1.0%	
	West			1.0%	1.5%	
	East			2.0%	1.0%	
WIS 15/ CTH OO (Northland Ave. E-W) & Bluemound Dr. (N-S)	North	0.86	0.98	1.0%	1.0%	
	South			2.5%	1.0%	
	West			1.0%	1.0%	
	East			1.0%	1.0%	
WIS 15/ CTH OO (Northland Ave.) & NB Ramps	North	0.76	0.92	1.0%	1.0%	
	South			7.5%	2.5%	
	West			1.0%	1.0%	
	East			1.5%	1.0%	
WIS 15/ CTH OO (Northland Ave.) & SB Ramps	North	0.76	0.88	1.5%	3.0%	
	South			1.0%	1.0%	
	West			2.0%	1.5%	
	East			3.0%	1.0%	
WIS 47 (Richmond St. N-S) & Evergreen Dr. (W-E)	North	0.92	0.91	1.0%	1.0%	
	South			1.5%	1.0%	
	West			1.0%	1.0%	
	East			1.0%	1.0%	
WIS 47 (Richmond St. N-S) & Capitol Dr. (W-E)	North	0.82	0.97	1.0%	1.0%	
	South			1.0%	1.0%	
	West			2.5%	1.0%	
	East			1.0%	1.0%	

Exhibit H-7 Continued

US 41 INTERSECTIONS					
	Approach	AM PHF	AM Truck %	PM PHF	PM Truck %
WIS 47 (Richmond St.) & NB Ramps	North	0.90	1.0%	0.93	1.0%
	South		1.5%		1.5%
	West		1.0%		1.5%
	East		1.5%		1.5%
WIS 47 (Richmond St.) & SB Ramps	North	0.87	1.5%	0.91	1.5%
	South		1.0%		1.0%
	West		1.5%		1.5%
	East		1.5%		1.5%
CTH E (Ballard Rd. N-S) & Evergreen Dr. (W-E)	North	0.83	1.0%	0.97	1.0%
	South		1.0%		1.0%
	West		1.0%		1.0%
	East		1.0%		1.0%
CTH E (Ballard Rd. N-S) & Capitol Dr. (W-E)	North	0.87	2.5%	0.92	7.0%
	South		1.0%		3.5%
	West		1.0%		2.5%
	East		1.0%		1.5%
CTH E (Ballard Rd.) & NB Ramps	North	0.88	1.0%	0.94	1.0%
	South		1.0%		1.0%
	West		2.0%		1.0%
	East		1.0%		1.0%
CTH E (Ballard Rd.) & SB Ramps	North	0.83	2.0%	0.89	2.0%
	South		1.0%		1.0%
	West		2.0%		1.0%
	East		2.0%		1.0%
CTH N (Freedom Rd. N-S) & Evergreen Dr. (W-E)	North	0.97	1.0%	0.93	1.5%
	South		2.0%		1.0%
	West		2.0%		1.0%
	East		1.0%		1.0%
CTH N (Freedom Rd. N-S) & Moasis Dr. (W-E)	North	0.94	13.0%	0.76	11.5%
	South		1.0%		2.0%
	West		6.5%		3.0%
	East		3.5%		3.5%
CTH N (Freedom Rd.) & NB Ramps	North	0.92	4.0%	0.93	2.5%
	South		4.0%		4.5%
	West		3.5%		2.5%
	East		1.0%		1.0%
CTH N (Freedom Rd.) & SB Ramps	North	0.89	2.5%	0.84	1.0%
	South		1.0%		1.0%
	West		1.0%		1.0%
	East		1.0%		1.0%
WIS 55 (Delanglade St. N-S) & Edgewood St. (W-E)	North	0.86	2.5%	0.92	4.0%
	South		7.0%		1.5%
	West		1.0%		1.5%
	East		2.0%		1.5%
WIS 55 (Delanglade St. N-S) & Gertrude St. (W-E)	North	0.93	4.0%	0.91	3.5%
	South		4.0%		2.5%
	West		1.0%		1.0%
	East		5.5%		2.5%
WIS 55 (Delanglade St.) & NB Ramps	North	0.92	4.0%	0.90	2.0%
	South		4.5%		2.5%
	West		7.0%		4.5%
	East		1.0%		1.0%
WIS 55 (Delanglade St.) & SB Ramps	North	0.93	3.0%	0.90	2.5%
	South		1.0%		1.0%
	West		3.0%		1.0%
	East		1.0%		2.0%
CTH J (Lawe St. N-S) & East Frontage Rd. (W-E)	North	0.92	8.5%	0.72	1.0%
	South		9.0%		6.5%
	West		2.5%		2.5%
	East		1.0%		2.0%
CTH J (Lawe St. N-S) & West Frontage Rd. (W-E)	North	0.85	1.0%	0.88	2.5%
	South		2.5%		2.5%
	West		2.5%		5.0%
	East		2.5%		1.0%
CTH J (Lawe St.) & NB Ramps	North	0.86	4.0%	0.90	3.0%
	South		3.0%		2.0%
	West		1.0%		1.0%
	East		1.0%		1.0%

Exhibit H-7 Continued

US 41 INTERSECTIONS		Approach	AM PHF	AM Truck %	PM PHF	PM Truck %
CTH J (Lowe St.) & SB Ramps	North	0.88	0.88	16.5%	0.78	6.5%
	South			1.0%		1.0%
	West			12.0%		6.0%
	East			8.5%		3.5%
CTH U (County Line Rd. N-S) & East Frontage Rd. (W-E)	North	0.78	0.78	1.0%	0.87	1.0%
	South			10.5%		12.5%
	West			5.0%		2.5%
	East			16.0%		10.5%
CTH U (County Line Rd. N-S) & West Frontage Rd. (W-E)	North	0.77	0.77	1.0%	0.88	1.5%
	South			4.0%		2.0%
	West			1.0%		1.0%
	East			1.0%		1.0%
CTH U (County Line Rd.) & NB Ramps	North	0.88	0.88	1.0%	0.86	1.0%
	South			1.5%		3.0%
	West			5.0%		1.0%
	East			4.5%		4.0%
CTH U (County Line Rd.) & SB Ramps	North	0.85	0.85	1.5%	0.88	2.5%
	South			1.0%		1.0%
	West			1.0%		1.0%
	East			1.5%		3.5%

Exhibit H-7 Continued

WIS 441

WIS 441 INTERSECTIONS		Approach	AM PHF	AM Truck %	PM PHF	PM Truck %
WIS 15/CTH OO (Northland Ave. W-E) and French Rd. (N-S)	North	0.79	0.95	1.0%	1.0%	
	South			2.0%		
	West			1.0%		
	East			2.0%		
WIS 15/CTH OO (Northland Ave. W-E) and Conkey St. (N-S)	North	0.76	0.95	23.0%	1.5%	
	South			8.0%		
	West			1.5%		
	East			1.0%		
WIS 15/CTH OO (Northland Ave.) & NB Ramps	North	0.95	0.95	1.0%	1.0%	
	South			1.0%		
	West			5.5%		
	East			1.5%		
WIS 15/CTH OO (Northland Ave.) & SB Ramps	North	0.94	0.97	8.0%	6.0%	
	South			1.0%		
	West			4.0%		
	East			2.0%		
CTH CE (College Ave. W-E) and Eisenhower Dr. (N-S)	North	0.94	0.96	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.0%		
CTH CE (College Ave. W-E) and Kensington Dr. (N-S)	North	0.90	0.94	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.5%		
CTH CE (College Ave.) & NB Ramps	North	0.89	0.91	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.0%		
CTH CE (College Ave.) & SB Ramps	North	0.92	0.95	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.5%		
CTH KK (Calumet St. W-E) and Stonybrook Dr. (N-S)	North	0.90	0.97	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.0%		
CTH KK (Calumet St. W-E) and Kensington Dr. (N-S)	North	0.87	0.95	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.0%		
CTH KK (Calumet St. W-E) and Eisenhower Dr. (N-S)	North	0.96	0.98	2.0%	1.0%	
	South			2.5%		
	West			4.5%		
	East			2.0%		
CTH KK (Calumet St. W-E) and South Lake Park Rd. (N-S)	North	0.88	0.90	1.0%	1.0%	
	South			1.0%		
	West			1.5%		
	East			1.5%		
CTH KK (Calumet St.) & NB Ramps	North	0.86	0.88	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.0%		
CTH KK (Calumet St.) & SB Ramps	North	0.96	0.93	1.0%	1.0%	
	South			1.0%		
	West			1.0%		
	East			1.0%		

Exhibit H-7 Continued

WIS 441 INTERSECTIONS		Approach	AM PHF	AM Truck %	PM PHF	PM Truck %
Oneida St. (N-S) and Valley Rd.(W-E)	North	0.87	0.95	1.5%	1.5%	
	South			1.0%	1.0%	
	West			1.0%	1.0%	
	East			1.0%	1.0%	
Oneida St. (N-S) and Meadow Grove Blvd. (W-E)	North	0.90	0.93	2.0%	1.0%	
	South			1.0%	2.0%	
	West			1.0%	1.0%	
	East			1.0%	1.0%	
Oneida St. & NB Ramps	North	0.88	0.93	1.0%	1.0%	
	South			1.5%	3.0%	
	West			2.5%	1.0%	
	East			1.0%	1.0%	
Oneida St. & SB Ramps	North	0.90	0.93	2.0%	1.0%	
	South			2.0%	3.0%	
	West			1.0%	1.0%	
	East			3.5%	1.0%	
WIS 47 (Appleton Rd. N-S) and Drum Corps Dr. (W-E)	North	0.92	0.92	1.0%	1.0%	
	South			1.5%	1.0%	
	West			2.0%	1.0%	
	East			1.0%	1.0%	
WIS 47 (Appleton Rd. N-S) and Valley Rd. (W-E)	North	0.90	0.89	1.0%	1.5%	
	South			1.5%	1.0%	
	West			5.0%	3.5%	
	East			4.0%	1.5%	
WIS 47 (Appleton Rd.) & NB Ramps	North	0.88	0.96	1.0%	1.0%	
	South			1.0%	1.0%	
	West			1.5%	2.0%	
	East			1.0%	1.0%	
WIS 47 (Appleton Rd.) & SB Ramps	North	0.90	0.96	1.0%	1.0%	
	South			1.0%	1.0%	
	West			1.0%	1.0%	
	East			1.0%	1.0%	
CTH AP (Midway Rd. W-E) and Earl St. (N-S)	North	0.89	0.97	43.0%	1.0%	
	South			36.5%	14.5%	
	West			6.0%	1.0%	
	East			4.0%	1.0%	
CTH AP (Midway Rd. W-E) and Racine Rd. (N-S)	North	0.86	0.92	2.5%	2.0%	
	South			1.0%	1.0%	
	West			1.0%	1.0%	
	East			3.0%	2.0%	
CTH AP (Midway Rd.) & NB Ramps	North	0.84	0.92	1.0%	1.0%	
	South			3.5%	1.0%	
	West			3.0%	4.0%	
	East			8.0%	2.0%	
CTH AP (Midway Rd.) & SB Ramps	North	0.88	0.96	5.0%	5.0%	
	South			1.0%	1.0%	
	West			3.0%	2.5%	
	East			4.5%	3.0%	
CTH P (Racine St. N-S) and 9th St. (W-E)	North	0.86	0.88	3.0%	1.5%	
	South			1.0%	1.0%	
	West			3.5%	1.5%	
	East			2.0%	1.0%	
CTH P (Racine St. N-S) and 12th St. (W-E)	North	0.92	0.83	3.0%	2.0%	
	South			2.5%	1.0%	
	West			1.0%	1.0%	
	East			1.5%	1.0%	
CTH P (Racine St.) & Onramps	North	0.94	0.93	1.0%	1.0%	
	South			1.0%	1.0%	
	West			1.0%	1.0%	
	East			1.0%	1.0%	
CTH P (Racine St.) & Offramps	North	0.83	0.87	1.0%	1.0%	
	South			1.0%	1.0%	
	West			2.5%	2.0%	
	East			1.0%	1.0%	



US 41 / WIS 441

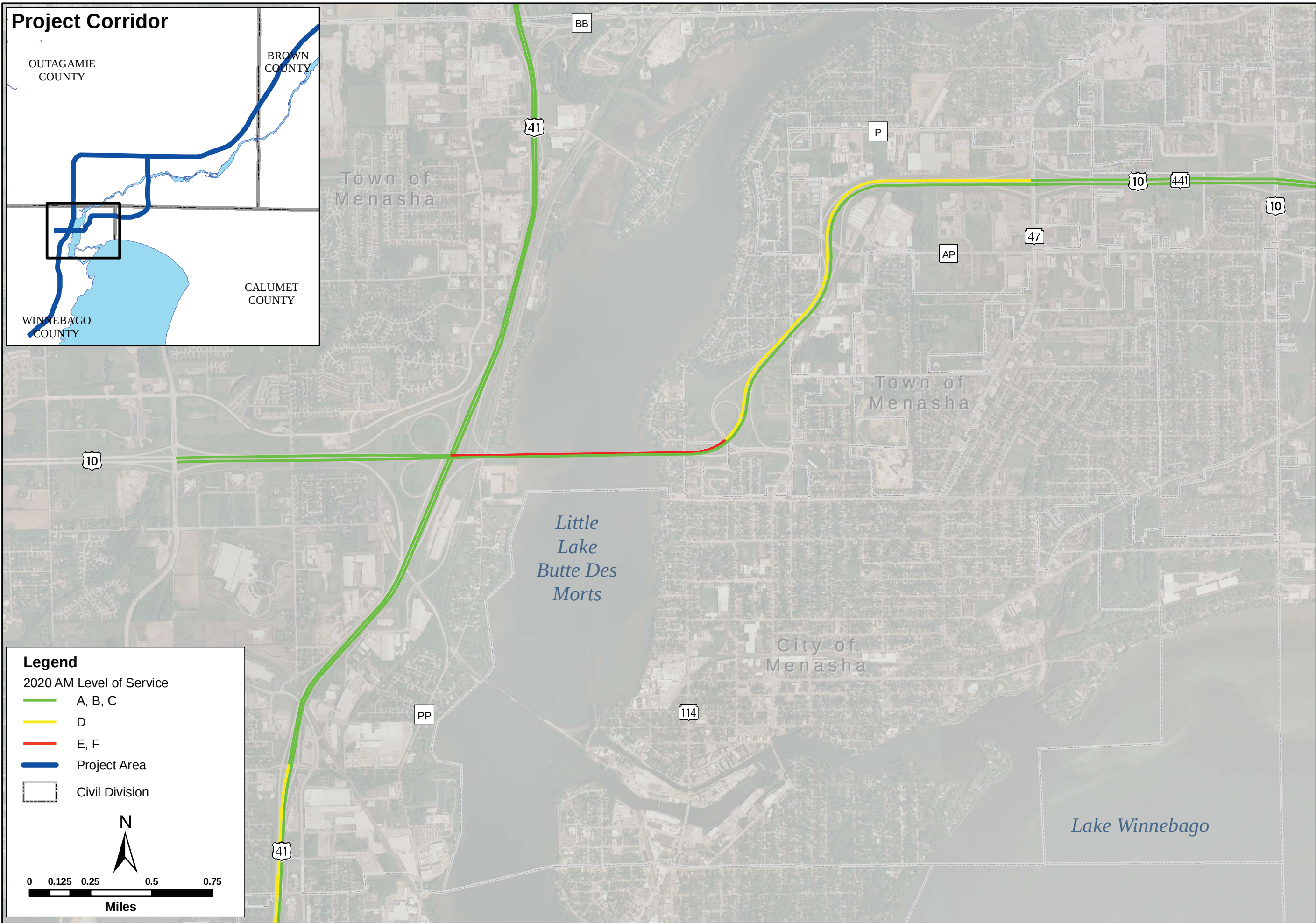
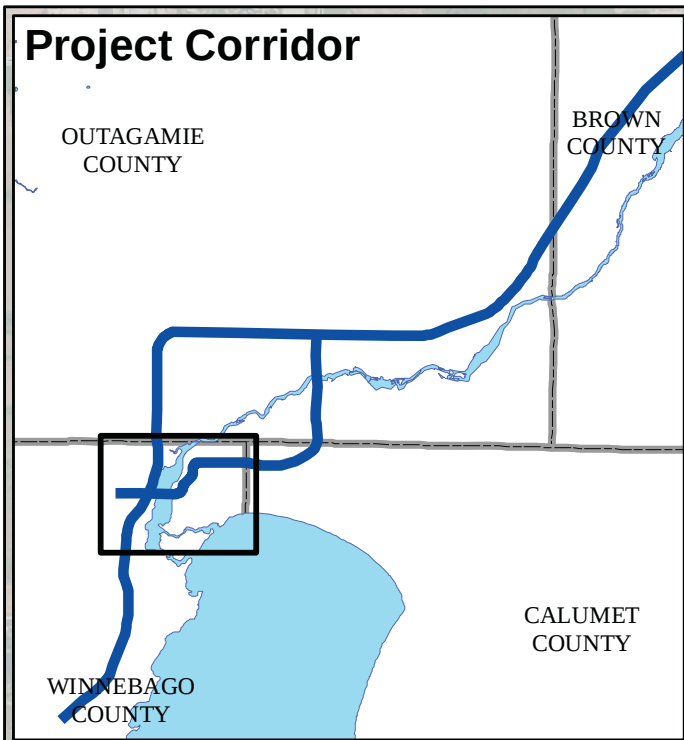
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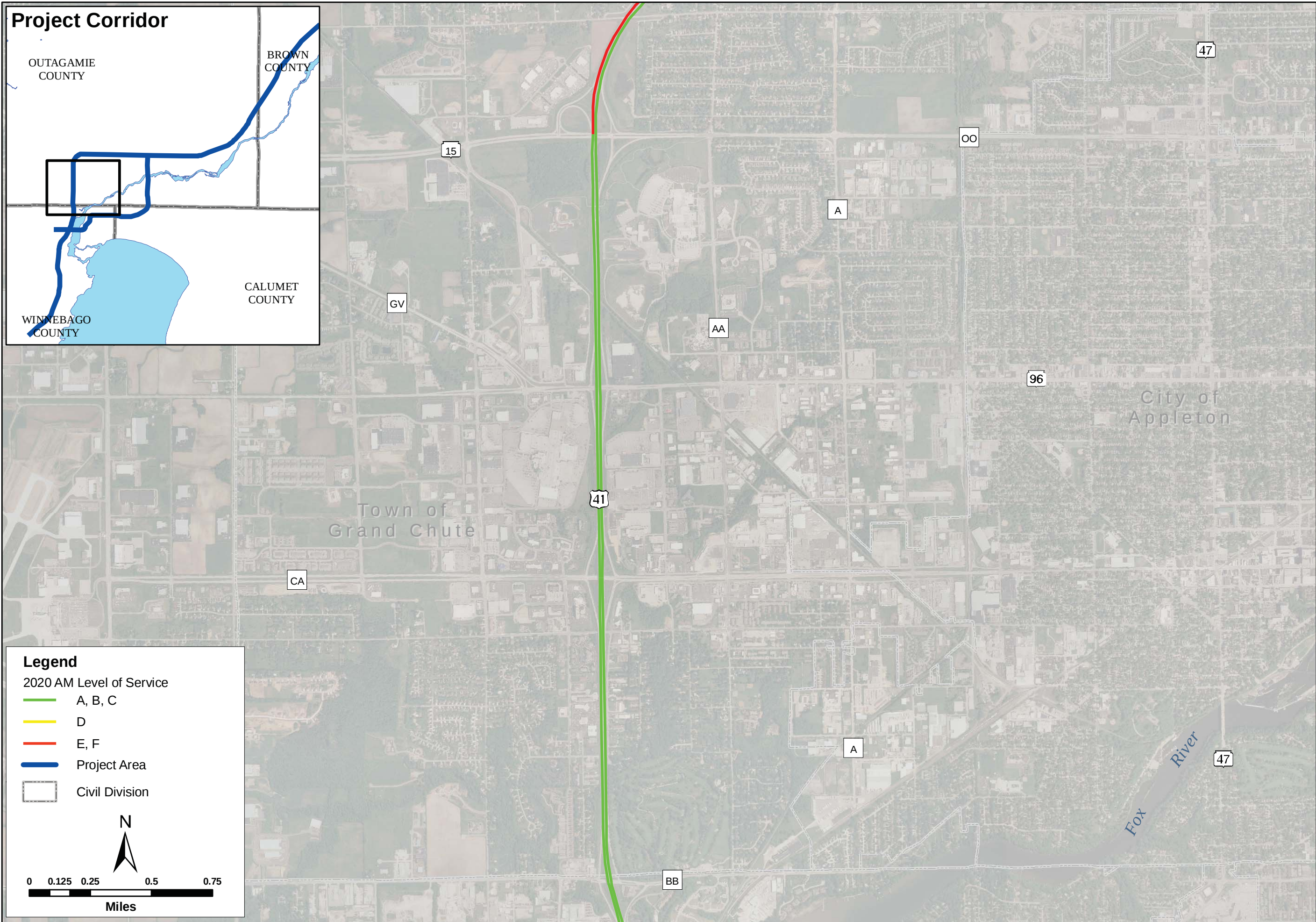
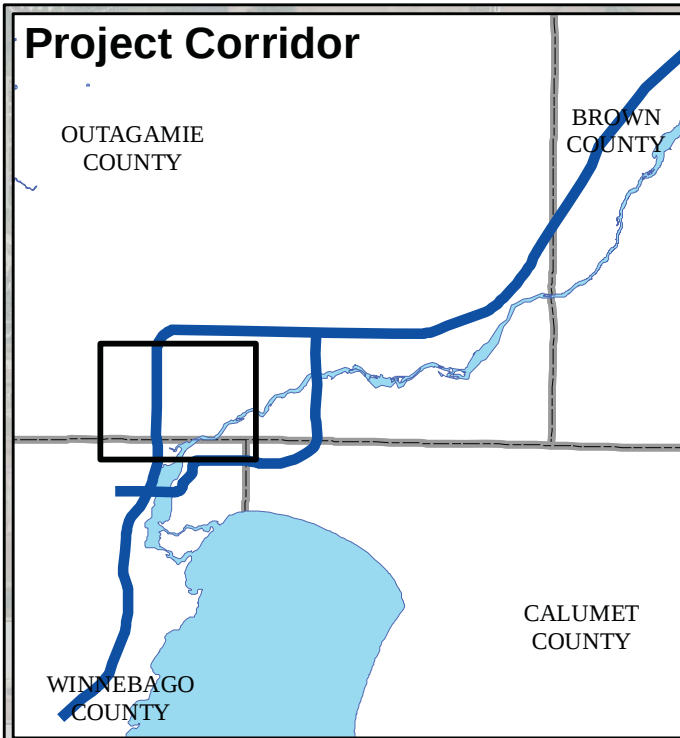


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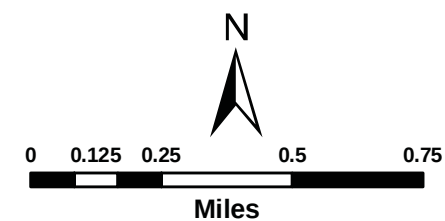


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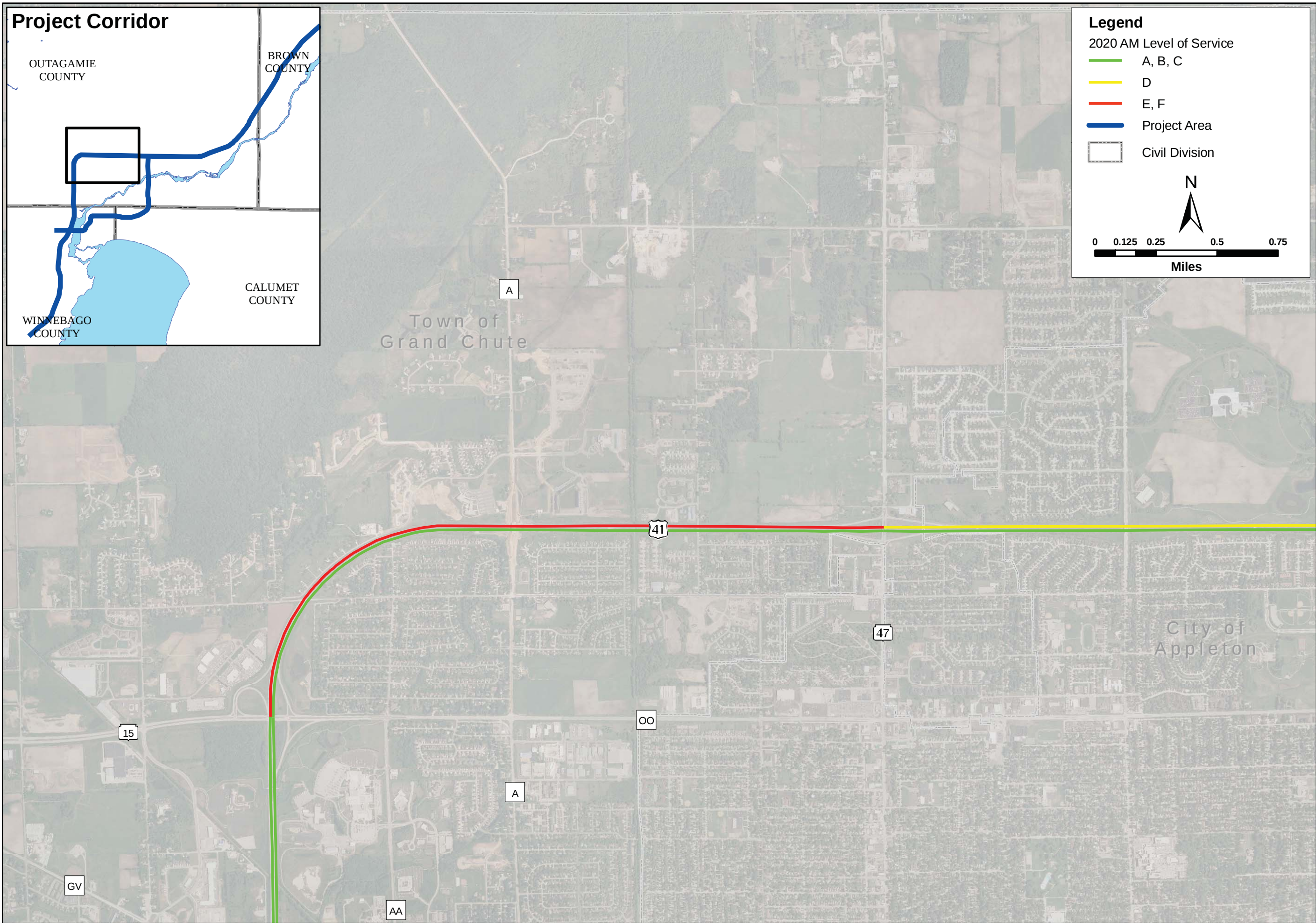
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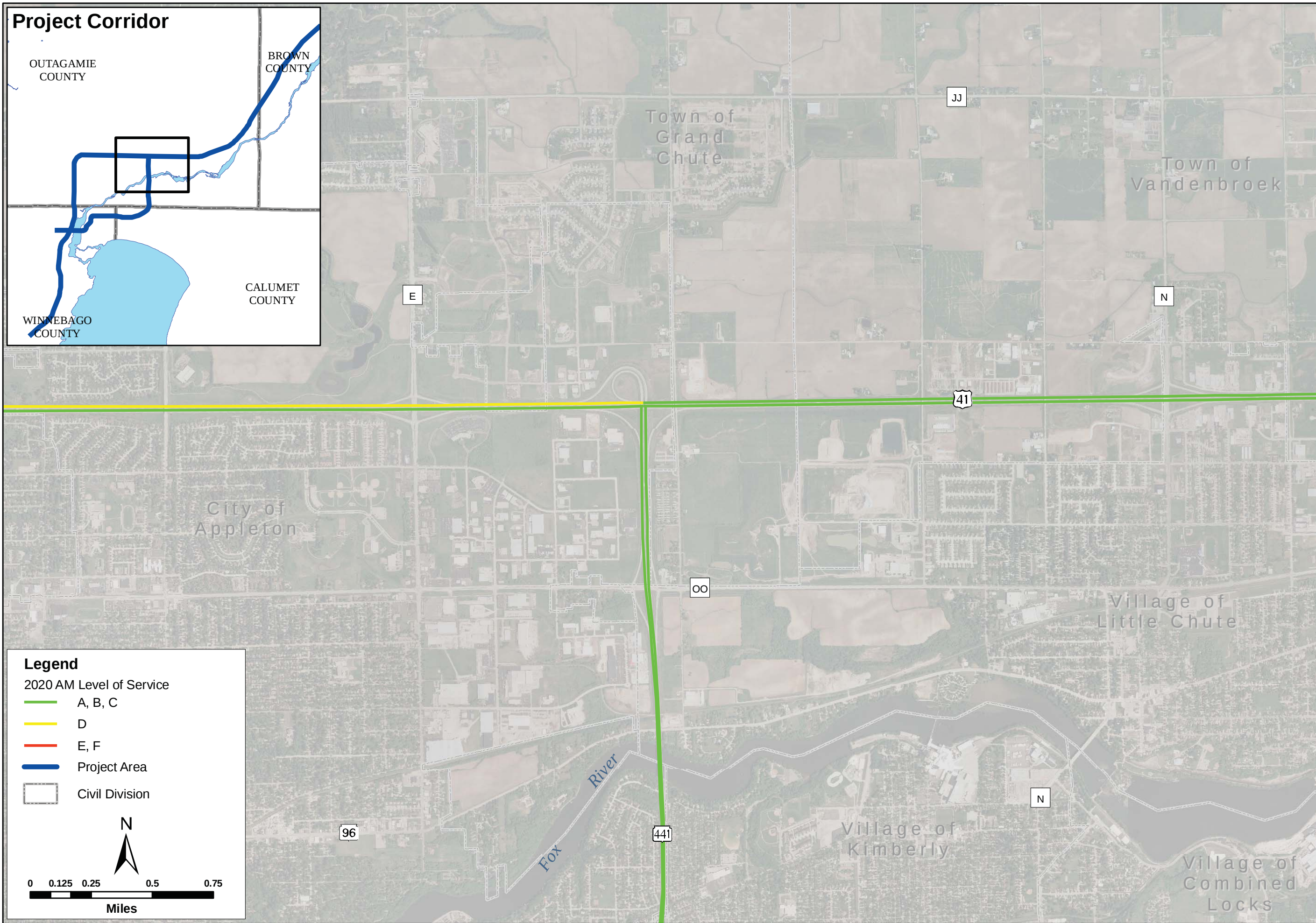
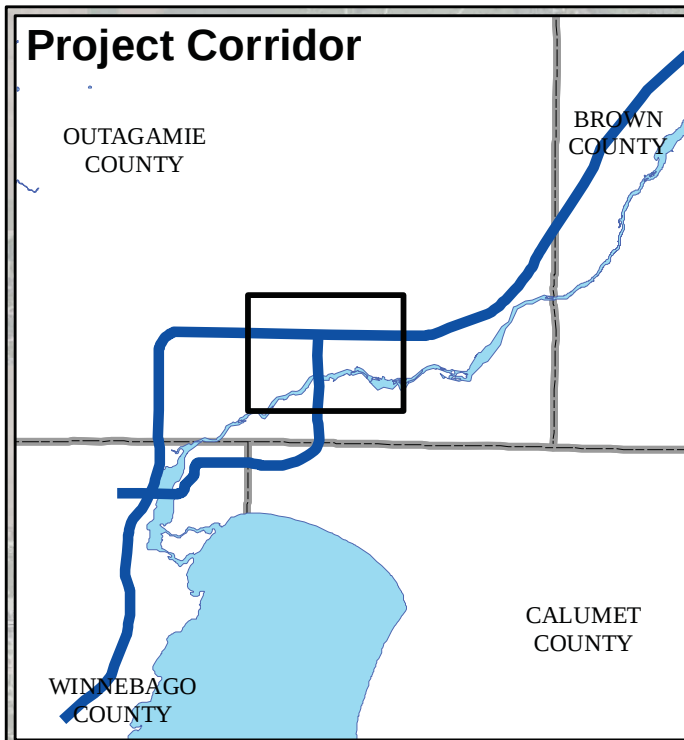


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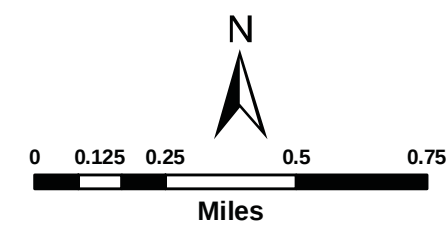
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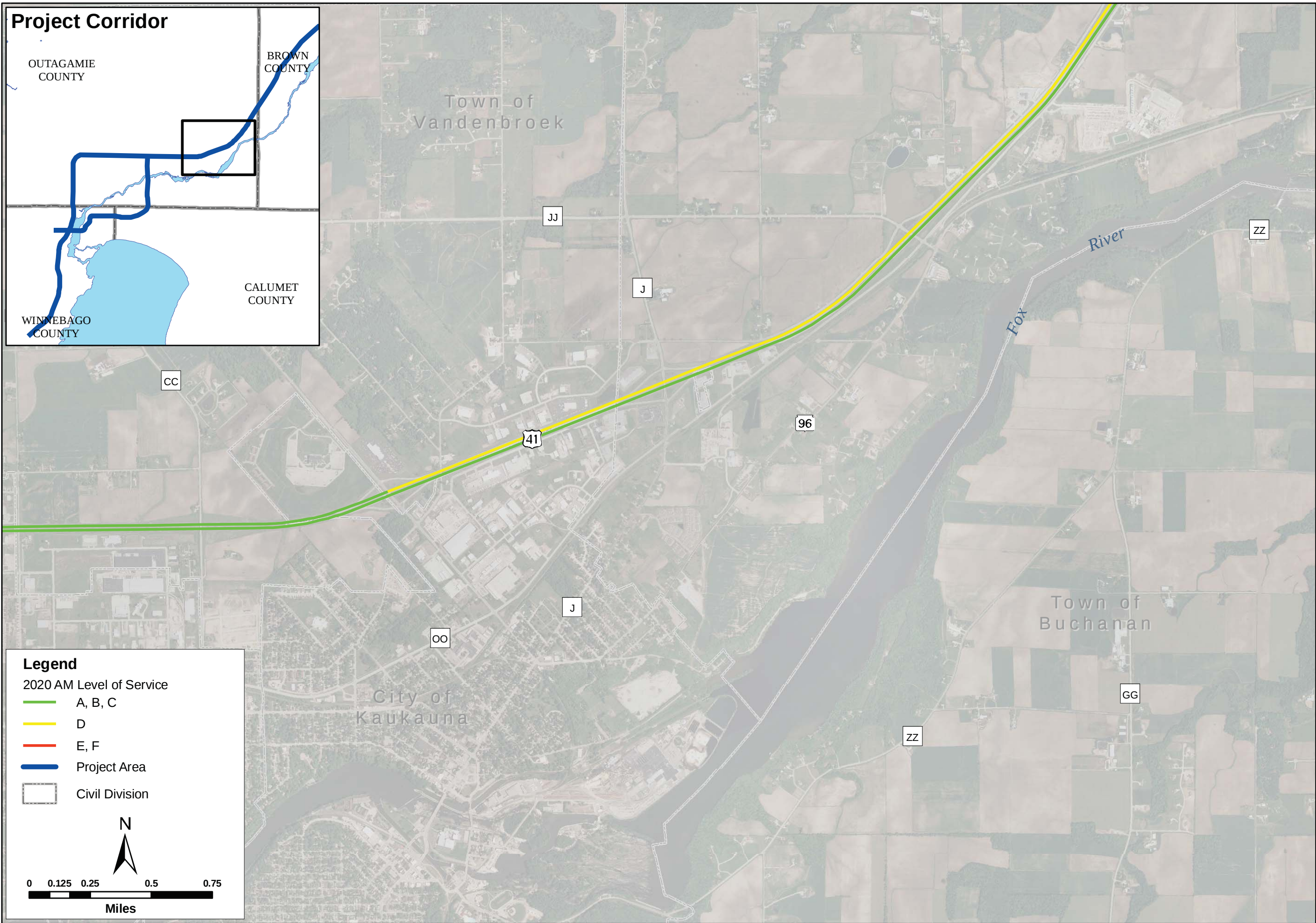
2020 LEVEL OF SERVICE (AM)

HNTB

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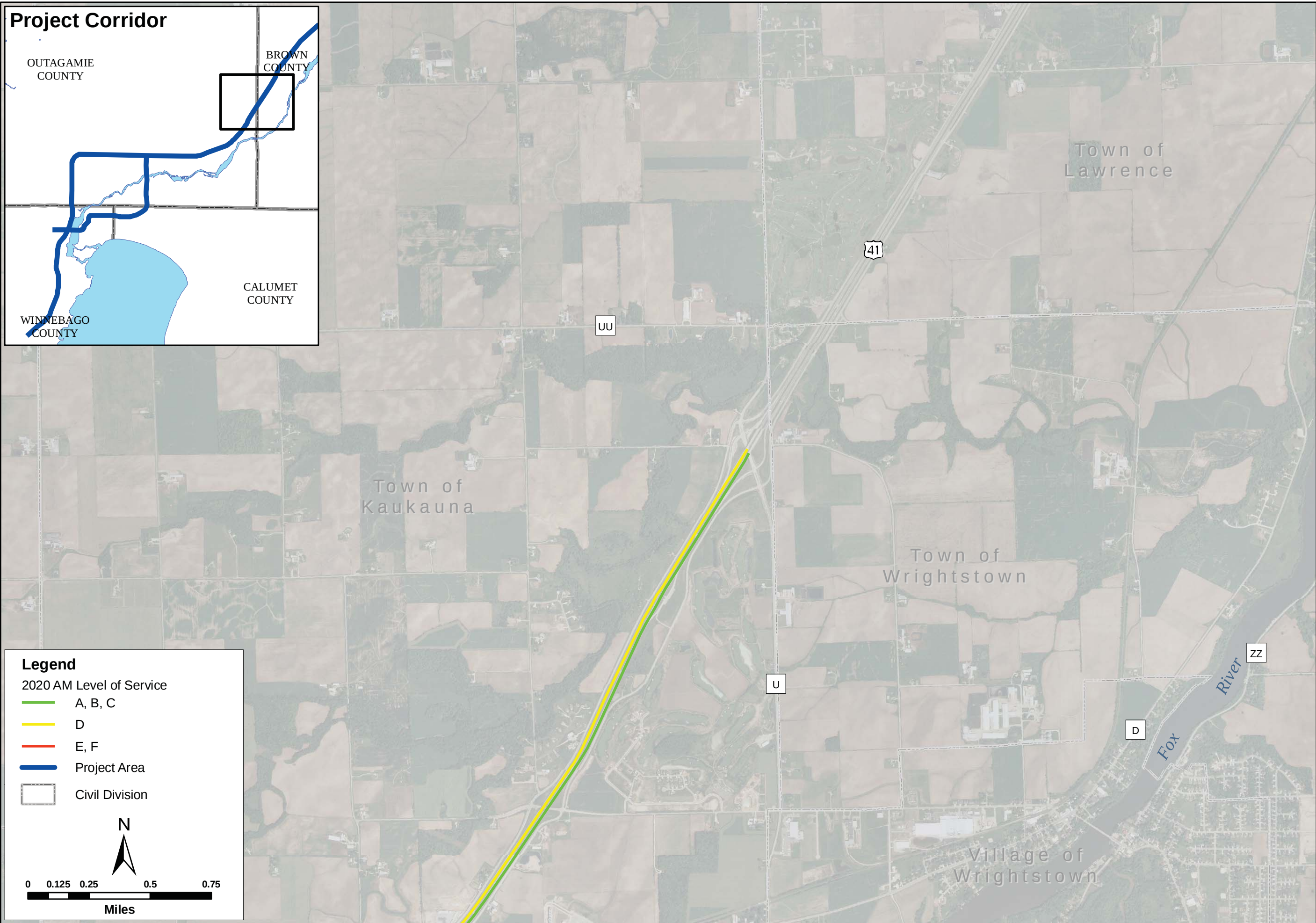
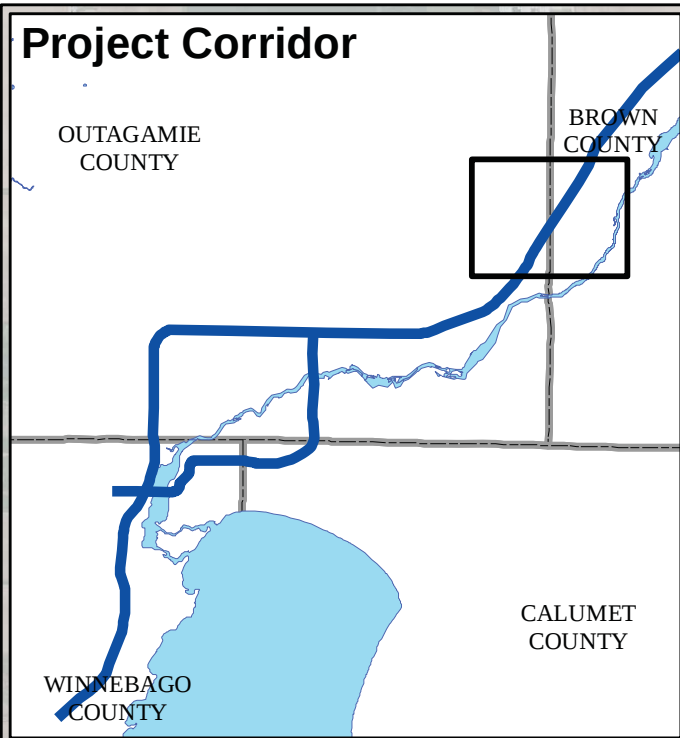
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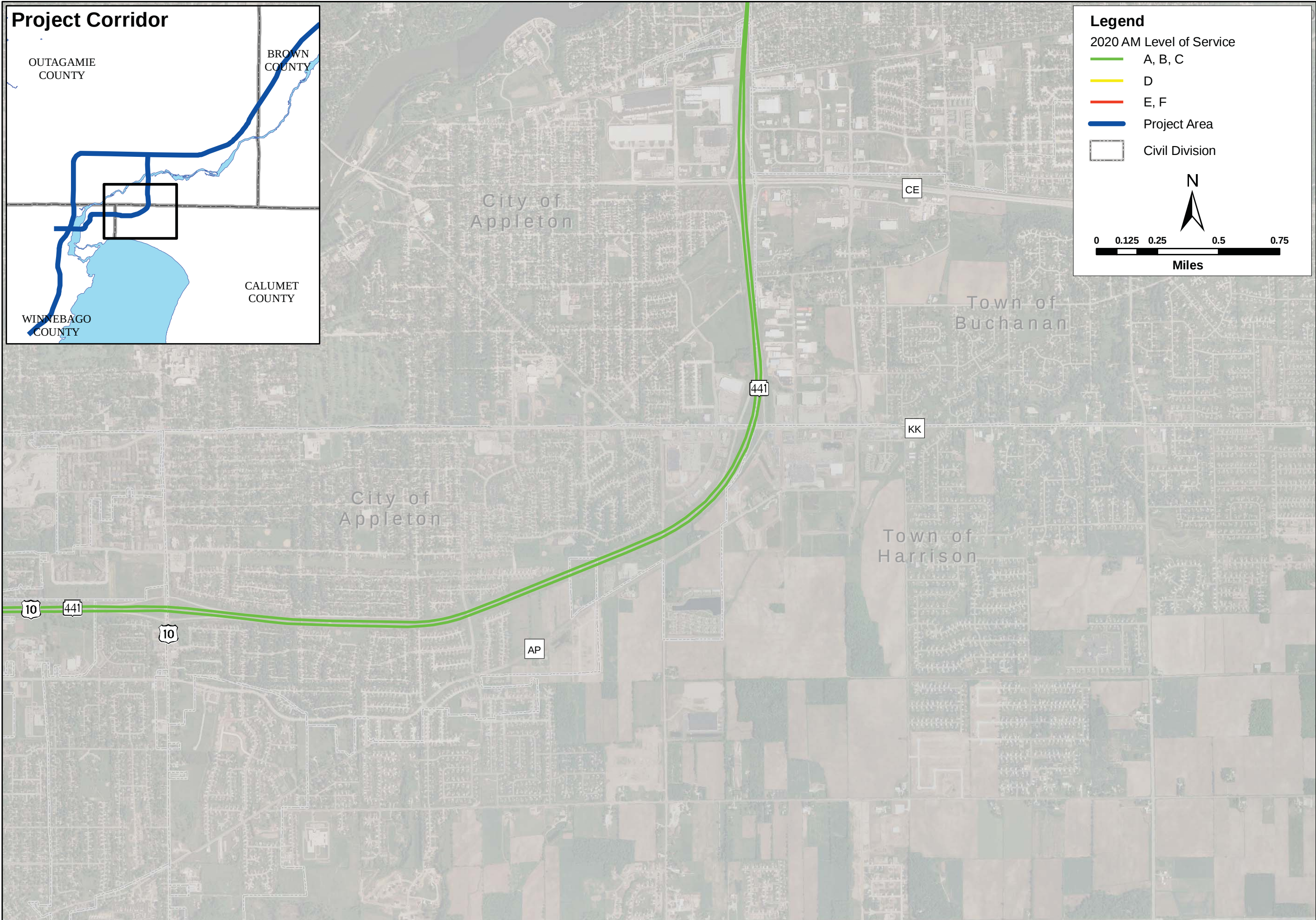
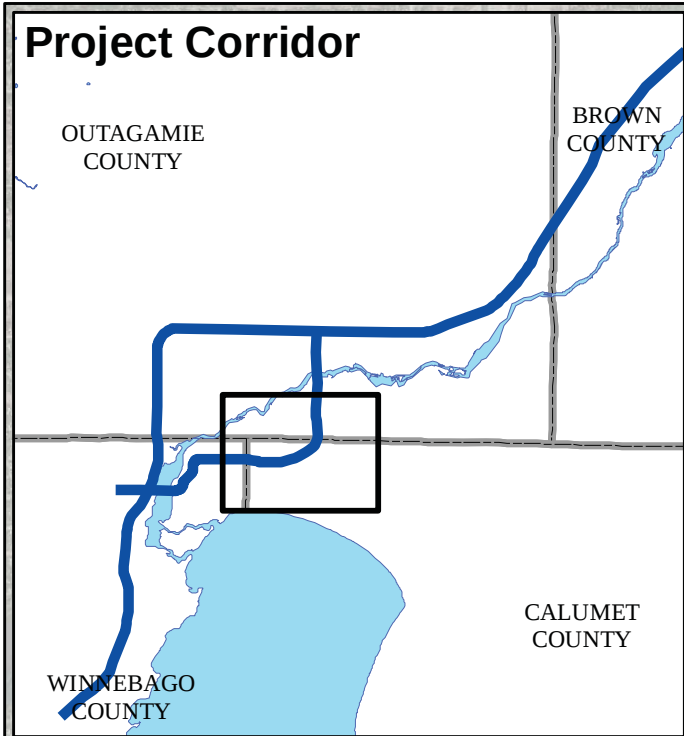
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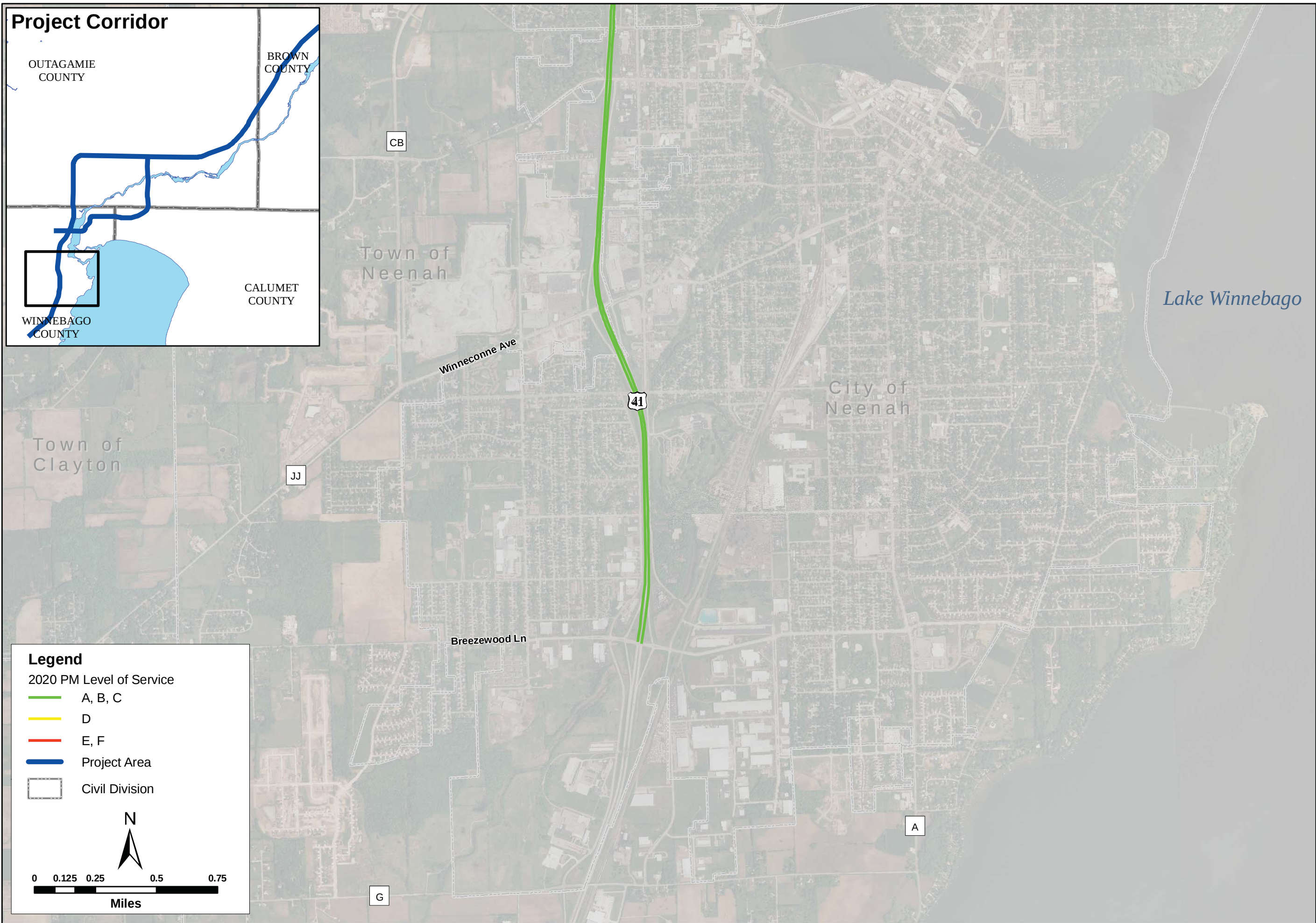
Legend

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- A, B, C
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Miles

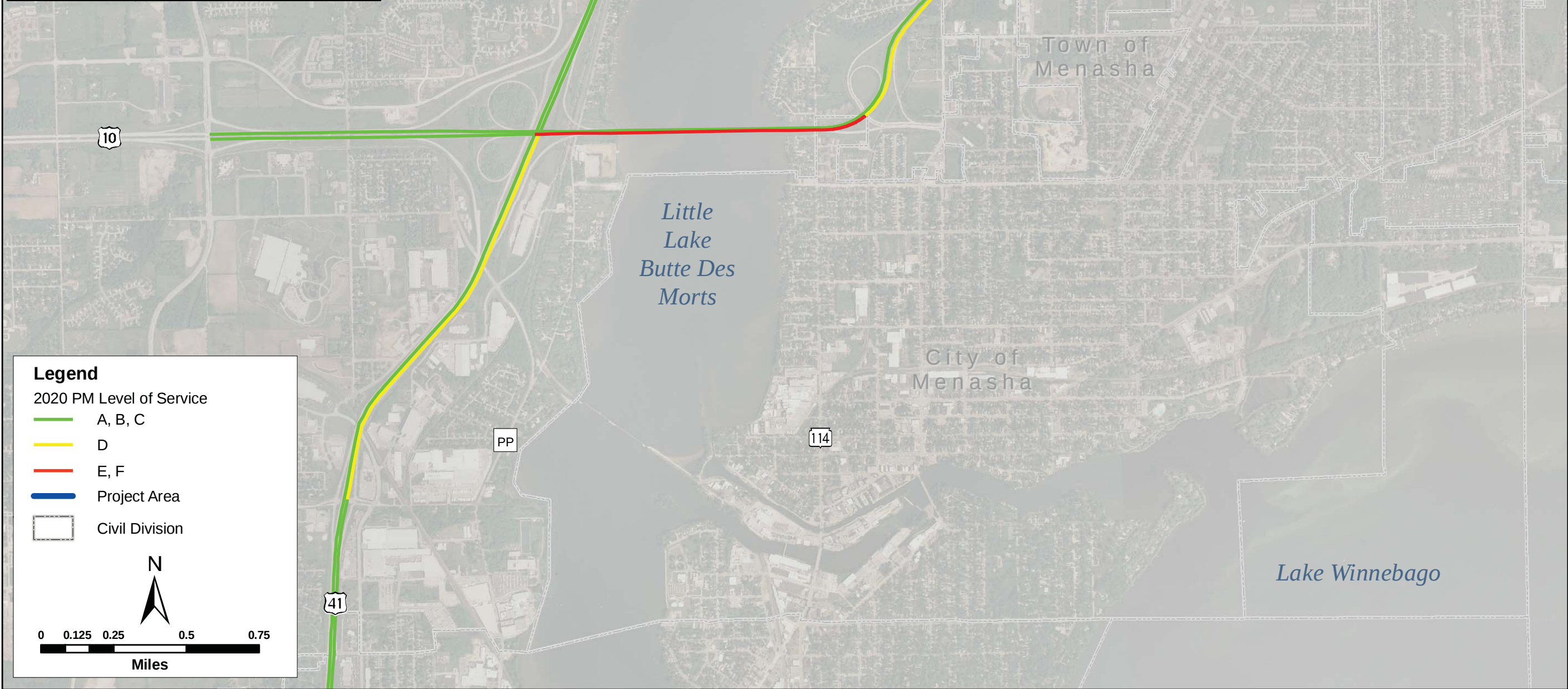
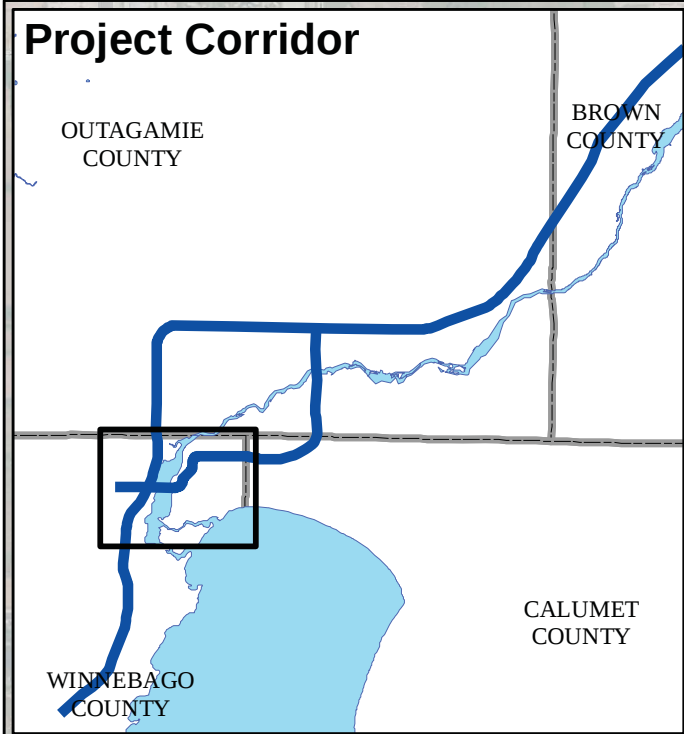


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Legend

2020 PM Level of Service

- A, B, C
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Miles



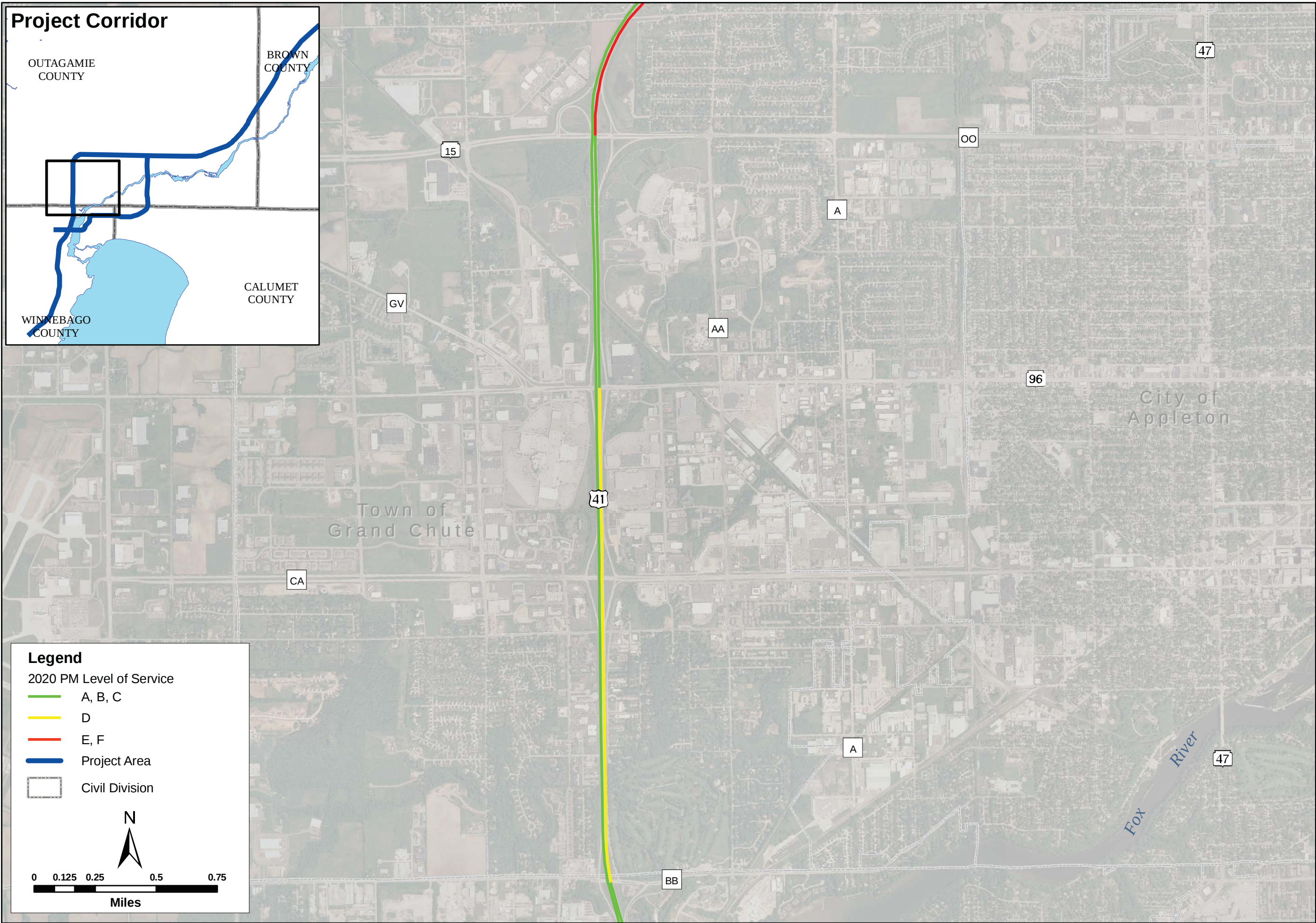
US 41 / WIS 441
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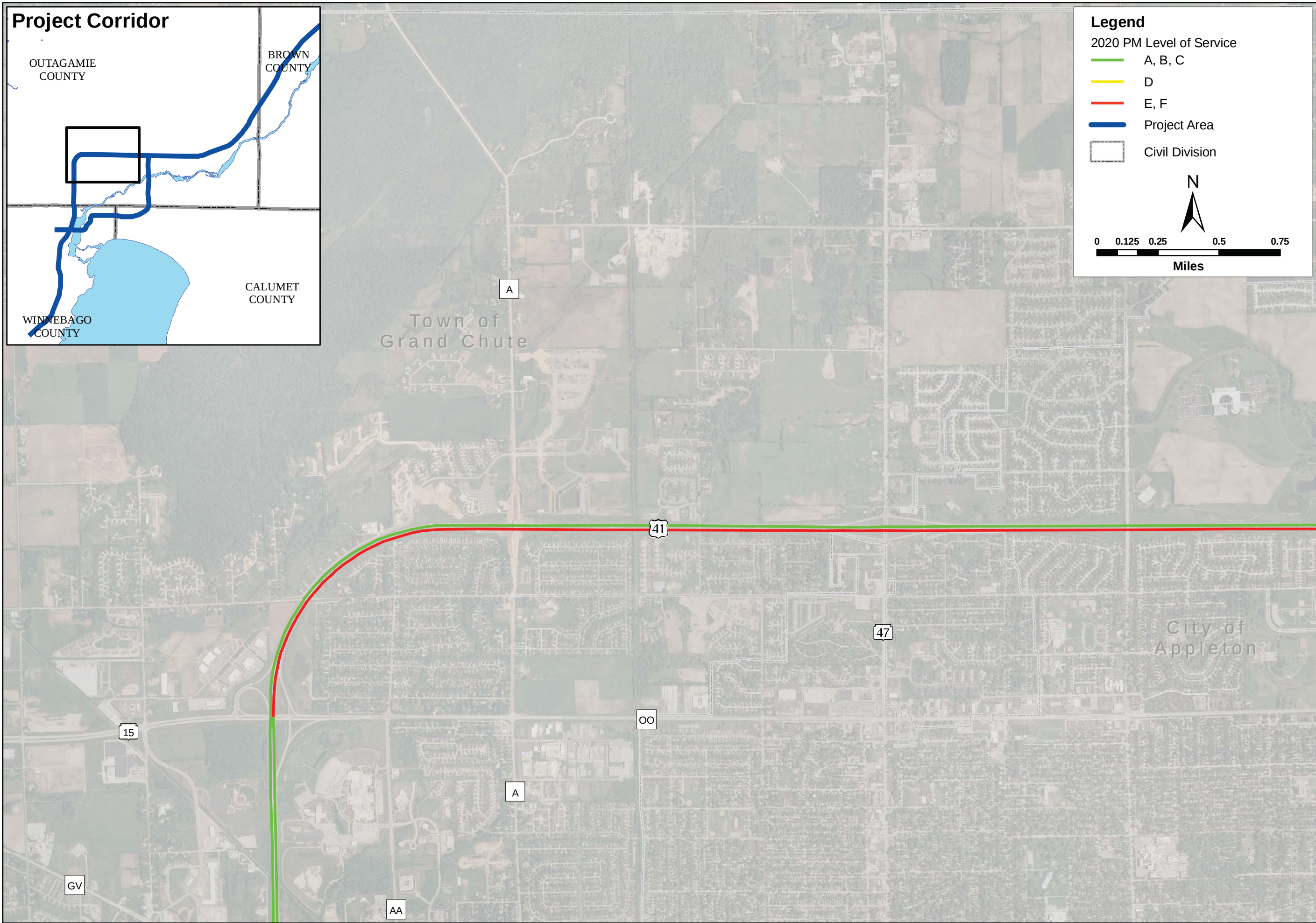


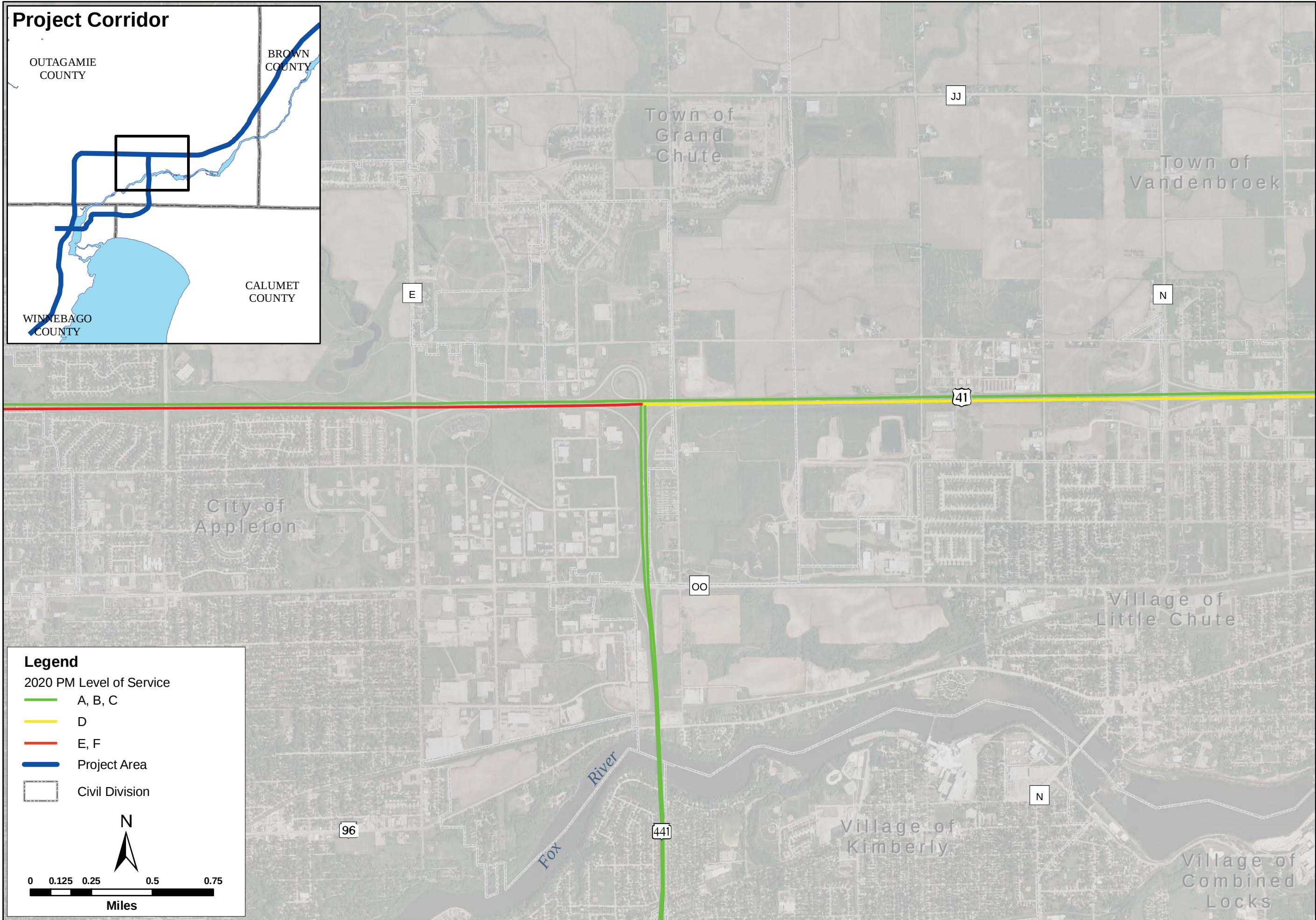
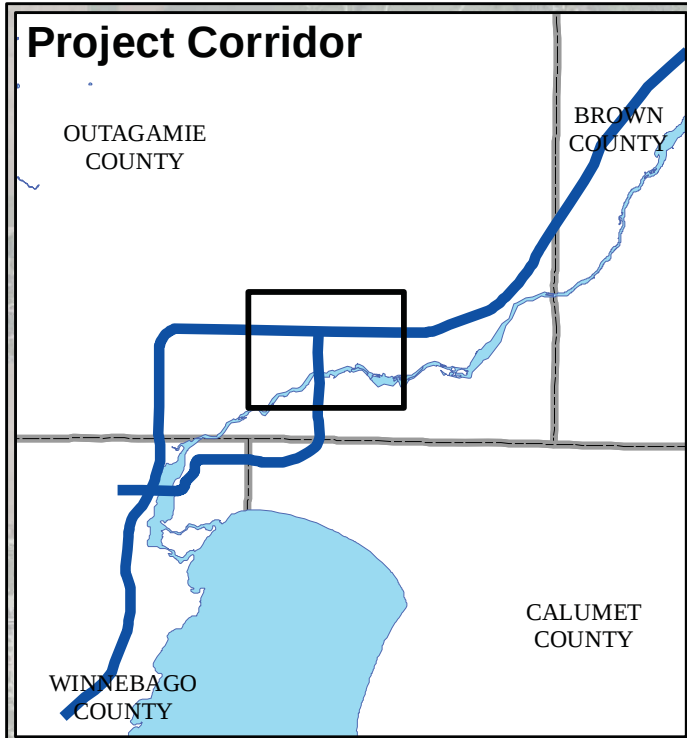
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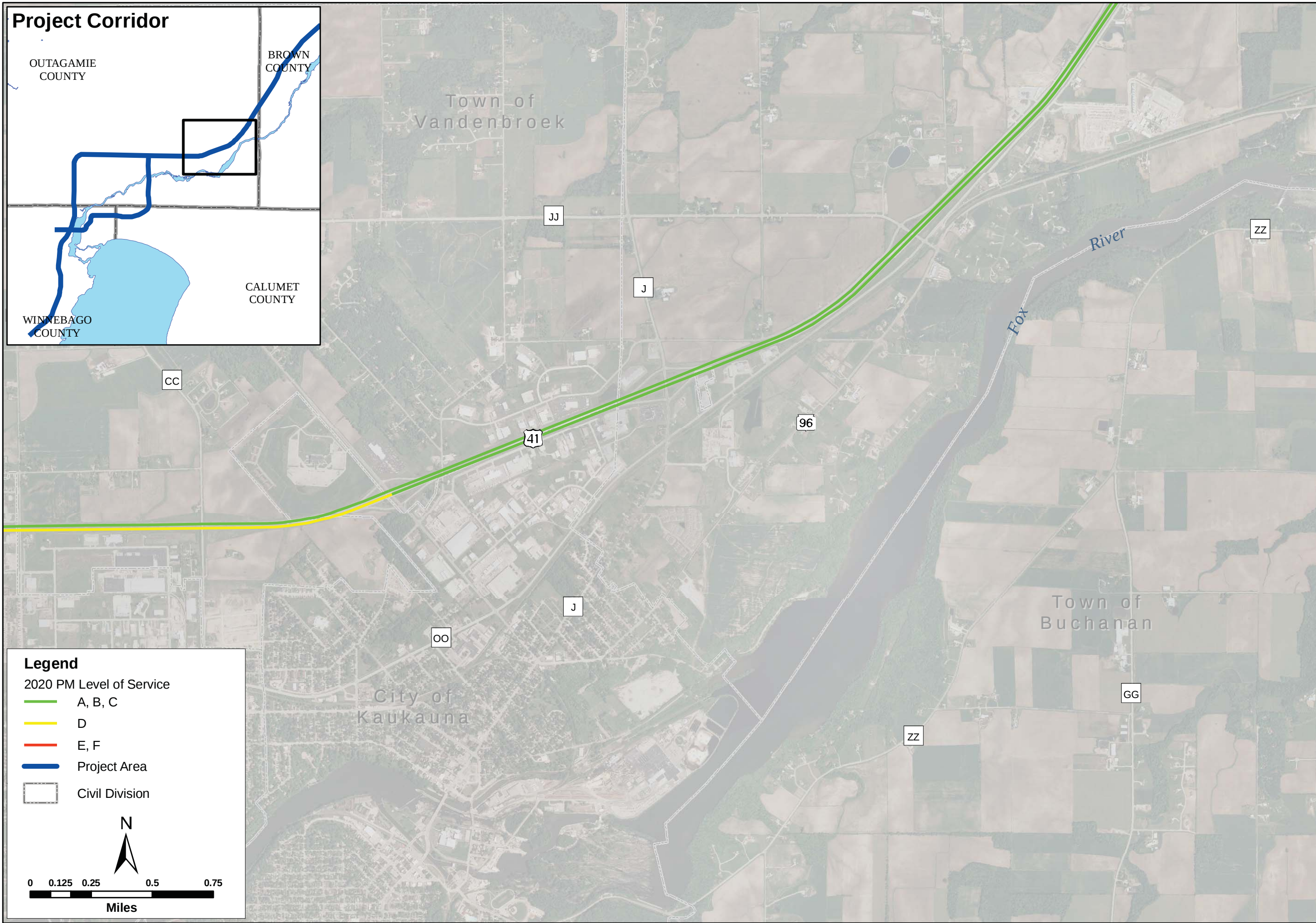
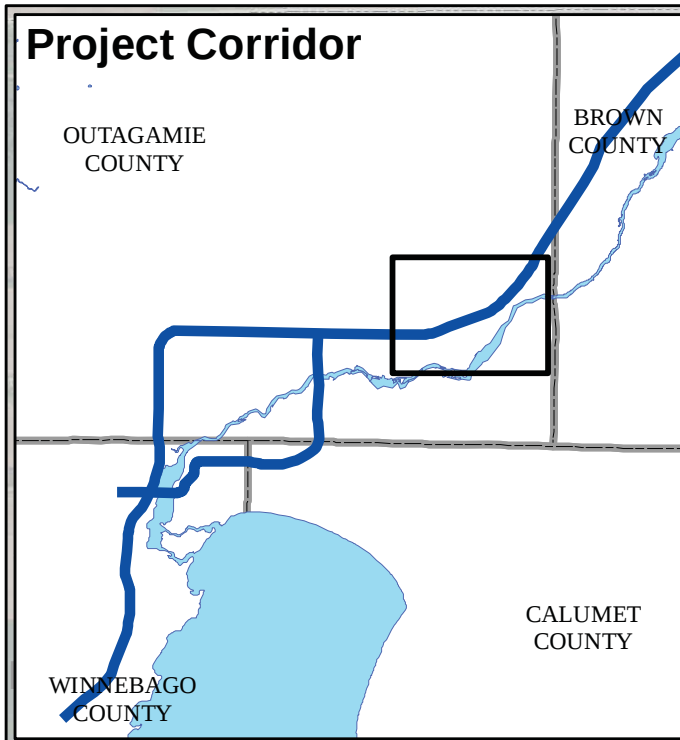
2020 LEVEL OF SERVICE (PM)



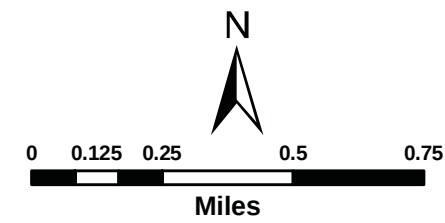
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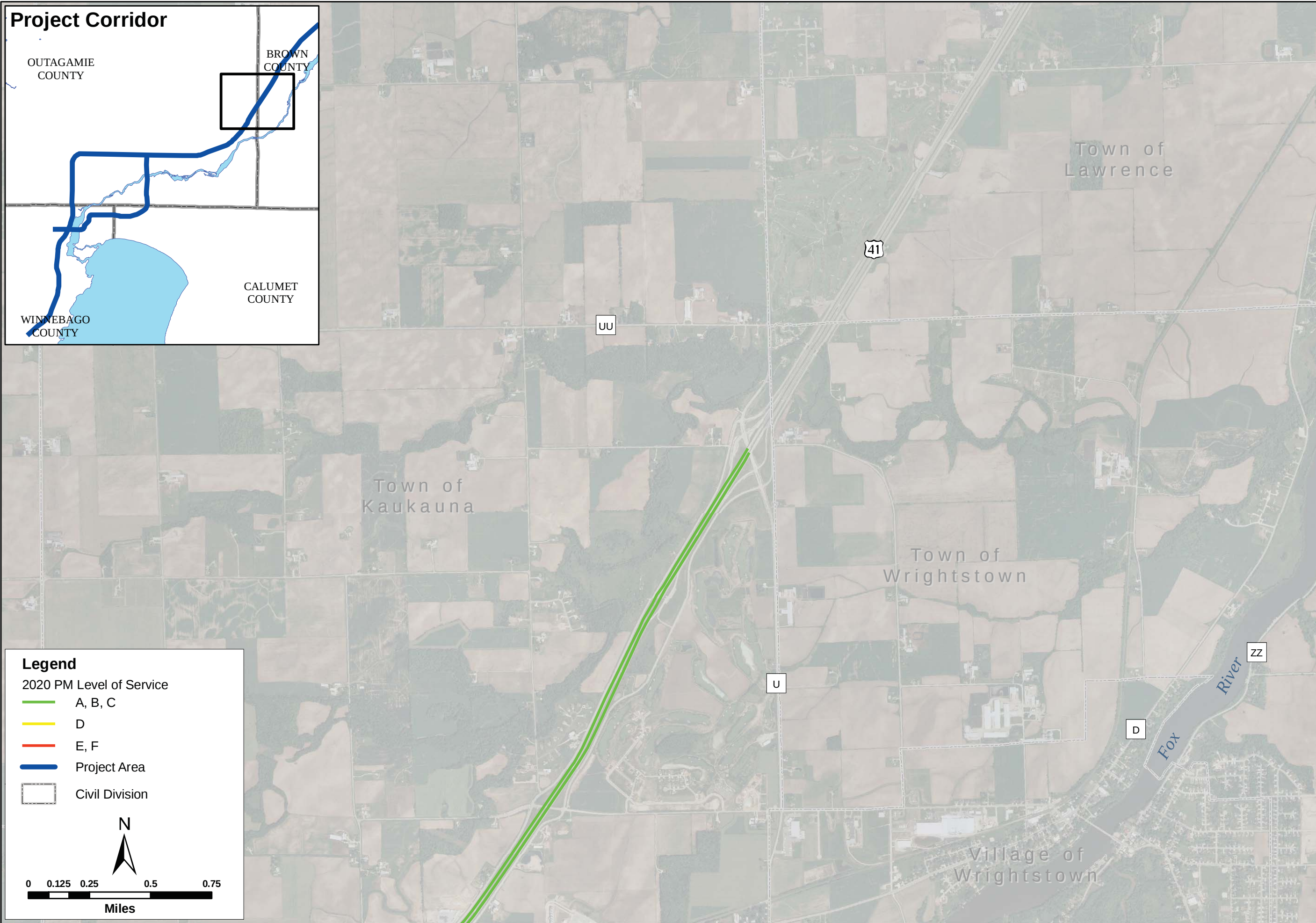
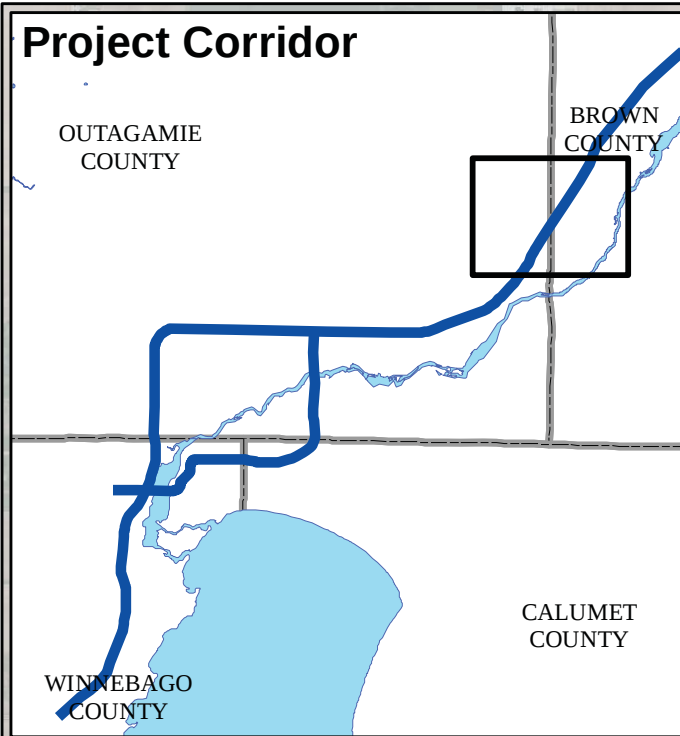
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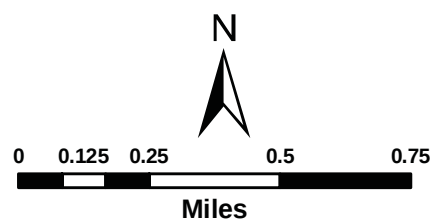
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US 41 / WIS 441

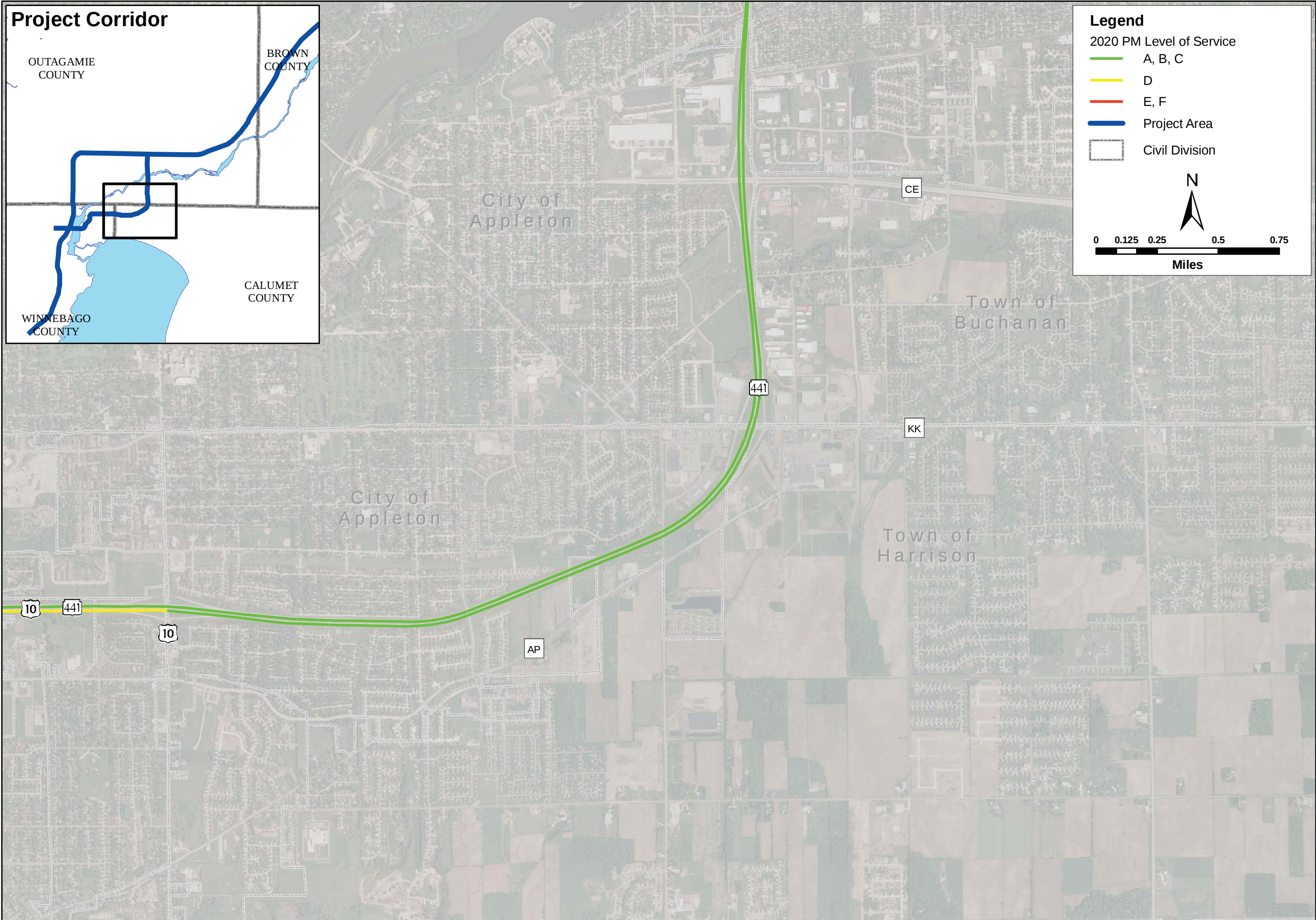
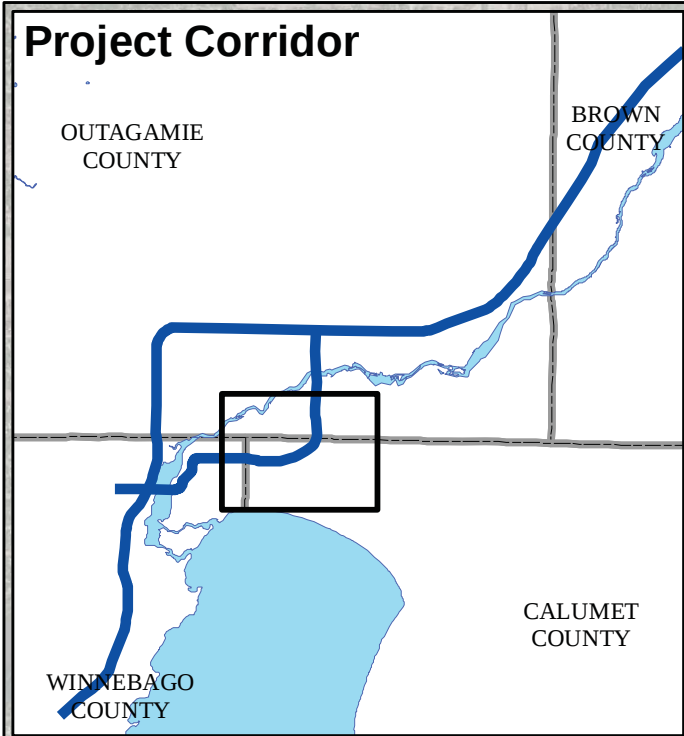
2020 LEVEL OF SERVICE (PM)



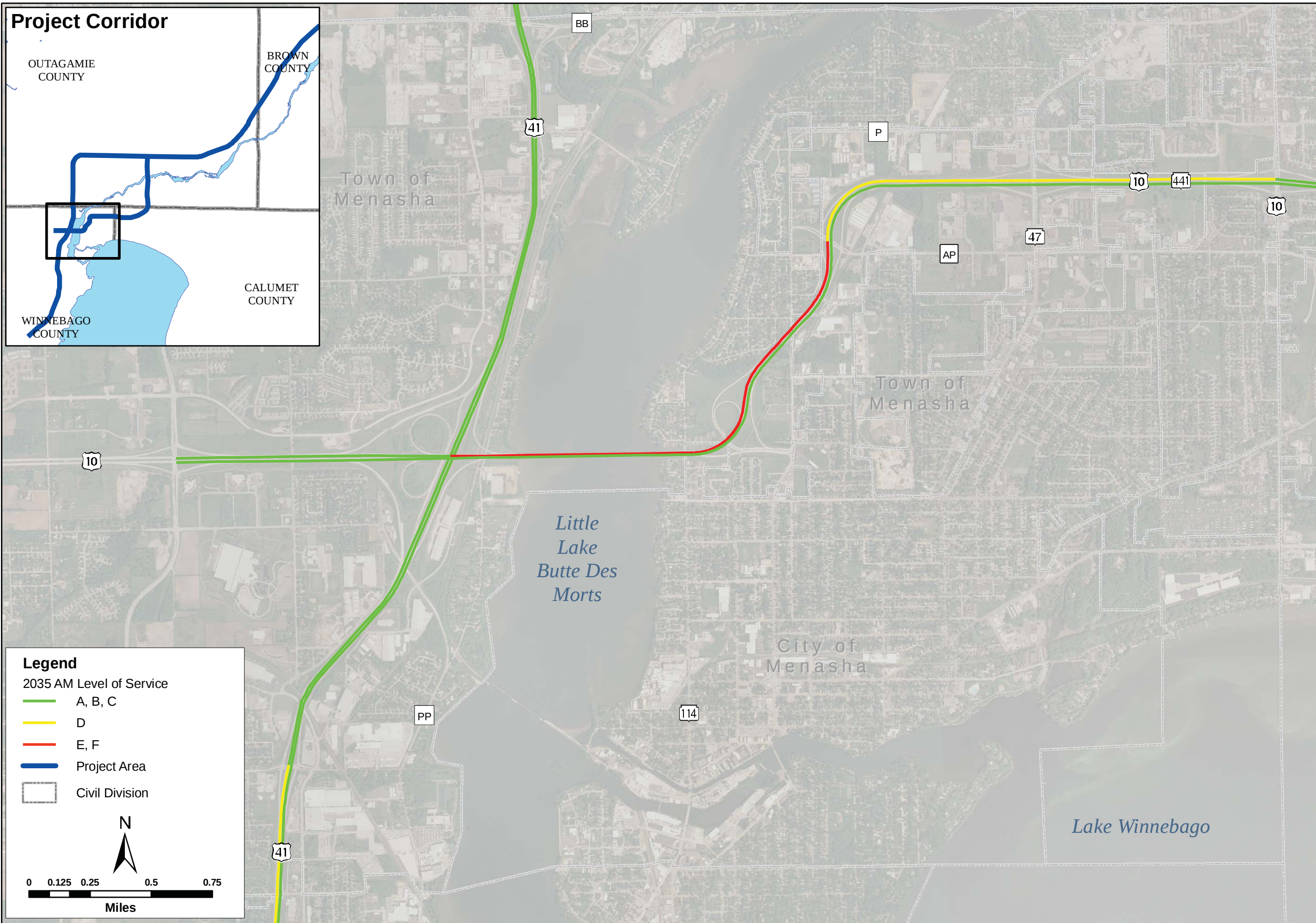
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US 41 / WIS 441

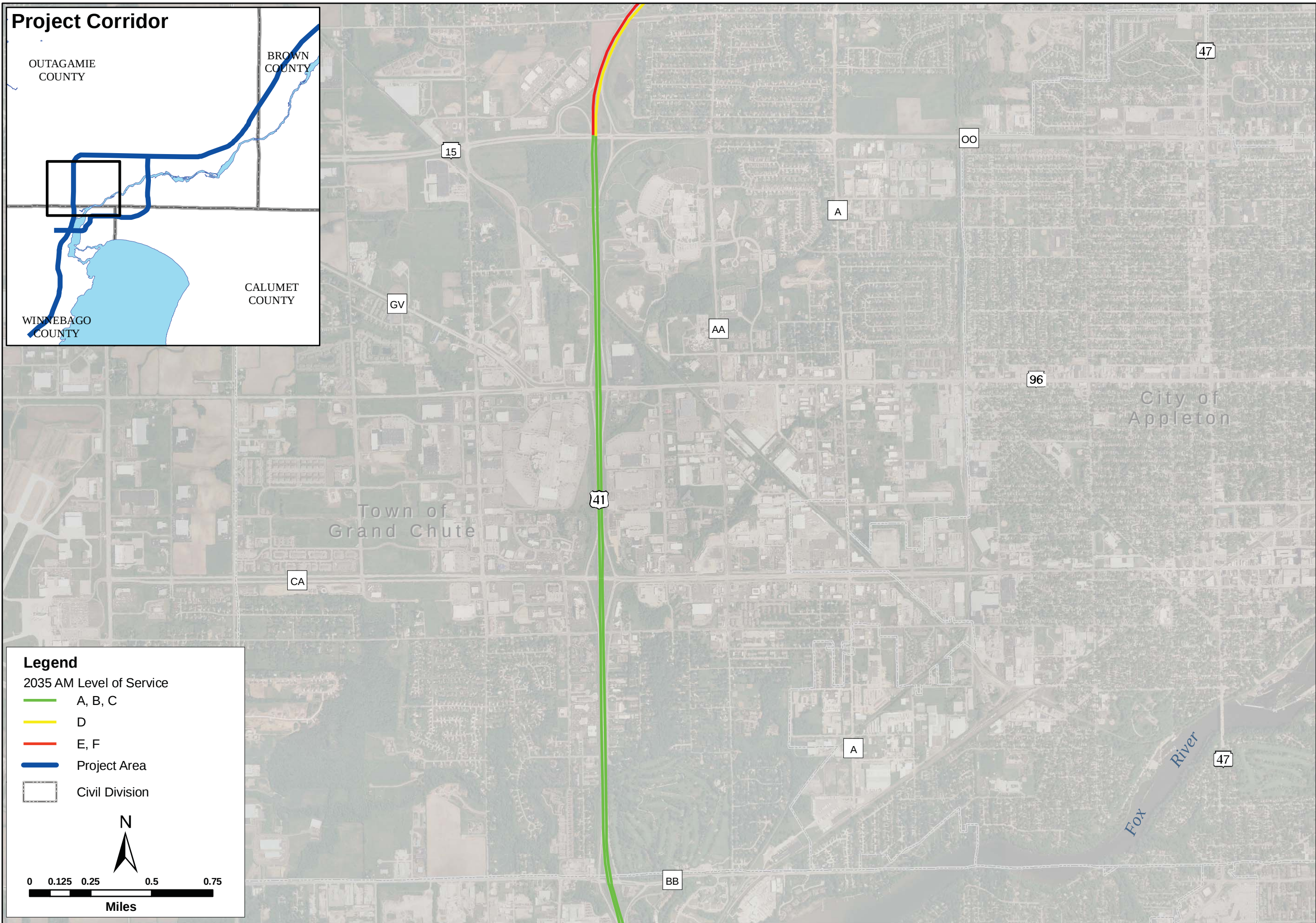
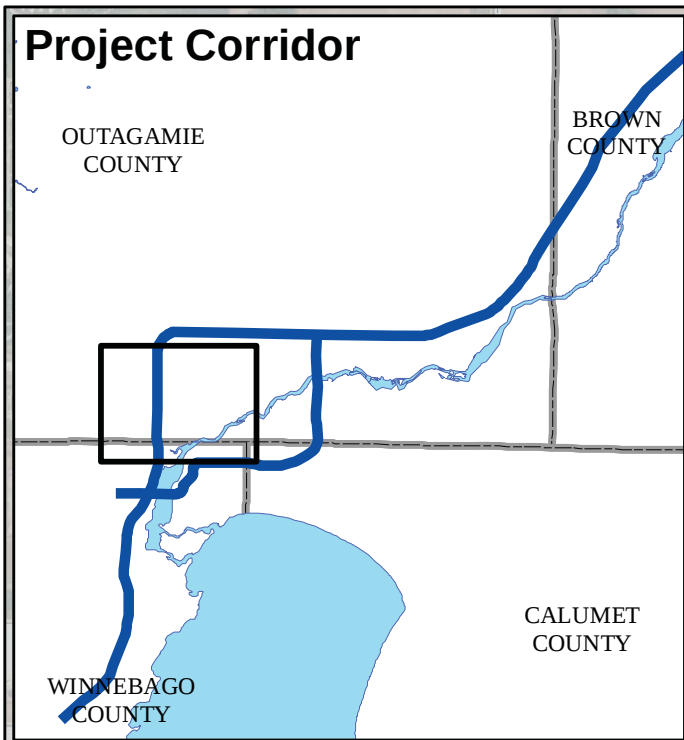
2035 LEVEL OF SERVICE (AM)



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Legend

2035 AM Level of Service

- A, B, C
- D
- E, F
- Project Area
- Civil Division

N

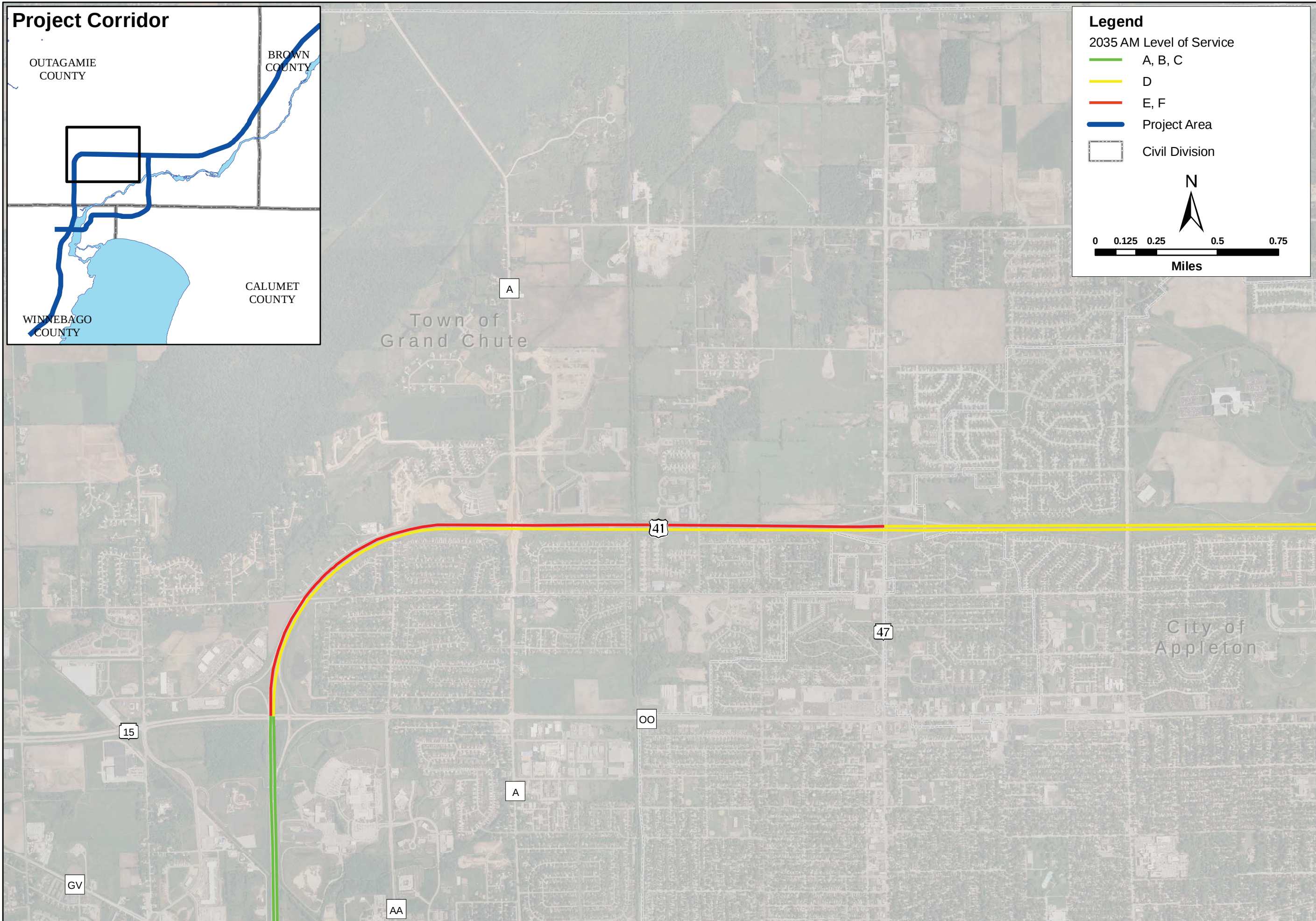
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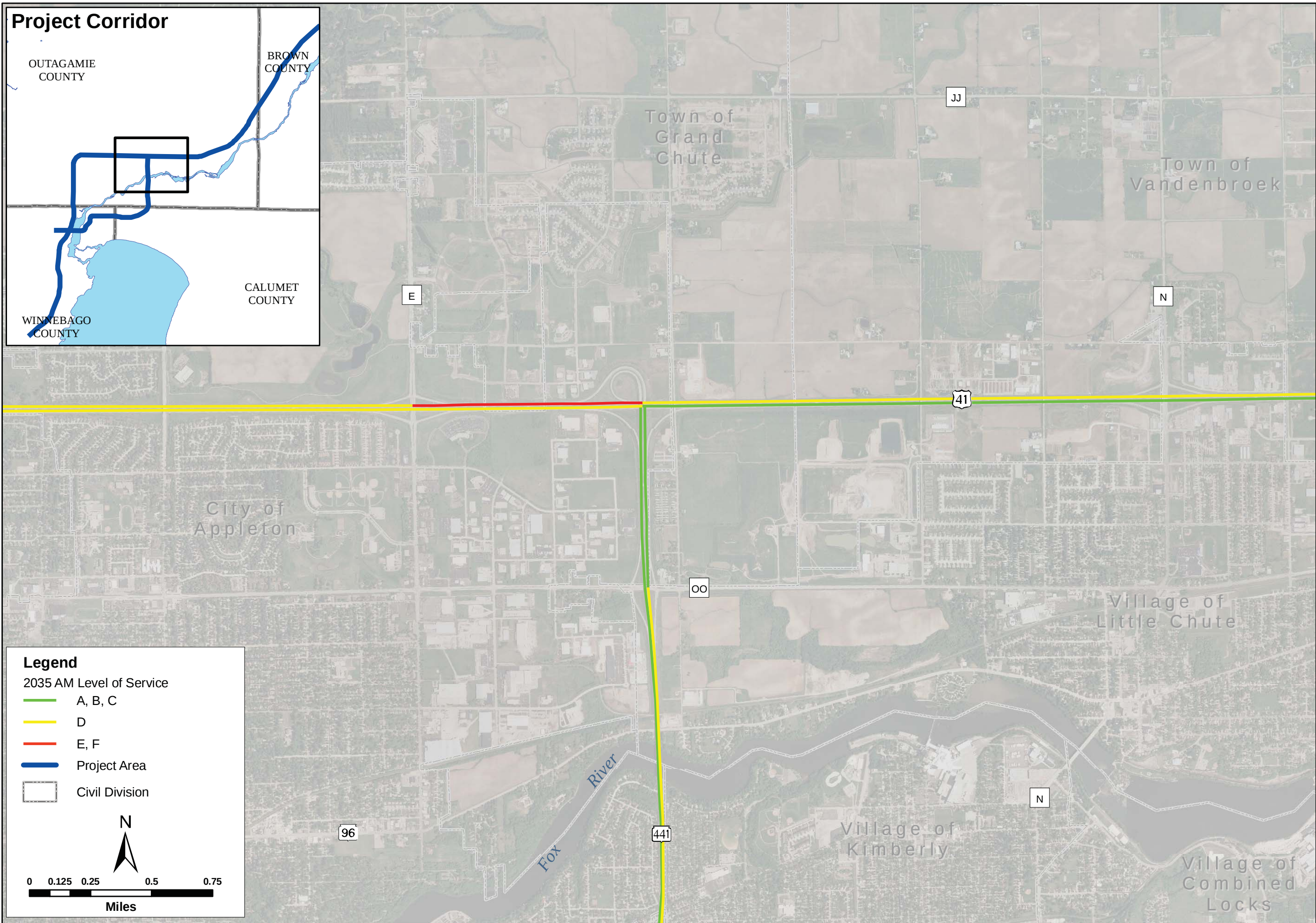
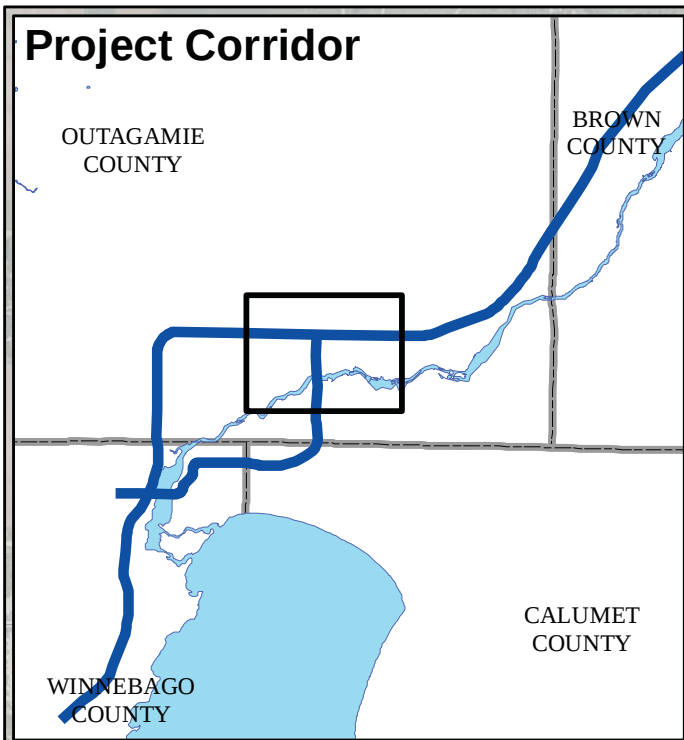
Miles



US 41 / WIS 441
2035 LEVEL OF SERVICE (AM)







US 41 / WIS 441

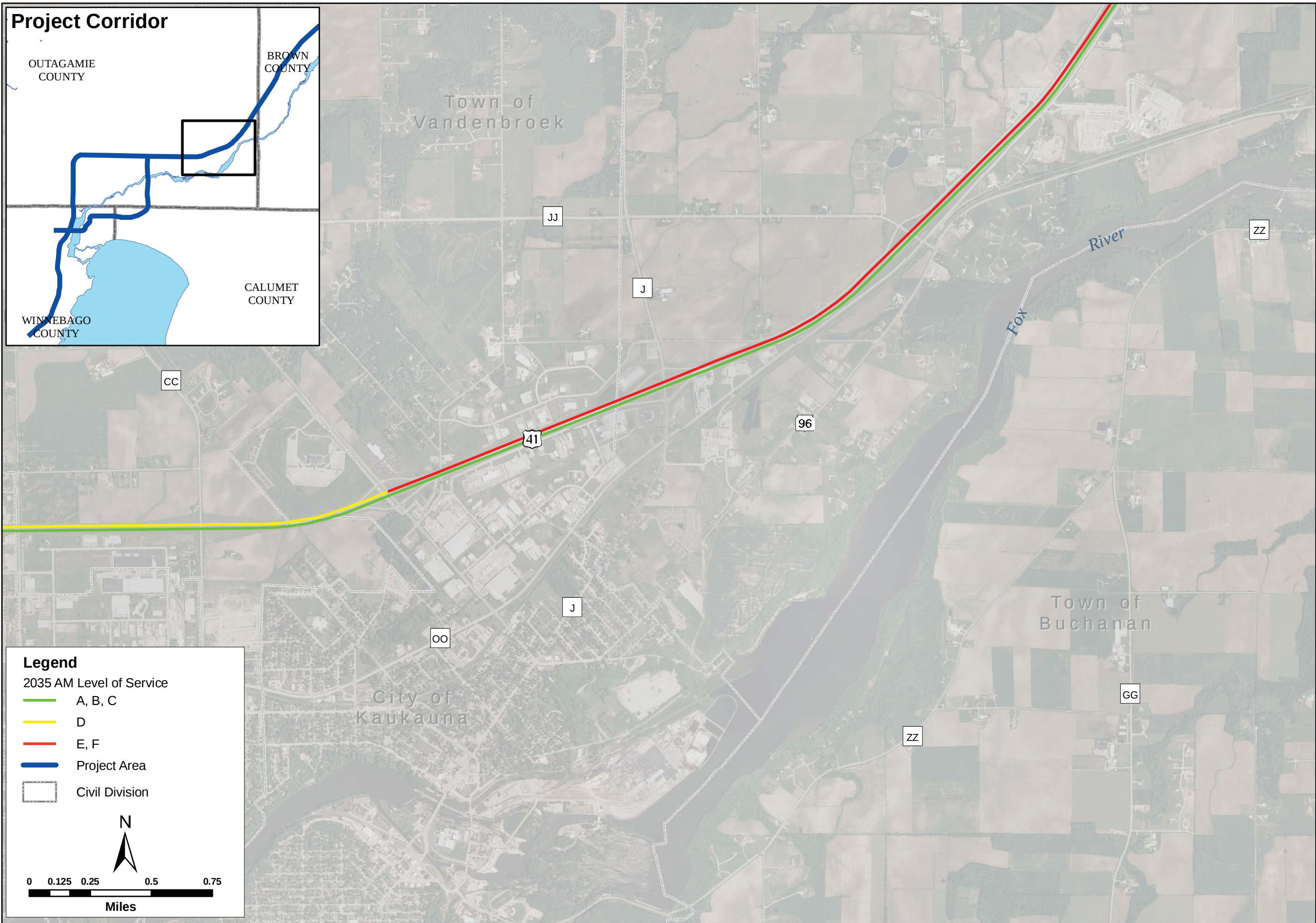
2035 LEVEL OF SERVICE (AM)



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US 41 / WIS 441

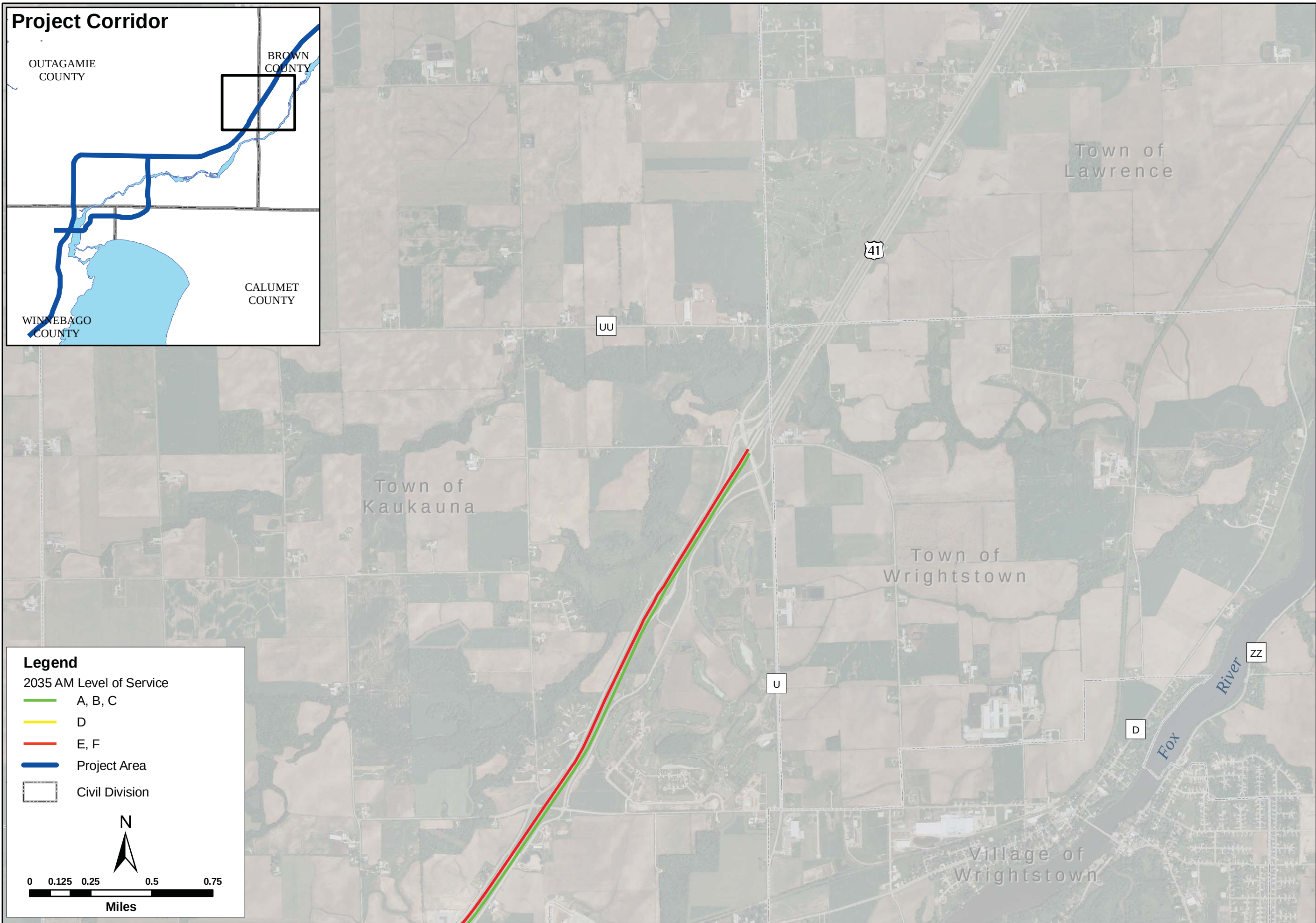
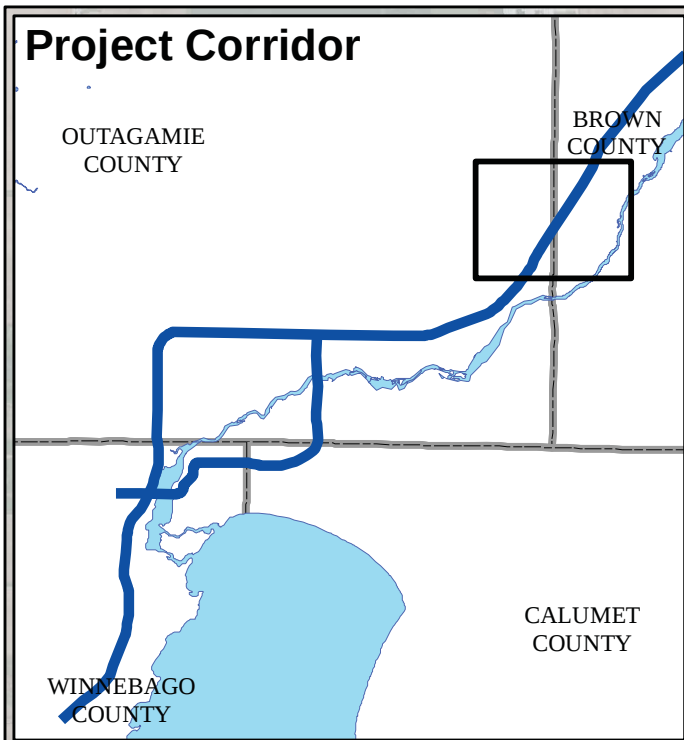
2035 LEVEL OF SERVICE (AM)



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Legend

2035 AM Level of Service

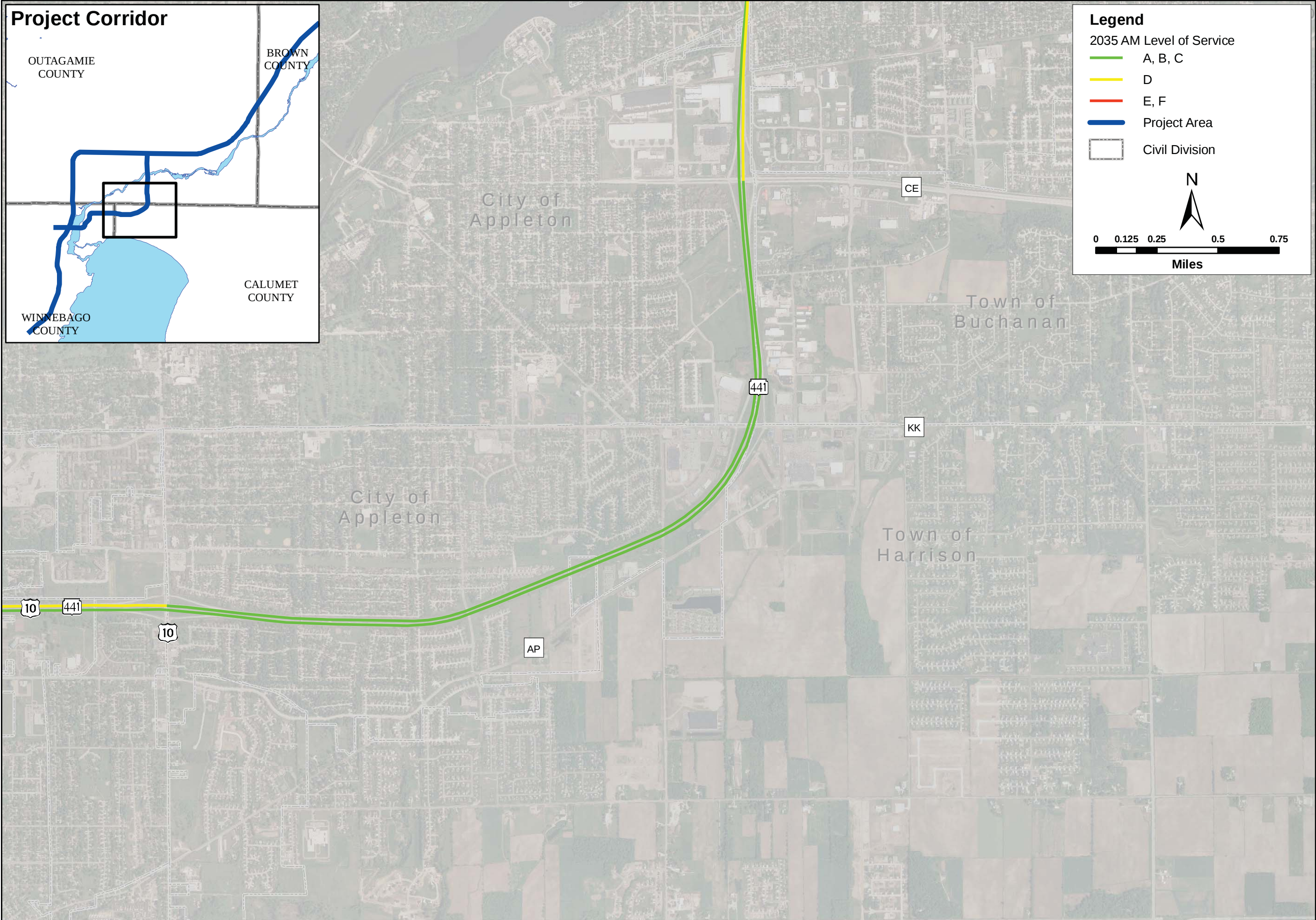
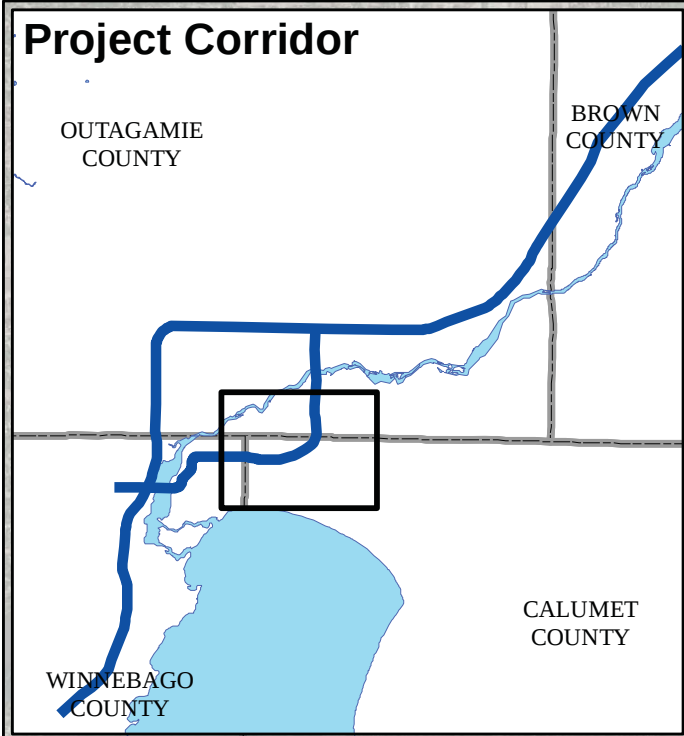
- A, B, C
- D
- E, F
- Project Area
- Civil Division

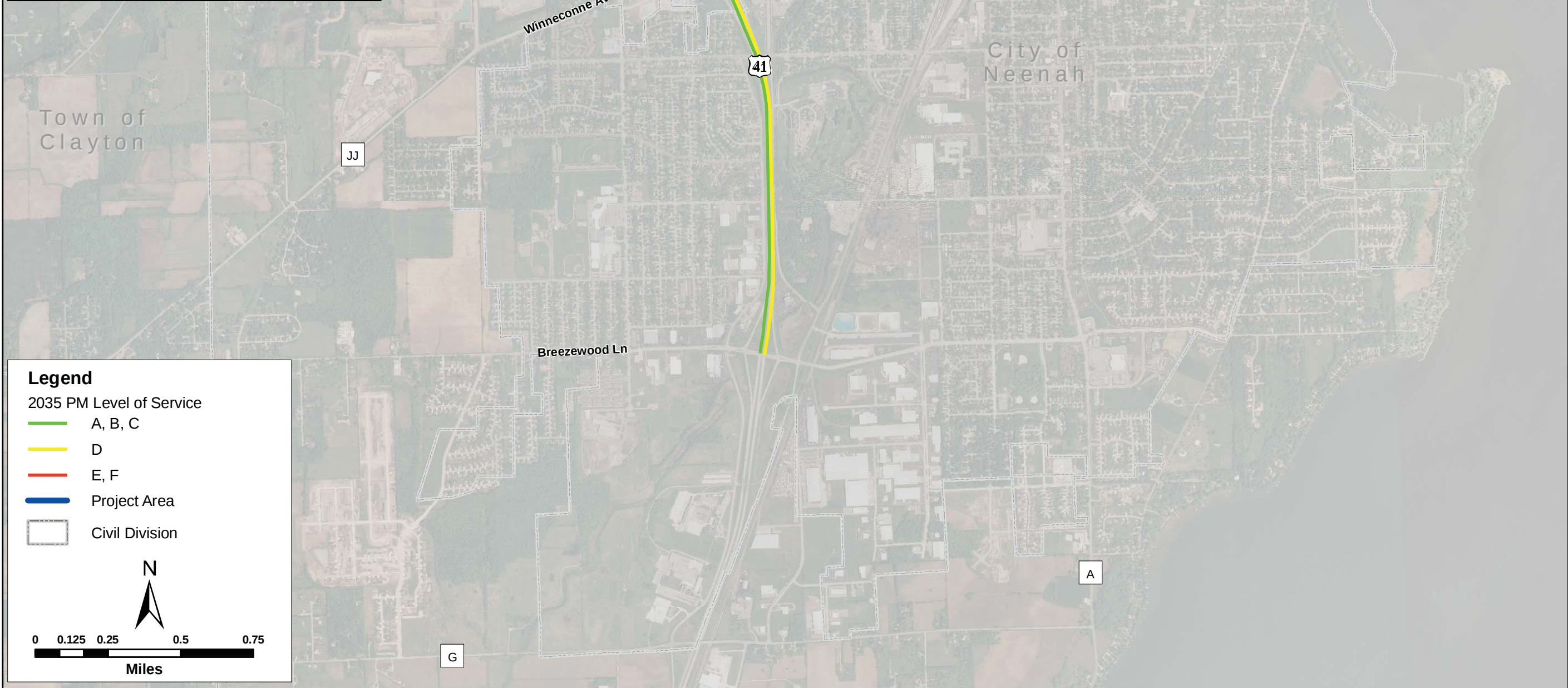
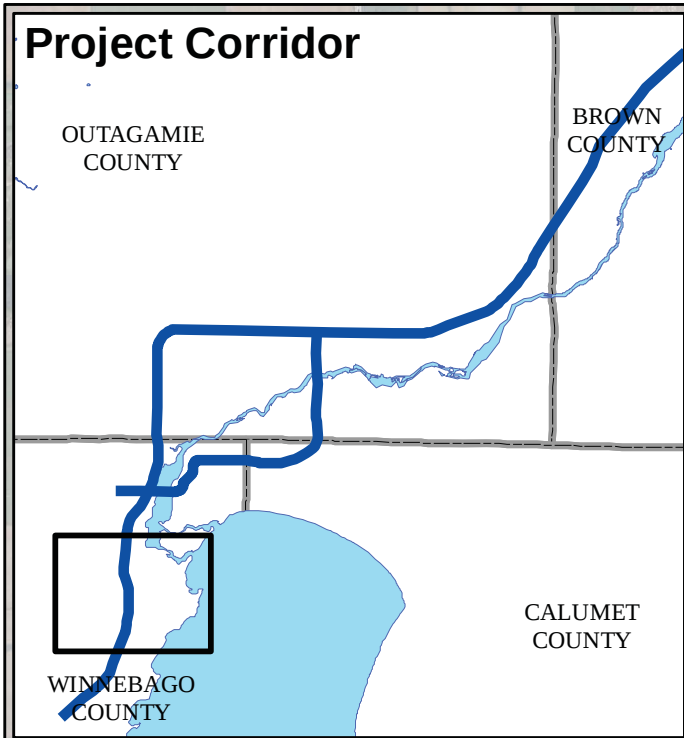
North Arrow

Scale

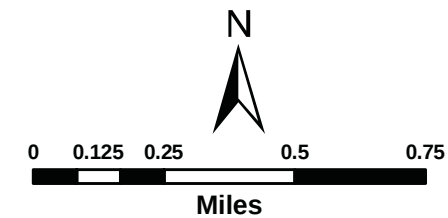
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Miles





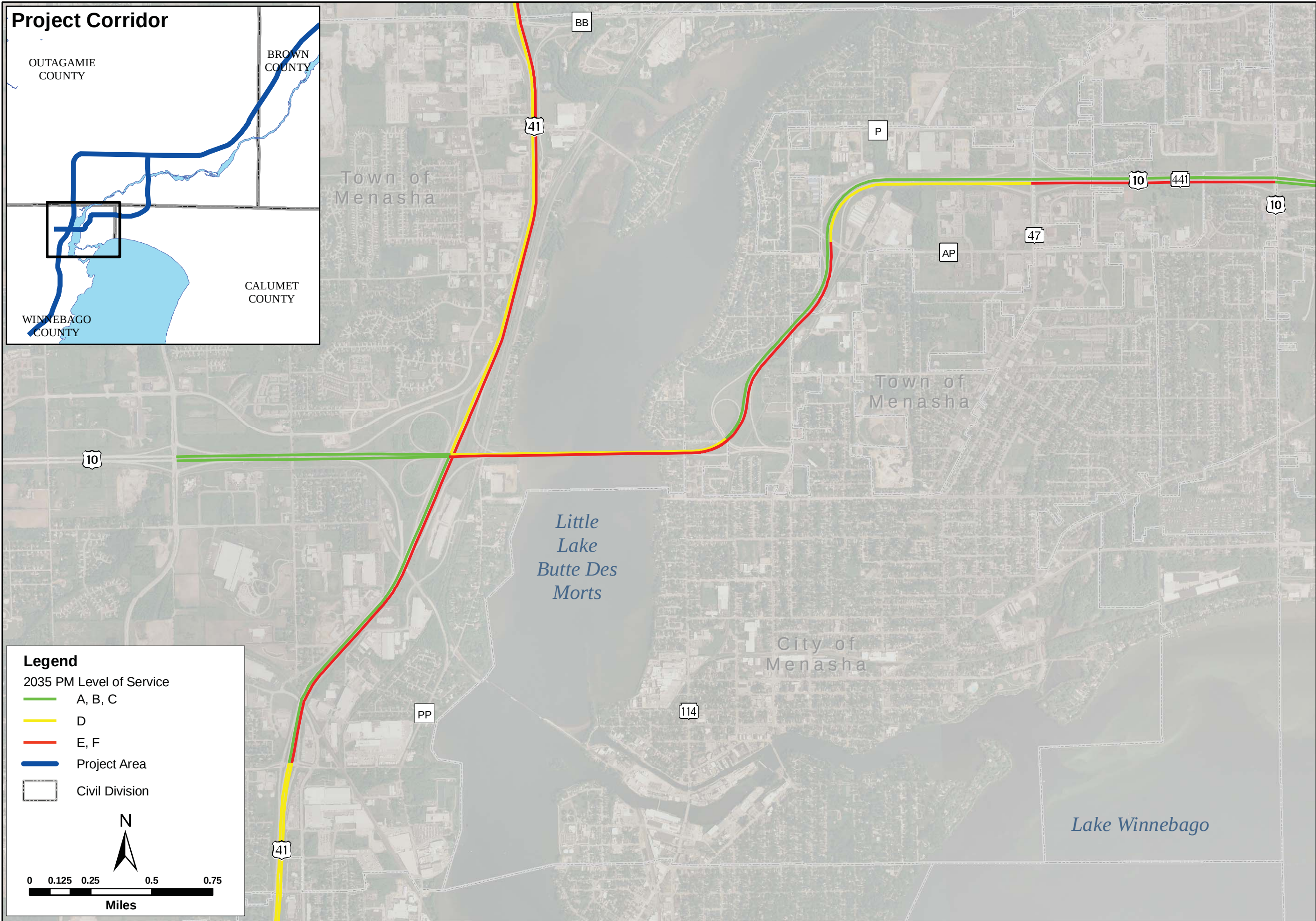
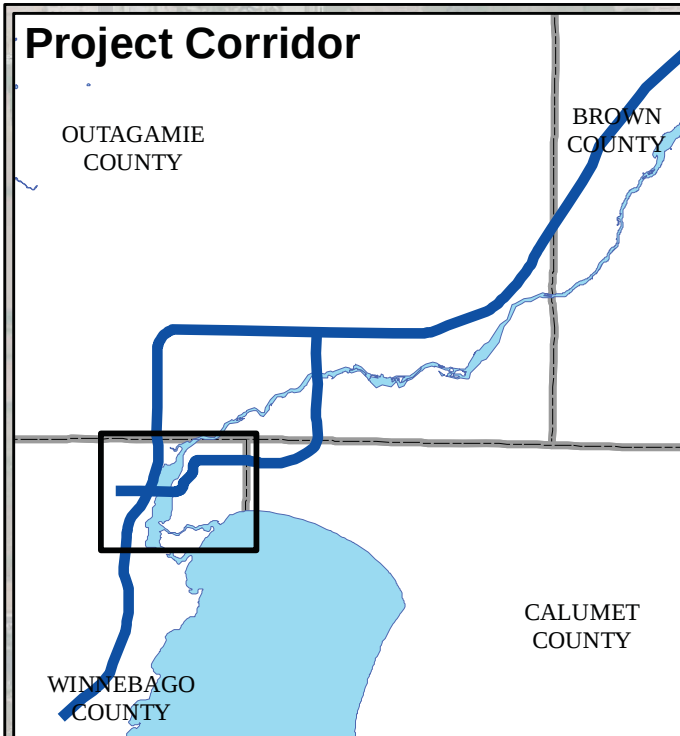
- Legend**
- 2035 PM Level of Service
- A, B, C
 - D
 - E, F
 - Project Area
 - Civil Division



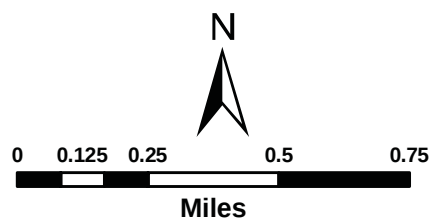
US 41 / WIS 441

2035 LEVEL OF SERVICE (PM)





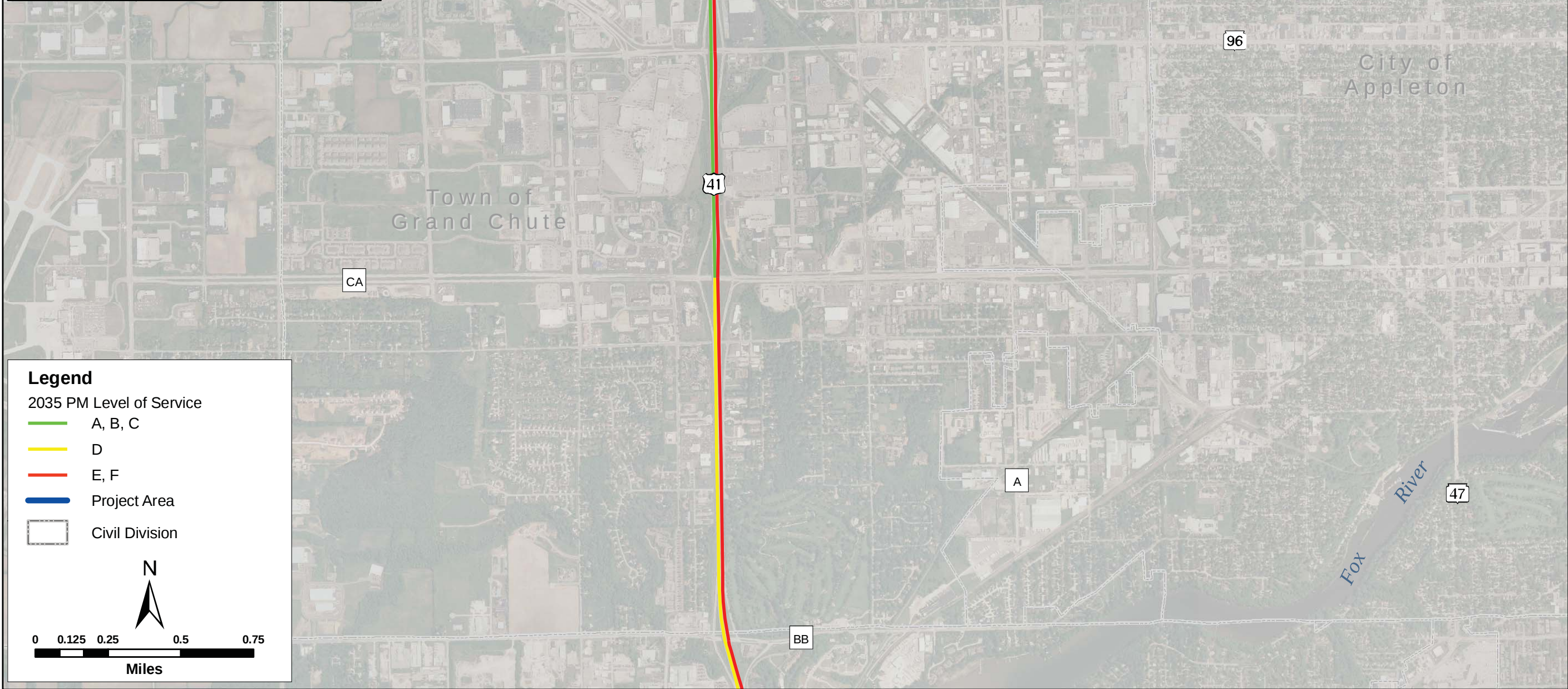
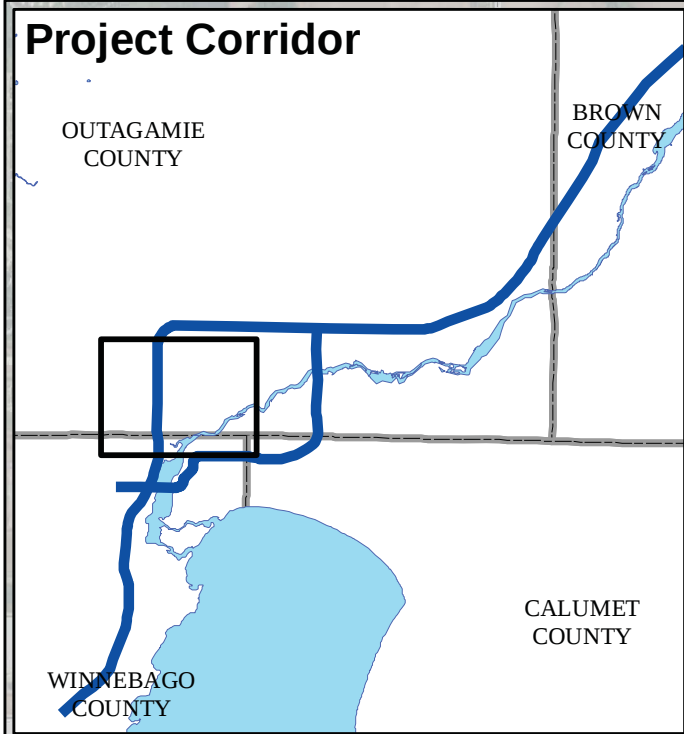
- Legend**
- 2035 PM Level of Service
- A, B, C
 - D
 - E, F
 - Project Area
 - Civil Division



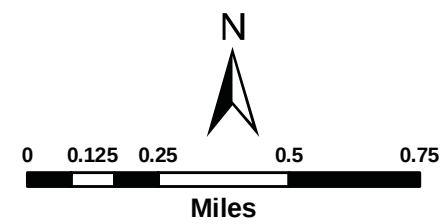
US 41 / WIS 441

2035 LEVEL OF SERVICE (PM)



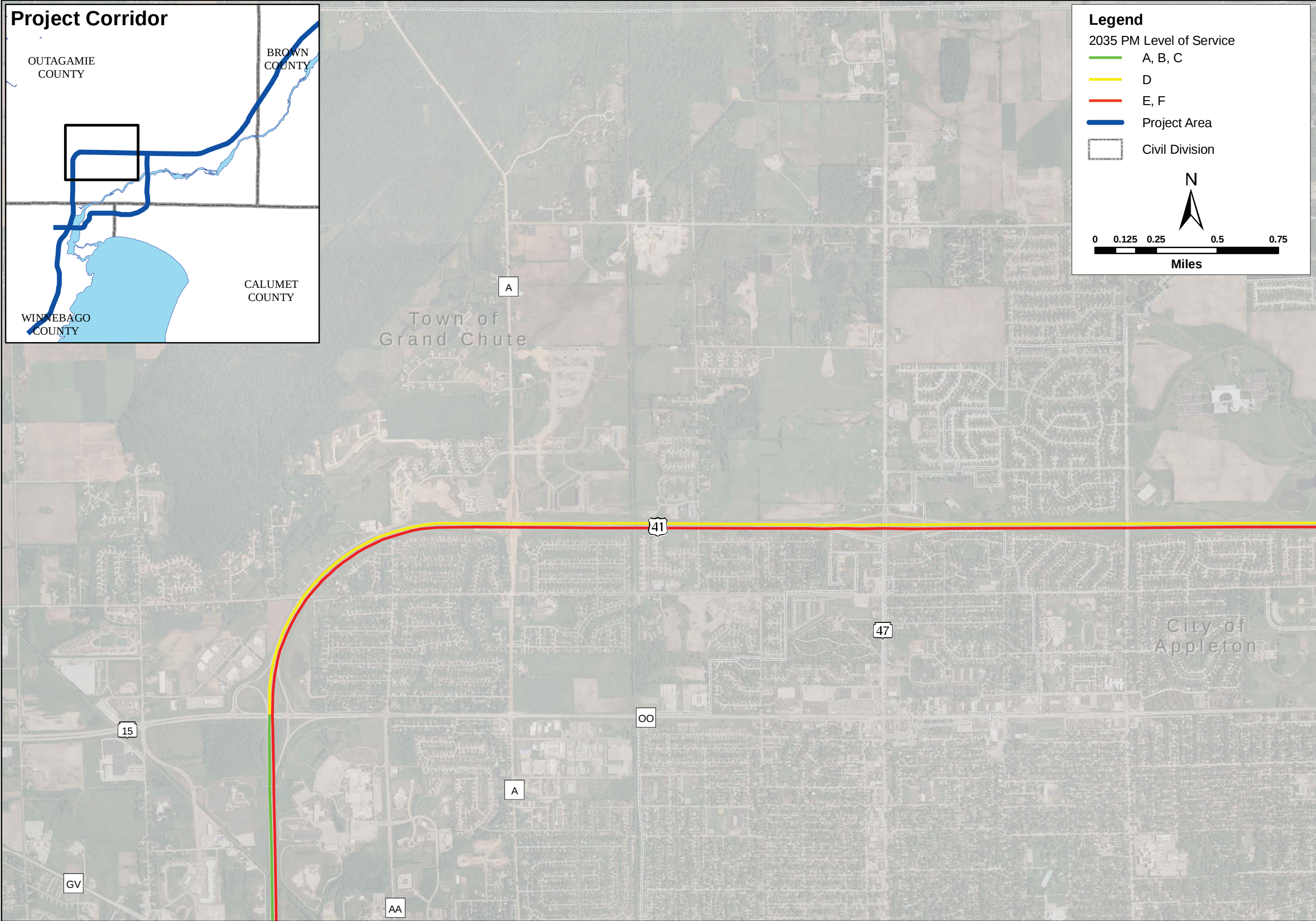
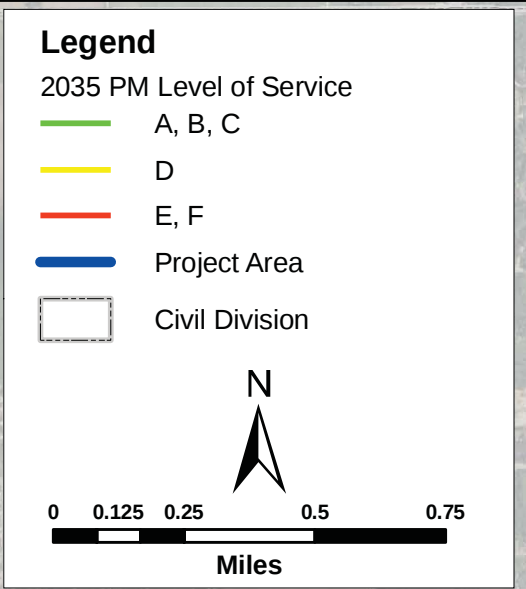
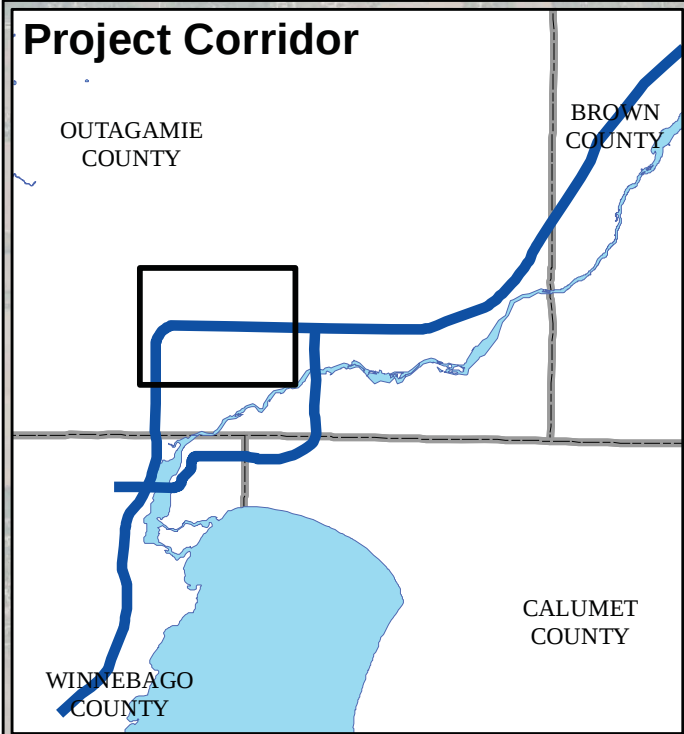


- Legend**
- 2035 PM Level of Service
- A, B, C
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US 41 / WIS 441
2035 LEVEL OF SERVICE (PM)





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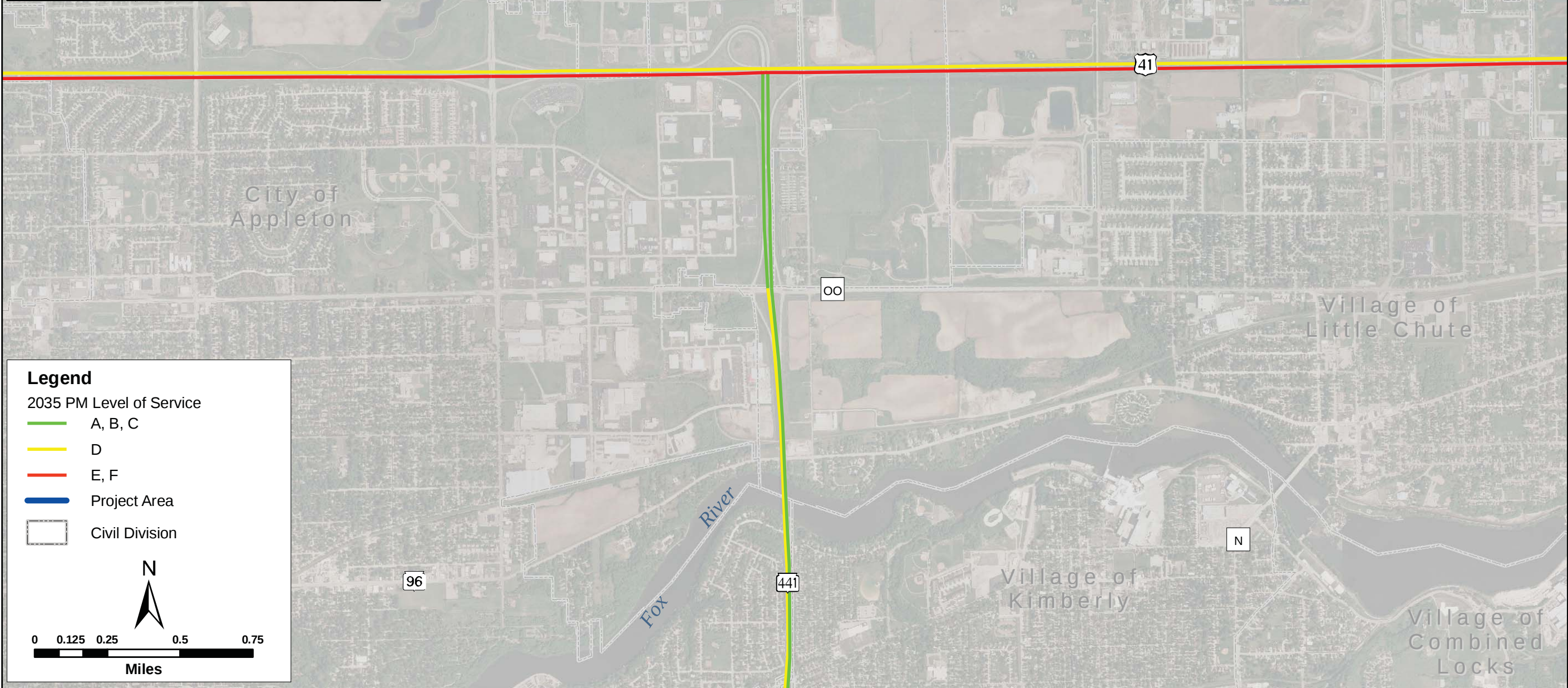
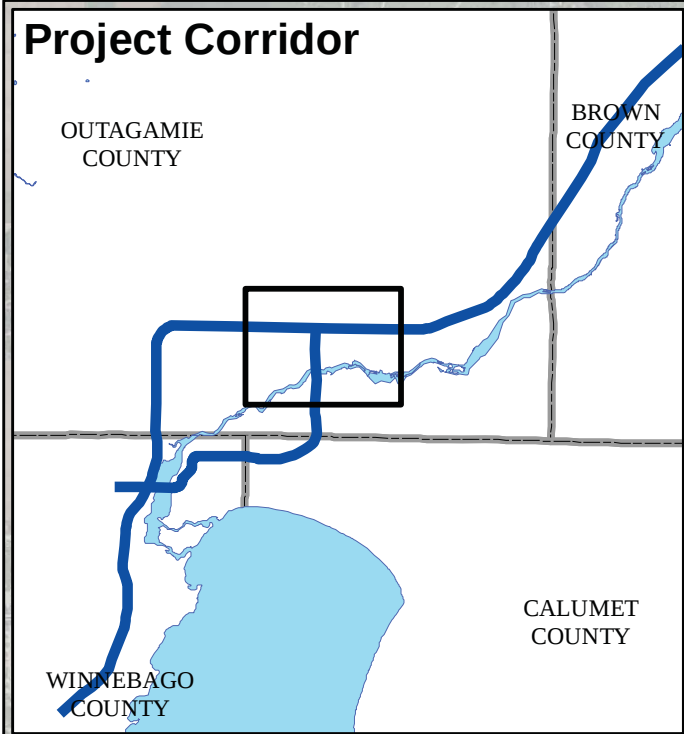
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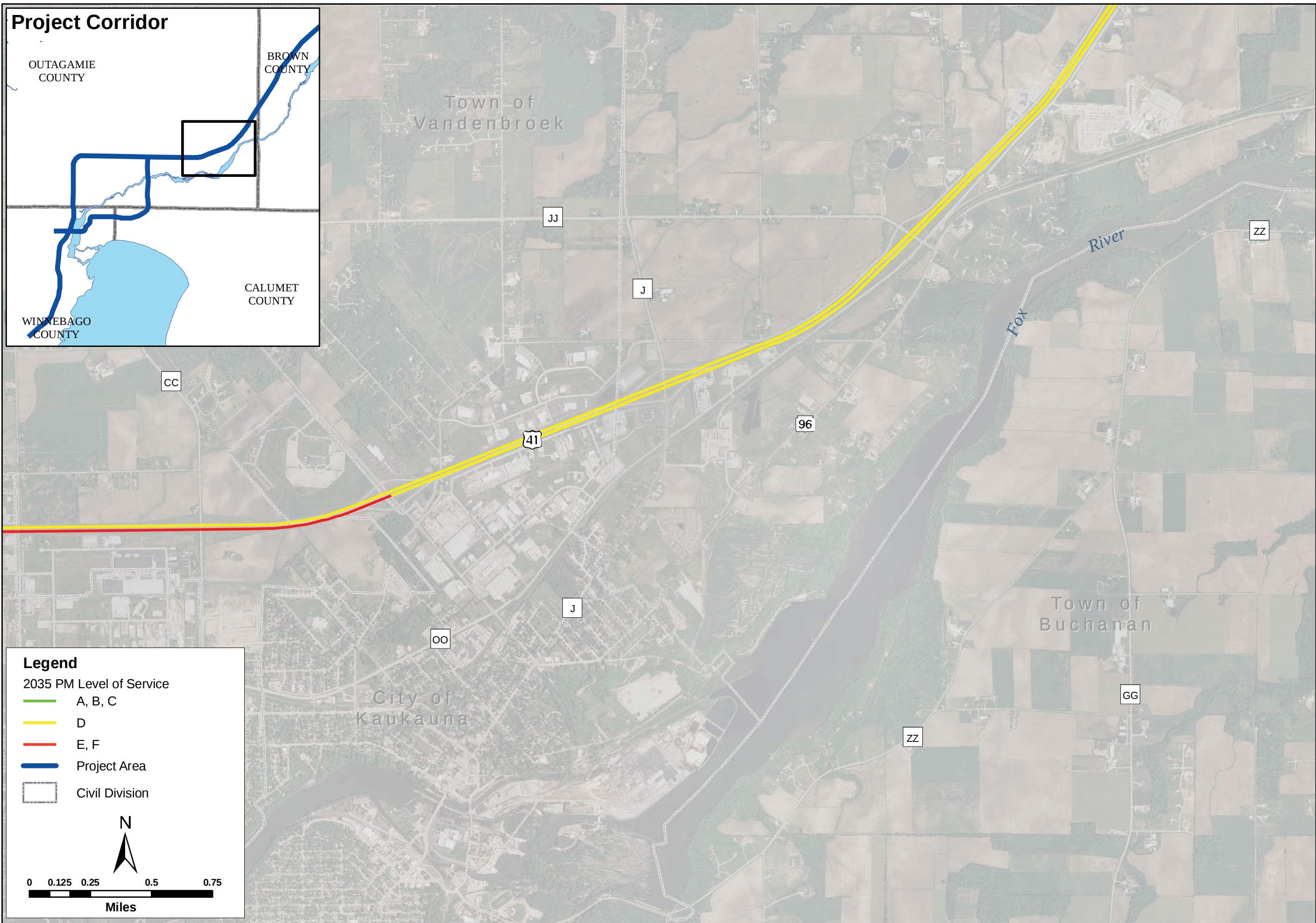
2035 LEVEL OF SERVICE (PM)

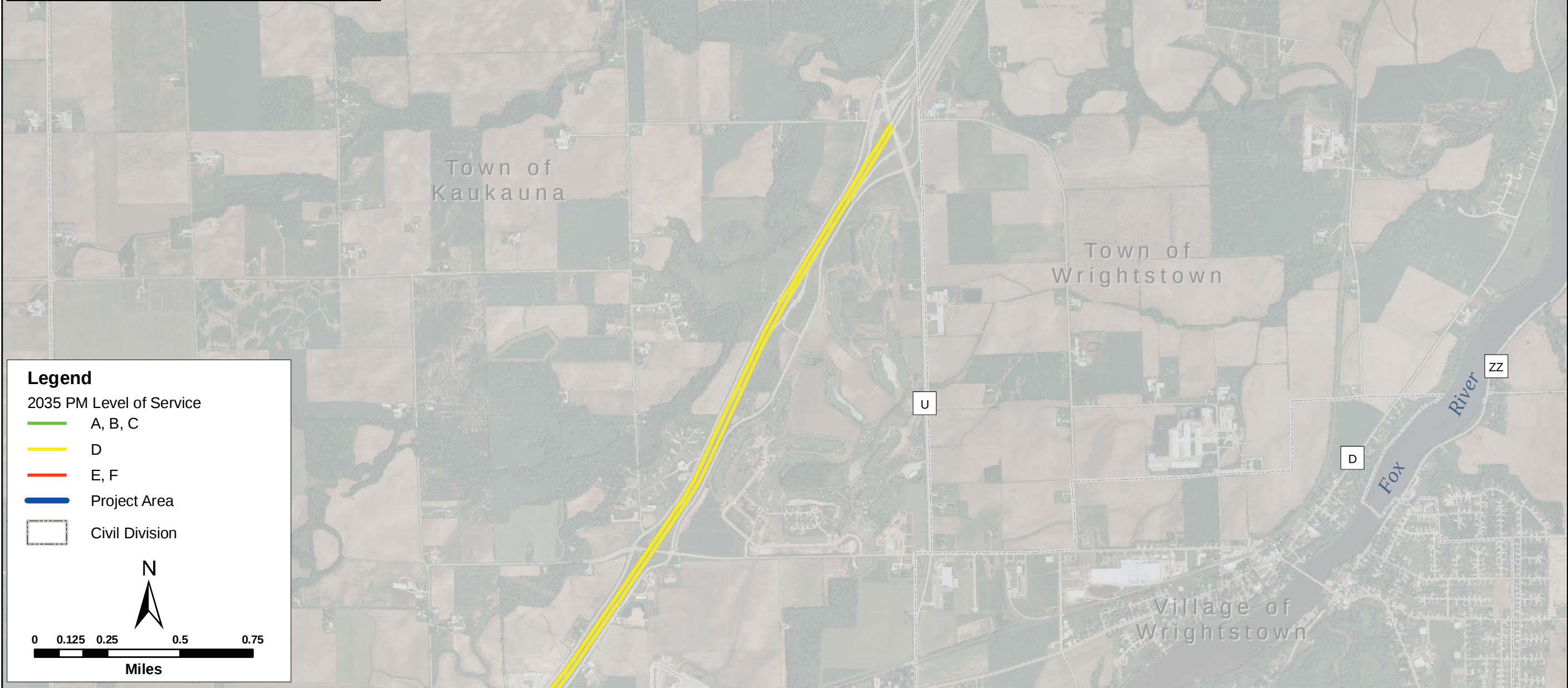
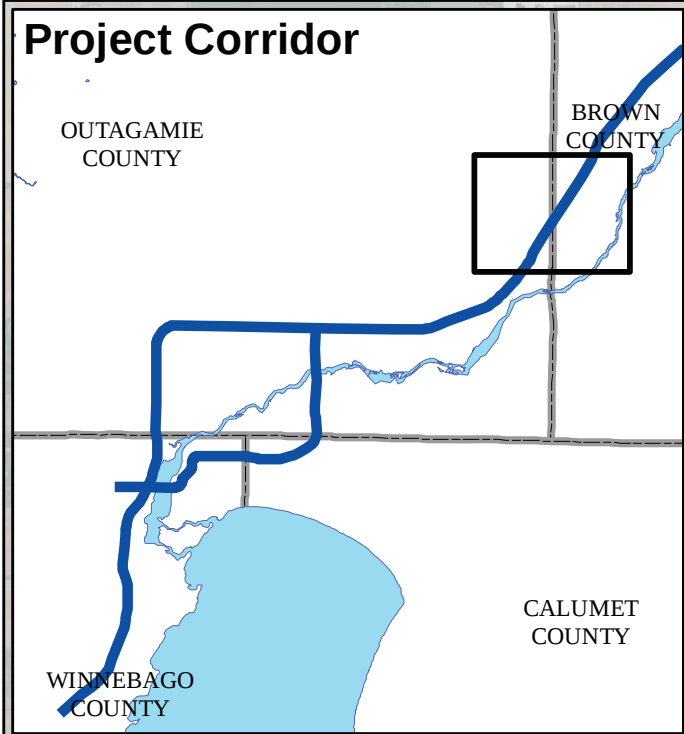


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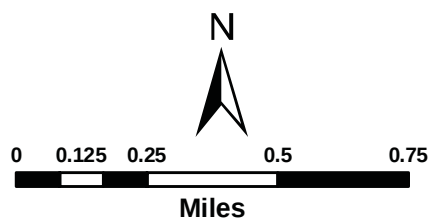
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- Legend**
- 2035 PM Level of Service
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 - D
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 - Project Area
 - Civil Division



US 41 / WIS 441

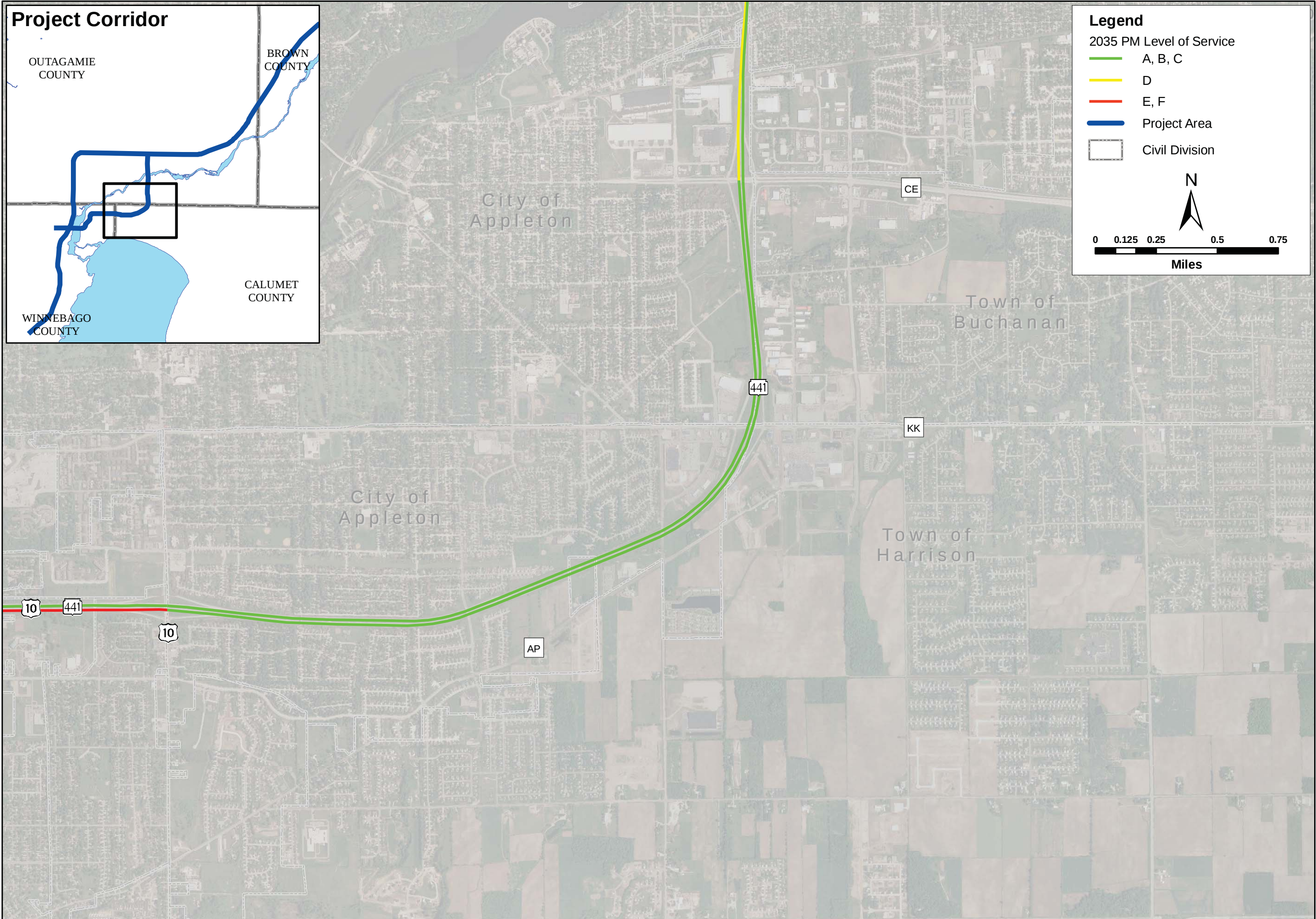
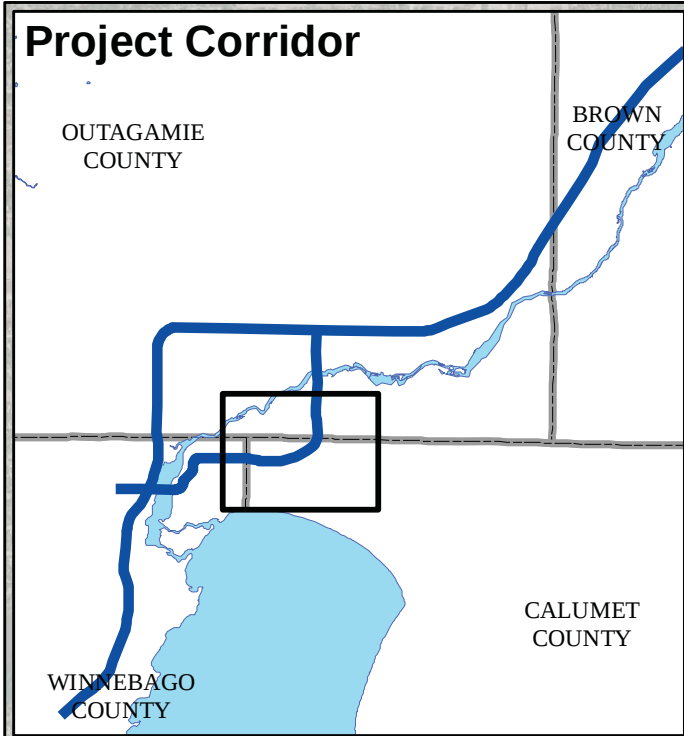
2035 LEVEL OF SERVICE (PM)



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WIS 441

2035 LEVEL OF SERVICE (PM)

