

Freeway Density & Speed: 2035 Preferred Alternative (AM Peak)

Freeway Segment	Lanes	Truck Ratio	fHV	Density veh/mi	Density pc/mi/ln	LOS	Speed mph
<b>Northbound I-75 / I-96 Main Lanes</b>							
From West of Dearborn to Springwells	4	0.16	1.080	81.4	22.0	C	62.6
From Springwells to Springwells On Ramp	4	0.17	1.085	75.4	20.5	C	62.5
From Springwells On Ramp to Green	5	0.17	1.085	79.9	17.3	B	62.2
From Green to Waterman	5	0.13	1.065	90.0	19.2	C	55.3
From Waterman to Livernois	4	0.13	1.065	78.9	21.0	C	58.7
From Dragoon to Dragoon On Ramp	4	0.12	1.060	72.3	19.2	C	62.3
From Dragoon On Ramp to Junction	5	0.11	1.055	74.0	15.6	B	62.4
From Junction to Clark (6 lanes section)	6	0.14	1.070	86.3	15.4	B	61.5
From Junction to Clark (5 lanes section)	5	0.14	1.070	90.7	19.4	C	58.6
From Clark to Clark On Ramp	4	0.14	1.070	96.3	25.8	C	55.4
From Clark On Ramp to Grand	5	0.14	1.070	106.3	22.7	C	52.9
From Porter Off Ramp to NB I-75/I-96 Diverge	5	0.14	1.070	116.3	24.9	C	46.9
From NB I-75/I-96 Diverge to Gateway Ramps	4	0.11	1.055	63.2	16.7	B	57.9
From Gateway Ramps to Michigan	3	0.09	1.045	115.6	40.3	E	36.9
I-96 From NB I-75/I-96 Diverge to Gateway Ramps	2	0.20	1.100	52.4	28.8	D	34.4
I-96 From Gateway Ramps to Michigan	2	0.17	1.085	38.2	20.7	C	46.3
I-96 From Michigan to C-D Road	2	0.20	1.100	28.6	15.7	B	62.3
I-96 From C-D Road to MLK On Ramp	4	0.20	1.100	39.1	10.8	A	64.3
I-96 From MLK On Ramp to I-94 Off Ramp	5	0.14	1.070	51.6	11.0	B	55.2
I-96 From I-94 Off Ramp to Warren On Ramp	4	0.15	1.075	14.1	3.8	A	65.9
I-96 From Warren On Ramp to I-94	5	0.18	1.090	14.8	3.2	A	65.3
I-96 From I-94 to I-94 On Ramp	4	0.18	1.090	15.0	4.1	A	66.1
<b>Southbound I-75 / I-96 Main Lanes</b>							
From Fort to Dearborn	4	0.24	1.120	46.8	13.1	B	64.2
From Springwells on ramp to Fort	5	0.24	1.120	47.5	10.6	A	63.8
From Springwells to West of Dearborn	4	0.24	1.120	45.6	12.8	B	63.9
From Springwells off ramp to Springwells	4	0.24	1.120	46.3	13.0	B	63.0
From Green to Springwells	5	0.24	1.120	49.9	11.2	B	61.9
From Green to Springwells	6	0.24	1.120	46.4	8.7	A	64.0
From Flyover on ramp to Green	6	0.24	1.120	47.0	8.8	A	64.5
From Waterman to Green	4	0.16	1.080	36.1	9.7	A	64.9
From Dragoon On ramp to Livernois	5	0.14	1.070	44.3	9.5	A	60.0
From Junction/Plaza off ramp to Dragoon on ramp	4	0.15	1.075	39.9	10.7	A	64.9
From Clark Off Ramp to Plaza off ramp	5	0.17	1.085	42.9	9.3	A	64.4
From Grand to Clark Off Ramp	6	0.14	1.070	55.0	9.8	A	61.5
From Gateway On Ramp to New Frontage Road On Ramp	5	0.14	1.070	49.4	10.6	A	63.9
SB I-75/I-96 Merge Area	5	0.14	1.070	52.6	11.3	B	62.1
From Gateway Ramps to SB I-75/I-96 Merge	3	0.14	1.070	35.2	12.6	B	63.9
From Michigan to Gateway Ramps	3	0.09	1.045	36.0	12.5	B	64.8
I-96 From Gateway Ramps to SB I-75/I-96 Merge	1	0.29	1.145	18.1	20.7	C	53.9
I-96 From Michigan to Gateway Ramps	2	0.42	1.210	34.1	20.6	C	47.4
I-96 From NB 75 Off Ramp to Michigan	2	0.40	1.200	28.2	16.9	B	56.0
I-96 From Warren On Ramp to NB 75 Off Ramp	4	0.12	1.060	111.5	29.5	D	47.5
I-96 From I-94 On Ramp to Warren On Ramp	5	0.11	1.055	156.2	33.0	D	34.3
I-96 From I-94 to I-94 On Ramp	4	0.14	1.070	68.1	18.2	C	63.2
I-96 From I-94 Off Ramp to I-94	4	0.13	1.065	71.0	18.9	C	64.4

Intersection Level of Service: 2035 Preferred Alternative (AM Peak)

Intersection Name	Appr.	Average Delay (sec/veh)				Approach LOS	Intersection Delay	Intersection LOS
		Left	Through	Right	Total Appr			
Fort Westend	EB	9.4	7.8	1.9	8.4	A	9.3	A
	WB	6.0	3.3	0.7	3.9	A		
	NB	19.1	12.7	12.5	13.2	B		
	SB	12.4	11.1	6.9	10.9	B		
Fort Green	EB	0.0	6.5	2.4	5.7	A	8.2	A
	WB	15.4	13.3	2.0	13.5	B		
	NB	6.3	10.4	3.5	6.1	A		
	SB	10.4	11.1	4.2	9.9	A		
Fort Waterman	EB	15.1	10.5	11.1	10.7	B	8.7	A
	WB	9.1	6.2	0.8	6.2	A		
	NB	15.7	10.2	3.7	7.5	A		
	SB	15.1	0.0	3.1	6.5	A		
Fort Livernios	EB	15.3	11.4	7.5	11.4	B	8.4	A
	WB	9.0	4.5	7.5	5.7	A		
	NB	0.0	0.0	0.0	0.0	A		
	SB	8.8	9.1	4.8	7.5	A		
Fort Junction	EB	0.0	12.2	2.4	12.0	B	10.5	B
	WB	0.1	9.8	4.2	7.5	A		
	NB	0.0	8.9	7.3	8.4	A		
	SB	0.0	0.0	0.0	0.0	A		
Northbound Service Drive Junction	EB		0.0	0.0	0.0	A	1.6	A
	WB							
	WB			6.5	6.5	A		
	SB							
Fort Clark	EB	8.7	7.8	0.5	7.8	A	12.0	B
	WB	11.0	10.3	15.9	11.8	B		
	NB	0.0	21.4	3.9	10.1	B		
	SB	19.8	16.1	17.6	18.3	B		
Lafayette Junction	EB						1.8	A
	WB		0.4	1.3	0.7	A		
	NB							
	SB			6.3	6.3	A		
Southbound Service Drive Livernois	EB						8.7	A
	WB	5.4	5.2		5.4	A		
	NB	17.0	11.2		13.8	B		
	SB		8.7	5.1	8.2	A		
Southbound Service Drive Dragoon	EB						0.1	A
	WB		0.1	0.3	0.1	A		
	NB							
	SB							
Southbound Service Drive Waterman	EB						3.5	A
	WB		0.7	2.4	0.9	A		
	NB							
	SB			15.5	15.5	B		
Northbound Service Drive Livernois	EB	10.1	9.8	4.5	7.3	A	6.7	A
	WB							
	NB		6.9	0.0	6.9	A		
	SB	6.0	6.2		6.1	A		
Northbound Service Drive Waterman	EB		0.0	0.2	0.0	A	0.2	A
	WB							
	NB			6.3	6.3	A		
	SB							
Southbound Service Drive Green	EB						11.3	B
	WB	13.4	11.3	9.6	11.6	B		
	NB	13.6	12.4		12.7	B		
	SB		9.6	9.0	9.5	A		
Southbound Service Drive Springwells	EB						10.8	B
	WB	15.3	16.7	6.8	12.7	B		
	NB	7.4	1.2		2.1	A		
	SB		18.4	5.3	14.3	B		
Northbound Service Drive Westend	EB	19.0	20.5	6.9	19.0	B	14.8	B
	WB							
	NB		11.5	5.6	9.4	A		
	SB	15.9	10.6		12.8	B		
Northbound Service Drive Green	EB	7.6	8.2	6.1	7.7	A	8.5	A
	WB							
	NB		9.2	7.4	7.7	A		
	SB	8.8	10.7		9.8	A		
Northbound Service Drive Clark	EB	28.2	28.6	3.9	17.8	B	9.5	A
	WB							
	NB		9.4	5.9	6.9	A		
	SB	6.2	5.7		5.9	A		
Southbound Service Drive Clark	EB						20.6	C
	WB	31.5	29.3	15.6	24.4	C		
	NB	1.2	12.6		10.8	B		
	SB		15.3	4.0	12.7	B		
Fort Grand	EB	3.9	2.8	1.4	2.8	A	4.7	A
	WB	7.4	3.5	7.4	3.8	A		
	NB	30.2	20.0	41.5	34.6	C		
	SB	29.0	35.5	3.9	22.4	C		
Northbound Service Drive Grand	EB	8.3	8.8	3.6	8.4	A	11.5	B
	WB							
	NB		11.3	2.6	9.5	A		
	SB	16.3	14.3		15.6	B		
Southbound Service Drive Grand	EB						7.5	A
	WB	7.4	8.3	2.8	4.2	A		
	NB	13.9	11.7		12.6	B		
	SB		11.1	5.3	9.1	A		

**Travel Time Segments: 2035 Preferred Alternative (AM Peak)**

<b>Travel Time Section</b>	<b>Appr.</b>	<b>Model Output (s)</b>
<b>Northbound I-75 / I-96 Main Lanes</b>		
From Dearborn Off Ramp to Springwells	EB	57.1
From Springwells to Green	EB	17.6
From Green to Waterman	EB	17.7
From Waterman to Dragoon	EB	22.3
From Dragoon to Junction	EB	21.4
From Junction to Clark	EB	21.0
From Clark to Grand	EB	25.9
From Grand to Vernor (on I-75)	EB	41.8
From Vernor to Michigan (on I-75)	EB	52.6
From Michigan to 14th (on I-75)	EB	28.8
From Grand to Vernor (on I-96)	EB	62.4
From Vernor to Michigan (on I-96)	EB	29.5
From Michigan to MLK	EB	22.5
From MLK to Warren	EB	43.0
From Warren to I-94 (McGraw)	EB	28.6
<i>Total Travel Time from Dearborn Ramps to 14th</i>	EB	306.3
<i>Total Travel Time from Dearborn Ramps to I-94 (McGraw)</i>	EB	368.9
<b>Southbound I-75 / I-96 Main Lanes</b>		
From Springwells to Dearborn On Ramp	WB	48.5
From Green to Springwells	WB	17.5
From Waterman to Green	WB	15.4
From Dragoon to Waterman	WB	20.7
From Junction to Dragoon	WB	20.8
From Clark to Junction	WB	19.5
From Grand to Clark	WB	21.8
From Vernor to Grand (on I-75)	WB	35.1
From Michigan to Vernor (on I-75)	WB	26.8
From Michigan to Grand (on I-96)	WB	78.0
From MLK to Michigan	WB	24.2
From Warren to MLK	WB	71.5
From I-94 (McGraw) to Warren	WB	29.3
<i>Total Travel Time from Vernor to Dearborn Ramps</i>	WB	226.2
<i>Total Travel Time from I-94 (McGraw) to Dearborn Ramps</i>	WB	367.2
<b>Eastbound Fort Street</b>		
From Harbaugh to Springwells	EB	35.9
From Springwells to Green	EB	44.4
From Green to Waterman	EB	47.4
From Waterman to Livernois	EB	44.4
From Livernois to Dragoon	EB	8.5
From Dragoon to Junction	EB	53.2
From Junction to Clark	EB	48.0
From Clark to Grand	EB	47.6
<i>Total Travel Time from Lawndale to Grand</i>	EB	329.5
<b>Westbound Fort Street</b>		
From Springwells to Harbaugh	WB	34.8
From Green to Springwells	WB	43.9
From Waterman to Green	WB	49.0
From Livernois to Waterman	WB	38.9
From Dragoon to Livernois	WB	12.3
From Junction to Dragoon	WB	42.2
From Clark to Junction	WB	50.0
From Grand to Clark	WB	54.2
<i>Total Travel Time from Grand to Lawndale</i>	WB	325.2