EAST-WEST GATEWAY

Creating Solutions Across Jurisdictional Boundaries

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MEMORANDUM

TO: **Missouri Transportation Planning Committee**

FROM: **East-West Gateway Staff**

DATE: **March 1, 2018**

SUBJECT: **Wednesday, March 7, 2018 meeting**

The next meeting of the Missouri subcommittee of the Transportation Planning Committee (TPC) is scheduled for Wednesday, March 7, 2018 at 2:00 p.m. at East-West Gateway Council of Governments offices. (Reminder parking is available at Stadium-East Garage)

If you have any questions or concerns regarding the enclosed materials or the upcoming meeting please contact EWGCOG. The agenda for the meeting is as follows:

AGENDA

1. Call to order
2. Chouteau Greenway Design Competition Update – Mark Vogl, Great Rivers Greenway
3. 2018 Regional Safety Performance Targets – Sonya Pointer, EWG
4. Annual Regional Congestion Report – 2016 – Larry Grither & Zakari Mumuni, EWG
5. FY 2019-2022 Transportation Improvement Program Development – Jason Lange, EWG
6. Reasonable Progress – Josh Schwenk, EWG
7. Other Business
   - Next meeting scheduled for Wednesday April 4, 2018 at 2 PM

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2016 Annual Regional Congestion Report

EAST-WEST GATEWAY
Council of Governments
Creating Solutions Across Jurisdictional Boundaries

St. Louis Metropolitan Area

February 2018

2016 Annual Regional Congestion Report

"The opinions, findings and conclusions expressed in this publication are those of the authors and not necessarily those of the Missouri Highways and Transportation Commission, the Illinois Department of Transportation, the Federal Highway Administration or the Federal Transit Administration."

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1 Introduction

The intractable nature of recurring traffic congestion makes it important for continuous data collection and analysis. The EWG MPO is committed to alleviating traffic congestion by implementing a Congestion Management Process (CMP) which is a systematic way of monitoring, measuring and diagnosing the causes of current and future congestion on a region's multi-modal transportation systems; evaluating and recommending alternative strategies to manage current and future regional congestion; and monitoring and evaluating the performance of strategies implemented to manage congestion.

The CMP is implemented in pursuance of mandated requirements under the auspices of Fixing America's Surface Transportation (FAST) Act. This legislation and its predecessor laws (ISTEA, 1991; TEA-21, 1998; SAFETEA-LU, 2005; MAP-21, 2012; and FAST, 2015) have all empowered EWG to develop a CMP that is incorporated into the region's constrained Long-Range Transportation Plan.

The St. Louis Metropolitan Area CMP specifies that East-West Gateway will develop an annual report on regional congestion, mitigation efforts and evaluation results. This annual CMP Report serves as a yearly review of regional congestion for 2016. It covers definition of congested CMP network, development of performance measures, data sources, identification of congested locations, and mobility project evaluation reports.

2 Identify Congested CMP Network

For the purposes of this analysis, the morning peak-period is from 6 am to 9 am and the evening peak-period is from 3 pm to 6 pm. The source of data is explained in detail in part 4. All performance measures are calculated and compared based on data from these time periods. The process of identifying the congested network for this analysis involved a detailed visual inspection of Speed Index congestion on all National Highway System (NHS) roadways in the region depicted on the NHS map. This index is the ratio of average speeds to 85th-percentile speeds. Four thresholds are applied to the Speed Index to reveal the various categories of congestion from the system for both arterials and freeways[1].

The following two maps (Figures 1 and 2) aim to show the spatial extent of the CMP network considered for measuring congestion in the region rather than as an assessment of congestion. Of the 2,476 congested CMP network miles, arterials accounted for 1,588 miles while freeways represented 888 miles.

[1] For arterials the thresholds are: greater than 0.74 (light), 0.53 to 0.74 (moderate), 0.44 to 0.53 (heavy), and less than 0.44 (severe). For freeways the thresholds are: greater than 0.9 (light), 0.8 to 0.9 (moderate), 0.8 to 0.6 (heavy), and less than 0.6 (severe).

Figure 1: Arterial CMP Network

Figure 2: Freeway CMP Network

This inspection resulted in selection of congested roadways by direction and peak time (see Tables 1 and 2). These tables list the locations on both freeways and arterials that meet these criteria for the 3 hour AM or PM peak period. Arterials accounted for 81 miles of the congested roadways while freeways represented 285 miles.

Table 1: Selected Congested Arterials

No.	Route	Limits	Direction	State	Peak	Queue Length
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59
2	MO-141	Marshall to I-44	SB	MO	AM	0.85
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47
TOTAL						**80.80**

Table 2: Selected Congested Freeways

No.	Route	Limits	Direction	State	Peak	Queue Length
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16
3	I-64	Chesterfield Pky/Exit 20 to McCausland to Ave/Exit 33	EB	MO	PM	14.00
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00
8	I-44	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	WB	MO	PM	11.00
9	I-70	I-270/Exit 232 to Jennings Sta Rd/Exit 242	EB	MO	PM	11.00
10	I-64	MO-K to I-70	WB	MO	PM	10.00
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70
29	I-170	I-64 to MO-D	SB	MO	AM	4.49
30	I-55	Baugh Ave. to Poplar St Brg to Ml King Bridge/Exit 2	WB-SB	IL	AM	4.39
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02
TOTAL						**285.29**

2.1 Selected Congested Locations on Arterial

Figures 3 to 14 show the spatial distribution of Speed Index in the region by peak time. The figures depict the hourly progression of congestion in contrast to the performance measures which are calculated based on the 3 hour peak periods. They depict how the congestion increases and decreases during the peak hours at the various locations. Please note that some locations on these maps show as congested for short periods that are not included in the list of congested locations because they do not meet the thresholds for the 3 hour peak. In addition, Figures 15 and 16 depict the distribution of congested miles in each peak hour.

Arterial Congestion Thresholds

Figure 3: Spatial Distribution of Congested Arterial Locations (6-7 AM)

Congested Location:

A. MO-141, NB, Hawkins to I-44

Figure 4: Spatial Distribution of Congested Arterial Locations (7-8 AM)

Congested Locations:

A. MO-94, EB, I-64/US-40/US-61 to Mid Rivers Mall Dr
B. MO-141, NB, Hawkins to Vance (Construction impacts- see Appendix 2)
C. MO-141, SB, Marshall to I-44 (Construction impacts- see Appendix 2)
D. MO-D, EB, I-270 to Schuetz Rd

Figure 5: Spatial Distribution of Congested Arterial Locations (8-9 AM)

Congested Locations:

A. FOREST PARK AVE, WB, I-64 to Kingshighway
B. FOREST PARK AVE, EB, Kingshighway to I-64
C. KINGSHIGHWAY, NB, I-64/US-40 to Lindell
D. IL-111, NB, Forest Blvd to I-55/I-70/US-40
E. IL-143, WB, IL-111 to IL-3
F. IL-157, SB, Horseshoe Lake Rd to I-55/I-70/US-40
G. IL-157, NB, I-55/I-70/US-40 to Horseshoe Lake Rd

Figure 6: Spatial Distribution of Congested Arterial Locations (3-4 PM)

Congested Locations:

A. IL-111, NB, Forest Blvd to I-55/I-70/US-40
B. IL-157, NB, I-55/I-70/US-40 to Horseshoe Lake Rd
C. IL-157, SB, Horseshoe Lake Rd to I-55/I-70/US-40
D. IL-143, WB, IL-111 to IL-3
E. JEFFERSON, NB, Broadway to I-44

Figure 7: Spatial Distribution of Congested Arterial Locations (4-5 PM)

Congested Locations:

A. MO-D, WB, I-170 to Schuetz Rd
B. MO-K, SB, I-70 to MO-364
C. US-67, NB, I-270 to Old Halls Ferry Rd
D. HANLEY, NB, MO-100/Manchester Rd to I-64/US-40/Eager Rd
E. MO-141, SB, MO-30 to MO-21
F. MO-141, SB, MO-AB/Ladue Rd to I-64/US-40/US-61
G. MO-141, SB, Big Bend to I-44 (Construction impact- see Appendix 2)
H. MO-340, SB, Chesterfield Pky North to Baxter Rd
I. MO-94, EB, I-64/US-40/US-61 to Mid Rivers Mall Dr

Figure 8: Spatial Distribution of Congested Arterial Locations (5-6 PM)

A. FOREST PARK AVE, EB, Kingshighway to I-64
B. FOREST PARK AVE, WB, I-64 to Kingshighway
C. HAMPTON AVE, SB, I-64/US-40 to I-44
D. SALISBURY ST, EB, N. Florissant to I-70
E. HANLEY, SB, Shaw Park Dr to I-64/US-40/Eager Rd
F. JEFFERSON, SB, I-64/US-40 to I-44
G. KINGSHIGHWAY, NB, US-40 to Delmar
H. KINGSHIGHWAY, SB, I-64/US-40 to I-44
I. KINGSHIGHWAY, SB, Laclede to I-64/US-40
J. MO-100, EB, Big Bend to McCausland
K. MO-100, WB, Vandeventer to Kingshighway
L. MO-340, SB, I-170 to US-67/N Lindbergh Blvd
M. MO-94, WB, I-70/Veterans Memorial Pky/Bogey Rd to MO-364

2.2 Selected Congested Locations on Freeways

Freeway Congestion Thresholds

Figure 9: Spatial Distribution of Congested Freeway Locations (6-7 AM)

Congested Locations:

A. I-55/I-64, WB-SB, Baugh Ave. to Poplar St Brg (Construction impacts- see Appendix 2)

Figure 10: Spatial Distribution of Congested Freeway Locations (7-8 AM)

Congested Locations:

A. I-270, NB, I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12
B. I-70, EB, Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238 (Construction impacts- see Appendix 2)
C. I-270, SB, Dorsett Rd.Exit 17 to MO-AB/Ladue Rd/Exit 13
D. I-44, EB, MO-141/Exit 272 to I-270/Exit 276 (Construction impacts- see Appendix 2)
E. I-64, EB, Baxter to I-270/Exit 25 (Construction impacts- see Appendix 2)
F. I-70, EB, Lake St Louis Blvd/Exit 214 to MO-79/Exit 220
G. MO-364, EB, Jungerman to I-270/MO-D

Figure 11: Spatial Distribution of Congested Freeway Locations (8-9 AM)

Congested Locations:

A. I-170, SB, MO-180/ST Charles Rock/Exit 5 to I-64
B. I-270, WB, Lilac/Exit 33 to Elizabeth/Washington St/Exit 28 (Construction impacts- see Appendix 2)
C. I-44, EB, Berry Rd/Exit 279 to Kingshighway/Exit 287 (Construction impacts- see Appendix 2)
D. I-70, WB, Broadway/Exit 246 to MO-U/Lucas & Hunt Rd/Exit 241
E. I-70, WB, Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251
F. I-55, NB, Potomac to Park Ave/7Th St/Exit 208
G. I-64, EB, I-270/Exit 25 to McCausland to Ave/Exit 33
H. I-64, WB, Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31

Figure 12: Spatial Distribution of Congested Freeway Locations (3-4 PM)

Congested Locations:

A. I-70, WB, Bryan Rd/Exit 216 to MO-W/Exit 203
B. I-64, WB, MO-K to I-70 (Construction impacts- see Appendix 2)

Figure 13: Spatial Distribution of Congested Freeway Locations (4-5 PM)

Congested Locations:

A. I-64, EB, Kingshighway/Exit 36 to I-55/I-70/US-40
B. I-70/I-44/I-55, EB/WB/NB, Stan Musial Brg. to Park
C. I-55, SB, I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206
D. I-70, WB, Shreve Ave/Exit 245 to MO-N/Florissant Rd/Exit 240
E. I-270, EB, McDonnell Blvd/Exit 23 to MO-367/Exit 31
F. I-44, WB, I-55/Exit 290 to Arsenal St/Exit 284
G. I-55, EB-SB, Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207
H. I-170, NB, Forest Park Pky/Exit 1E to Hanley Rd/Exit 9 (Construction impacts- see Appendix 2)
I. I-70, EB, I-270/Exit 232 to Jennings Sta Rd/Exit 242

Figure 14: Spatial Distribution of Congested Freeway Locations (5-6 PM)

Congested Locations:

A. I-270, SB, I-70 to I-55/I-255/Exit 1
B. I-64, EB, Chesterfield Pky/Exit 20 to McCausland to Ave/Exit 33
C. I-70, WB, Bryan Rd/Exit 216 to MO-W/Exit 203
D. I-64, WB, I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20
E. I-44, WB, Big Bend Rd/Exit 278 to Antire Rd/Exit 269 (Construction impacts- see Appendix 2)
F. I-64, WB, MO-K to I-70 (Construction impacts- see Appendix 2)
G. MO-364, WB, I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12
H. I-170, SB, MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A
I. I-70, WB, I-170/Exit 238 to I-270/Exit 232
J. I-55, SB, Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199
K. I-70, WB, I-270/Exit 232 to Cave Springs/Exit 225 (Construction impacts- see Appendix 2)
L. I-44, EB, Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277

2.3 Percent of Miles Congested

Figures 15 and 16 depict the percentage of moderate, heavy and severe congestion for each hour of the AM and PM peak periods. The percentages are calculated based on the compilation of all the congested locations that occur during each hour of the peak periods.

Figure 15: Percent of Miles Congested (Arterials)

Figure 16: Percent of Miles Congested (Freeways)

Summary of Findings

Arterials:

- For arterials, moderate congestion varies between 80% and 100% of the congestion during the peak periods, while severe and heavy congestion account for up to 13%, at most.

Freeways:

- For freeways, moderate congestion varies between 42% and 76% of the congestion, while heavy and severe congestion takes 50%, at most.
- The congestion queue lengths are far higher in moderate congestion than when congestion is heavy during morning peaks.
- For evening peaks, the moderate and heavy congestion locations have about the same queue lengths.

2.4 Freeway Congestion Intensity and Duration

A congestion scan is a graphic representation of how congestion on a corridor varies by location and time of day. Time of day is shown on the horizontal axis by hour for the entire day. Location along the corridor is shown in miles on the vertical axis and is referenced to intersecting roadways. Congestion is represented using the same color coding that is used for the congestion maps contained in this report. The resulting visual shows where congestion occurs along the corridor, the intensity of the congestion and the time of day it occurs. The solid yellow and red bands represent continuous congestion along a corridor with the width of a band showing the length of time that the congestion occurs and the length of a band showing the distance in miles of the congestion. Figures 17 to 30 show the space-time representation of freeway congestion.

Figure 17: I-44, between Lewis Rd. and I-55 (2016).

Figure 18: I-55, between MO-141 and I-64 (2016).

Figure 19: I-64, between I-55/I-70 and I-55/I-64 (2016).

Figure 20: I-64 and I-55/I-64 (2016).

Figure 21: US-40, between I-70 and MO-94 (2016).

Figure 22: I-70, between I-55/I-64 and Florissant (2016).

Figure 23: I-70, between Jennings St. Rd. and I-170 (2016).

Figure 24: I-70, between MO-370 and MO-N (2016).

Figure 25: I-70, MO-94 and MO-W (2016).

Figure 26: I-270, Licac and MO-180/St. Charles Rock Rd. (2016).

Figure 27: I-270, between Dorsett and I-55/I-255 (2016).

Figure 28: MO-94, between Harvester Rd. and Mid Rivers Mall (2016).

Figure 29: MO-364, between Maryland Heights and I-270 (2016).

Figure 30: I-70, between Hanley to I-64 (2016).

3 Performance Measures

Performance measures are key components of the CMP process as they:

- characterize existing and anticipated conditions on the regional transportation system;
- track progress toward meeting regional objectives;
- identify specific locations with congestion to address; and
- assess congestion mitigation strategies, programs, and projects.

Eight performance measures are available from our database. These are buffer time (BT), Buffer Time Index (BTI), planning time (PT), Planning Time Index (PTI), speed, Speed Index (SI), travel time (TT), and Travel Time Index (TTI). These performance measures are defined as follows:

- Buffer time is the extra time that travelers must add to their average travel time when planning trips to ensure on-time arrival. It is the difference between 95th percentile travel time and average travel time.
- Buffer Time Index is the ratio of buffer time to average travel time. It measures travel time reliability. For example, a buffer index of 0.4 means that, for a 20-minute trip, a traveler should add an extra 8 minutes (20 minutes x 0.4 percent = 8 minutes) to ensure on-time arrival most of the time.
- Planning time is the total time a traveler should plan for to ensure on-time arrival, 19 out of 20 trips.
- Planning Time Index is the total travel time that should be planned when extra time (buffer time) is included in the trip. For example, a Planning Time Index of 1.60 means that, for a 15-minute trip, the total time that should be planned for the trip is 24 minutes (15 minutes x 1.60 = 24 minutes). In this scenario, the buffer time alone is 9 minutes (15 minutes x 0.6 percent). The higher the Planning Time Index, the more unreliable travel time is.
- Speed is the number of miles a vehicle is driven in an hour. Speed Index is the ratio of average speeds to 85th-percentile speeds of a segment.
- Travel Time is the average time spent traveling from the beginning to the end of a road segment.
- Travel Time Index is Travel Time represented as a percentage of the ideal travel time. For example, a TTI value of 1.2 means travel time during peak period is 20% longer than the free-flow travel time between the same origin and destination.

4 Collect Data / Monitor System Performance

Following the establishment of indicators for measuring system performance, the next important task is to collect data on these performance measures. The HERE data set was used to analyze the identified performance measures. HERE is a private vendor that provides mapping data and related services to individuals and companies. MoDOT has contracted with HERE for access to their data and the use of the Regional Integrated Transportation Information System (RITIS). RITIS is an automated data sharing, dissemination, and archiving system that includes many performance measures, dashboard, and visual analytics tools housed at the University of Maryland. MoDOT's contract provides the same access to Missouri MPOs, which gives EWG the ability to analyze the HERE data set for the entire eight-county region.

5 Analyze Congestion Problems and Needs

In order to better understand regional congestion problems and needs we undertook three major tasks. These included developing a regional system performance report, ranking all the congested locations, and analyzing regional system performance trends.

a) Regional Performance Measures

Performance measures analyzed here represent average annual weekday data. Tables 3 and 4 provide peak period system information. Detailed hourly variations for each congested location within each peak period are appended to this report (Appendix 1). These tables are included to show how congestion varies throughout the peak period for each location.

Table 3: Arterial Performance Measures (Annual Weekday)

No.	Route	Limits	Direction	State	Peak	Queue Length	BT	BTI	PT	PTI	Speed	TT	TTI
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	10.86	0.91	22.82	2.04	21.23	15.80	1.41
2	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	4.55	0.59	12.29	1.81	21.68	8.58	1.26
3	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	0.12	0.17	0.81	1.49	46.94	0.64	1.17
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	1.71	0.35	6.56	1.52	43.69	5.76	1.33
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	3.45	0.69	8.47	1.96	37.50	6.71	1.55
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	5.78	1.08	11.13	2.06	33.41	7.43	1.37
7	MO-141	Hawkins to Vance	NB	MO	AM	4.10	10.33	1.67	16.50	2.56	24.63	8.97	1.39
8	MO-141	Big Bend to I-44	SB	MO	PM	3.90	4.45	0.81	9.96	1.97	36.80	8.72	1.72
9	MO-K	I-70 to MO-364	SB	MO	PM	3.50	3.55	0.62	9.26	1.76	25.93	7.44	1.41
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	4.01	0.74	9.40	1.84	30.00	6.77	1.33
11	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	5.55	0.87	11.92	2.04	22.30	7.36	1.26
12	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	5.51	1.17	10.21	2.11	15.98	8.03	1.66
13	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	5.46	1.36	9.48	1.95	18.19	7.05	1.45
14	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	3.84	0.87	8.25	1.87	18.74	6.57	1.49
15	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	4.09	1.12	7.73	1.76	20.80	5.92	1.34
16	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	1.44	0.62	3.78	1.44	33.98	3.56	1.35
17	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	1.45	0.56	4.03	1.53	31.60	3.83	1.46
18	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	3.44	0.70	8.38	1.74	18.66	6.40	1.33
19	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	1.78	0.88	3.81	1.64	31.43	3.39	1.46
20	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	1.67	0.78	3.81	1.64	30.59	3.48	1.50
21	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	3.19	1.13	6.02	2.27	24.76	3.95	1.49
22	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	1.46	0.60	3.89	2.20	17.28	2.62	1.48
23	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	8.32	1.00	16.66	2.02	16.99	12.20	1.48
24	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	3.67	0.83	8.07	2.16	16.13	5.49	1.47
25	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	5.28	0.59	14.29	1.58	18.99	11.01	1.22
26	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	2.67	0.61	7.02	1.69	18.31	5.38	1.30
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	4.31	1.29	7.67	2.46	17.64	4.41	1.42
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	3.95	1.06	7.69	2.30	16.56	4.69	1.40
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	5.03	1.58	8.21	3.12	12.28	4.96	1.89
30	MO-141	Marshall to I-44	SB	MO	AM	0.85	4.41	0.85	9.63	1.90	38.46	8.34	1.65
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.37	1.10	2.60	1.72	22.21	2.11	1.40
32	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	1.81	1.18	3.35	2.21	17.62	2.66	1.76
33	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	2.07	1.40	3.55	2.01	17.40	2.60	1.47
34	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	1.44	0.60	3.83	2.10	15.99	2.83	1.55
35	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	2.13	0.83	4.70	1.87	13.39	3.36	1.34
36	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	1.46	2.18	2.12	2.93	29.03	1.10	1.52
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	0.93	1.66	1.48	2.42	24.37	1.16	1.89
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	1.14	1.85	1.76	2.88	19.86	1.42	2.32

Table 4: Freeway Performance Measures (Annual Weekday)

No.	Route	Limits	Direction	State	Peak	Queue Length	BT	BTI	PT	PTI	Speed	TT	TTI
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	37.28	1.84	57.60	2.79	40.58	30.52	1.48
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	15.84	1.13	29.90	2.11	50.20	16.93	1.20
3	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	23.01	1.49	38.43	2.75	40.79	20.52	1.47
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	7.63	0.59	20.54	1.62	56.04	14.94	1.18
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	22.86	1.82	35.40	2.79	40.03	19.03	1.50
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	20.20	1.70	32.07	2.73	40.11	17.55	1.50
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	13.96	1.11	26.52	2.24	46.49	15.27	1.29
8	I-44	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	WB	MO	PM	11.00	5.72	0.52	16.79	1.55	53.14	12.66	1.17
9	I-70	I-270/Exit 232 to Jennings Sta Rd/Exit 242	EB	MO	PM	11.00	13.87	1.16	25.80	2.23	47.84	13.97	1.21
10	I-64	MO-K to I-70	WB	MO	PM	10.00	13.95	1.38	24.09	2.51	49.56	12.22	1.27
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	13.33	1.30	23.58	2.46	46.00	12.49	1.30
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	9.54	1.02	18.89	2.10	47.64	11.31	1.26
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	6.90	0.78	15.71	1.80	54.16	9.54	1.09
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	5.95	0.69	14.53	1.69	55.47	9.30	1.08
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	4.42	0.53	12.75	1.50	57.89	8.81	1.04
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	6.73	0.83	14.88	1.87	52.64	9.05	1.14
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	7.99	1.12	15.12	2.11	48.49	8.84	1.23
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	11.59	1.52	19.22	2.70	37.72	10.64	1.50
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	6.54	0.98	13.24	2.03	48.30	8.01	1.23
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	5.43	0.85	11.81	1.86	51.67	7.22	1.13
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	5.22	0.88	11.19	1.81	52.72	7.03	1.14
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	10.29	1.56	16.90	2.75	42.20	8.74	1.42
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	10.17	2.04	14.51	3.36	32.96	7.37	1.78
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	10.56	1.81	16.38	2.97	39.92	8.30	1.50
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	6.92	1.34	12.06	2.27	49.71	6.41	1.21
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	11.65	2.18	16.99	3.19	40.69	7.66	1.44
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	9.53	1.87	14.63	2.86	38.78	7.77	1.52
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	6.12	0.79	13.87	1.76	54.88	8.60	1.09
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	4.53	0.95	9.31	1.89	47.97	5.62	1.14
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	3.82	1.54	6.38	2.43	36.65	3.72	1.39
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	3.42	0.77	7.83	1.82	52.45	4.93	1.14
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	17.24	2.72	23.57	3.99	28.98	11.32	1.92
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	4.50	1.30	7.98	2.18	45.46	4.42	1.21
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	1.95	1.34	3.53	2.06	40.93	1.99	1.19
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	1.22	0.48	3.77	1.52	52.43	2.84	1.14
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	3.37	1.33	5.90	2.26	50.06	2.92	1.12
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	16.43	0.63	4.38	1.99	46.93	2.58	1.17

b) Rank Congested Locations

We ranked all congested locations identified in Tables 1 and 2 based on severity, total impact and variability. These are defined as follows:

- The Severity number is the average of the TTI and PTI. It takes into account two aspects of congestion; the average delay of a congested location and how reliable that average is from day to day. Higher Severity numbers reflect more severe congestion.
- The Total Impact number is obtained by multiplying the congested miles of a location by the TTI. Its purpose is to compare the impact to the driver by factoring in the comparative lengths of the queues in each congested location.
- The Congestion Variability number is the ratio of PTI to TTI. Higher variability values indicate more variation in travel times and lower values show less variation in travel times from day to day.

Locations were ranked with 1 being the worst condition and the highest numbered location in the list being the least severe of the congested locations. This ranking exercise helps in determining which segments rank the highest in terms of congestion relief needs. Tables 5 to 10 below show congested location ranking for arterials and freeways.

Table 5: Ranking of Congested Arterial Locations by Severity

No.	Route	Limits	Direction	State	Peak	Queue Length	PTI	TTI	Severity	Total Impact	Variability
1	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	2.88	2.32	**2.60**	1.09	1.24
2	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	3.12	1.89	**2.51**	1.93	1.65
3	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	2.93	1.52	**2.23**	0.81	1.93
4	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	2.42	1.89	**2.16**	0.89	1.28
5	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	2.21	1.76	**1.99**	1.37	1.26
6	MO-141	Hawkins to Vance	NB	MO	AM	4.10	2.56	1.39	**1.98**	5.70	1.84
7	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	2.46	1.42	**1.94**	1.85	1.73
8	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	2.11	1.66	**1.89**	3.55	1.27
9	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	2.27	1.49	**1.88**	2.43	1.52
10	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	2.30	1.40	**1.85**	1.47	1.64
11	MO-141	Big Bend to I-44	SB	MO	PM	3.90	1.97	1.72	**1.85**	6.71	1.15
12	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	2.20	1.48	**1.84**	2.40	1.49
13	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	2.10	1.55	**1.83**	1.16	1.35
14	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	2.16	1.47	**1.82**	2.16	1.47
15	MO-141	Marshall to I-44	SB	MO	AM	0.85	1.90	1.65	**1.78**	1.40	1.15
16	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	1.96	1.55	**1.76**	6.49	1.26
17	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	2.02	1.48	**1.75**	2.32	1.36
18	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	2.01	1.47	**1.74**	1.10	1.37
19	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	2.04	1.41	**1.73**	7.88	1.45
20	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	2.06	1.37	**1.72**	5.67	1.50
21	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	1.95	1.45	**1.70**	3.10	1.34
22	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	1.87	1.49	**1.68**	3.05	1.26
23	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	2.04	1.26	**1.65**	3.45	1.62
24	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	1.87	1.34	**1.61**	1.01	1.40
25	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	1.84	1.33	**1.59**	4.51	1.38
26	MO-K	I-70 to MO-364	SB	MO	PM	3.50	1.76	1.41	**1.59**	4.94	1.25
27	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	1.64	1.50	**1.57**	2.67	1.09
28	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.72	1.40	**1.56**	1.09	1.23
29	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	1.76	1.34	**1.55**	2.75	1.31
30	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	1.64	1.46	**1.55**	2.60	1.12
31	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	1.81	1.26	**1.54**	5.44	1.44
32	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	1.74	1.33	**1.54**	2.65	1.31
33	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	1.53	1.46	**1.50**	2.93	1.05
34	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	1.69	1.30	**1.50**	1.69	1.30
35	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	1.52	1.33	**1.43**	5.57	1.14
36	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	1.58	1.22	**1.40**	1.73	1.30
37	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	1.44	1.35	**1.40**	2.71	1.07
38	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	1.49	1.17	**1.33**	5.01	1.27

Table 6: Ranking of Congested Arterial Locations by Total Impact

No.	Route	Limits	Direction	State	Peak	Queue Length	PTI	TTI	Severity	Total Impact	Variability
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	2.04	1.41	1.73	**7.88**	1.45
2	MO-141	Big Bend to I-44	SB	MO	PM	3.90	1.97	1.72	1.85	**6.71**	1.15
3	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	1.96	1.55	1.76	**6.49**	1.26
4	MO-141	Hawkins to Vance	NB	MO	AM	4.10	2.56	1.39	1.98	**5.70**	1.84
5	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	2.06	1.37	1.72	**5.67**	1.50
6	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	1.52	1.33	1.43	**5.57**	1.14
7	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	1.81	1.26	1.54	**5.44**	1.44
8	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	1.49	1.17	1.33	**5.01**	1.27
9	MO-K	I-70 to MO-364	SB	MO	PM	3.50	1.76	1.41	1.59	**4.94**	1.25
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	1.84	1.33	1.59	**4.51**	1.38
11	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	2.11	1.66	1.89	**3.55**	1.27
12	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	2.04	1.26	1.65	**3.45**	1.62
13	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	1.95	1.45	1.70	**3.10**	1.34
14	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	1.87	1.49	1.68	**3.05**	1.26
15	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	1.53	1.46	1.50	**2.93**	1.05
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	1.76	1.34	1.55	**2.75**	1.31
17	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	1.44	1.35	1.40	**2.71**	1.07
18	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	1.64	1.50	1.57	**2.67**	1.09
19	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	1.74	1.33	1.54	**2.65**	1.31
20	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	1.64	1.46	1.55	**2.60**	1.12
21	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	2.27	1.49	1.88	**2.43**	1.52
22	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	2.20	1.48	1.84	**2.40**	1.49
23	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	2.02	1.48	1.75	**2.32**	1.36
24	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	2.16	1.47	1.82	**2.16**	1.47
25	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	3.12	1.89	2.51	**1.93**	1.65
26	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	2.46	1.42	1.94	**1.85**	1.73
27	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	1.58	1.22	1.40	**1.73**	1.30
28	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	1.69	1.30	1.50	**1.69**	1.30
29	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	2.30	1.40	1.85	**1.47**	1.64
30	MO-141	Marshall to I-44	SB	MO	AM	0.85	1.90	1.65	1.78	**1.40**	1.15
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	2.21	1.76	1.99	**1.37**	1.26
32	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	2.10	1.55	1.83	**1.16**	1.35
33	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	2.01	1.47	1.74	**1.10**	1.37
34	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.72	1.40	1.56	**1.09**	1.23
35	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	2.88	2.32	2.60	**1.09**	1.24
36	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	1.87	1.34	1.61	**1.01**	1.40
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	2.42	1.89	2.16	**0.89**	1.28
38	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	2.93	1.52	2.23	**0.81**	1.93

Table 7: Ranking of Congested Arterial Locations by Variability

No.	Route	Limits	Direction	State	Peak	Queue Length	PTI	TTI	Severity	Total Impact	Variability
1	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	2.93	1.52	2.23	0.81	**1.93**
2	MO-141	Hawkins to Vance	NB	MO	AM	4.10	2.56	1.39	1.98	5.70	**1.84**
3	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	2.46	1.42	1.94	1.85	**1.73**
4	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	3.12	1.89	2.51	1.93	**1.65**
5	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	2.30	1.40	1.85	1.47	**1.64**
6	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	2.04	1.26	1.65	3.45	**1.62**
7	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	2.27	1.49	1.88	2.43	**1.52**
8	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	2.06	1.37	1.72	5.67	**1.50**
9	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	2.20	1.48	1.84	2.40	**1.49**
10	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	2.16	1.47	1.82	2.16	**1.47**
11	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	2.04	1.41	1.73	7.88	**1.45**
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	1.81	1.26	1.54	5.44	**1.44**
13	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	1.87	1.34	1.61	1.01	**1.40**
14	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	1.84	1.33	1.59	4.51	**1.38**
15	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	2.01	1.47	1.74	1.10	**1.37**
16	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	2.02	1.48	1.75	2.32	**1.36**
17	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	2.10	1.55	1.83	1.16	**1.35**
18	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	1.95	1.45	1.70	3.10	**1.34**
19	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	1.76	1.34	1.55	2.75	**1.31**
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	1.74	1.33	1.54	2.65	**1.31**
21	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	1.69	1.30	1.50	1.69	**1.30**
22	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	1.58	1.22	1.40	1.73	**1.30**
23	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	2.42	1.89	2.16	0.89	**1.28**
24	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	1.49	1.17	1.33	5.01	**1.27**
25	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	2.11	1.66	1.89	3.55	**1.27**
26	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	1.96	1.55	1.76	6.49	**1.26**
27	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	2.21	1.76	1.99	1.37	**1.26**
28	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	1.87	1.49	1.68	3.05	**1.26**
29	MO-K	I-70 to MO-364	SB	MO	PM	3.50	1.76	1.41	1.59	4.94	**1.25**
30	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	2.88	2.32	2.60	1.09	**1.24**
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.72	1.40	1.56	1.09	**1.23**
32	MO-141	Marshall to I-44	SB	MO	AM	0.85	1.90	1.65	1.78	1.40	**1.15**
33	MO-141	Big Bend to I-44	SB	MO	PM	3.90	1.97	1.72	1.85	6.71	**1.15**
34	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	1.52	1.33	1.43	5.57	**1.14**
35	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	1.64	1.46	1.55	2.60	**1.12**
36	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	1.64	1.50	1.57	2.67	**1.09**
37	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	1.44	1.35	1.40	2.71	**1.07**
38	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	1.53	1.46	1.50	2.93	**1.05**

Table 8: Ranking of Congested Freeway Locations by Severity

No.	Route	Limits	Direction	State	Peak	Queue Length	PTI	TTI	Severity	Total Impact	Variability
1	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	3.99	1.92	**2.96**	8.26	2.08
2	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	3.36	1.78	**2.57**	10.24	1.89
3	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	3.19	1.44	**2.32**	7.49	2.22
4	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	2.97	1.50	**2.24**	8.28	1.98
5	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	2.86	1.52	**2.19**	7.60	1.88
6	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	2.79	1.50	**2.15**	19.05	1.86
7	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	2.79	1.48	**2.14**	31.08	1.89
8	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	2.73	1.50	**2.12**	18.00	1.82
9	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	2.75	1.47	**2.11**	20.58	1.87
10	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	2.70	1.50	**2.10**	10.04	1.80
11	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	2.75	1.42	**2.09**	8.73	1.94
12	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	2.43	1.39	**1.91**	6.12	1.74
13	I-64	MO-K to I-70	WB	MO	PM	10.00	2.51	1.27	**1.89**	12.70	1.98
14	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	2.46	1.30	**1.88**	12.44	1.89
15	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	2.24	1.29	**1.77**	15.48	1.74
16	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	2.27	1.21	**1.74**	6.43	1.88
17	I-70	I-270/Exit 232 to Jennings Sta Rd/Exit 242	EB	MO	PM	11.00	2.23	1.21	**1.72**	13.31	1.84
18	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	2.18	1.21	**1.70**	4.05	1.80
19	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	2.26	1.12	**1.69**	2.73	2.02
20	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	2.10	1.26	**1.68**	11.31	1.67
21	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	2.11	1.23	**1.67**	8.79	1.72
22	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	2.11	1.20	**1.66**	16.99	1.76
23	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	2.03	1.23	**1.63**	7.93	1.65
24	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	2.06	1.19	**1.62**	3.69	1.73
25	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	1.99	1.17	**1.58**	2.36	1.70
26	I-170	I-64 to MO-D	SB	MO	AM	4.49	1.89	1.14	**1.52**	5.12	1.66
27	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	1.87	1.14	**1.51**	9.05	1.64
28	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	1.86	1.13	**1.50**	7.02	1.65
29	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	1.82	1.14	**1.48**	4.91	1.60
30	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	1.81	1.14	**1.48**	7.05	1.59
31	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	1.80	1.09	**1.45**	9.38	1.65
32	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	1.76	1.09	**1.43**	5.12	1.61
33	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	1.62	1.18	**1.40**	16.52	1.37
34	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	1.69	1.08	**1.39**	9.30	1.56
35	I-44	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	WB	MO	PM	11.00	1.55	1.17	**1.36**	12.87	1.32
36	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	1.52	1.14	**1.33**	2.83	1.33
37	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	1.50	1.04	**1.27**	8.84	1.44

Table 9: Ranking of Congested Freeway Locations by Total Impact

No.	Route	Limits	Direction	State	Peak	Queue Length	PTI	TTI	Severity	Total Impact	Variability
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	2.79	1.48	2.14	**31.08**	1.89
2	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	2.75	1.47	2.11	**20.58**	1.87
3	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	2.79	1.50	2.15	**19.05**	1.86
4	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	2.73	1.50	2.12	**18.00**	1.82
5	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	2.11	1.20	1.66	**16.99**	1.76
6	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	1.62	1.18	1.40	**16.52**	1.37
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	2.24	1.29	1.77	**15.48**	1.74
8	I-70	I-270/Exit 232 to Jennings Sta Rd/Exit 242	EB	MO	PM	11.00	2.23	1.21	1.72	**13.31**	1.84
9	I-44	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	WB	MO	PM	11.00	1.55	1.17	1.36	**12.87**	1.32
10	I-64	MO-K to I-70	WB	MO	PM	10.00	2.51	1.27	1.89	**12.70**	1.98
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	2.46	1.30	1.88	**12.44**	1.89
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	2.10	1.26	1.68	**11.31**	1.67
13	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	3.36	1.78	2.57	**10.24**	1.89
14	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	2.70	1.50	2.10	**10.04**	1.80
15	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	1.80	1.09	1.45	**9.38**	1.65
16	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	1.69	1.08	1.39	**9.30**	1.56
17	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	1.87	1.14	1.51	**9.05**	1.64
18	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	1.50	1.04	1.27	**8.84**	1.44
19	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	2.11	1.23	1.67	**8.79**	1.72
20	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	2.75	1.42	2.09	**8.73**	1.94
21	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	2.97	1.50	2.24	**8.28**	1.98
22	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	3.99	1.92	2.96	**8.26**	2.08
23	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	2.03	1.23	1.63	**7.93**	1.65
24	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	2.86	1.52	2.19	**7.60**	1.88
25	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	3.19	1.44	2.32	**7.49**	2.22
26	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	1.81	1.14	1.48	**7.05**	1.59
27	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	1.86	1.13	1.50	**7.02**	1.65
28	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	2.27	1.21	1.74	**6.43**	1.88
29	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	2.43	1.39	1.91	**6.12**	1.74
30	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	1.76	1.09	1.43	**5.12**	1.61
31	I-170	I-64 to MO-D	SB	MO	AM	4.49	1.89	1.14	1.52	**5.12**	1.66
32	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	1.82	1.14	1.48	**4.91**	1.60
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	2.18	1.21	1.70	**4.05**	1.80
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	2.06	1.19	1.62	**3.69**	1.73
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	1.52	1.14	1.33	**2.83**	1.33
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	2.26	1.12	1.69	**2.73**	2.02
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	1.99	1.17	1.58	**2.36**	1.70

Table 10: Ranking of Congested Freeway Locations by Variability

No.	Route	Limits	Direction	State	Peak	Queue Length	PTI	TTI	Severity	Total Impact	Variability
1	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	3.19	1.44	2.32	7.49	2.22
2	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	3.99	1.92	2.96	8.26	2.08
3	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	2.26	1.12	1.69	2.73	2.02
4	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	2.97	1.50	2.24	8.28	1.98
5	I-64	MO-K to I-70	WB	MO	PM	10.00	2.51	1.27	1.89	12.70	1.98
6	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	2.75	1.42	2.09	8.73	1.94
7	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	3.36	1.78	2.57	10.24	1.89
8	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	2.46	1.30	1.88	12.44	1.89
9	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	2.79	1.48	2.14	31.08	1.89
10	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	2.86	1.52	2.19	7.60	1.88
11	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	2.27	1.21	1.74	6.43	1.88
12	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	2.75	1.47	2.11	20.58	1.87
13	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	2.79	1.50	2.15	19.05	1.86
14	I-70	I-270/Exit 232 to Jennings Sta Rd/Exit 242	EB	MO	PM	11.00	2.23	1.21	1.72	13.31	1.84
15	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	2.73	1.50	2.12	18.00	1.82
16	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	2.18	1.21	1.70	4.05	1.80
17	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	2.70	1.50	2.10	10.04	1.80
18	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	2.11	1.20	1.66	16.99	1.76
19	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	2.43	1.39	1.91	6.12	1.74
20	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	2.24	1.29	1.77	15.48	1.74
21	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	2.06	1.19	1.62	3.69	1.73
22	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	2.11	1.23	1.67	8.79	1.72
23	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	1.99	1.17	1.58	2.36	1.70
24	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	2.10	1.26	1.68	11.31	1.67
25	I-170	I-64 to MO-D	SB	MO	AM	4.49	1.89	1.14	1.52	5.12	1.66
26	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	1.80	1.09	1.45	9.38	1.65
27	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	2.03	1.23	1.63	7.93	1.65
28	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	1.86	1.13	1.50	7.02	1.65
29	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	1.87	1.14	1.51	9.05	1.64
30	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	1.76	1.09	1.43	5.12	1.61
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	1.82	1.14	1.48	4.91	1.60
32	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	1.81	1.14	1.48	7.05	1.59
33	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	1.69	1.08	1.39	9.30	1.56
34	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	1.50	1.04	1.27	8.84	1.44
35	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	1.62	1.18	1.40	16.52	1.37
36	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	1.52	1.14	1.33	2.83	1.33
37	I-44	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	WB	MO	PM	11.00	1.55	1.17	1.36	12.87	1.32

Summary of Findings

- Less severe locations tend to be less impactful and more reliable.

c) Performance Trend Analysis

We examined regional system performance trends to ascertain how well the region's congested locations have been performing over time. We calculated performance measures for all of the 2016 congested locations for the years 2012 through 2016 and averaged them for each year. We then graphed the performance measures for each year to determine trends. These graphs reflect the trends for the congested locations identified in 2016 over the last five years.

i. Average Planning Time

Planning time is the time you must plan for a specific trip to arrive at your destination on time 95% of the time. The numbers shown in Figure 31 show a general upward trend from 2012 to 2016, with the exception the AM peak from 2015 to 2016.

Figure 31: Planning Time

ii. Planning Time Index

Planning Time Index is a measure of travel time reliability. For example, a PTI of 2 means that for a trip that would take you 30 minutes in light traffic you would need to allow 1 hour to get to your destination on time 95% of the time. The trend analysis shows sharp increases in PTI across the region with the exception of the freeway AM peak in 2016.

Figure 32: Planning Time Index

iii. Average Speed

Regional average freeway speeds for the congested locations was observed to be 47 miles per hour (mph). Arterial speeds stood at 25 mph. Generally, while regional speeds have steadily declined over time, arterial speeds have declined more sharply (see Figure 33). Declining speed is a sign of increasing congestion intensity.

Figure 33: Speed

iv. Average Travel Time

Freeway average travel time was 9.88 minutes and arterial travel time was 5.43 minutes. Growth in travel time trended upward between 2012 and 2016, then experienced a drop from 2015 to 2016. Arterial travel times grew more quickly than on freeways, then experienced a significant drop in AM arterial travel time from 2015 to 2016 (see Figure 34).

Figure 34: Travel Time

v. Travel Time Index

The average Travel Time Index for all congested locations in 2016 was 1.4. The average TTI was 1.28 and 1.48 for freeways and arterials, respectively. This means travel time during peak period was 28% longer on than free-flow travel times on freeways and 48% longer on arterials.

Figure 35: Travel Time Index

Summary of Findings

- Average speeds have declined over the five year period for both arterials and freeways.
- Average peak-period Travel Times have been increased over the 5 year period.
- Planning Time Index has increased sharply between 2012 and 2016, a sign of worsening system reliability.
- In general, this indicates increasing congestion in the region over the 5-year period (2012 – 2016).

6 Identify Mobility-Enhancing Strategies

Following the implementation of mobility-enhancing projects, partners are often required to evaluate strategies to ensure that implemented strategies are effective at addressing congestion as intended, and to make changes based on the findings as necessary. Strategies that significantly improve congestion are encouraged in future project sponsorship.

These mobility project evaluations are undertaken with a before-and-after study design. The following sub-section reports mobility project evaluations from the Missouri Department of Transportation (MoDOT), Illinois Department of Transportation (IDOT), city of St. Louis, and St. Charles.

a) Missouri Department of Transportation (MoDOT)

In 2016, MoDOT undertook 2 major signal optimization projects along I-70 and on MO-21, using CMAQ funds. The projects on I-70 were implemented at 9 selected interchanges: (1) Kingshighway; (2) Union; (3) Goodfellow; (4) Jennings Sta. Rd.; (5) Airflight; (6) Zumbehl; (7) Cave Springs; (8) Lake St. Louis; and (9) Wentzville. The MO-21 projects were implemented between Lutheran High School and Walden Ridge Rd.

Overall, as expected, the projects on I-70 had major reduction in delay, fuel consumption and emissions. For example, the reduction in delay averaged at about 9 per cent with a range between 3 per cent and 16 per cent. These results are shown in Table 11 below.

Table 11: Effects of Signal Timing on Delay, Fuel, and Emissions (I-70)

No.	Interchanges	% Change in Delay	Fuel Savings (gallons)	Emission Benefits (kgs)
1	Kingshighway	-5.23%	884	170
2	Union	-11.40%	1,456	135
3	Goodfellow	-13.10%	4,784	458
4	Jennings Sta. Rd.	-13.70%	1,144	106
5	Airflight	-9.12%	4,004	388
6	Zumbehl	-15.70%	23,764	973
7	Cave Springs	-7.23%	3,328	544
8	Lake St. Louis	-3.53%	6,968	728
9	Wentzville	-3.15%	190	156
TOTAL		**-9.13%**	**46,522**	**3,658**

Effect of optimization projects on MO-21 on congestion was conclusively positive. The evaluation report covered four indices: travel time, number of stops, average speed, and total delay. The corresponding emission reduction effect of these projects was 2,171 pounds of VOC, NOx, and CO. These congestion effects are shown in Table 12 below.

Table 12: Effects of Signal Timing on Congestion (MO-21)

No.	Peak Hour	AM	Midday	PM
1	Travel Time (sec.)	-4.00%	-1.00%	-5.00%
2	Number of Stops	-33.30%	-27.80%	-10.70%
3	Average Speed (mph)	4.30%	+1.1.%	3.80%
4	Total Delay (sec.)	-27.00%	-8.00%	-13.00%

b) Illinois Department of Transportation (IDOT)

The Illinois Department of Transportation (IDOT) undertook a number of signal timing projects in 19 locations along Illinois Route 159 (Fairview Heights, IL) at Milburn School Road, Fountains Parkway, Ludwig Drive, I-64 North Junction, I-64 South Junction, Market Place entrance, Lincoln Place entrance, U.S. Route 50, Lowe's entrance, and Ashland Avenue/ Longacre Drive; and U.S. Route 50 (Salem, IL) at Bunkum Road, Potomac Drive, Union Hill Road, Ruby Lane, Commerce Lane, West Mall entrance, Frey Lane, Schnucks entrance, and Lexington Drive.

These signal timing/coordination projects had marked effects on congestion. Specifically, the projects along Illinois Route 159 led to speed increases of, at least, 3% during peak periods. Table 13 below shows the effect of these signal timing projects on average travel speeds.

Table 13: Effects of Signal Timing on Travel Speeds (Fairview Heights, IL)

Route	Peak	Speeds		% Change
		Pre-Study	Post-Study	
Route 50 (WB)	AM Peak	31.1	32.8	5.5%
	PM Peak	24.3	25.6	5.3%
	Off-Peak	27.0	28.8	6.7%
Route 50 (EB)	AM Peak	28.4	30.6	7.7%
	PM Peak	26.0	26.7	2.7%
	Off-Peak	26.4	27.6	4.5%

These projects made significant contributions to fuel consumption, operating cost and tailpipe emissions. An objective evaluation of the projects noted about 5 percent decline in fuel usage and operating cost, representing savings of about 100,000 gallons of fuel per annum. At an average fuel price of $2.26 per gallon, this savings translates into about $250,000. The overall effect of reduction in fuel use on total emissions was not trivial. In sum, total emissions from VOC, CO and NO was about 9 percent less than pre-study levels. Table 14 depicts the fuel reduction, operating cost savings and emission benefits resulting from these projects.

Table 14: Effects of Signal Timing on Fuel Use, Cost, and Emissions (Fairview Heights, IL)

Measure	Pre-Study	Post-Study	% Change
Annual Fuel Use (gal.)	2,391,535	2,278,805	-4.7%
Annual Operating Cost ($)	5,404,869	5,150,099	-4.7%
Total Emissions (VOC, CO & NO)	871,306	791,273	-9.2%

The projects implemented in Salem, IL also showed significant speed improvements. For both westbound and eastbound directions, the ex-post evaluations revealed peak-period speed improvements between 6% and 46%. These results are shown in Table 15 below.

Table 15: Effects of Signal Timing on Travel Speeds (Salem, IL)

Route	Speed	Speeds		% Change
		Pre-Study	Post-Study	
Route 50 (WB)	AM Peak	24.4	30.8	26.2%
	PM Peak	20.3	29.7	46.3%
	Off-Peak	23.8	30.6	28.6%
Route 50 (EB)	AM Peak	28.3	29.9	5.7%
	PM Peak	20.9	24.1	15.3%
	Off-Peak	24.2	29.9	23.6%

Similarly, the projects on US Route 50 (Salem, IL) chalked up noteworthy fuel and emission effects. Table 16 below compares pre-study and post-study effects of signal timing projects on fuel consumption, cost, and emissions. The signal timing projects in Salem, IL led to fuel consumption and operating costs reduction of 9%. Finally, total emissions from VOC, CO and NO also reduced by about 55,000 pounds.

Table 16: Effects of Signal Timing on Fuel Use, Cost, and Emissions (Salem, IL)

Measure	Pre-Study	Post-Study	% Change
Annual Fuel Use (gal.)	848,555	768,515	-9.4%
Annual Operating Cost ($)	1,917,734	1,736,844	-9.4%
Total Emissions (VOC, CO & NO)	309,398	254,449	-17.8%

c) City of St. Louis

In 2016, the Kingshighway Bridge over Union Pacific Railroad (UPR) - immediately south of I-44- was under construction with 6 lanes of traffic, wider sidewalks, and pedestrian-scale lighting. This project closed a major arterial into South City- Kingshighway, from I-44 to Vandeventer. To better manage possible congestion, traffic was detoured to adjacent arterials of Vandeventer and Hampton. Arterial traffic was routed throughout the "Hill" neighborhood. Two lanes in each direction reopened in May of 2017 restoring some traffic patterns in the area. This project is scheduled to wrap up before 2018 arrives.

Also, Forest Park Parkway at Kingshighway was closed at the end of 2016. This project was to replace a bridge over the Metrolink tracks as well as bring the grade separated interchange of Kingshighway and Forest Park Parkway to a full at-grade intersection. This project closed Forest Park Parkway from DeBaliviere to Kingshighway. The detour was to use I-64 of which most traffic did not do. Most drivers preferred Lindell Blvd as their detour route causing much angst with local residents. The options for detours were not easy due to the location of Forest Park separating the work zone from the detour route along with adjacent work on Delmar with the Loop Trolley project.

The Loop Trolley project placed Delmar on a road diet from the traffic circle in University City to DeBaliviere in the City of St. Louis.

d) St. Charles County

St. Charles County continued implementation of new fiber and ITS devices as part of the County-wide Gateway Green Light (GGL) Program. The County's Arterial Management Interface (AMI) was completed, providing planned diversion routes and signal timings for interstate and freeway incidents. Through GGL and the support services it provides, signal coordination continued to be improved throughout the County based on observed issues, as well as customer feedback.

Summary of Findings

- MoDOT: Signal optimization projects on I-70 and MO-21 led to significant reduction in delay, travel times, and number of stops.
- IDOT: Signal optimization projects implemented in Fairview Heights and Salem all led to reduction in speeds for both morning and evening peaks.

7 Conclusion

Traffic congestion in the St. Louis region continues to be a concern for the public and policy-makers alike. Traffic congestion in the region is disproportionately on freeways. Of the 366 congested miles of the CMP network in the AM and PM peak periods, freeways represented 285 miles while arterials had 81 miles. Most of the congestion in the region can be classified as being moderate for both morning and evening peak periods. For arterials, moderate congestion varies between 86% and 98% of the congestion during the peak periods, while severe and heavy congestion account for up to 14%, at most. For freeways, moderate congestion varies between 42% and 76% of the congestion, while heavy and severe congestion accounts for 60%, at most.

The increased congestion in the region has had significant impact on system reliability. Planning Time Index, a measure of system reliability, averaged 2.15 for all congested locations. This means, in order to insure on-time arrival most of the time, you would have to allow for 65 minutes of travel time for a trip that is normally made in 30 minutes due to unreliable travel times. Some of the roads with the most unreliable travel times in 2016 were MO-141, SB (Marshall to I-44 and Vance to I-44), US-67, NB (I-270 to Old Halls Ferry), I-270, SB (I-70 to I-55 and I-55 to I-64/US-40/US-61), and I-64, EB (Chesterfield Pkwy to McCausland).

Inter-jurisdictional coordination is vital for analyzing and mitigating regional traffic congestion. Since trips produced in one jurisdiction end up being attracted to others, the attendant congestion resulting from this flow of traffic does not respect artificial jurisdictional boundaries. Effective solutions to traffic congestion requires continued deliberations on transferring lessons from implemented strategies. The active participation of regional partners in sharing ideas on workable strategies and challenges in implementation at the Congestion Management and Operations Committee (CMOC) meetings is encouraging. Overall, evaluation results of the impact of signal timing projects on congestion in the region is positive.

MoDOT plays a key role in congestion management in the region. Indeed, about 62% of the identified arterial congested locations are on MoDOT's facilities (see Table 1). Twenty-two per cent of the arterial congested facilities are managed by city of St. Louis. IDOT is in charge of 12% of our arterial congested locations. The remaining 3% of the congested arterial locations are found in St. Louis County. All the congested freeways are in Missouri side, except about 4 miles of I-55 on the Illinois side (1.5%) (see Table 2).

The foregoing analysis has enhanced our understanding of congestion in the region and where we should consider directing congestion mitigation effects. We encourage stakeholders to continuously refer to the list of congested locations (Tables 1 and 2) in implementing mobility-enhancing strategies that have the potential to reduce regional congestion significantly.

Appendices

Appendix 1: Hourly Performance Measures

Arterial Performance Measures (Peak Hours)

Table 17: Buffer Time

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7 AM/ 3-4 PM	7-8 AM/ 4-5 PM	8-9 AM/ 5-6 PM	AVG.
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	6.68	10.90	12.44	10.86
2	MO-141	Marshall to I-44	SB	MO	AM	0.85	5.87	16.17	20.61	13.44
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90	3.44	4.21	4.66	4.41
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	1.45	1.73	1.81	1.71
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	2.00	2.92	4.81	3.45
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	1.79	5.30	7.50	5.78
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	6.77	8.49	9.67	8.32
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10	3.46	12.98	11.73	10.33
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	4.82	5.29	5.18	5.28
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	2.81	4.32	4.47	4.01
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50	3.23	3.63	3.66	3.55
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	1.10	4.01	6.54	4.55
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	1.48	4.42	6.98	5.55
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	3.79	5.43	5.62	5.46
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	5.25	6.03	5.79	5.51
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	3.86	3.83	3.81	3.84
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	2.88	4.02	4.45	4.09
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	1.34	1.45	1.54	1.44
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	1.60	1.45	1.43	1.45
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	3.62	3.64	3.34	3.44
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	1.54	1.79	1.91	1.78
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	1.81	1.67	1.66	1.67
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	2.77	2.73	2.03	2.67
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	1.22	2.79	3.56	3.19
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	1.29	1.73	1.43	1.46
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	2.72	3.61	5.06	3.67
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	1.45	3.44	5.27	4.31
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	1.70	4.30	5.25	3.95
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	2.98	5.04	6.31	5.03
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.01	1.53	1.49	1.37
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	1.61	1.82	2.04	1.81
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	1.71	2.07	2.61	2.07
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	1.51	1.34	1.61	1.44
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	1.68	2.23	2.74	2.13
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	0.46	1.62	1.74	1.46
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	0.04	0.13	0.24	0.12
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	0.87	0.93	0.99	0.93
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	1.04	1.15	1.15	1.14

Table 18: Buffer Time Index

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7 AM/ 3-4 PM	7-8 AM/ 4-5 PM	8-9 AM/ 5-6 PM	AVG.
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	0.56	0.91	1.03	0.91
2	MO-141	Marshall to I-44	SB	MO	AM	0.85	0.59	1.59	1.96	1.31
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90	0.66	0.81	0.88	0.85
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	0.30	0.36	0.37	0.35
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	0.39	0.58	0.97	0.69
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	0.34	0.99	1.40	1.08
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	0.81	1.02	1.17	1.00
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10	0.63	2.16	1.66	1.67
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	0.53	0.59	0.58	0.59
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	0.53	0.81	0.81	0.74
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50	0.59	0.65	0.60	0.62
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	0.14	0.52	0.86	0.59
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	0.24	0.70	1.07	0.87
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	0.97	1.34	1.37	1.36
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	1.10	1.28	1.26	1.17
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	0.88	0.87	0.86	0.87
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	0.82	1.12	1.17	1.12
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	0.58	0.62	0.66	0.62
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	0.63	0.56	0.55	0.56
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	0.73	0.73	0.68	0.70
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	0.77	0.89	0.93	0.88
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	0.85	0.78	0.77	0.78
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	0.65	0.64	0.45	0.61
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	0.46	1.00	1.19	1.13
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	0.54	0.71	0.58	0.60
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	0.63	0.81	1.14	0.83
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	0.42	1.03	1.59	1.29
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	0.46	1.15	1.38	1.06
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	0.95	1.59	1.96	1.58
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	0.83	1.25	1.18	1.10
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	1.06	1.19	1.31	1.18
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	1.19	1.40	1.70	1.40
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	0.65	0.55	0.66	0.60
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	0.65	0.88	1.08	0.83
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	0.72	2.48	2.46	2.18
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	0.05	0.19	0.35	0.17
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	1.60	1.69	1.70	1.66
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	1.67	1.85	1.87	1.85

Table 19: Planning Time

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7 AM/ 3-4 PM	7-8 AM/ 4-5 PM	8-9 AM/ 5-6 PM	AVG.
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	18.58	22.82	24.49	22.82
2	MO-141	Marshall to I-44	SB	MO	AM	0.85	15.86	26.34	31.13	23.67
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90	8.63	9.40	9.94	9.63
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	6.24	6.56	6.74	6.56
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	7.09	7.95	9.76	8.47
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	7.11	10.68	12.86	11.13
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	15.17	16.84	17.96	16.66
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10	8.91	18.98	18.80	16.50
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	13.87	14.29	14.16	14.29
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	8.13	9.64	10.00	9.40
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50	8.69	9.26	9.70	9.26
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	9.01	11.70	14.16	12.29
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	7.75	10.70	13.54	11.92
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	7.70	9.47	9.71	9.48
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	10.03	10.75	10.38	10.21
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	8.25	8.25	8.24	8.25
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	6.40	7.61	8.26	7.73
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	3.66	3.78	3.90	3.78
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	4.17	4.03	4.03	4.03
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	8.58	8.59	8.26	8.38
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	3.55	3.81	3.95	3.81
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	3.95	3.81	3.81	3.81
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	7.02	7.02	6.55	7.02
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	3.90	5.58	6.56	6.02
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	3.68	4.17	3.89	3.89
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	7.04	8.07	9.48	8.07
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	4.86	6.78	8.58	7.67
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	5.36	8.05	9.05	7.69
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	6.13	8.21	9.53	8.21
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	2.23	2.76	2.76	2.60
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	3.13	3.35	3.61	3.35
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	3.14	3.55	4.14	3.55
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	3.83	3.77	4.04	3.83
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	4.28	4.76	5.29	4.70
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	1.10	2.27	2.45	2.12
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	0.73	0.83	0.93	0.81
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	1.41	1.48	1.57	1.48
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	1.66	1.76	1.76	1.76

Table 20: Planning Time Index

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7 AM/ 3-4 PM	7-8 AM/ 4-5 PM	8-9 AM/ 5-6 PM	AVG.
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	1.66	2.04	2.18	2.04
2	MO-141	Marshall to I-44	SB	MO	AM	0.85	1.51	2.51	2.96	2.25
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90	1.70	1.86	1.96	1.90
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	1.44	1.52	1.56	1.52
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	1.64	1.84	2.26	1.96
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	1.31	1.97	2.37	2.06
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	1.84	2.04	2.18	2.02
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10	1.39	2.95	2.92	2.56
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	1.54	1.58	1.57	1.58
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	1.59	1.89	1.96	1.84
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50	1.65	1.76	1.84	1.76
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	1.33	1.72	2.08	1.81
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	1.33	1.83	2.32	2.04
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	1.59	1.95	2.00	1.95
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	2.07	2.22	2.14	2.11
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	1.87	1.87	1.87	1.87
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	1.45	1.73	1.88	1.76
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	1.39	1.44	1.48	1.44
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	1.59	1.53	1.53	1.53
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	1.79	1.79	1.72	1.74
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	1.53	1.64	1.70	1.64
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	1.70	1.64	1.64	1.64
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	1.69	1.69	1.58	1.69
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	1.47	2.11	2.48	2.27
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	2.07	2.35	2.20	2.20
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	1.89	2.16	2.54	2.16
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	1.56	2.18	2.76	2.46
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	1.60	2.40	2.70	2.30
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	2.33	3.12	3.62	3.12
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.48	1.82	1.82	1.72
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	2.07	2.21	2.38	2.21
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	1.77	2.01	2.34	2.01
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	2.10	2.07	2.21	2.10
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	1.71	1.90	2.11	1.87
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	1.52	3.14	3.38	2.93
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	1.34	1.52	1.71	1.49
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	2.30	2.42	2.56	2.42
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	2.71	2.88	2.88	2.88

Table 21: Speed

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7 AM/ 3-4 PM	7-8 AM/ 4-5 PM	8-9 AM/ 5-6 PM	AVG.
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	23.26	20.81	19.87	21.23
2	MO-141	Marshall to I-44	SB	MO	AM	0.85	33.30	24.93	22.16	26.03
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90	41.22	37.97	36.51	38.46
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	46.35	42.92	42.04	43.69
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	40.91	37.73	34.40	37.50
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	40.55	32.57	29.03	33.41
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	17.80	16.88	16.33	16.99
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10	31.73	21.08	23.33	24.63
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	19.00	19.01	18.96	18.99
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	32.16	29.46	28.59	30.00
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50	26.83	25.73	25.27	25.93
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	25.30	21.44	19.15	21.68
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	28.29	22.59	18.20	22.30
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	21.16	17.52	16.50	18.19
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	15.99	15.99	15.94	15.98
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	18.48	18.85	18.89	18.74
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	23.43	20.95	18.57	20.80
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	34.82	34.33	32.86	33.98
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	31.45	31.69	31.64	31.60
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	18.30	18.65	19.04	18.66
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	32.56	31.30	30.50	31.43
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	30.27	30.60	30.89	30.59
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	17.98	18.09	18.87	18.31
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	31.74	25.08	20.11	24.76
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	17.07	16.95	17.85	17.28
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	17.36	16.05	15.11	16.13
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	21.14	18.22	14.72	17.64
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	19.84	15.82	14.80	16.56
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	14.15	12.17	10.93	12.28
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	25.52	21.02	20.71	22.21
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	18.38	17.58	16.97	17.62
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	20.00	17.13	15.62	17.40
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	15.79	16.15	16.04	15.99
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	14.45	13.04	12.78	13.39
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	39.46	25.28	26.07	29.03
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	49.77	46.60	44.72	46.94
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	26.86	23.92	22.71	24.37
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	20.67	19.78	19.20	19.86

Table 22: Travel Time

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7 AM/ 3-4 PM	7-8 AM/ 4-5 PM	8-9 AM/ 5-6 PM	AVG.
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	14.42	16.11	16.88	15.80
2	MO-141	Marshall to I-44	SB	MO	AM	0.85	11.19	14.94	16.82	14.31
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90	7.78	8.45	8.78	8.34
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	5.43	5.86	5.98	5.76
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	6.15	6.66	7.31	6.71
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	6.12	7.62	8.55	7.43
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	11.64	12.28	12.69	12.20
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10	6.97	10.49	9.48	8.97
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	11.01	11.00	11.03	11.01
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	6.32	6.90	7.11	6.77
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50	7.20	7.50	7.64	7.44
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	7.35	8.67	9.71	8.58
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	5.80	7.27	9.02	7.36
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	6.06	7.32	7.77	7.05
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	8.02	8.02	8.05	8.03
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	6.67	6.53	6.52	6.57
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	5.26	5.88	6.63	5.92
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	3.47	3.52	3.68	3.56
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	3.84	3.81	3.82	3.83
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	6.53	6.40	6.27	6.40
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	3.27	3.40	3.49	3.39
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	3.52	3.48	3.45	3.48
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	5.48	5.45	5.22	5.38
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	3.08	3.90	4.87	3.95
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	2.65	2.67	2.53	2.62
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	5.09	5.51	5.86	5.49
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	3.68	4.27	5.28	4.41
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	3.91	4.91	5.24	4.69
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	4.31	5.01	5.58	4.96
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.84	2.23	2.26	2.11
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	2.55	2.67	2.76	2.66
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	2.26	2.64	2.90	2.60
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	2.87	2.80	2.82	2.83
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	3.11	3.45	3.52	3.36
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	0.81	1.26	1.22	1.10
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	0.60	0.64	0.67	0.64
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	1.05	1.18	1.24	1.16
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	1.36	1.43	1.47	1.42

Table 23: Travel Time Index

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7 AM/ 3-4 PM	7-8 AM/ 4-5 PM	8-9 AM/ 5-6 PM	AVG.
1	US-67	I-270 to Old Halls Ferry Rd	NB	MO	PM	5.59	1.29	1.44	1.51	1.41
2	MO-141	Marshall to I-44	SB	MO	AM	0.85	1.06	1.42	1.60	1.36
3	MO-141	Big Bend to I-44	SB	MO	PM	3.90	1.54	1.67	1.74	1.65
4	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	AM	4.19	1.26	1.36	1.39	1.33
5	MO-94	I-64/US-40/US-61 to Mid Rivers Mall Dr	NB	MO	PM	4.19	1.42	1.54	1.69	1.55
6	MO-141	MO-30 to MO-21	SB	MO	PM	4.14	1.13	1.41	1.58	1.37
7	MO-100	Vandeventer to Kingshighway	WB	MO	PM	1.57	1.41	1.49	1.54	1.48
8	MO-141	Hawkins to Vance	NB	MO	AM	4.10	1.08	1.63	1.47	1.39
9	MO-100	Big Bend to McCausland	EB	MO	PM	1.42	1.22	1.22	1.22	1.22
10	MO-94	I-70/Veterans Memorial Pky/Bogey Rd to MO-364	WB	MO	PM	3.39	1.24	1.35	1.39	1.33
11	MO-K	I-70 to MO-364	SB	MO	PM	3.50	1.37	1.42	1.45	1.41
12	MO-340	I-170 to US-67/N Lindbergh Blvd	SB	MO	PM	4.32	1.08	1.28	1.43	1.26
13	MO-340	Chesterfield Pky North to Baxter Rd	SB	MO	PM	2.74	0.99	1.24	1.55	1.26
14	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	AM	2.14	1.25	1.51	1.60	1.45
15	FOREST PARK AVE	I-64 to Kingshighway	WB	MO	PM	2.14	1.65	1.65	1.66	1.66
16	FOREST PARK AVE	Kingshighway to I-64	EB	MO	PM	2.05	1.51	1.48	1.48	1.49
17	FOREST PARK AVE	Kingshighway to I-64	EB	MO	AM	2.05	1.19	1.33	1.51	1.34
18	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	AM	2.01	1.32	1.34	1.40	1.35
19	IL-111	Forest Blvd to I-55/I-70/US-40	NB	IL	PM	2.01	1.46	1.45	1.45	1.46
20	JEFFERSON	Broadway to I-44	NB	MO	PM	1.99	1.36	1.33	1.31	1.33
21	IL-143	IL-111 to IL-3	WB	IL	AM	1.78	1.41	1.47	1.51	1.46
22	IL-143	IL-111 to IL-3	WB	IL	PM	1.78	1.52	1.50	1.49	1.50
23	HANLEY	MO-100/Manchester Rd to I-64/US-40/Eager Rd	NB	MO	PM	1.30	1.32	1.31	1.26	1.30
24	MO-141	MO-AB/Ladue Rd to I-64/US-40/US-61	SB	MO	PM	1.63	1.16	1.47	1.84	1.49
25	KINGSHIGHWAY	US-40 to Delmar	NB	MO	PM	1.62	1.50	1.51	1.43	1.48
26	KINGSHIGHWAY	I-64/US-40 to I-44	SB	MO	PM	1.47	1.37	1.48	1.57	1.47
27	HANLEY	Shaw Park Dr to I-64/US-40/Eager Rd	SB	MO	PM	1.30	1.18	1.37	1.70	1.42
28	JEFFERSON	I-64/US-40 to I-44	SB	MO	PM	1.05	1.17	1.47	1.57	1.40
29	HAMPTON AVE	I-64/US-40 to I-44	SB	MO	PM	1.02	1.64	1.91	2.12	1.89
30	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	AM	0.78	1.21	1.47	1.50	1.40
31	IL-157	Horseshoe Lake Rd to I-55/I-70/US-40	SB	IL	PM	0.78	1.69	1.76	1.83	1.76
32	KINGSHIGHWAY	I-64/US-40 to Lindell	NB	MO	AM	0.75	1.28	1.49	1.63	1.47
33	KINGSHIGHWAY	Laclede to I-64/US-40	SB	MO	PM	0.75	1.57	1.54	1.55	1.55
34	SALISBURY ST	N. Florissant to I-70	EB	MO	PM	0.75	1.24	1.37	1.40	1.34
35	MO-D	I-270 to Schuetz Rd	EB	MO	AM	0.53	1.12	1.74	1.69	1.52
36	MO-D	I-170 to Schuetz Rd	WB	MO	PM	4.28	1.11	1.18	1.23	1.17
37	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	AM	0.47	1.71	1.92	2.03	1.89
38	IL-157	I-55/I-70/US-40 to Horseshoe Lake Rd	NB	IL	PM	0.47	2.23	2.33	2.40	2.32

Freeway Performance Measures (Peak Hours)

Table 24: Buffer Time

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7AM/ 3-4PM	7-8AM/ 4-5PM	8-9AM/ 5-6PM	AVG.
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	15.76	39.32	47.80	37.28
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	3.98	20.89	18.09	15.84
3	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	13.59	22.69	27.65	23.01
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	5.14	9.27	9.06	7.63
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	10.02	28.86	23.06	22.86
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	8.57	21.13	25.77	20.20
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	10.30	15.39	15.39	13.96
8	I-70	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	EB	MO	PM	11.00	2.65	14.06	21.28	13.87
9	I-44	I-270/Exit 232 to Jennings Sta Rd/Exit 242	WB	MO	PM	11.00	2.18	6.62	7.78	5.72
10	I-64	MO-K to I-70	WB	MO	PM	10.00	6.55	16.02	16.85	13.95
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	-	13.50	17.30	13.33
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	4.08	9.92	13.79	9.54
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	0.04	9.60	9.60	6.90
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	0.09	3.55	10.03	5.95
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	1.29	7.59	1.62	4.42
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	0.14	7.07	9.95	6.73
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	2.94	12.74	7.62	7.99
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	6.30	11.13	14.17	11.59
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	1.72	7.48	10.67	6.54
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	1.59	8.27	4.44	5.43
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	0.71	7.11	6.29	5.22
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	1.89	12.02	11.19	10.29
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	5.88	10.15	10.02	10.17
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	0.15	11.75	12.70	10.56
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	1.77	6.97	9.77	6.92
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	2.79	10.13	15.52	11.65
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	7.00	10.31	12.43	9.53
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	0.74	8.10	7.81	6.12
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	0.59	4.88	5.84	4.53
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	2.34	4.62	4.48	3.82
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	1.22	3.76	4.24	3.42
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	7.21	18.00	20.05	17.24
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	0.32	4.42	5.93	4.50
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	1.20	2.11	2.43	1.95
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	0.35	1.20	2.23	1.22
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	2.09	3.67	4.26	3.37
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	0.35	2.93	1.93	16.43

Table 25: Buffer Time Index

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7AM/ 3-4PM	7-8AM/ 4-5PM	8-9AM/ 5-6PM	AVG.
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	0.78	1.93	2.35	1.84
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	0.28	1.49	1.29	1.13
3	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	0.95	1.50	1.64	1.49
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	0.40	0.72	0.70	0.59
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	0.79	2.31	1.85	1.82
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	0.72	1.79	2.16	1.70
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	0.86	1.25	1.14	1.11
8	I-70	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	EB	MO	PM	11.00	0.23	1.20	1.71	1.16
9	I-44	I-270/Exit 232 to Jennings Sta Rd/Exit 242	WB	MO	PM	11.00	0.20	0.60	0.70	0.52
10	I-64	MO-K to I-70	WB	MO	PM	10.00	0.64	1.58	1.67	1.38
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	-	1.35	1.76	1.30
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	0.44	1.07	1.45	1.02
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	-	1.09	1.09	0.78
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	0.01	0.41	1.17	0.69
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	0.15	0.92	0.20	0.53
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	0.02	0.87	1.26	0.83
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	0.29	1.28	0.78	1.12
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	0.84	1.47	1.80	1.52
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	0.23	0.99	1.39	0.98
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	0.25	1.29	0.70	0.85
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	0.12	1.20	1.06	0.88
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	0.26	1.85	1.81	1.56
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	1.27	2.08	1.94	2.04
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	0.02	2.07	2.21	1.81
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	0.34	1.35	1.90	1.34
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	0.53	1.90	2.88	2.18
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	1.16	1.71	2.06	1.87
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	0.10	1.05	1.01	0.79
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	0.12	1.02	1.22	0.95
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	0.92	1.86	1.85	1.54
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	0.28	0.87	0.92	0.77
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	1.16	2.87	3.08	2.72
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	0.09	1.28	1.72	1.30
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	0.88	1.45	1.66	1.34
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	0.14	0.47	0.88	0.48
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	0.83	1.46	1.67	1.33
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	0.15	1.29	0.85	0.63

Table 26: Planning Time

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7AM/ 3-4PM	7-8AM/ 4-5PM	8-9AM/ 5-6PM	AVG.
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	36.00	59.65	68.18	57.60
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	18.16	34.90	32.08	29.90
3	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	27.85	37.79	44.53	38.43
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	18.06	22.22	21.92	20.54
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	22.72	41.34	35.51	35.40
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	20.41	32.97	37.69	32.07
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	22.21	27.67	28.86	26.52
8	I-70	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	EB	MO	PM	11.00	14.24	25.79	33.74	25.80
9	I-44	I-270/Exit 232 to Jennings Sta Rd/Exit 242	WB	MO	PM	11.00	13.20	17.66	18.92	16.79
10	I-64	MO-K to I-70	WB	MO	PM	10.00	16.73	26.15	26.97	24.09
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	10.41	23.50	27.15	23.58
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	13.33	19.19	23.32	18.89
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	8.91	18.40	18.40	15.71
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	8.70	12.14	18.57	14.53
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	9.72	15.87	9.87	12.75
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	8.53	15.22	17.87	14.88
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	13.04	22.71	17.45	15.12
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	13.77	18.72	22.02	19.22
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	9.26	15.05	18.34	13.24
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	8.04	14.66	10.75	11.81
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	6.75	13.01	12.25	11.19
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	9.04	18.52	17.38	16.90
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	9.67	14.06	14.53	14.51
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	6.21	17.43	18.44	16.38
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	6.92	12.12	14.90	12.06
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	8.08	15.45	20.92	16.99
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	13.05	16.33	18.48	14.63
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	8.54	15.83	15.53	13.87
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	5.38	9.64	10.63	9.31
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	4.95	7.18	6.99	6.38
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	5.54	8.10	8.83	7.83
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	13.41	24.27	26.56	23.57
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	3.84	7.87	9.39	7.98
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	2.82	3.68	3.99	3.53
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	2.89	3.75	4.77	3.77
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	4.61	6.19	6.81	5.90
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	2.64	5.21	4.22	4.38

Table 27: Planning Time Index

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7AM/ 3-4PM	7-8AM/ 4-5PM	8-9AM/ 5-6PM	AVG.
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	1.74	2.89	3.30	2.79
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	1.28	2.46	2.27	2.11
3	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	2.00	2.71	3.19	2.75
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	1.43	1.75	1.73	1.62
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	1.79	3.26	2.80	2.79
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	1.74	2.81	3.21	2.73
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	1.88	2.34	2.44	2.24
8	I-70	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	EB	MO	PM	11.00	1.23	2.23	2.92	2.23
9	I-44	I-270/Exit 232 to Jennings Sta Rd/Exit 242	WB	MO	PM	11.00	1.22	1.63	1.74	1.55
10	I-64	MO-K to I-70	WB	MO	PM	10.00	1.74	2.72	2.81	2.51
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	1.09	2.46	2.84	2.46
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	1.49	2.14	2.60	2.10
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	1.02	2.10	2.10	1.80
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	1.01	1.41	2.16	1.69
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	1.14	1.87	1.16	1.50
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	1.07	1.92	2.25	1.87
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	1.29	2.25	1.73	2.11
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	1.93	2.63	3.09	2.70
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	1.25	2.04	2.48	2.03
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	1.26	2.30	1.69	1.86
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	1.09	2.11	1.98	1.81
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	1.47	3.01	3.83	2.75
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	2.43	3.39	3.38	3.36
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	1.13	3.16	3.34	2.97
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	1.30	2.28	2.81	2.27
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	1.52	2.91	3.93	3.19
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	2.13	2.66	3.01	2.86
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	1.09	2.01	1.97	1.76
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	1.10	1.96	2.16	1.89
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	1.88	2.73	2.68	2.43
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	1.28	1.88	2.05	1.82
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	2.27	4.11	4.50	3.99
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	1.05	2.15	2.57	2.18
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	1.66	2.14	2.36	2.06
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	1.17	1.51	1.92	1.52
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	1.76	2.37	2.61	2.26
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	1.20	2.37	1.91	1.99

Table 28: Speed

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7AM/ 3-4PM	7-8AM/ 4-5PM	8-9AM/ 5-6PM	AVG.
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	52.03	38.47	34.83	40.58
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	59.20	44.78	48.75	50.20
3	I-70	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	WB	MO	PM	14.00	58.82	55.13	54.36	56.04
4	I-64	Bryan Rd/Exit 216 to MO-W/Exit 203	EB	MO	PM	14.00	48.03	40.36	35.80	40.79
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	50.88	32.67	40.53	40.03
6	I-64	McDonnell Blvd/Exit 23 to MO-367/Exit 31	WB	MO	PM	12.00	50.55	45.42	43.99	46.49
7	I-270	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	EB	MO	PM	12.00	51.58	37.26	35.02	40.11
8	I-44	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	WB	MO	PM	11.00	59.73	50.64	50.10	53.14
9	I-70	I-270/Exit 232 to Jennings Sta Rd/Exit 242	EB	MO	PM	11.00	55.77	47.42	42.22	47.84
10	I-64	MO-K to I-70	WB	MO	PM	10.00	58.11	45.84	46.50	49.56
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	62.53	44.09	37.73	46.00
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	53.80	46.89	43.36	47.64
13	MO-364	Jungerman to I-270/MO-D	WB	MO	PM	8.61	63.72	57.98	47.33	55.47
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	EB	MO	AM	8.61	63.41	48.56	48.56	54.16
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	62.40	52.08	60.29	57.89
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	61.83	50.67	47.51	52.64
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	56.94	44.87	51.19	48.49
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	48.01	37.27	31.39	37.72
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	57.17	47.08	43.29	48.30
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	57.87	45.85	52.78	51.67
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	61.24	48.14	50.50	52.72
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	58.39	34.86	39.68	42.20
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	41.71	32.67	30.39	32.96
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	60.19	34.46	33.91	39.92
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	59.45	47.86	44.23	49.71
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	54.49	41.04	32.29	40.69
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	46.82	39.60	35.99	38.78
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	62.42	51.02	52.52	54.88
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	57.59	46.75	42.08	47.97
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	42.19	32.50	35.24	36.65
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	58.42	50.68	49.17	52.45
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	44.46	24.69	24.69	28.98
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	56.62	43.46	39.51	45.46
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	44.71	39.91	38.69	40.93
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	56.06	52.26	49.42	52.43
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	54.20	49.11	47.35	50.06
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	54.37	41.77	46.37	46.93

Table 29: Travel Time

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7AM/ 3-4PM	7-8AM/ 4-5PM	8-9AM/ 5-6PM	AVG.
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	23.80	32.20	35.56	30.52
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	14.35	18.98	17.43	16.93
3	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	17.42	20.74	23.38	20.52
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	14.23	15.18	15.40	14.94
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	14.97	23.32	18.80	19.03
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	13.65	18.90	20.11	17.55
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	14.04	15.63	16.14	15.27
8	I-70	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	EB	MO	PM	11.00	11.98	14.09	15.83	13.97
9	I-44	I-270/Exit 232 to Jennings Sta Rd/Exit 242	WB	MO	PM	11.00	11.26	13.29	13.43	12.66
10	I-64	MO-K to I-70	WB	MO	PM	10.00	10.43	13.22	13.03	12.22
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	9.18	13.02	15.22	12.49
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	10.01	11.48	12.42	11.31
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	8.15	10.64	10.64	9.54
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	8.09	8.89	10.90	9.30
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	8.18	9.80	8.46	8.81
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	7.71	9.41	10.03	9.05
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	10.47	13.29	11.65	8.84
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	8.36	10.77	12.79	10.64
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	7.69	9.33	10.15	8.01
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	6.44	8.13	7.07	7.22
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	6.05	7.70	7.34	7.03
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	6.32	10.58	9.30	8.74
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	5.08	7.29	8.16	7.37
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	5.50	9.61	9.77	8.30
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	5.36	6.66	7.20	6.41
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	5.72	7.60	9.66	7.66
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	7.73	9.14	10.06	7.77
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	7.56	9.25	8.99	8.60
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	4.68	5.76	6.40	5.62
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	3.22	4.13	3.81	3.72
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	4.43	5.11	5.26	4.93
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	7.38	13.29	13.29	11.32
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	3.55	4.63	5.09	4.42
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	1.82	2.04	2.10	1.99
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	2.65	2.85	3.01	2.84
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	2.70	2.98	3.09	2.92
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	2.23	2.90	2.61	2.58

Table 30: Travel Time Index

No.	Route	Limits	Direction	State	Peak	Queue Length	6-7AM/ 3-4PM	7-8AM/ 4-5PM	8-9AM/ 5-6PM	AVG.
1	I-270	I-70 to I-55/I-255/Exit 1	SB	MO	PM	21.00	1.15	1.56	1.72	1.48
2	I-70	Cave Springs/Exit 225 to Natural Bridge Rd/Exit 237/Exit 238	EB	MO	AM	14.16	1.01	1.34	1.23	1.20
3	I-64	Chesterfield Pky/Exit 20 to McCausland Ave/Exit 33	EB	MO	PM	14.00	1.25	1.49	1.68	1.47
4	I-70	Bryan Rd/Exit 216 to MO-W/Exit 203	WB	MO	PM	14.00	1.12	1.20	1.22	1.18
5	I-270	I-55/I-255/Exit 1 to I-64/US-40/US-61/Exit 12	NB	MO	AM	12.70	1.18	1.84	1.48	1.50
6	I-270	McDonnell Blvd/Exit 23 to MO-367/Exit 31	EB	MO	PM	12.00	1.16	1.61	1.71	1.50
7	I-64	I-170/Brentwood Blvd/Exit 31 to Chesterfield Pky/Exit 20	WB	MO	PM	12.00	1.19	1.32	1.36	1.29
8	I-70	Big Bend Rd/Exit 278 to Antire Rd/Exit 269	EB	MO	PM	11.00	1.04	1.22	1.37	1.21
9	I-44	I-270/Exit 232 to Jennings Sta Rd/Exit 242	WB	MO	PM	11.00	1.04	1.22	1.24	1.17
10	I-64	MO-K to I-70	WB	MO	PM	10.00	1.09	1.38	1.36	1.27
11	I-64	I-270/Exit 25 to McCausland to Ave/Exit 33	EB	MO	AM	9.57	0.96	1.36	1.59	1.30
12	I-170	Forest Park Pky/Exit 1E to Hanley Rd/Exit 9	NB	MO	PM	8.98	1.12	1.28	1.38	1.26
13	MO-364	Jungerman to I-270/MO-D	EB	MO	AM	8.61	0.93	1.22	1.22	1.09
14	MO-364	I-270/MO-D to MO-94/Muegge Rd/Exit 13/Exit 12	WB	MO	PM	8.61	0.94	1.03	1.27	1.08
15	I-70	Lake St Louis Blvd/Exit 214 to MO-79/Exit 220	EB	MO	AM	8.50	0.96	1.15	1.00	1.04
16	I-44	Berry Rd/Exit 279 to Kingshighway/Exit 287	EB	MO	AM	7.94	0.97	1.18	1.26	1.14
17	I-270	Lilac/Exit 33 to Elizabeth/Washington St/Exit 28	WB	MO	AM	7.15	1.04	1.32	1.15	1.23
18	I-170	MO-180/St Charles Rock/Exit 5 to I-64/Eager Rd/Exit 1B/Exit 1A	SB	MO	PM	6.69	1.18	1.51	1.80	1.50
19	I-70	I-170/Exit 238 to I-270/Exit 232	WB	MO	PM	6.45	1.04	1.26	1.37	1.23
20	I-55	Potomac to Park Ave/7Th St/Exit 208	NB	MO	AM	6.21	1.01	1.28	1.11	1.13
21	I-270	Dorsett Rd/Exit 17 to MO-AB/Ladue Rd/Exit 13	SB	MO	AM	6.18	0.98	1.25	1.19	1.14
22	I-64	Baxter to I-270/Exit 25	EB	MO	AM	6.15	1.03	1.72	1.51	1.42
23	I-55	Grand Ave/Exit 247 to I-44/I-55/Gravois/Exit 207	EB-SB	MO	PM	5.77	1.37	1.86	1.94	1.78
24	I-64	Kingshighway/Exit 36 to I-170/Brentwood Blvd/Exit 31	WB	MO	AM	5.52	1.00	1.74	1.77	1.50
25	I-55	Virginia Ave/Exit 203 to Reavis Barracks Rd/Exit 199	SB	MO	PM	5.31	1.01	1.25	1.36	1.21
26	I-44	I-55/Exit 290 to Arsenal St/Exit 284	WB	MO	PM	5.20	1.08	1.43	1.82	1.44
27	I-70	I-270/Exit 232 to Cave Springs/Exit 225	WB	MO	PM	5.00	1.26	1.49	1.64	1.52
28	I-44	MO-141/Exit 272 to I-270/Exit 276	EB	MO	AM	4.70	0.96	1.18	1.14	1.09
29	I-170	I-64 to MO-D	SB	MO	AM	4.49	0.95	1.17	1.30	1.14
30	I-55	Baugh Ave. to Poplar St Brg.	WB-SB	IL	AM	4.39	1.19	1.55	1.43	1.39
31	I-44	Bowles Ave/Exit 274 to US-50/US-61/US-67/ Exit 277	EB	MO	PM	4.31	1.03	1.18	1.22	1.14
32	I-64	Kingshighway/Exit 36 to I-55/I-70/US-40	EB	MO	PM	4.30	1.25	2.25	2.25	1.92
33	I-70	Broadway/Exit 246 to Lucas & Hunt Rd/Exit 241	WB	MO	AM	3.35	0.97	1.27	1.39	1.21
34	I-70/I-44/I-55	Stan Musial Brg. to Park	EB/WB/NB	MO	PM	3.11	1.08	1.22	1.25	1.19
35	I-55	I-44/I-55/Gravois/Exit 207 to Potomac St/Exit 206	SB	MO	PM	2.48	1.07	1.15	1.21	1.14
36	I-70	Shreve/Exit 245 to MO-N/Florissant Rd/Exit 240	WB	MO	PM	2.44	1.03	1.14	1.18	1.12
37	I-44	Tenth St/Exit 249 to I-55/I-64/US-40/Exit 251	WB	MO	AM	2.02	1.01	1.32	1.19	1.17

Appendix 2: Regional Work Zones

Table 31: 2016 Work Zones

Route	Scope of Work	Details	Duration	Day/ Night
Franklin County				
	NA			
Jefferson County				
I-55	Add a third lane from Rte. Z to 1 mile n/o Rte. Z	NB 55 on ramp from Rte. Z will be closed for most of the spring/summer	6 months	Both and weekend closure
St. Charles County				
I-64	Completion of Boone Bridge Project	Various Single and Double Lane Drops for Completion of items such as Barrier wall, Guardrail, Permanent Striping, Signing, Diamond Grinding, as well as the Demolition of the old bridge.	Through June	Both
I-64	Completion of Boone Bridge Project	Various Single and Double Lane Drops for Completion of items such as Barrier wall, Guardrail, Permanent Striping, Signing, Diamond Grinding, as well as the Demolition of the old bridge.	Through June	Both
I-70	Overlay	Various single and double lanes closed for overlay between Wentzville and Warren county line	Completion date of December 2016	Both
I-70	New Interchange	Various single and double lanes closed for new interchange at 5th Street and Fairgrounds	Completion date of June of 2017.	Both
W	Overlay	Single lane closed between I-70 and Hwy 61	Completion date of October 2016	Both
70	Bridge Rehab	Various single and double lanes closed for bridge deck repairs on various locations along I-70	Completion date on November 2016	Both

79	Crack Sealing	Single lane closed between I-70 and Hwy M	Completion date of December 2016	Both
61	New Interchange	Varioius single lane closure for new interchange at Route P & Peine Road.	Completion date of late 2017	Both
N	Center turn lane addition	Varioius single lane closure for new lane addition between Roundtower and Weiss Road	Completion date of late 2017	Both
St. Louis City				
I-44	Pavement/Bridge Rehabs Start Mid-March 2016	Will Keep 3 Lanes open both directions between Shrewsberry and Kingshighway.	3/16 – 12/16	Day & Night
I44/I55	5 Bridge Rehabs at the interchange of I-44/I55	Various Detour Routes during bridge rehabilitation construction	3/16 – 12-16	Day & Night
EB I-64 PSB	PSB Bridge Deck Overlay, Bridge Ramp Construction (I55 & 6th St) onto EB PSB	Three Lanes open on EB PSB. (2-EB64 & 1- I55 NB On Ramp to EB 64)	5/16-12-16	Day & Night
I-55 NB 3rd St Viaduct	3rd Street Bridge Deck Rehab.	3 Lanes Open on NB-55 (Narrow Lanes) Currently 4 Lanes Open Limited work through winter	11/16-12/16	Day & Night
St. Louis County				
70/270	Bridge Rehabilitation – I-70 at I-270	Epoxy polymer overlays of 15 bridges in interchange. Includes weekend closures of various ramps.	1/16-6/16	Night
70/170	Bridge Rehabilitation – I-70 at I-170	Rehab of 11 bridges in interchange and pavement improvements on I-70. Work involves closing various ramps at I-70 & I-170 and at I-170 & Route 115. Staged construction with long term lane closures on I-70.	Starting Summer 2016	Day & Night
270	Bridge Rehabilitation at Bellefontaine Rd.	Rehab I-270 bridges over Bellefontaine Rd. and overlay decks. Staged construction w/ 2 thru lanes each direction.	1/16 – 8/16	Day & Night
141	Pavement Improvements	Asphalt overlay, Riverport Dr. N. to Riverport Dr. S.	1/16 – 11/16	Night
141	Pavement Improvements	Pavement repairs & undersealing, bridge rehabilitation, I-70 to Route 370. Includes weekend closures for bridge work.	Starting Summer 2016	Day & Night
D	Lane Additions	Add one lane each direction and signal improvements, west of Schuetz Rd. to east of Ball Dr.	Thru 7/16	Day & Night
D	Pavement Improvements	UBAWS overlay, Route 67 to I-170.	Summer 2016	Night

I-64 WB	Lane addition and overlay	Continuation of the lane addition between I-270 and Rte. 141. Asphalt paving from east of I-270 to east of Rte. 340. Off-peak lane closures.	Through Dec 2016	Day & Night
I-64 EB	Lane addition and overlay	Lane addition between Rte. 141 and I-270. Asphalt paving from east of Rte. 340 to east of I-270. Off-peak lane closures.	Through Dec 2016	Day & Night
Rte. 340	Overlay, ADA, and landscaping	From east of I-270 to Rte. 67. Off-peak lane closures.	Through July 2016	Day & Night
Rte. 30	Overlay and ADA	From the St. Louis City Limit to the Jefferson County Limit. Off-peak lane closures.	April 2016 through 2017	Day & Night
Rte. 231	Overlay and ADA	From I-255 to Franru. Off-peak lane closures.	April - Nov 2016	Day & Night
I-44 SOR	Reconstruction of Antire Rd	45 day full closure of the south outer road (Antire Rd.) Signed detour.	June-August 2016	Day & Night
141/I-44	141/44 interchange improvements and 141/Vance Rd. intersection improvements	Design-Build – No details at this time		
I-64	Completion of Boone Bridge Project	Various Single and Double Lane Drops for Completion of items such as Barrier wall, Guardrail, Permanent Striping, Signing, Diamond Grinding, as well as the Demolition of the old bridge.	Through June	Both
IDOT				
I-270	Deck Sealing	EB & WB at Mississippi River Bridge	1 week	Night
I-55/70	Bridge Repairs	EB & WB east of IL 111, 2 of 3 open	3 months	24/7
I-55/64	Bridge Widening	WB just past MLK exits, 2 of 3 lanes open (right lane closed)	10 months	24/7
I-55/64	Pump Station Work	WB just past MLK exits, 2 of 3 lanes open (left lane closed)	2 Weeks	24/7
MLK Br	Steel Repairs, Remove Scaffolding	Closures limited to off-peak hours or over non-event weekends	3 Weeks in March	Night/ Weekend

EAST-WEST GATEWAY

Creating Solutions Across Jurisdictional Boundaries

Steve Stenger
County Executive
St. Louis County

Mark A. Kern
Chairman, St. Clair County Board

Robert Elmore
Chairman, Board of Commissioners
Monroe County

Steve Ehlmann
County Executive
St. Charles County

John Griesheimer
Presiding Commissioner
Franklin County

Lyda Krewson
Mayor, City of St. Louis

Kurt Prenzler
Chairman, Madison County Board

Ken Waller
County Executive
Jefferson County

Chuck Caverly
St. Louis County Municipal League

Emeka Jackson-Hicks
Mayor, City of East St. Louis

Carol Johnson
Franklin County

Reggie Jones
St. Louis County

Mark Kupsky
Vice President,
Southwestern Illinois
Council of Mayors

Roy Mosley
St. Clair County

Lewis Reed
President, Board of Aldermen
City of St. Louis

Herbert Simmons
President, Southwestern Illinois
Metropolitan & Regional
Planning Commission

Tom Smith
President, Southwestern Illinois
Council of Mayors

Michael Walters
Madison County

John White
St. Charles County

Regional Citizens

Barbara Geisman
C. William Grogan
Richard Kellett
John A. Laker

Erin Aleman
Illinois Department of
Transportation

Erika Kennett
Illinois Department of Commerce
and Economic Opportunity

Patrick McKenna
Missouri Department of
Transportation

John Nations
Bi-State Development

James M. Wild

Calendar Year 2018
Missouri Transportation Planning Committee
Meeting Schedule
2:00 P.M.
East-West Gateway Council of Governments
Gateway Tower
One Memorial Drive, Suite 1600
St. Louis, MO 63102

***Tuesday*, January 9, 2018**

Wednesday, February 7, 2018 - canceled

Wednesday, March 7, 2018

Wednesday, April 4, 2018

Wednesday, May 9, 2018 – revised date

Wednesday, June 6, 2018

***Tuesday*, July 10, 2018**

Wednesday, August 8, 2018 – revised date

Wednesday, September 5, 2018

Wednesday, October 3, 2018

Wednesday, November 7, 2018

December - No Meeting

***Meeting dates are subject to change**

Revised 3/1/18

Gateway Tower
One Memorial Drive, Suite 1600
St. Louis, MO 63102-2451

Fax 314-231-6120

webmaster@ewgateway.org
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EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Gateway Tower
One Memorial Dr., Ste. 1600
St. Louis, MO 63102

314-421-4220 or 618-274-2750

General Directions from Missouri to parking garages

From I-70

Exit at the new Tucker exit into downtown. Continue south on Tucker to Walnut St., turn left on Walnut to Broadway. Make a right on Broadway to the Stadium East Garage entrance on the left.

From I-64

Exit at 6th St., left on Gratiot, left on 4th St, north four blocks to Stadium East Garage on left.

From I-44

Exit at Memorial Dr. Turn left on Walnut up to Broadway. Turn left on Broadway to Stadium East Garage entrance.

From I-55

Merge to I-44 and continue on I-44 toward downtown. Exit at Memorial Dr. Turn left on Walnut up to Broadway. Turn left on Broadway to Stadium East Garage entrance.

General Directions from Illinois to parking garage

From I-64/55 (Poplar St. Bridge)

Exit at Memorial Dr. Turn left on Walnut up to Broadway. Turn left on Broadway to Stadium East Garage entrance.

From Martin Luther King Bridge

On I-64, merge onto the MLK bridge ramp. On MO side, stay to the right, which is 3rd St. Turn left on Cole St., then left on Broadway. Continue on Broadway about ten blocks to Stadium East garage on the left.

From Eads Bridge

Exit I-64 at 3rd St. in East St. Louis. Follow the Casino Queen signs toward the riverfront to the ramps up to the bridge. On St. Louis side, continue west to Broadway. Turn left on Broadway for seven blocks to Stadium East Garage on left.