

# **I-64 Incident Command Monthly Report May 2008 AM and PM Peak Period**

## **Incident Management**

**Overall, in May, there were 1349 incidents impacting traffic or in the lane, an increase over April 2008.** These incidents included stalls, crashes, abandoned vehicles, and vehicle fires. In addition to the vehicle related incidents, the following significant incidents impacted traffic patterns.

1. **On May 28** – a major incident involving a spilled load of corn syrup on southbound I-270 north of Dorsett impacted the end of the AM rush hour period on both southbound I-270 and the east and westbound I-70 approaches. Variably Speed Limit signs were live and active during this incident.

With traffic volumes relatively stabilized, the main contributing factor that impacts the freeways is incidents. Specifically, I-270 has seen an increase in traffic volumes and any incident can severely and has impacted travel times for that rush period.

## **Freeway Management**

On May 16, the ramps from both northbound and southbound I-270 to westbound I-64 were restriped as a countermeasure to the observed driver weaving issues on the southbound to westbound ramp. Counts on both ramps showed the volumes were about even and only 10 percent of traffic was using the second lane of the two lane ramp from northbound I-270 to westbound I-64. The ramp was restriped to one lane, which provided room to restripe the southbound I-270 ramp to westbound I-64 to move the lane away from the guardrail, provide some shoulder and make the ramp easier to use. The southbound to westbound ramp has been backing up to Olive since January. Engineers will continue to monitor these changes to see what other measures may be necessary.

Another countermeasure for traffic mitigation is the progressing Variable Speed Limit (VSL) project along I-270 and I-255. The VSL system was made fully functional on May 22, 2008. Results on performance of the VSL system will be reported in future Gateway Guide reports.

General observations are the following:

- I-55 - little to no change in volumes both AM and PM
- I-64 - no change
- I-70 - decrease in volumes both directions and AM and PM from 170 to 270  
Increase in PM volumes on EB direction from 170 to downtown over April 2008
- I-44 - generally a decrease in volumes, except WB in AM and EB in PM between Laclede Station and downtown
- I-255 - Volumes were higher in both directions for AM and PM
- I-270 - a decrease in volumes during AM and an increase in PM volumes between 170 and Chain of Rocks
- I-170 - general decrease in volumes in both directions and AM and PM periods

The following segments are a representation of the traffic volume changes and travel times during the AM and PM rush periods. **Travel times remain relatively the same across the months. All increases in the average upper limit are attributed to incidents.**

Summary of Morning Rush Period:											
Segment	% Volume Change					Peak Hr Vol					
	Jan	Feb	Mar	April	May	Before	Jan	Feb	Mar	Apr	May
I-270 westbound at Chain of Rocks	30%	15%	30%	20%	10%	4099	5231	4694	5376	4876	4554
I-270 northbound from I-55 to I-44	10%	5%	5%	5%	10%	4620	4990	4989	4966	4876	5072
I-270 northbound from I-44 to I-64	25%	20%	20%	20%	15%	4778	5953	5800	5840	5652	5521
I-255 eastbound at Jefferson Barracks	80%	70%	75%	85%	85%	1088	1976	1856	1885	2853	2009
I-70 eastbound from I-270 to I-170	15%	10%	-5%	10%	-5%	3236	3759	3610	3049	3516	3064
I-70 eastbound from I-170 to downtown	-5%	-15%	-10%	0%	-5%	4421	4113	3780	3677	3976	4244
I-44 eastbound from I-270 to downtown	-20%	-20%	-25%	-25%	-15%	3590	2902	2948	2727	2703	3098

Summary of Morning Rush Period:							
Segment	Travel Times (in minutes)						
	Before	Jan	Feb	March	April	May	
I-270 westbound at Chain of Rocks	10 min	9-11	10-13	9-13	9-13	9-13	
I-270 northbound from I-55 to I-44	6 min	6-10	6-10	6-16	6-13	6-14	
I-270 northbound from I-44 to I-64	7 min	7-9	7-10	7-10	7-10	10	
I-255 eastbound at Jefferson Barracks	4 min	4	4	4	4	4	
I-70 eastbound from I-270 to I-170	4 min	4	4-5	4	4	4	
I-70 eastbound from I-170 to downtown	11 min	11-16	11-23	11-15	10-14	10-13	
I-44 eastbound from I-270 to downtown	16 min	14	14-15	14-16	14-15	14	

Summary of Evening Rush Period:											
Segment	% Volume Change					Peak Hr Vol					
	Jan	Feb	Mar	April	May	Before	Jan	Feb	Mar	Apr	May
I-270 eastbound at Chain of Rocks	40%	30%	40%	30%	50%	4398	6148	6082	6034	5764	6518
I-270 southbound from I-64 to I-44	5%	5%	-5%	0%	10%	5366	5629	5053	5230	5256	5799
I-255 eastbound at Jefferson Barracks	-45%	-45%	-40%	0%	-35%	2693	1548	1459	1557	2545	1801
I-70 westbound from I-270 to I-170	60%	60%	60%	50%	45%	2875	5043	5005	5093	4745	4583
I-70 westbound from I-170 to downtown	-20%	-20%	-10%	0%	-35%	5357	4409	4198	4128	4297	3555
I-44 westbound from I-270 to downtown	20%	15%	10%	15%	20%	3992	4674	4616	4455	4560	4876

Summary of Evening Rush Period:						
Segment	Travel Times (in minutes)					
	Before	Jan	Feb	March	April	May
I-270 eastbound at Chain of Rocks	12	12-22	13-28	12-29	12-30	12-20
I-270 southbound from I-64 to I-44	9	7-19	7-23	7-26	7-23	7-21
I-255 eastbound at Jefferson Barracks	4	4	4	4	4	4
I-70 westbound from I-270 to I-170	4	4	4-6	4-6	4-6	4
I-70 westbound from I-170 to downtown	12	11-18	11-21	11-15	11-14	11-13
I-44 westbound from I-270 to downtown	16	14-16	14-16	14-25	14-16	14

### **I-70 Reversible Lanes**

The reversible lanes on I-70 have traditionally operated in the EB direction during the AM hours, and in the WB direction during the PM hours. Their operation was switched on January 8<sup>th</sup> to mitigate significant travel delays in the WB direction during the AM peak, and in the EB direction during the PM peak. On holidays and snow events, the Reversible Lanes are set in the eastbound direction.

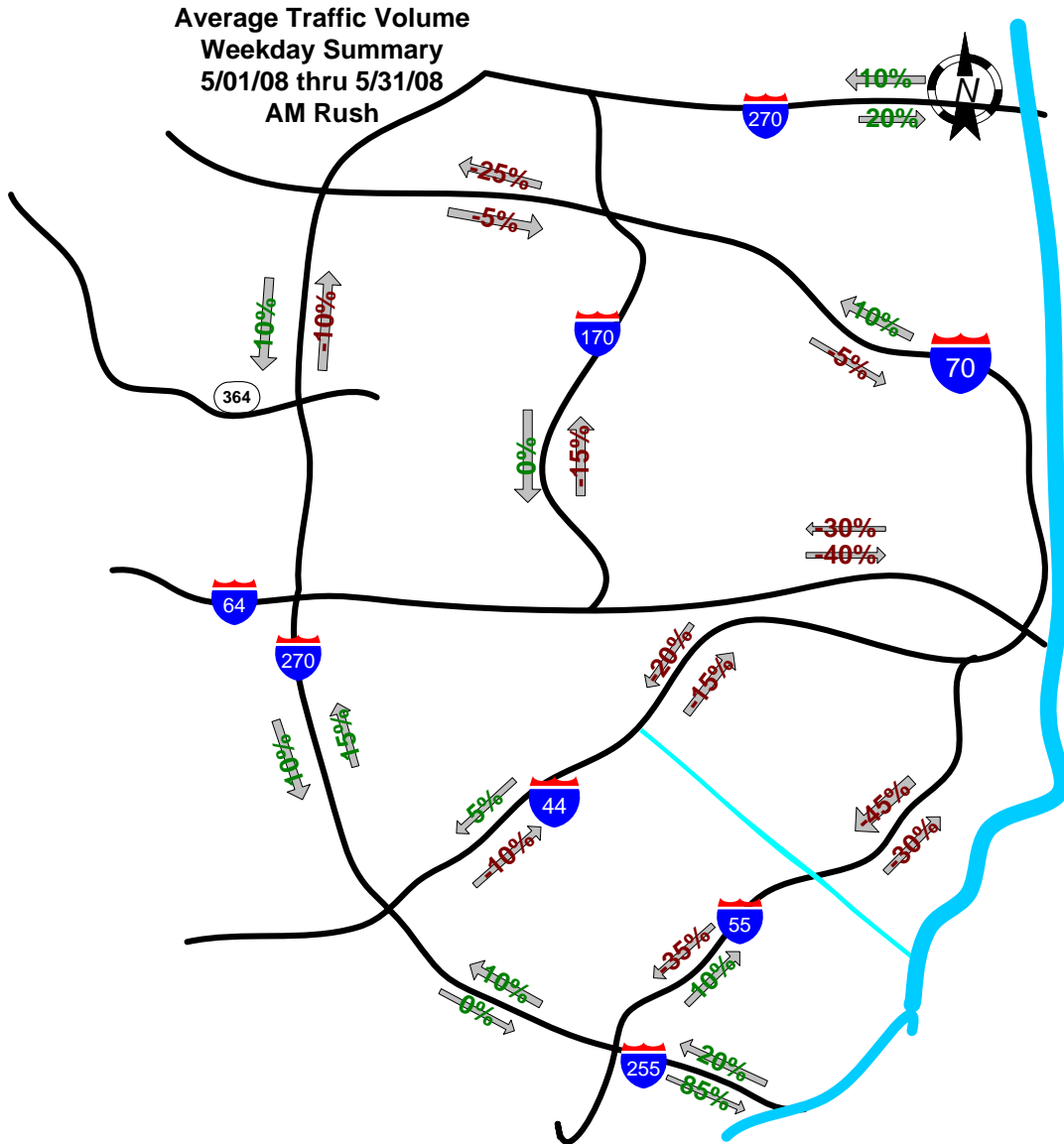
Directional Difference in Volume (EB vs. WB)					
	AM			PM	
(Baseline) EB in AM, WB in PM	571	more EB		8561	more WB
(Jan 2 - Jan 7) EB in AM, WB in PM	323	more EB		2306	more WB
(Jan 9 - Jan 24) WB in AM, EB in PM	732	more WB		1120	more EB
(Feb 1 - Feb 29) WB in AM, EB in PM	2607	more WB		3574	more EB
(Mar 1 - Mar 31) WB in AM, EB in PM	1382	more WB		1877	more EB
(Apr 1 - Apr 30) WB in AM, EB in PM	2308	more WB		3503	more EB
(May 1 - May 31) WB in AM, EB in PM	1746	more WB		5450	more EB

### **Conclusion:**

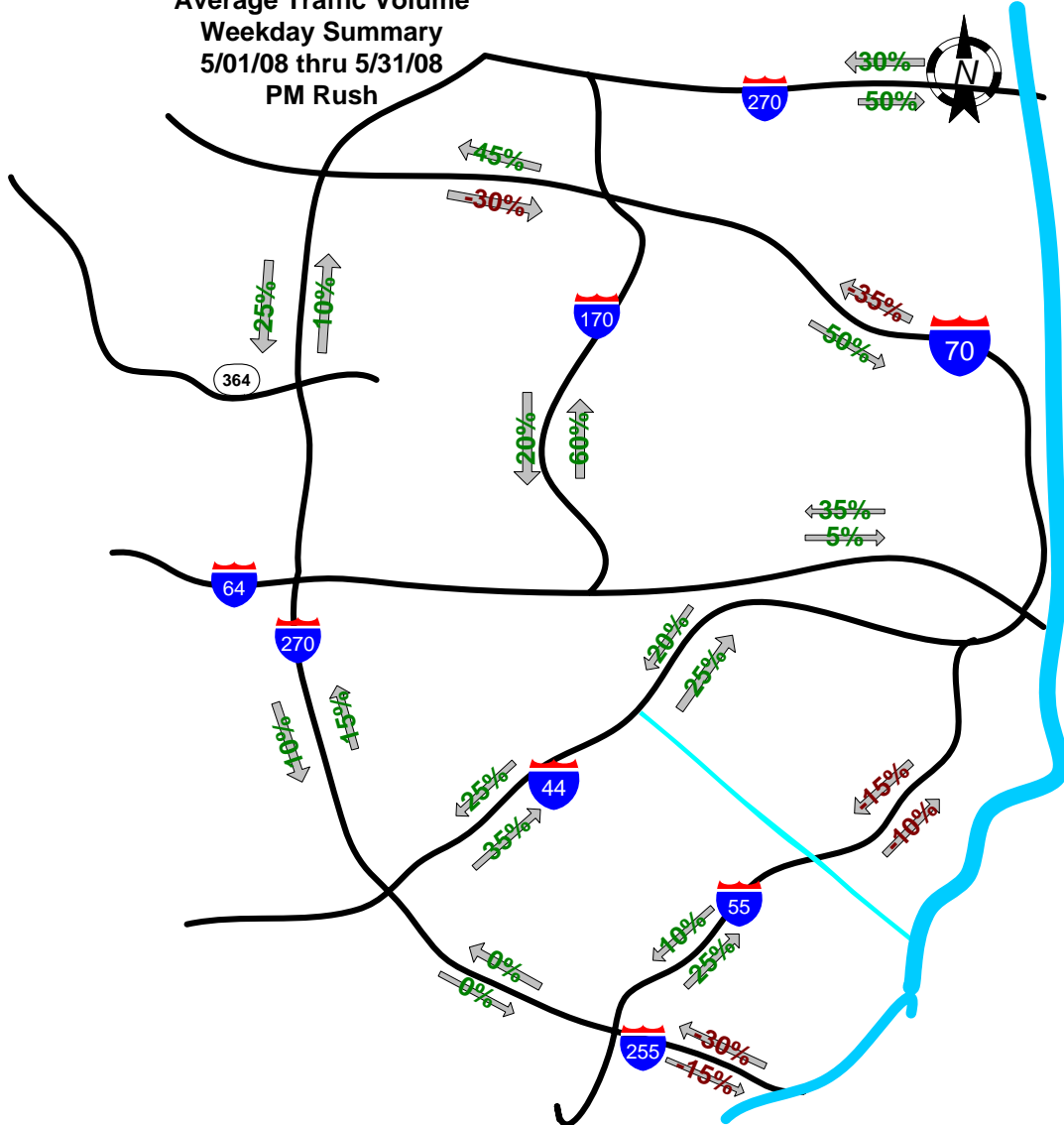
- Westbound AM volume was 1750 vehicles higher than Eastbound AM volume, an average of 430 vehicles per each hour during the peak rush period.
- Eastbound PM volume was 5450 vehicles higher than Westbound PM volume, an average of 1350 vehicles per each hour during the peak rush period.
- An overall increase in AM and PM volumes on I-70 compared to January-April 2008.
- PM volumes in May were the same as pre-I-64 Closure.
- AM volumes in May were 8% higher than pre-I-64 Closure.

## Regional Average Traffic Volume Comparisons

Following are map views of the Average Monthly Traffic Volumes (AM and PM Rush periods) compared to average baseline volumes from October 2007. The percentage change was derived using data from MoDOT sensors and Traffic.com sensors.

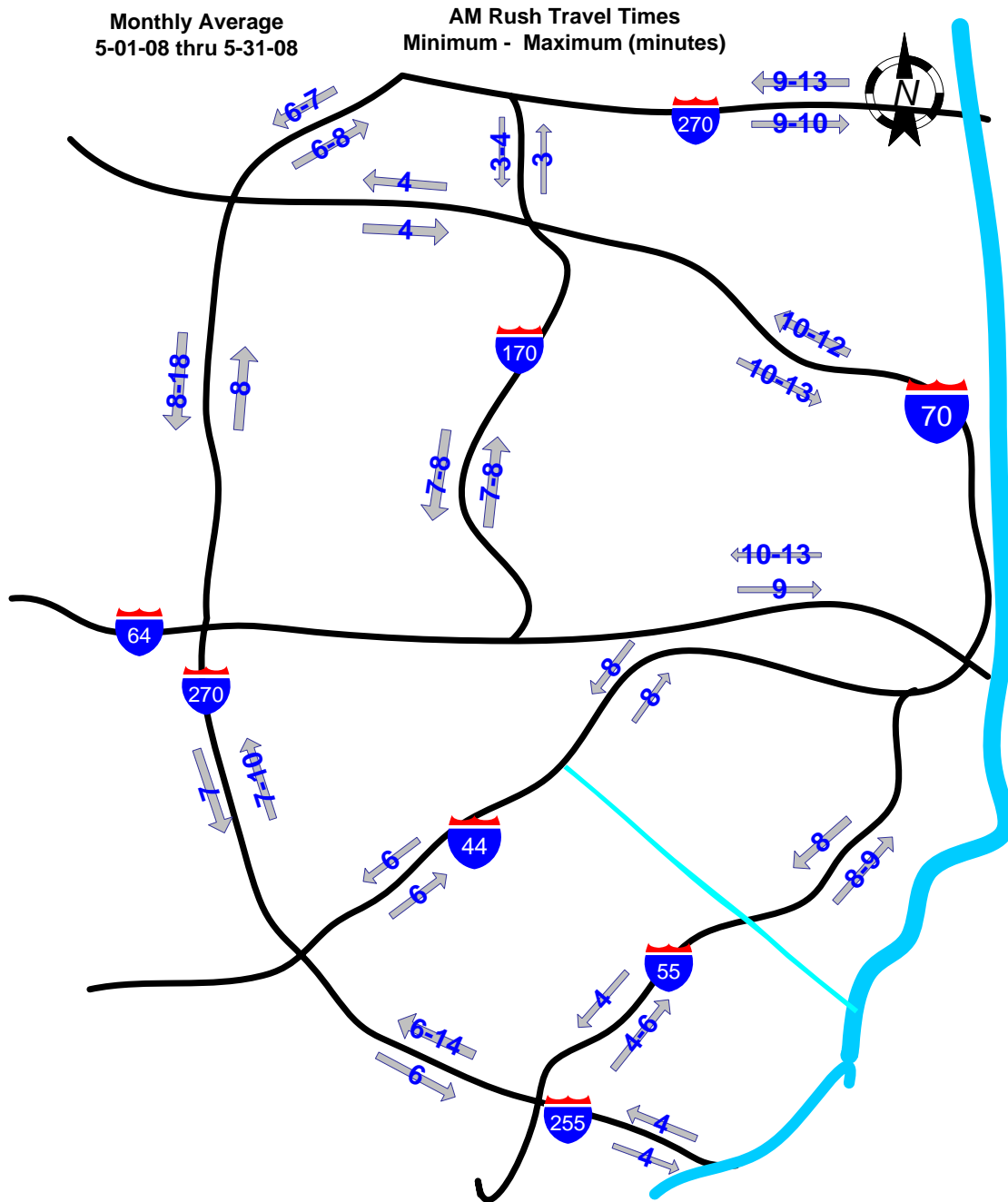


Average Traffic Volume  
 Weekday Summary  
 5/01/08 thru 5/31/08  
 PM Rush



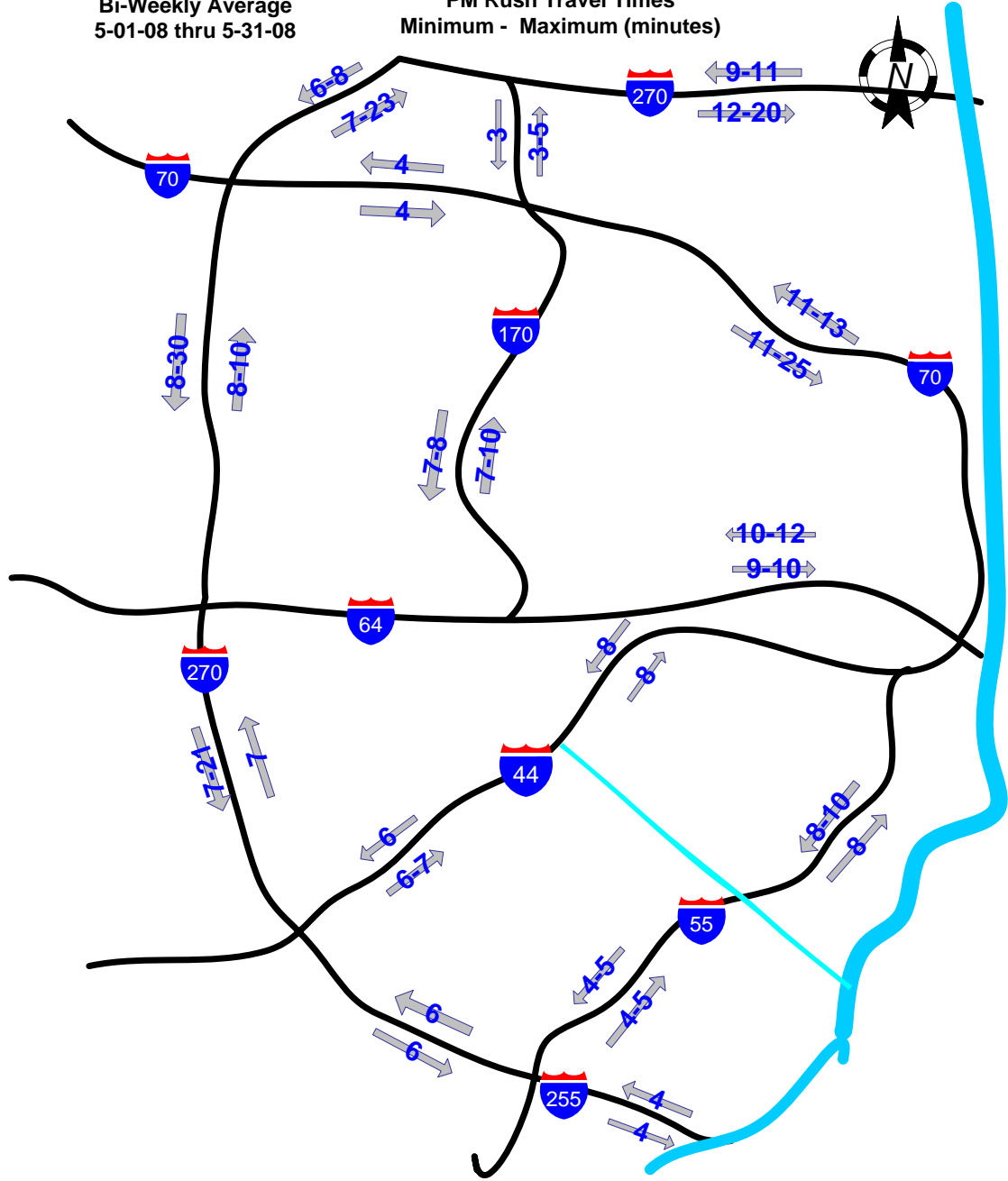
## Regional Travel Times

Following are maps that depict the Average Travel Time experienced throughout the month of March. There is a map for the AM Rush Period and the PM Rush Period.



Bi-Weekly Average  
5-01-08 thru 5-31-08

PM Rush Travel Times  
Minimum - Maximum (minutes)



## Arterials

The following segments are a representation of the traffic volume changes and travel times during the AM and PM rush periods. On the arterials, the peak travel times are from 7:30 – 8:30 during the AM peak and 4:30 to 5:30 during the PM peak.

## Volumes

<b>Summary of Morning Rush Period Volumes:</b>			
<b>Segment</b>	<b>Volume percent change</b>	<b>Peak Hr Vol</b>	
		<b>Before</b>	<b>May</b>
Route 141 North of I-44	0%	7400	7400
Page at Schuetz	10%	7300	8200
Olive at Ballas	80%	3100	5500
Manchester at Lindbergh	15%	3300	3800
Southbound Lindbergh at Manchester	300%	900	2800
Northbound Lindbergh at Manchester	-40%	2400	1400

<b>Summary of Evening Rush Period Volumes:</b>			
<b>Segment</b>	<b>Volume percent change</b>	<b>Peak Hr Vol</b>	
		<b>Before</b>	<b>May</b>
Route 141 North of I-44	-5%	8900	8500
Page at Schuetz	20%	8900	10700
Olive at Ballas	25%	6500	8000
Manchester at Lindbergh	15%	2600	3000
Southbound Lindbergh at Manchester	-50%	4300	2400
Northbound Lindbergh at Manchester	-65%	2300	800

## Travel Times

<b>Summary of Morning Rush Period Travel Times</b>				
<b>Segment</b>	<b>Travel Times at 7:30 AM</b>		<b>Travel Times at 6:30 AM</b>	<b>Time Saved by Shifting 1 hour</b>
	<b>Before</b>	<b>May</b>	<b>May</b>	
	Route 141 – 44 to 40/64	14 min	12 min	12 min
Page – 270 to 170	13 min	13 min	9 min	4 min
Olive – 141 to 170	22 min	24 min	14 min	10 min
Manchester – 141 to Hanley	25 min	25 min	18 min	7 min
SB Lindbergh – 70 to 44	25 min	23 min	20 min	3 min
NB Lindbergh – 44 to 70	29 min	30 min	24 min	6 min

Summary of Evening Rush Period Travel Times				
Segment	Travel Times at 4:30 PM		Travel Times at 3:30 PM	Time Saved by Shifting 1 hour
	Before	May	May	
	Route 141 – 40/64 to 44	19 min	20 min	15 min
Page – 170 to 270	13 min	10 min	9 min	1 min
Olive – 170 to 141	20 min	22 min	19 min	3 min
Manchester – Hanley to 141	39 min	29 min	23 min	6 min
SB Lindbergh – 44 to 70	33 min	28 min	28 min	0 min
NB Lindbergh – 70 to 44	29 min	24 min	26 min	-2 min

## **St. Louis County Highways and Traffic**

St. Louis County reports the following information on Clayton and Ladue Roads:

### **Morning Rush Summary:**

Morning rush period = 6:30 a.m. – 9:30 a.m. (peak hour is 8-9 a.m.)

#### Clayton Road at Lay Road

- Eastbound increased by 18% from 1,100 to 1,300 vehicles during the peak hour and
- Westbound increased by 141% from 510 to 1,230 vehicles during the peak hour.

#### Ladue Road at Warson Road

- Eastbound increased by 124% from 380 to 850 vehicles during the peak hour
- Westbound increased 67% from 450-750 vehicles during the peak hour.

### **Evening Rush Summary:**

Evening rush period = 3:30 p.m. – 6:30 p.m. (peak hour is 5-6 p.m.)

#### Clayton Road at Lay Road

- Eastbound increased by 57% from 810 to 1,275 vehicles during the peak hour
- Westbound increased by 61% from 930 to 1,500 vehicles during the peak hour.

#### Ladue Road at Warson Road

- Eastbound increased by 44% from 570 to 820 vehicles during the peak hour
- Westbound increased by 111% from 410 to 865 vehicles during the peak hour.

### **Volume Changes:**

- Clayton Road at I-270 – increased 37% from 11,500 to 15,790 vehicles per day
- Clayton Road at Lay Road – increased 116% from 15,660 to 33,830 vehicles per day
- Ladue Road at Warson Road – increased 102% from 11,100 to 22,470 vehicles per day