

<b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY) NIGHTTIME 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD)</b>	<b>AUGUST</b> Analyzed for 2009 Construction Season
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**SUMMARY OF TRAFFIC MODEL OUTPUT**

SATURDAY                  SOUTHBOUND DIRECTION

TIME OF DAY	FLOWS AND CAPACITY IN VEH/HR						AVERAGE SPEEDS IN MPH			
	MAIN ROUTE		SITE CAPA CITY	FLOW		AV.DEL PER VEH (MINS)	AVERAGE QUEUE (VEH)	MAIN ROUTE		SITE
	DEMAND FLOW	PCT HEAVY		MAIN ROUTE	'DIVER TED'			WITHOUT WORK ZONE	WITH WORK ZONE	
MID-1 AM	881	0.0	2000	881	0	0.57	0	69.6	52.8	42.1
1-2 AM	511	0.0	2000	511	0	0.53	0	70.1	54.0	43.5
2-3 AM	460	0.0	2000	460	0	0.53	0	70.2	54.2	43.7
3-4 AM	378	0.0	2000	378	0	0.52	0	70.2	54.5	44.0
4-5 AM	469	0.0	2000	469	0	0.53	0	70.2	54.2	43.7
5-6 AM	937	0.0	2000	937	0	0.58	0	69.6	52.7	41.9
6-7 AM	1626	0.0	1999	1626	0	1.17	0	68.7	41.9	29.7
7-8 AM	2210	0.0	1999	2210	0	2.85	71	68.0	26.8	27.9
8-9 AM	2707	0.0	OFF	2707	0	0.07	6	67.4	64.8	64.8
9-10 AM	3411	0.0	OFF	3411	0	0.00	0	66.5	66.5	66.5
10-11 AM	4104	0.0	OFF	4104	0	0.00	0	62.8	62.8	62.8
11AM-NOON	4571	0.0	OFF	4571	0	0.00	0	59.6	59.6	59.6
NOON-1PM	4857	0.0	OFF	4857	0	0.00	0	57.7	57.7	57.7
1-2 PM	4498	0.0	OFF	4498	0	0.00	0	60.1	60.1	60.1
2-3 PM	4535	0.0	OFF	4535	0	0.00	0	59.9	59.9	59.9
3-4 PM	4537	0.0	OFF	4537	0	0.00	0	59.9	59.9	59.9
4-5 PM	4318	0.0	OFF	4318	0	0.00	0	61.4	61.4	61.4
5-6 PM	3958	0.0	OFF	3958	0	0.00	0	63.8	63.8	63.8
6-7 PM	3317	0.0	1999	2582	735	14.01+	463	66.6	9.3	27.9
7-8 PM	2754	0.0	1999	1997	757	17.11+	562	67.3	8.4	27.9
8-9 PM	2385	0.0	1999	1997	388	17.10+	561	67.8	8.4	27.9
9-10 PM	2086	0.0	1999	1976	111	17.02+	558	68.1	8.4	27.9
10-11 PM	1875	0.0	1999	1875	0	15.58+	508	68.4	8.8	27.9
11PM-MID	1476	0.0	1999	1476	0	4.65	203	68.9	19.9	29.7

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

+ INDICATES QUEUEING EXCEEDS USER-SPECIFIED MAXIMUM LIMIT

*----- SITE BREAKDOWN DELAYS -----*	
BREAKDOWN DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN (VEH-H) MAX	0.0
AV BREAKDOWNS PER DAY	0.00
AV QUEUE DELAY/DAY (VEH-H)	0.0
AV TOTAL DELAY/DAY (VEH-H)	0.0

*----- SITE ACCIDENT DELAYS -----*	
BREAKDOWN DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN (VEH-H) MAX	0
AV BREAKDOWNS PER DAY	0
AV QUEUE DELAY/DAY (VEH-H)	0
AV TOTAL DELAY/DAY (VEH-H)	0

AVERAGE ACCIDENT NUMBERS (PIA/DAY)	
MAIN ROUTE WITHOUT WORKS	0.0210
MAIN ROUTE WITH WORKS	0.0191
'DIVERSION'	0.0015
<small>PIA: Personal Injury Accidents</small>	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$55,893
CONGESTED HOURS PER DAY*	5

\*Delays Exceeding User-Specified Maximum

**USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)  
NIGHTTIME 2 LANE CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

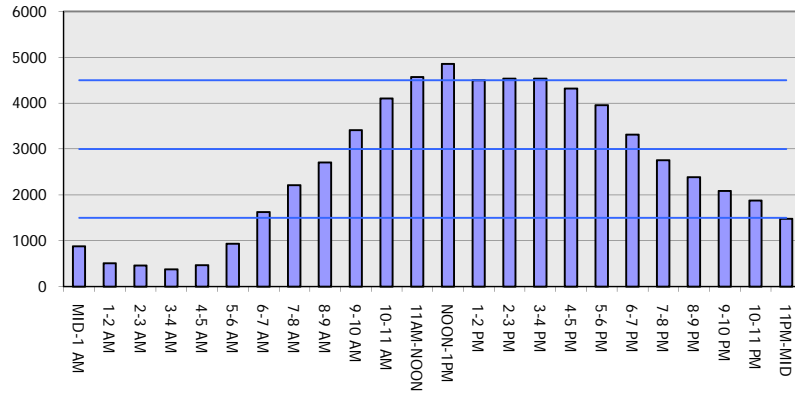
**AUGUST**

Analyzed for 2009  
Construction Season

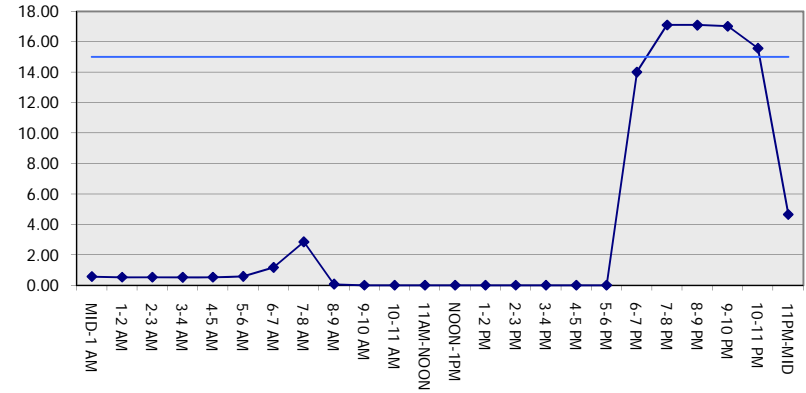
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SATURDAY SOUTHBOUND DIRECTION**

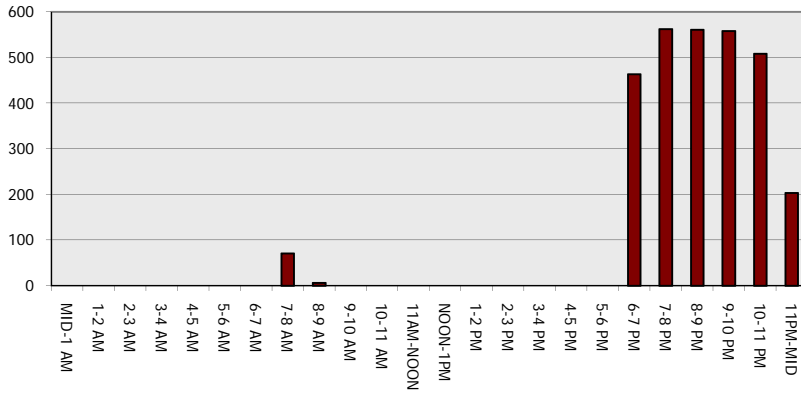
**Main Route - Traffic Demand (Vehicles Per Hour)**



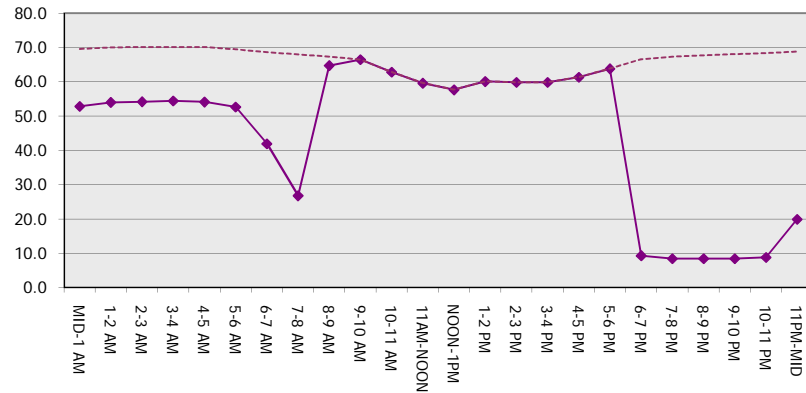
**Main Route Average Delay Per Vehicle (Minutes)**



**Main Route - Average Queue Length (Vehicles)**



**Main Route - Average Speed (MPH)**



<b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)</b> <b>NIGHTTIME 2 LANE CLOSURE</b> <b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b>	<b>AUGUST</b>
	Analyzed for 2009 Construction Season

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SATURDAY NORTHBOUND DIRECTION

TIME OF DAY	FLOWS AND CAPACITY IN VEH/HR							AVERAGE SPEEDS IN MPH		
	MAIN ROUTE		SITE CAPA CITY	FLOW		AV.DEL PER VEH (MINS)	AVERAGE QUEUE (VEH)	MAIN ROUTE		SITE
	DEMAND FLOW	PCT HEAVY		MAIN ROUTE	'DIVER TED'			WITHOUT WORK ZONE	WITH WORK ZONE	
MID-1 AM	1391	0.0	1999	1391	0	5.62	261	69.0	17.8	30.3
1-2 AM	926	0.0	2000	926	0	0.58	0	69.6	52.7	41.9
2-3 AM	845	0.0	2000	845	0	0.57	0	69.7	53.0	42.2
3-4 AM	641	0.0	2000	641	0	0.55	0	69.9	53.6	43.0
4-5 AM	856	0.0	2000	856	0	0.57	0	69.7	52.9	42.2
5-6 AM	1294	0.0	1999	1294	0	0.82	0	69.1	47.7	36.1
6-7 AM	1948	0.0	1999	1948	0	1.63	13	68.3	36.2	27.9
7-8 AM	2580	0.0	2000	2580	0	8.69+	310	67.5	12.9	27.9
8-9 AM	3050	0.0	OFF	3050	0	0.72	68	66.9	48.4	48.4
9-10 AM	3439	0.0	OFF	3439	0	0.00	0	66.4	66.4	66.4
10-11 AM	3806	0.0	OFF	3806	0	0.00	0	64.8	64.8	64.8
11AM-NOON	4266	0.0	OFF	4266	0	0.00	0	61.7	61.7	61.7
NOON-1PM	4517	0.0	OFF	4517	0	0.00	0	60.0	60.0	60.0
1-2 PM	4468	0.0	OFF	4468	0	0.00	0	60.4	60.4	60.4
2-3 PM	4534	0.0	OFF	4534	0	0.00	0	59.9	59.9	59.9
3-4 PM	4516	0.0	OFF	4516	0	0.00	0	60.0	60.0	60.0
4-5 PM	4113	0.0	OFF	4113	0	0.00	0	62.8	62.8	62.8
5-6 PM	3837	0.0	OFF	3837	0	0.00	0	64.6	64.6	64.6
6-7 PM	3242	0.0	1999	2645	596	13.75+	458	66.7	9.4	27.9
7-8 PM	2808	0.0	1999	1974	835	17.18+	564	67.3	8.3	27.9
8-9 PM	2806	0.0	1999	1988	818	17.12+	563	67.3	8.3	27.9
9-10 PM	2910	0.0	1999	1988	922	17.14+	563	67.1	8.3	27.9
10-11 PM	2612	0.0	1999	1994	617	17.11+	562	67.5	8.4	27.9
11PM-MID	2095	0.0	1999	1935	160	16.91+	554	68.1	8.4	27.9

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

+ INDICATES QUEUEING EXCEEDS USER-SPECIFIED MAXIMUM LIMIT

*----- SITE BREAKDOWN DELAYS -----*	
BREAKDOWN DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN (VEH-H) MAX	0.0
AV BREAKDOWNS PER DAY	0.00
AV QUEUE DELAY/DAY (VEH-H)	0.0
AV TOTAL DELAY/DAY (VEH-H)	0.0

*----- SITE ACCIDENT DELAYS -----*	
BREAKDOWN DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN (VEH-H) MAX	0
AV BREAKDOWNS PER DAY	0
AV QUEUE DELAY/DAY (VEH-H)	0
AV TOTAL DELAY/DAY (VEH-H)	0

AVERAGE ACCIDENT NUMBERS (PIA/DAY)	
MAIN ROUTE WITHOUT WORKS	0.0226
MAIN ROUTE WITH WORKS	0.0197
'DIVERSION'	0.0031

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$79,927
CONGESTED HOURS PER DAY*	7

\*Delays Exceeding User-Specified Maximum

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**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**  
**SATURDAY NORTHBOUND DIRECTION**

