

**USH 45: STH 145 TO CTH E (MILWAUKEE COUNTY)  
NIGHTTIME 2 LANE CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

**OCTOBER**  
Analyzed for 2009  
Construction Season

**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	548	0.0	1500	548	0	0.54	0	70.0	55.0	43.3	
1-2 AM	329	0.0	1500	329	0	0.51	0	70.2	55.6	44.2	
2-3 AM	251	0.0	1500	251	0	0.50	0	70.2	55.9	44.5	
3-4 AM	280	0.0	1500	280	0	0.51	0	70.2	55.8	44.3	
4-5 AM	380	0.0	1500	380	0	0.52	0	70.2	55.5	44.0	
5-6 AM	686	0.0	1500	686	0	0.55	0	69.9	54.6	42.8	
6-7 AM	1193	0.0	1499	1193	0	0.73	0	69.2	50.7	38.1	
7-8 AM	1797	0.0	1499	1797	0	4.23	112	68.5	22.0	30.8	
8-9 AM	2362	0.0	OFF	2362	0	0.13	12	67.8	63.7	63.7	
9-10 AM	2800	0.0	OFF	2800	0	0.00	0	67.3	67.3	67.3	
10-11 AM	3245	0.0	OFF	3245	0	0.00	0	66.7	66.7	66.7	
11AM-NOON	3277	0.0	OFF	3277	0	0.00	0	66.6	66.6	66.6	
NOON-1PM	3533	0.0	OFF	3533	0	0.00	0	66.3	66.3	66.3	
1-2 PM	3203	0.0	OFF	3203	0	0.00	0	66.8	66.8	66.8	
2-3 PM	3320	0.0	OFF	3320	0	0.00	0	66.6	66.6	66.6	
3-4 PM	3348	0.0	OFF	3348	0	0.00	0	66.6	66.6	66.6	
4-5 PM	3201	0.0	OFF	3201	0	0.00	0	66.8	66.8	66.8	
5-6 PM	2971	0.0	OFF	2971	0	0.00	0	67.1	67.1	67.1	
6-7 PM	2529	0.0	1499	1857	672	13.56+	336	67.6	9.1	33.4	
7-8 PM	2036	0.0	1499	1502	534	16.62+	406	68.2	7.9	30.8	
8-9 PM	1611	0.0	1500	1552	59	16.38+	400	68.7	8.0	30.8	
9-10 PM	1466	0.0	1499	1452	14	16.19+	395	68.9	8.1	30.8	
10-11 PM	1165	0.0	1499	1165	0	7.75	212	69.3	14.2	33.4	
11PM-MID	904	0.0	1500	904	0	0.60	0	69.6	53.5	42.0	

"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	0.0170
MAIN ROUTE WITH WORKS	0.0156
'DIVERSION'	0.0011
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$35,847
CONGESTED HOURS PER DAY*	4

\*Delays Exceeding User-Specified Maximum

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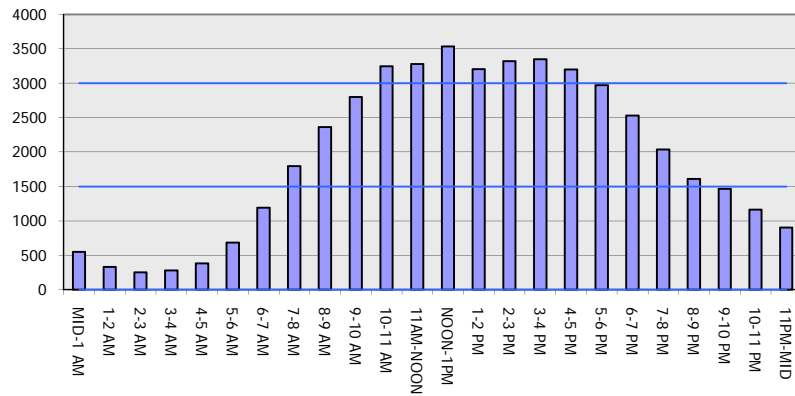
**OCTOBER**

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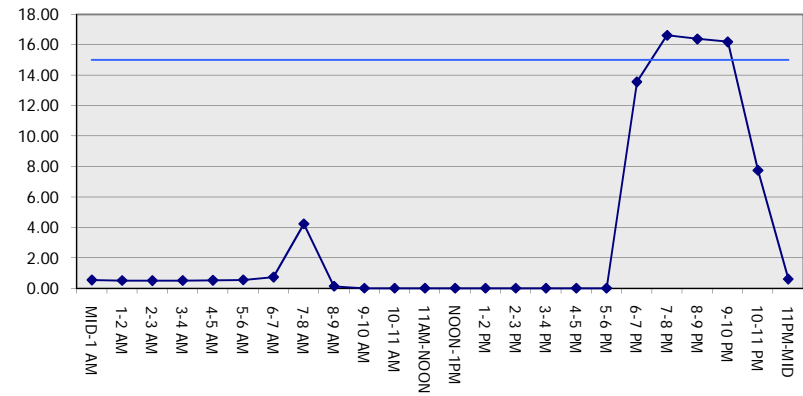
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SATURDAY SOUTHBOUND DIRECTION**

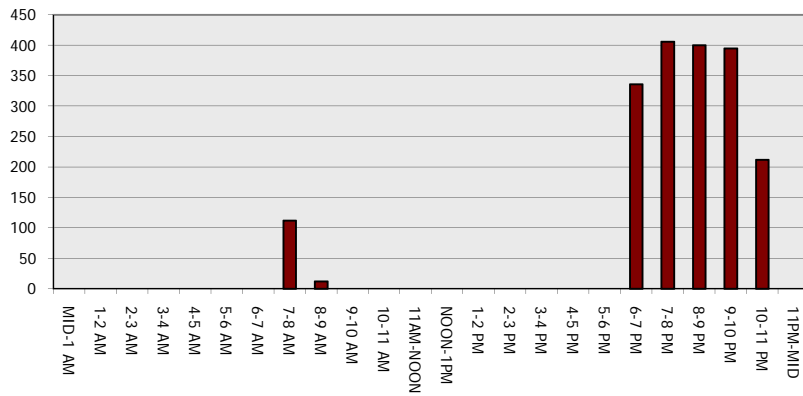
**Main Route - Traffic Demand (Vehicles Per Hour)**



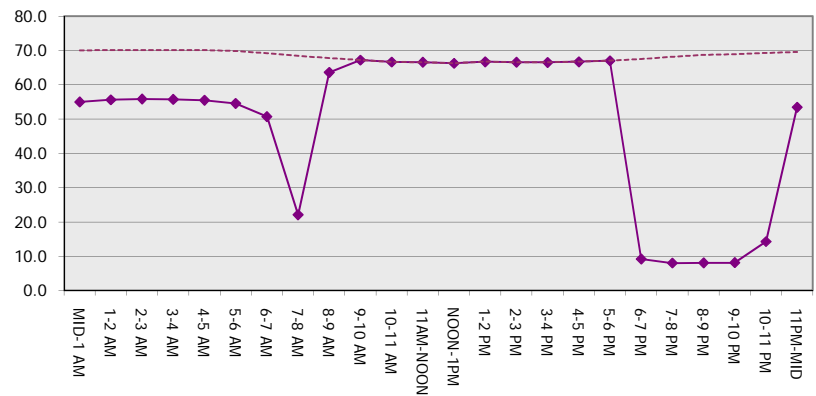
**Main Route Average Delay Per Vehicle (Minutes)**



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



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



<b>USH 45: STH 145 TO CTH E (MILWAUKEE COUNTY)</b> <b>NIGHTTIME 2 LANE CLOSURE</b> <b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b>	<b>OCTOBER</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	757	0.0	1500	757	0	0.60	1	69.8	53.7	42.5	
1-2 AM	450	0.0	1500	450	0	0.53	0	70.2	55.3	43.7	
2-3 AM	394	0.0	1500	394	0	0.52	0	70.2	55.5	43.9	
3-4 AM	334	0.0	1500	334	0	0.51	0	70.2	55.6	44.2	
4-5 AM	429	0.0	1500	429	0	0.53	0	70.2	55.4	43.8	
5-6 AM	774	0.0	1500	774	0	0.56	0	69.8	54.3	42.5	
6-7 AM	1202	0.0	1499	1202	0	0.72	0	69.2	50.8	38.1	
7-8 AM	1735	0.0	1499	1735	0	3.44	83	68.6	25.3	30.8	
8-9 AM	2295	0.0	OFF	2295	0	0.08	7	67.9	65.2	65.2	
9-10 AM	2653	0.0	OFF	2653	0	0.00	0	67.4	67.4	67.4	
10-11 AM	3046	0.0	OFF	3046	0	0.00	0	66.9	66.9	66.9	
11AM-NOON	3367	0.0	OFF	3367	0	0.00	0	66.6	66.6	66.6	
NOON-1PM	3511	0.0	OFF	3511	0	0.00	0	66.4	66.4	66.4	
1-2 PM	3424	0.0	OFF	3424	0	0.00	0	66.5	66.5	66.5	
2-3 PM	3441	0.0	OFF	3441	0	0.00	0	66.4	66.4	66.4	
3-4 PM	3490	0.0	OFF	3490	0	0.00	0	66.4	66.4	66.4	
4-5 PM	3267	0.0	OFF	3267	0	0.00	0	66.7	66.7	66.7	
5-6 PM	2949	0.0	OFF	2949	0	0.00	0	67.1	67.1	67.1	
6-7 PM	2574	0.0	1499	1844	731	13.66+	338	67.6	9.1	33.8	
7-8 PM	2176	0.0	1499	1504	672	16.62+	407	68.0	7.9	30.8	
8-9 PM	1875	0.0	1500	1521	354	16.54+	404	68.4	8.0	30.8	
9-10 PM	1764	0.0	1500	1519	246	16.54+	404	68.6	8.0	30.8	
10-11 PM	1558	0.0	1500	1496	62	16.24+	396	68.8	8.1	30.8	
11PM-MID	1157	0.0	1499	1157	0	8.66	236	69.3	13.0	33.6	

"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	0.0178
MAIN ROUTE WITH WORKS	0.0160
'DIVERSION'	0.0017

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$45,639
CONGESTED HOURS PER DAY*	5

\*Delays Exceeding User-Specified Maximum

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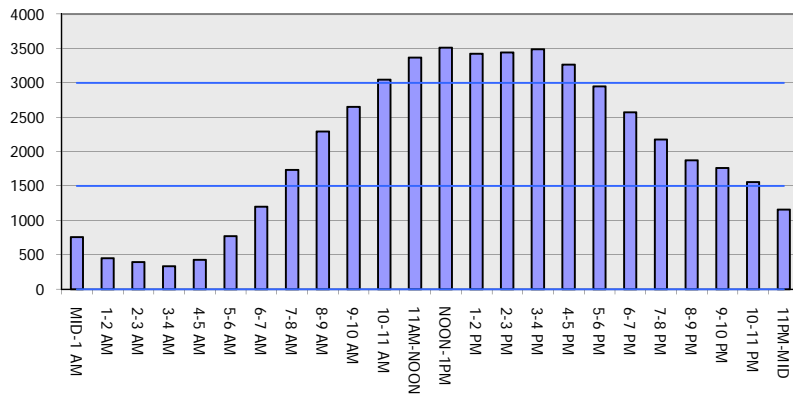
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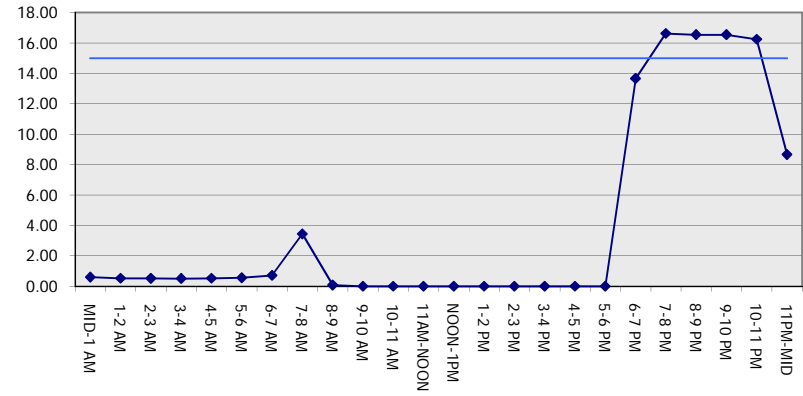
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**SATURDAY NORTHBOUND DIRECTION**

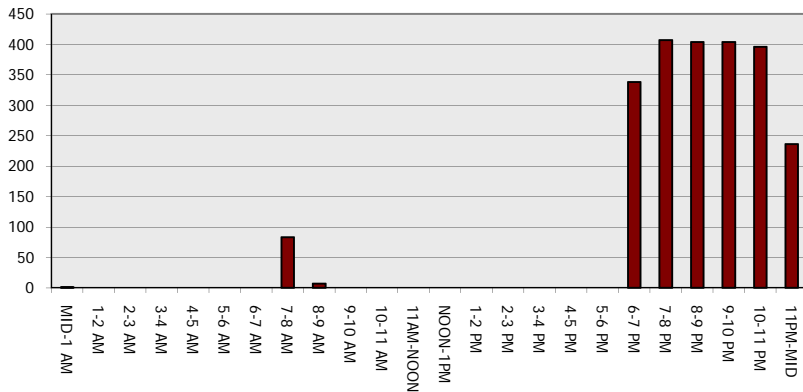
**Main Route - Traffic Demand (Vehicles Per Hour)**



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



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



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

