

**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
MON-THUR 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	345	0.0	1500	345	0	0.51	0	70.2	55.6	44.1	
1-2 AM	260	0.0	1500	260	0	0.50	0	70.2	55.8	44.4	
2-3 AM	266	0.0	1500	266	0	0.50	0	70.2	55.8	44.4	
3-4 AM	371	0.0	1500	371	0	0.52	0	70.2	55.5	44.0	
4-5 AM	745	0.0	1500	745	0	0.56	0	69.8	54.4	42.6	
5-6 AM	2210	0.0	OFF	2210	0	0.00	0	68.0	68.0	68.0	
6-7 AM	4736	0.0	OFF	4736	0	0.00	0	58.5	58.5	58.5	
7-8 AM	5611	0.0	OFF	5611	0	0.00	0	52.5	52.5	52.5	
8-9 AM	4433	0.0	OFF	4433	0	0.00	0	60.5	60.5	60.5	
9-10 AM	3325	0.0	OFF	3325	0	0.00	0	66.6	66.6	66.6	
10-11 AM	3072	0.0	OFF	3072	0	0.00	0	66.9	66.9	66.9	
11AM-NOON	3177	0.0	OFF	3177	0	0.00	0	66.8	66.8	66.8	
NOON-1PM	3217	0.0	OFF	3217	0	0.00	0	66.8	66.8	66.8	
1-2 PM	3261	0.0	OFF	3261	0	0.00	0	66.7	66.7	66.7	
2-3 PM	3881	0.0	OFF	3881	0	0.00	0	64.3	64.3	64.3	
3-4 PM	4312	0.0	OFF	4312	0	0.00	0	61.4	61.4	61.4	
4-5 PM	4285	0.0	OFF	4285	0	0.00	0	61.6	61.6	61.6	
5-6 PM	4129	0.0	OFF	4129	0	0.00	0	62.7	62.7	62.7	
6-7 PM	3075	0.0	OFF	3075	0	0.00	0	66.9	66.9	66.9	
7-8 PM	1966	0.0	1499	1922	44	10.41+	276	68.3	11.4	30.8	
8-9 PM	1504	0.0	1499	1448	55	16.26+	397	68.9	8.1	30.8	
9-10 PM	1312	0.0	1499	1312	0	12.07	294	69.1	9.9	30.8	
10-11 PM	950	0.0	1500	950	0	1.24	34	69.6	42.8	41.3	
11PM-MID	854	0.0	1500	854	0	0.57	0	69.7	54.1	42.2	

"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	0.0224
MAIN ROUTE WITH WORKS	0.0218
'DIVERSION'	0.0001

PIA: Personal Injury Accidents

IMPACTS ON ROAD USERS

ROAD USER COSTS PER DAY	\$14,742
CONGESTED HOURS PER DAY*	2

*Delays Exceeding User-Specified Maximum

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OCTOBER

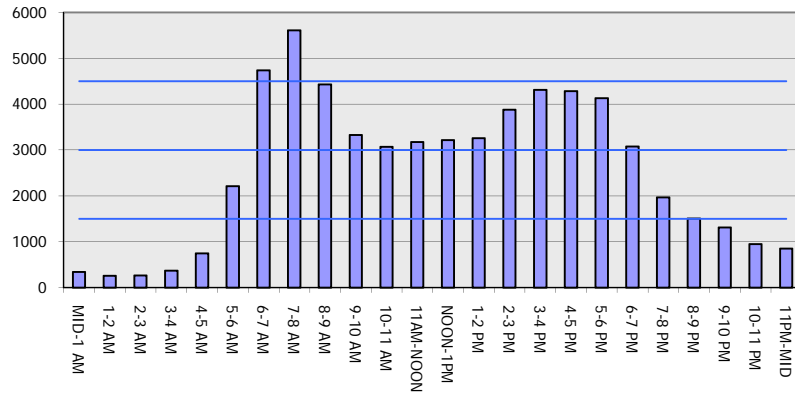
Analyzed for 2009
Construction Season

GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

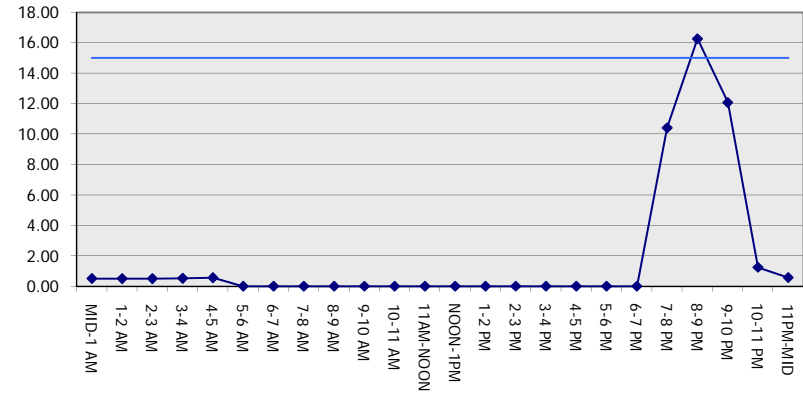
MON-THUR

SOUTHBOUND DIRECTION

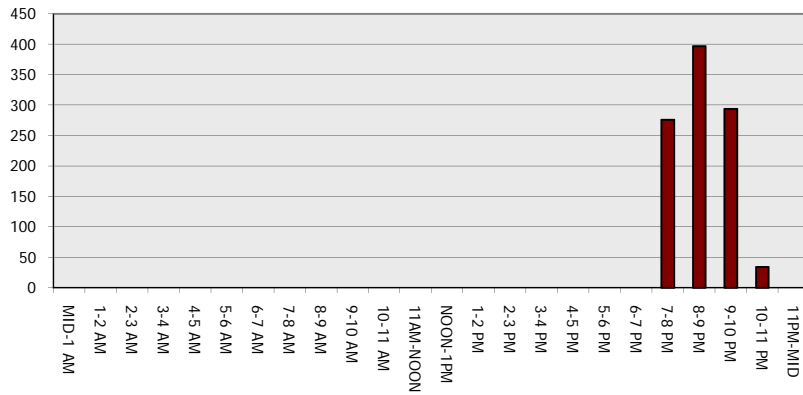
Main Route - Traffic Demand (Vehicles Per Hour)



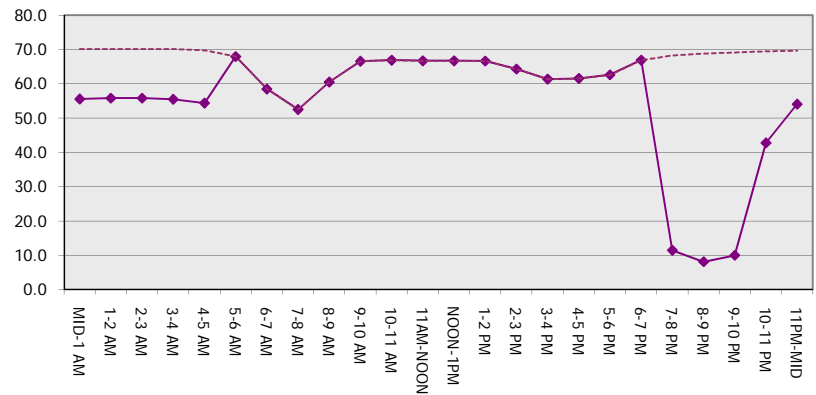
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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SUMMARY OF TRAFFIC MODEL OUTPUT	
MON-THUR	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	421	0.0	1500	421	0	0.52	0	70.2	55.4	43.8
1-2 AM	290	0.0	1500	290	0	0.51	0	70.2	55.8	44.3
2-3 AM	270	0.0	1500	270	0	0.51	0	70.2	55.8	44.4
3-4 AM	332	0.0	1500	332	0	0.51	0	70.2	55.6	44.2
4-5 AM	678	0.0	1500	678	0	0.55	0	69.9	54.6	42.8
5-6 AM	2001	0.0	OFF	2001	0	0.00	0	68.2	68.2	68.2
6-7 AM	3822	0.0	OFF	3822	0	0.00	0	64.8	64.8	64.8
7-8 AM	4904	0.0	OFF	4904	0	0.00	0	57.4	57.4	57.4
8-9 AM	4096	0.0	OFF	4096	0	0.00	0	62.8	62.8	62.8
9-10 AM	2901	0.0	OFF	2901	0	0.00	0	67.1	67.1	67.1
10-11 AM	2815	0.0	OFF	2815	0	0.00	0	67.3	67.3	67.3
11AM-NOON	2939	0.0	OFF	2939	0	0.00	0	67.1	67.1	67.1
NOON-1PM	3187	0.0	OFF	3187	0	0.00	0	66.8	66.8	66.8
1-2 PM	3422	0.0	OFF	3422	0	0.00	0	66.5	66.5	66.5
2-3 PM	4265	0.0	OFF	4265	0	0.00	0	61.7	61.7	61.7
3-4 PM	5159	0.0	OFF	5159	0	0.00	0	55.6	55.6	55.6
4-5 PM	5848	0.0	OFF	5848	0	0.00	0	50.9	50.9	50.9
5-6 PM	5627	0.0	OFF	5627	0	0.00	0	52.4	52.4	52.4
6-7 PM	3613	0.0	OFF	3613	0	0.00	0	66.2	66.2	66.2
7-8 PM	2361	0.0	1499	1879	482	13.18+	326	67.8	9.3	32.2
8-9 PM	1972	0.0	1499	1501	471	16.62+	406	68.3	7.9	30.8
9-10 PM	1790	0.0	1500	1501	289	16.62+	406	68.5	7.9	30.8
10-11 PM	1385	0.0	1500	1385	0	14.53+	353	69.0	8.6	30.8
11PM-MID	829	0.0	1500	829	0	1.68	64	69.7	37.6	41.4

"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	0.0238
MAIN ROUTE WITH WORKS	0.0227
'DIVERSION'	0.0011

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$26,991
CONGESTED HOURS PER DAY*	4

*Delays Exceeding User-Specified Maximum

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**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
MON-THUR NORTHBOUND DIRECTION**

