

STH 441: RACINE ST TO USH 10 (CALUMET AND OUTAGAMIE COUNTIES) CONTINUOUS (24 HOUR) CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD)	OCTOBER
	Analyzed for 2009 Construction Season

SUMMARY OF TRAFFIC MODEL OUTPUT

MON-THUR WESTBOUND 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	93	0.0	1500	93	0	0.43	0	66.2	56.6	45.1	
1-2 AM	74	0.0	1500	74	0	0.43	0	66.3	56.6	45.2	
2-3 AM	67	0.0	1500	67	0	0.43	0	66.3	56.7	45.2	
3-4 AM	99	0.0	1500	99	0	0.43	0	66.2	56.6	45.1	
4-5 AM	303	0.0	1500	303	0	0.45	0	65.8	56.0	44.3	
5-6 AM	956	0.0	1499	956	0	0.53	0	64.6	53.7	41.5	
6-7 AM	1779	0.0	1499	1779	0	3.21	86	63.1	28.6	30.8	
7-8 AM	2649	0.0	1499	1586	1063	16.12+	413	59.4	9.9	30.8	
8-9 AM	1682	0.0	1500	1509	173	15.55+	392	63.3	10.1	30.8	
9-10 AM	1178	0.0	1499	1178	0	8.37	228	64.2	15.5	33.0	
10-11 AM	1146	0.0	1500	1146	0	0.68	3	64.3	51.0	40.1	
11AM-NOON	1230	0.0	1500	1230	0	0.68	0	64.1	51.0	37.5	
NOON-1PM	1317	0.0	1500	1317	0	0.79	0	64.0	49.2	35.1	
1-2 PM	1434	0.0	1499	1434	0	0.94	0	63.7	47.0	32.2	
2-3 PM	1484	0.0	1499	1484	0	1.09	2	63.6	45.0	31.4	
3-4 PM	1743	0.0	1500	1743	0	4.71	117	63.2	22.8	30.8	
4-5 PM	1963	0.0	1500	1684	279	15.20+	386	62.7	10.2	30.8	
5-6 PM	1881	0.0	1499	1498	383	16.31+	413	62.9	9.9	30.8	
6-7 PM	1243	0.0	1499	1231	12	12.83+	332	64.1	11.5	31.7	
7-8 PM	776	0.0	1500	776	0	0.92	21	65.0	47.9	42.4	
8-9 PM	638	0.0	1500	638	0	0.48	0	65.2	54.9	43.0	
9-10 PM	617	0.0	1500	617	0	0.48	0	65.3	55.0	43.0	
10-11 PM	406	0.0	1500	406	0	0.46	0	65.6	55.6	43.8	
11PM-MID	213	0.0	1500	213	0	0.44	0	66.0	56.2	44.6	

+ 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	0.0111
MAIN ROUTE WITH WORKS	0.0088
'DIVERSION'	0.0020
<small>PIA: Personal Injury Accidents</small>	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$38,460
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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CONTINUOUS (24 HOUR) CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

OCTOBER

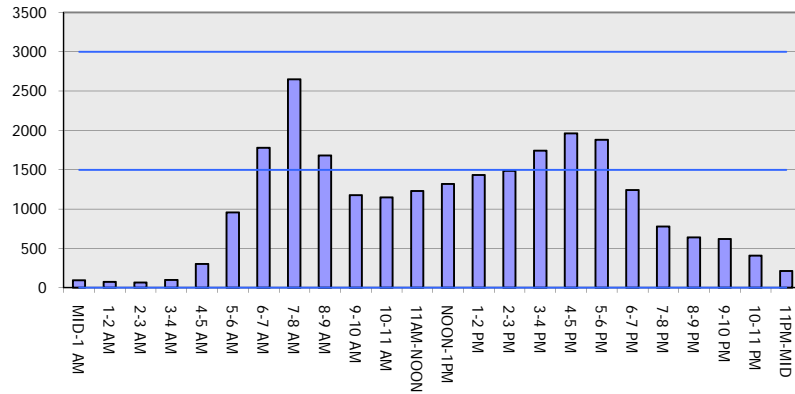
Analyzed for 2009
Construction Season

GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

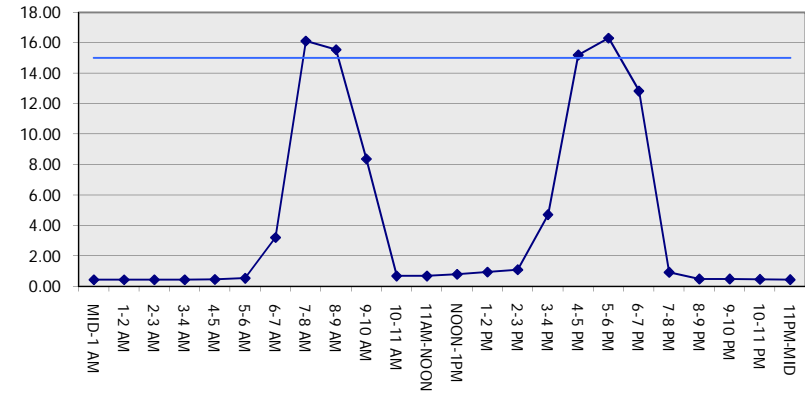
MON-THUR

WESTBOUND DIRECTION

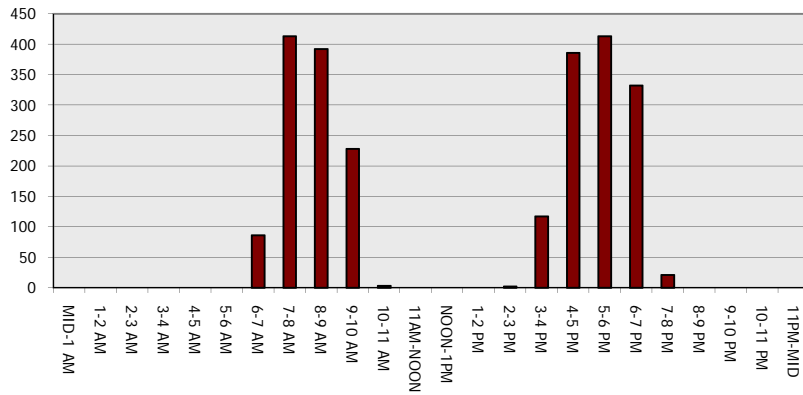
Main Route - Traffic Demand (Vehicles Per Hour)



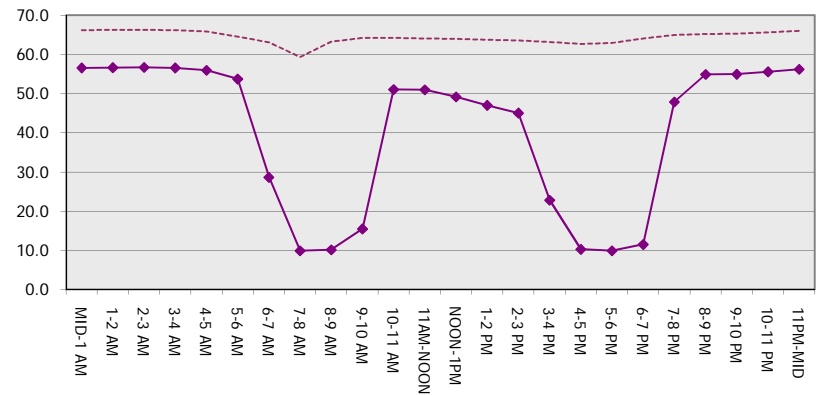
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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SUMMARY OF TRAFFIC MODEL OUTPUT

MON-THUR EASTBOUND 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	219	0.0	1500	219	0	0.44	0	66.0	56.2	44.6
1-2 AM	146	0.0	1500	146	0	0.44	0	66.1	56.4	44.9
2-3 AM	127	0.0	1500	127	0	0.43	0	66.1	56.5	45.0
3-4 AM	69	0.0	1500	69	0	0.43	0	66.3	56.7	45.2
4-5 AM	147	0.0	1500	147	0	0.44	0	66.1	56.4	44.9
5-6 AM	522	0.0	1500	522	0	0.47	0	65.4	55.3	43.4
6-7 AM	1380	0.0	1499	1380	0	1.13	11	63.8	44.6	35.1
7-8 AM	2232	0.0	1500	1853	379	11.83+	318	62.2	12.2	30.8
8-9 AM	1592	0.0	1500	1485	107	15.95+	403	63.4	10.0	30.8
9-10 AM	1245	0.0	1499	1245	0	10.39	266	64.1	13.2	31.3
10-11 AM	1291	0.0	1500	1291	0	1.78	36	64.0	38.1	34.3
11AM-NOON	1409	0.0	1499	1409	0	0.91	0	63.8	47.4	32.8
NOON-1PM	1537	0.0	1499	1537	0	1.49	13	63.5	40.6	30.8
1-2 PM	1570	0.0	1499	1570	0	2.96	54	63.5	30.0	30.8
2-3 PM	2095	0.0	1500	1739	355	11.95+	319	62.5	12.1	30.9
3-4 PM	2595	0.0	1500	1527	1068	16.30+	417	59.9	9.9	30.8
4-5 PM	3142	0.0	1500	1520	1622	16.08+	420	54.3	9.8	30.8
5-6 PM	2770	0.0	1500	1513	1257	16.19+	416	58.1	9.9	30.8
6-7 PM	1791	0.0	1500	1501	290	16.32+	413	63.0	9.9	30.8
7-8 PM	1113	0.0	1499	1113	0	8.16	239	64.3	15.9	34.4
8-9 PM	941	0.0	1500	941	0	0.52	0	64.6	53.8	41.9
9-10 PM	752	0.0	1500	752	0	0.50	0	65.0	54.5	42.5
10-11 PM	618	0.0	1500	618	0	0.48	0	65.2	55.0	43.0
11PM-MID	379	0.0	1500	379	0	0.46	0	65.7	55.7	44.0

+ 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	0.0132
MAIN ROUTE WITH WORKS	0.0093
'DIVERSION'	0.0052

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$60,742
CONGESTED HOURS PER DAY*	7

*Delays Exceeding User-Specified Maximum

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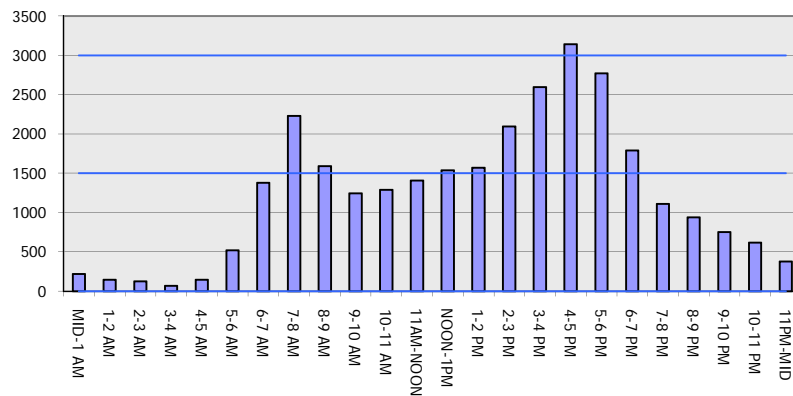
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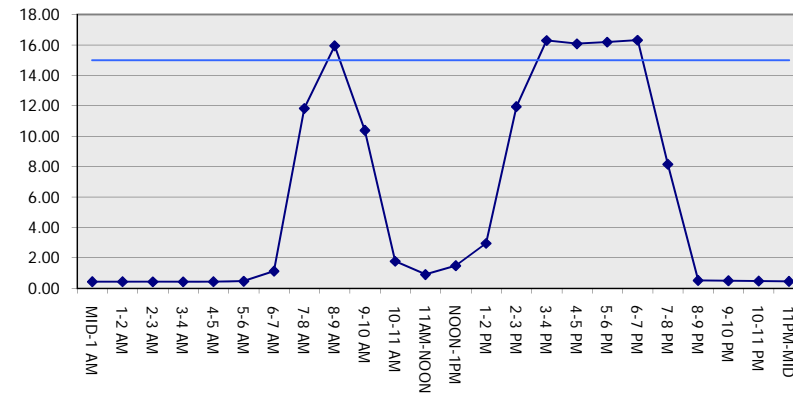
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

MON-THUR EASTBOUND DIRECTION

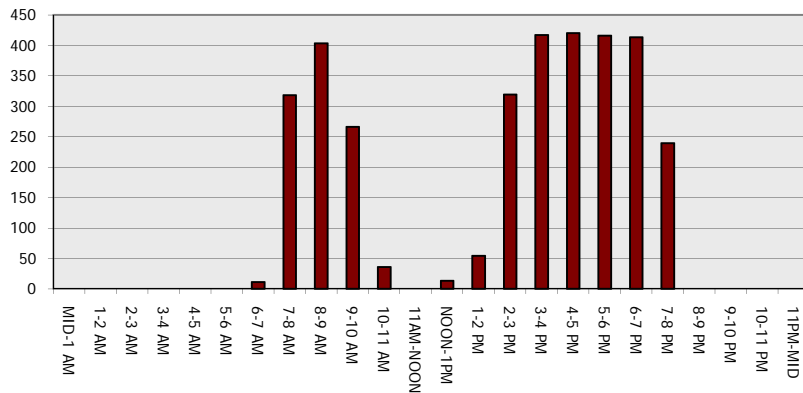
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

