

IH 94: MN 96 TO STH 35 N CONTINUOUS (24 HOUR) 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD)	AUGUST
	Analyzed for 2009 Construction Season

SUMMARY OF TRAFFIC MODEL OUTPUT

SUNDAY 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	639	0.0	1499	639	0	24.54	661	69.9	4.8	34.6	
1-2 AM	450	0.0	1500	450	0	0.46	20	70.2	45.8	43.6	
2-3 AM	346	0.0	1500	346	0	0.26	0	70.2	53.8	44.1	
3-4 AM	343	0.0	1500	343	0	0.26	0	70.2	53.8	44.1	
4-5 AM	353	0.0	1500	353	0	0.26	0	70.2	53.8	44.1	
5-6 AM	411	0.0	1500	411	0	0.26	0	70.2	53.6	43.8	
6-7 AM	548	0.0	1500	548	0	0.27	0	70.0	53.2	43.3	
7-8 AM	879	0.0	1500	879	0	0.29	0	69.6	52.1	42.1	
8-9 AM	1385	0.0	1499	1385	0	0.58	4	69.0	41.3	34.0	
9-10 AM	2060	0.0	1500	2060	0	7.76	242	68.2	8.6	30.8	
10-11 AM	3099	0.0	1500	2172	927	41.49+	1083	66.9	4.1	30.8	
11AM-NOON	3993	0.0	1499	1500	2493	48.10+	1251	63.6	3.9	30.8	
NOON-1PM	4549	0.0	1499	1500	3049	47.90+	1251	59.8	3.9	30.8	
1-2 PM	5416	0.0	1499	1500	3916	47.53+	1251	53.8	3.9	30.8	
2-3 PM	6280	0.0	1499	1500	4781	47.07+	1251	47.9	3.9	30.8	
3-4 PM	6693	0.0	1499	1500	5193	46.81+	1251	45.1	3.9	30.8	
4-5 PM	7027	0.0	1499	1500	5527	46.57+	1251	42.8	3.9	30.8	
5-6 PM	6587	0.0	1499	1500	5087	46.88+	1251	45.8	3.9	30.8	
6-7 PM	5787	0.0	1499	1500	4287	47.35+	1251	51.3	3.9	30.8	
7-8 PM	4927	0.0	1499	1500	3427	47.75+	1251	57.2	3.9	30.8	
8-9 PM	4054	0.0	1499	1500	2554	48.08+	1251	63.2	3.9	30.8	
9-10 PM	2941	0.0	1499	1442	1499	47.72+	1236	67.1	3.9	30.8	
10-11 PM	1965	0.0	1499	1496	469	46.46+	1202	68.3	4.0	30.8	
11PM-MID	1377	0.0	1499	1377	0	45.10+	1166	69.0	4.0	30.8	

+ INDICATES QUEUEING EXCEEDS USER-SPECIFIED MAXIMUM LIMIT

WARNING: THE DEMAND FLOW IN ONE OR MORE HOURS EXCEEDS THE THEORETICAL CAPACITY OF THE MAIN ROUTE *WITHOUT* CONSTRUCTION

----- 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	0.0115
MAIN ROUTE WITH WORKS	0.0015
'DIVERSION'	0.0159
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$853,292
CONGESTED HOURS PER DAY*	14

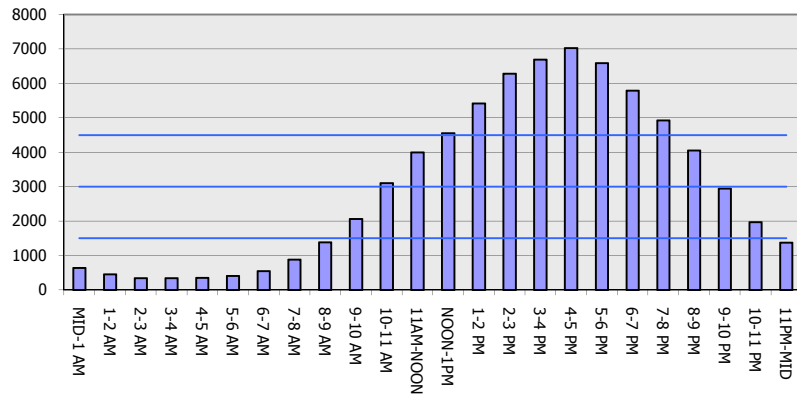
*Delays Exceeding User-Specified Maximum

**IH 94: MN 96 TO STH 35 N
CONTINUOUS (24 HOUR) 2 LANE CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

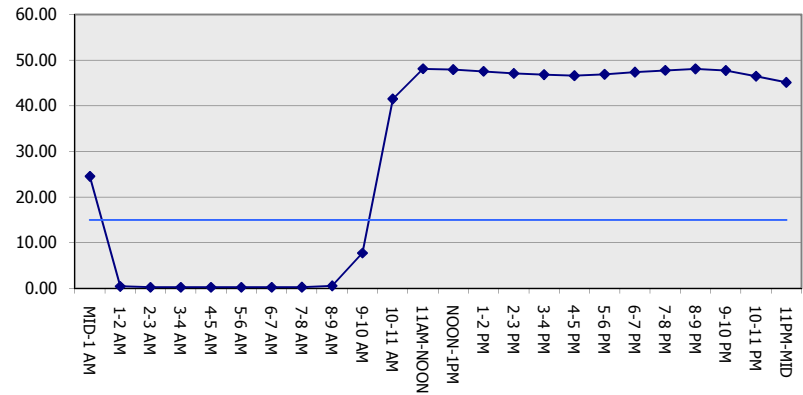
AUGUST
Analyzed for 2009
Construction Season

GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
SUNDAY WESTBOUND DIRECTION

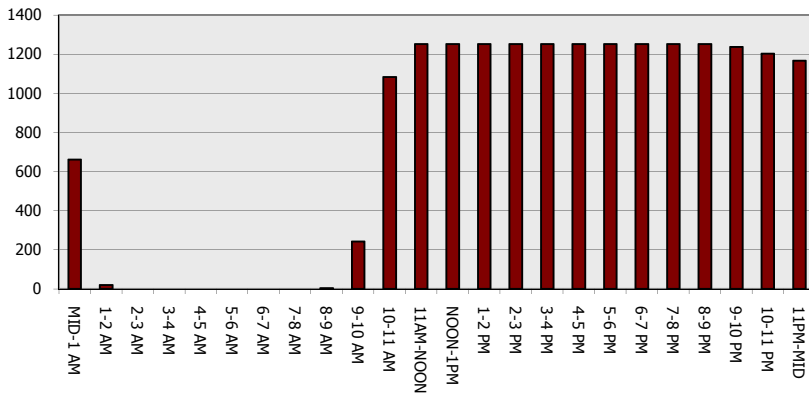
Main Route - Traffic Demand (Vehicles Per Hour)



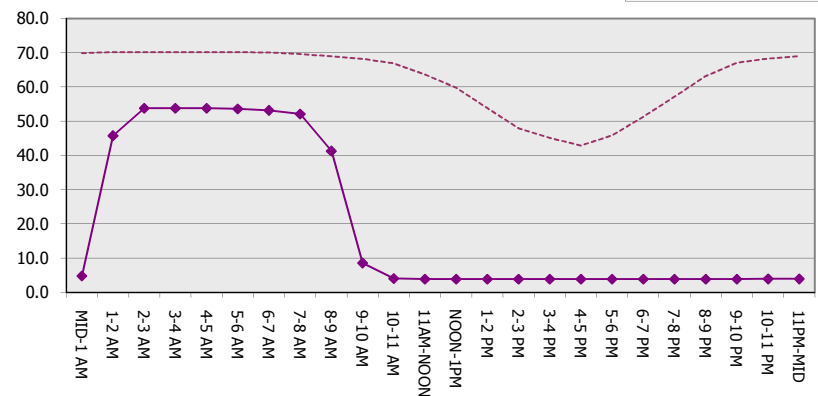
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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SUMMARY OF TRAFFIC MODEL OUTPUT

SUNDAY 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	622	0.0	1500	622	0	0.32	2	70.0	50.7	43.0	
1-2 AM	409	0.0	1500	409	0	0.26	0	70.2	53.6	43.8	
2-3 AM	309	0.0	1500	309	0	0.26	0	70.2	53.9	44.3	
3-4 AM	263	0.0	1500	263	0	0.26	0	70.2	54.0	44.4	
4-5 AM	279	0.0	1500	279	0	0.26	0	70.2	54.0	44.3	
5-6 AM	437	0.0	1500	437	0	0.27	0	70.2	53.5	43.7	
6-7 AM	920	0.0	1499	920	0	0.29	0	69.6	52.0	42.0	
7-8 AM	1557	0.0	1499	1557	0	1.09	28	68.8	30.5	32.0	
8-9 AM	2300	0.0	1500	2300	0	16.16	457	67.9	5.8	30.8	
9-10 AM	3391	0.0	1500	1598	1793	47.31+	1226	66.5	3.9	30.8	
10-11 AM	4358	0.0	1500	1500	2858	47.97+	1251	61.1	3.9	30.8	
11AM-NOON	4561	0.0	1500	1500	3061	47.90+	1251	59.7	3.9	30.8	
NOON-1PM	5029	0.0	1500	1500	3529	47.71+	1251	56.5	3.9	30.8	
1-2 PM	4928	0.0	1500	1500	3428	47.75+	1251	57.2	3.9	30.8	
2-3 PM	4498	0.0	1500	1500	2998	47.92+	1251	60.1	3.9	30.8	
3-4 PM	4326	0.0	1500	1500	2826	47.99+	1251	61.3	3.9	30.8	
4-5 PM	4170	0.0	1500	1500	2670	48.04+	1251	62.3	3.9	30.8	
5-6 PM	3651	0.0	1500	1543	2107	47.80+	1240	65.9	3.9	30.8	
6-7 PM	3273	0.0	1500	1569	1705	47.60+	1234	66.7	3.9	30.8	
7-8 PM	2759	0.0	1500	1543	1215	46.99+	1217	67.3	4.0	30.8	
8-9 PM	2306	0.0	1500	1500	806	46.53+	1204	67.9	4.0	30.8	
9-10 PM	1628	0.0	1500	1500	129	46.38+	1199	68.7	4.0	30.8	
10-11 PM	1126	0.0	1500	1126	0	38.96+	1007	69.3	4.1	30.8	
11PM-MID	775	0.0	1500	775	0	15.37	446	69.7	6.0	35.5	

+ 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	0.0092
MAIN ROUTE WITH WORKS	0.0015
'DIVERSION'	0.0107
PIA: Personal Injury Accidents	
ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$673,511
CONGESTED HOURS PER DAY*	14

*Delays Exceeding User-Specified Maximum

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GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
SUNDAY EASTBOUND DIRECTION

