

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

OCTOBER

Analyzed for 2009
Construction Season

SUMMARY OF TRAFFIC MODEL OUTPUT

SATURDAY 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	739	0.0	1500	739	0	1.15	91	69.8	31.2	42.0	
1-2 AM	552	0.0	1500	552	0	0.27	0	70.0	53.2	43.3	
2-3 AM	503	0.0	1500	503	0	0.27	0	70.1	53.3	43.5	
3-4 AM	497	0.0	1500	497	0	0.27	0	70.1	53.3	43.5	
4-5 AM	605	0.0	1500	605	0	0.28	0	70.0	53.0	43.1	
5-6 AM	791	0.0	1500	791	0	0.29	0	69.7	52.4	42.4	
6-7 AM	954	0.0	1499	954	0	0.29	0	69.6	51.9	41.9	
7-8 AM	1418	0.0	1499	1418	0	0.64	4	69.0	39.9	33.2	
8-9 AM	1926	0.0	1500	1926	0	6.38	193	68.3	9.6	30.8	
9-10 AM	2678	0.0	1500	2502	175	35.95+	950	67.4	4.3	30.8	
10-11 AM	3197	0.0	1499	1418	1779	47.47+	1230	66.8	3.9	30.8	
11AM-NOON	3354	0.0	1499	1466	1888	47.92+	1242	66.6	3.9	30.8	
NOON-1PM	3130	0.0	1499	1451	1679	47.79+	1238	66.8	3.9	30.8	
1-2 PM	3041	0.0	1499	1470	1571	47.97+	1243	66.9	3.9	30.8	
2-3 PM	3168	0.0	1499	1500	1668	48.25+	1251	66.8	3.9	30.8	
3-4 PM	3206	0.0	1499	1500	1706	48.25+	1251	66.8	3.9	30.8	
4-5 PM	3312	0.0	1499	1500	1812	48.25+	1251	66.6	3.9	30.8	
5-6 PM	2942	0.0	1499	1466	1476	47.70+	1236	67.1	3.9	30.8	
6-7 PM	2512	0.0	1499	1495	1018	46.60+	1206	67.6	4.0	30.8	
7-8 PM	2356	0.0	1499	1497	859	46.55+	1205	67.8	4.0	30.8	
8-9 PM	1924	0.0	1499	1497	427	46.45+	1201	68.4	4.0	30.8	
9-10 PM	1737	0.0	1499	1497	240	46.41+	1200	68.6	4.0	30.8	
10-11 PM	1312	0.0	1499	1312	0	44.05+	1138	69.1	4.0	30.8	
11PM-MID	847	0.0	1499	847	0	27.15	708	69.7	4.6	30.9	

+ 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

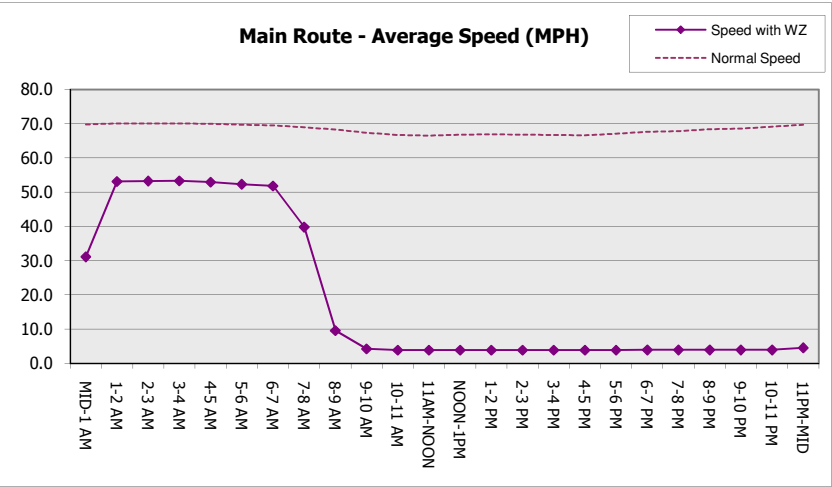
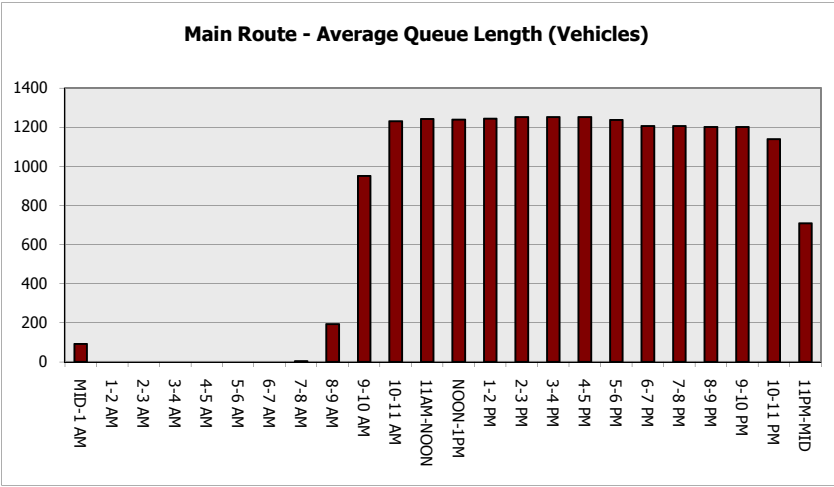
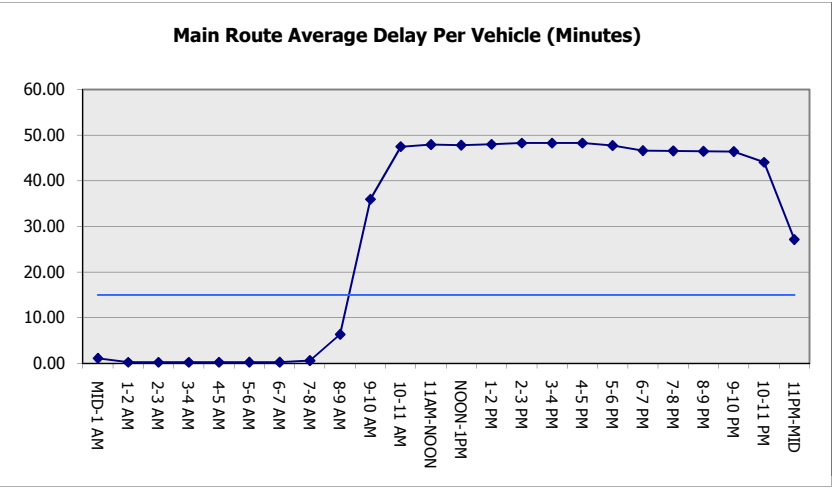
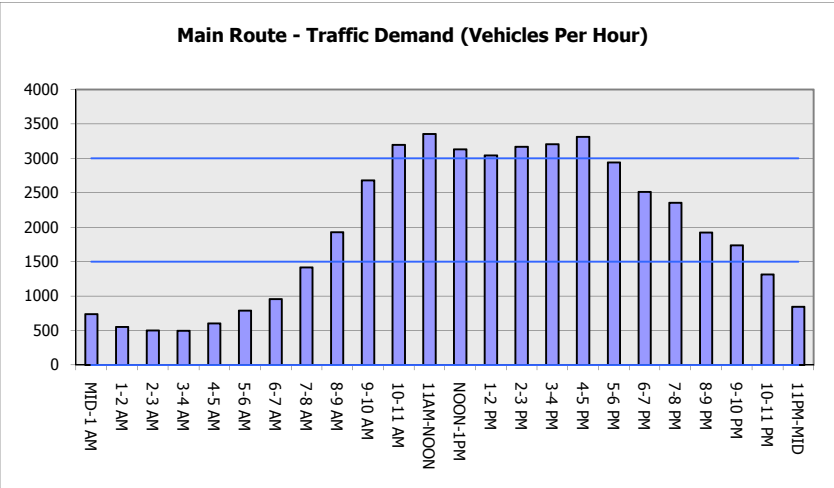
AVERAGE ACCIDENT NUMBERS (PIA/DAY)	
MAIN ROUTE WITHOUT WORKS	0.0074
MAIN ROUTE WITH WORKS	0.0015
'DIVERSION'	0.0060
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$498,879
CONGESTED HOURS PER DAY*	14

*Delays Exceeding User-Specified Maximum

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OCTOBER
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GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
SATURDAY WESTBOUND DIRECTION



IH 94: MN 96 TO STH 35 N CONTINUOUS (24 HOUR) 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD)	OCTOBER
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SUMMARY OF TRAFFIC MODEL OUTPUT

SATURDAY 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	784	0.0	1500	784	0	0.46	13	69.7	45.5	42.4	
1-2 AM	498	0.0	1500	498	0	0.27	0	70.1	53.3	43.5	
2-3 AM	380	0.0	1500	380	0	0.26	0	70.2	53.7	44.0	
3-4 AM	406	0.0	1500	406	0	0.26	0	70.2	53.6	43.8	
4-5 AM	512	0.0	1500	512	0	0.27	0	70.1	53.3	43.5	
5-6 AM	766	0.0	1500	766	0	0.28	0	69.8	52.4	42.5	
6-7 AM	1306	0.0	1499	1306	0	0.42	0	69.1	46.6	35.9	
7-8 AM	2031	0.0	1499	2031	0	6.96	220	68.2	9.3	30.8	
8-9 AM	2756	0.0	1500	2311	445	38.28+	1002	67.3	4.2	30.8	
9-10 AM	3475	0.0	1499	1500	1975	48.24+	1251	66.4	3.9	30.8	
10-11 AM	3841	0.0	1499	1500	2341	48.15+	1251	64.6	3.9	30.8	
11AM-NOON	3723	0.0	1499	1500	2223	48.19+	1251	65.5	3.9	30.8	
NOON-1PM	3371	0.0	1499	1474	1898	48.00+	1244	66.6	3.9	30.8	
1-2 PM	3224	0.0	1499	1473	1751	48.00+	1244	66.8	3.9	30.8	
2-3 PM	3183	0.0	1499	1482	1700	48.09+	1246	66.8	3.9	30.8	
3-4 PM	3086	0.0	1499	1480	1606	48.07+	1246	66.9	3.9	30.8	
4-5 PM	3097	0.0	1499	1490	1607	48.11+	1247	66.9	3.9	30.8	
5-6 PM	2825	0.0	1499	1470	1355	47.32+	1226	67.3	3.9	30.8	
6-7 PM	2370	0.0	1499	1496	874	46.55+	1205	67.8	4.0	30.8	
7-8 PM	2025	0.0	1499	1497	528	46.47+	1202	68.2	4.0	30.8	
8-9 PM	1659	0.0	1499	1497	162	46.39+	1200	68.7	4.0	30.8	
9-10 PM	1403	0.0	1499	1403	0	45.21+	1169	69.0	4.0	30.8	
10-11 PM	1171	0.0	1499	1171	0	37.09	957	69.3	4.2	30.8	
11PM-MID	859	0.0	1499	859	0	16.99	468	69.7	5.6	34.3	

+ 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	0.0078
MAIN ROUTE WITH WORKS	0.0015
'DIVERSION'	0.0068
<small>PIA: Personal Injury Accidents</small>	
ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$540,949
CONGESTED HOURS PER DAY*	14

*Delays Exceeding User-Specified Maximum

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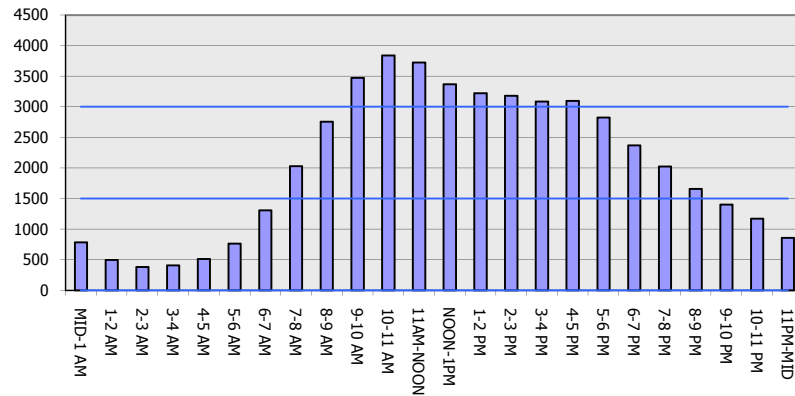
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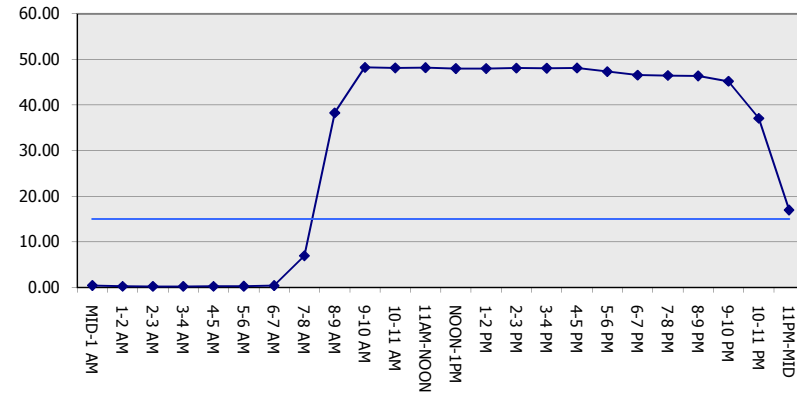
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

SATURDAY EASTBOUND DIRECTION

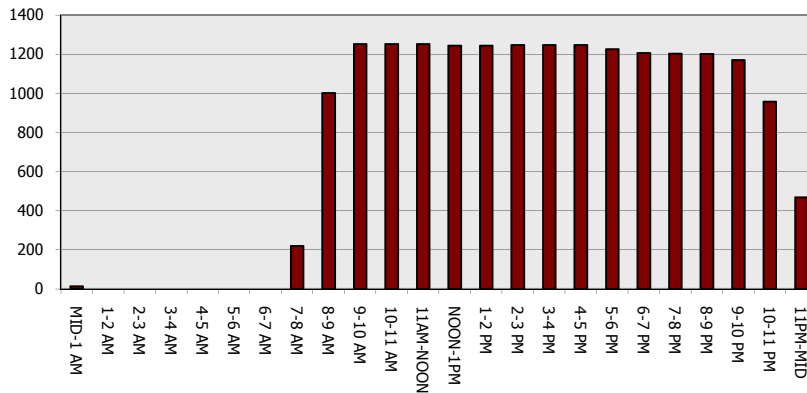
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

