

USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)
CONTINUOUS (24 HOUR) 2 LANE CLOSURE
DIVERSION ROUTE: BUS 51 - STH 52

MAY
 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		ALTERNATE ROUTE		SITE CAPA CITY	FLOW MAIN ROUTE	FLOW DIVER -TING	TOTAL DIVN FLOW	AV.DEL PER VEH (MINS)	AVERAGE QUEUE (VEH)	MAIN ROUTE		ALTERNATE ROUTE		
	DEMAND FLOW	PCT HEAVY	NORMAL FLOW	PCT HEAVY							WITHOUT WORK ZN	WITH WORK ZN	SITE	WITHOUT WORK ZN	WITH WORK ZN
MID-1 AM	138	0.0	62	0.0	1500	138	0	62	0.49	0	70.2	62.5	45.0	31.9	31.9
1-2 AM	100	0.0	41	0.0	1500	100	0	41	0.48	0	70.2	62.6	45.1	32.4	32.4
2-3 AM	103	0.0	38	0.0	1500	103	0	38	0.48	0	70.2	62.6	45.1	32.5	32.5
3-4 AM	182	0.0	62	0.0	1500	182	0	62	0.49	0	70.2	62.5	44.8	31.9	31.9
4-5 AM	408	0.0	169	0.0	1500	408	0	169	0.52	0	70.2	62.1	43.8	29.1	29.1
5-6 AM	995	0.0	357	0.0	1499	995	0	357	0.61	0	69.5	60.4	41.0	24.0	24.0
6-7 AM	1723	0.0	764	0.0	1499	1723	0	764	3.90	88	68.6	35.1	30.8	15.6	15.6
7-8 AM	1745	0.0	860	0.0	1499	1745	0	860+	14.14	351	68.6	15.5	30.8	13.7	13.7
8-9 AM	1544	0.0	649	0.0	1499	1511	34	682	19.58	484	68.8	11.9	30.8	17.8	17.2
9-10 AM	1640	0.0	640	0.0	1500	1566	74	715	20.52	509	68.7	11.4	30.8	18.0	16.6
10-11 AM	1799	0.0	691	0.0	1500	1653	146	837+	24.64	619	68.5	9.8	30.8	17.0	14.2
11A-NOON	1919	0.0	776	0.0	1499	1662	257	1033+	30.74	778	68.4	8.1	30.8	15.4	11.7
NOON-1PM	2005	0.0	826	0.0	1499	1500	506	1331+	32.34	818	68.2	7.7	30.8	14.4	11.2
1-2 PM	2098	0.0	874	0.0	1499	1500	598	1472+	32.33	818	68.1	7.7	30.8	13.4	11.2
2-3 PM	2363	0.0	1106	0.0	1499	1500	863	1968+	32.31	818	67.8	7.7	30.8	11.2	11.2
3-4 PM	2673	0.0	1362	0.0	1499	1500	1174	2536+	32.29	818	67.4	7.7	30.8	11.2	11.2
4-5 PM	2695	0.0	1468	0.0	1499	1500	1195	2663+	32.29	818	67.4	7.7	30.8	11.2	11.2
5-6 PM	2279	0.0	1194	0.0	1499	1500	779	1974+	32.32	818	67.9	7.7	30.8	11.2	11.2
6-7 PM	1442	0.0	753	0.0	1499	1214	228	981+	29.43	747	68.9	8.4	30.8	15.8	12.2
7-8 PM	1156	0.0	583	0.0	1499	1121	35	618	15.13	390	69.3	14.7	31.5	19.1	18.4
8-9 PM	908	0.0	495	0.0	1500	908	0	495	1.44	36	69.6	51.4	41.6	20.8	20.7
9-10 PM	627	0.0	328	0.0	1500	627	0	328	0.55	0	69.9	61.6	43.0	24.8	24.8
10-11 PM	461	0.0	273	0.0	1500	461	0	273	0.53	0	70.2	62.0	43.7	26.3	26.3
11PM-MID	231	0.0	135	0.0	1500	231	0	135	0.50	0	70.2	62.4	44.6	29.9	29.9

+ INDICATES DIVERSION FLOW EXCEEDS USER-SPECIFIED WARNING LIMIT

----- SITE BREAKDOWN DELAYS -----	
BREAKDOWN DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN (VEH-H) MAX	0.0
RANGE OF DIVN DELAY - MIN (VEH-H) MAX	0.0
AV BREAKDOWNS PER DAY	0.00
AV QUEUE DELAY/DAY (VEH-H)	0.0
AV DIVN DELAY/DAY (VEH-H)	0.0
AV TOTAL DELAY/DAY (VEH-H)	0.0

----- SITE ACCIDENT DELAYS -----	
ACCIDENT DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN (VEH-H) MAX	0.0
RANGE OF DIVN DELAY - MIN (VEH-H) MAX	0.0
AV ACCIDENTS PER DAY	0.00
AV QUEUE DELAY/DAY (VEH-H)	0.0
AV DIVN DELAY/DAY (VEH-H)	0.0
AV TOTAL DELAY/DAY (VEH-H)	0.0

AVERAGE ACCIDENT NUMBERS (PIA/DAY)	
MAIN ROUTE WITHOUT WORKS	0.0234
MAIN ROUTE WITH WORKS	0.0173
DIVERSION	0.1937

PIA: Personal Injury Accidents

IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY (DOLLARS)	\$167,852
CONGESTED HOURS PER DAY*	12

*Delays Exceeding 15 Minutes

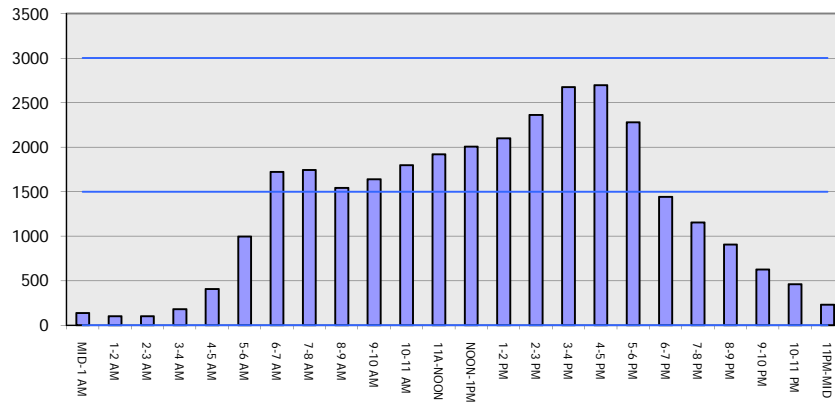
**USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)
 CONTINUOUS (24 HOUR) 2 LANE CLOSURE
 DIVERSION ROUTE: BUS 51 - STH 52**

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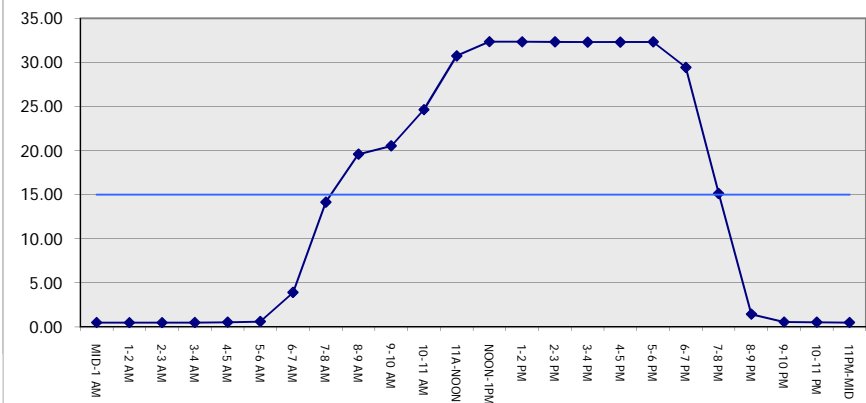
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

MON-THUR SOUTHBOUND DIRECTION

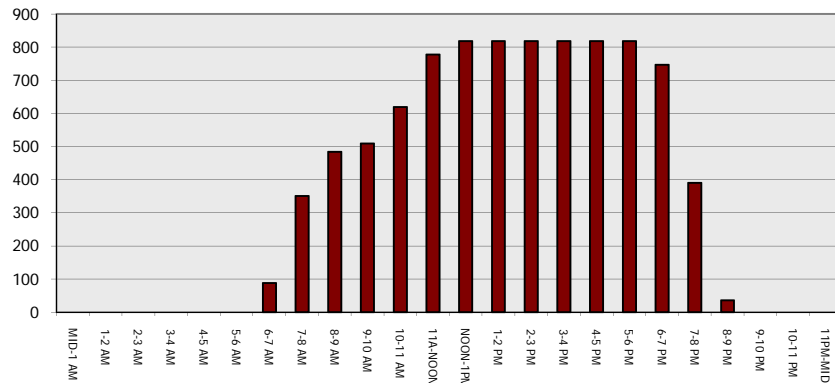
Main Route - Traffic Demand (Vehicles Per Hour)



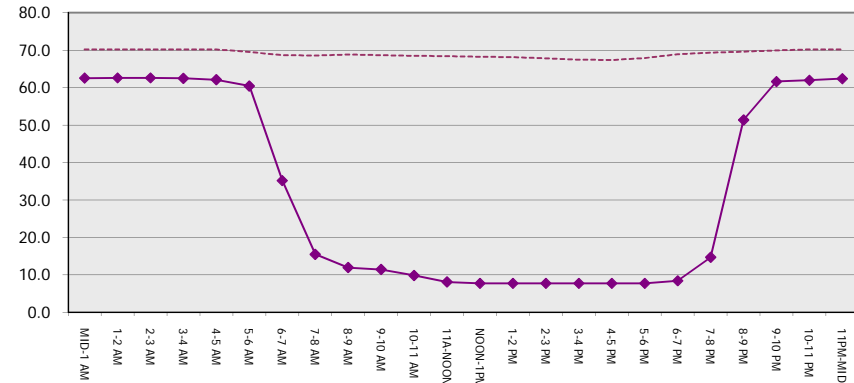
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY) CONTINUOUS (24 HOUR) 2 LANE CLOSURE DIVERSION ROUTE: BUS 51 - STH 52	MAY Analyzed for 2009 Construction Season
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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		DIVERSION		SITE CAPA CITY	FLOW MAIN ROUTE	FLOW DIVER -TING	TOTAL DIVN FLOW	AV.DEL PER VEH (MINS)	AVERAGE QUEUE (VEH)	MAIN ROUTE		SITE	ALTERNATE ROUTE	
	DEMAND FLOW	PCT HEAVY	NORMAL FLOW	PCT HEAVY							WITHOUT WORK ZN	WITH WORK ZN		WITHOUT WORK ZN	WITH WORK ZN
MID-1 AM	188	0.0	58	0.0	1500	188	0	58	0.50	0	70.2	62.5	44.7	32.0	32.0
1-2 AM	120	0.0	50	0.0	1500	120	0	50	0.49	0	70.2	62.6	45.0	32.2	32.2
2-3 AM	114	0.0	54	0.0	1500	114	0	54	0.49	0	70.2	62.6	45.0	32.1	32.1
3-4 AM	159	0.0	72	0.0	1500	159	0	72	0.49	0	70.2	62.5	44.8	31.6	31.6
4-5 AM	316	0.0	177	0.0	1500	316	0	177	0.51	0	70.2	62.2	44.2	28.8	28.8
5-6 AM	881	0.0	540	0.0	1500	881	0	540	0.57	0	69.6	61.0	42.1	19.9	19.9
6-7 AM	1751	0.0	1132	0.0	1499	1751	0	1132+	3.78	88	68.6	35.7	30.8	11.2	11.4
7-8 AM	2058	0.0	1363	0.0	1500	2058	0	1363+	20.19	538	68.2	11.6	30.8	11.2	11.2
8-9 AM	1495	0.0	917	0.0	1500	1380	115	1032+	30.82	779	68.9	8.1	30.8	12.9	11.7
9-10 AM	1455	0.0	780	0.0	1499	1388	66	847+	25.14	630	68.9	9.6	30.8	15.3	14.0
10-11 AM	1503	0.0	772	0.0	1500	1489	14	786	22.74	566	68.9	10.5	30.8	15.5	15.2
11A-NOON	1574	0.0	798	0.0	1500	1558	16	814+	23.76	593	68.8	10.1	30.8	15.0	14.7
NOON-1PM	1621	0.0	837	0.0	1500	1582	40	877+	26.39	662	68.7	9.3	30.8	14.2	13.4
1-2 PM	1731	0.0	896	0.0	1500	1614	116	1012+	29.93	756	68.6	8.3	30.8	13.0	12.0
2-3 PM	1909	0.0	1025	0.0	1500	1500	408	1434+	32.35	819	68.4	7.7	30.8	11.8	11.2
3-4 PM	2228	0.0	1157	0.0	1500	1500	728	1885+	32.32	819	67.9	7.7	30.8	11.2	11.2
4-5 PM	2255	0.0	1210	0.0	1500	1500	754	1964+	32.32	819	67.9	7.7	30.8	11.2	11.2
5-6 PM	1979	0.0	1022	0.0	1500	1500	478	1501+	32.34	819	68.2	7.7	30.8	11.8	11.2
6-7 PM	1366	0.0	685	0.0	1500	1151	215	900+	26.01	662	69.1	9.4	30.8	17.1	13.5
7-8 PM	1061	0.0	491	0.0	1499	1054	8	499	9.10	259	69.4	21.4	34.5	20.9	20.7
8-9 PM	907	0.0	380	0.0	1500	907	0	380	0.60	0	69.6	60.7	42.0	23.5	23.5
9-10 PM	687	0.0	283	0.0	1500	687	0	283	0.55	0	69.9	61.5	42.8	26.0	26.0
10-11 PM	476	0.0	245	0.0	1500	476	0	245	0.53	0	70.1	62.0	43.6	27.0	27.0
11PM-MID	315	0.0	123	0.0	1500	315	0	123	0.51	0	70.2	62.2	44.2	30.3	30.3

+ INDICATES DIVERSION FLOW EXCEEDS USER-SPECIFIED WARNING LIMIT

----- SITE BREAKDOWN DELAYS -----	
BREAKDOWN DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN	0.0
(VEH-H) MAX	0.0
RANGE OF DIVN DELAY - MIN	0.0
(VEH-H) MAX	0.0
AV BREAKDOWNS PER DAY	0.00
AV QUEUE DELAY/DAY (VEH-H)	0.0
AV DIVN DELAY/DAY (VEH-H)	0.0
AV TOTAL DELAY/DAY (VEH-H)	0.0

----- SITE ACCIDENT DELAYS -----	
ACCIDENT DURATION (MINS)	0
RANGE OF QUEUE DELAY - MIN	0.0
(VEH-H) MAX	0.0
RANGE OF DIVN DELAY - MIN	0.0
(VEH-H) MAX	0.0
AV ACCIDENTS PER DAY	0.00
AV QUEUE DELAY/DAY (VEH-H)	0.0
AV DIVN DELAY/DAY (VEH-H)	0.0
AV TOTAL DELAY/DAY (VEH-H)	0.0

AVERAGE ACCIDENT NUMBERS (PIA/DAY)	
MAIN ROUTE WITHOUT WORKS	0.0210
MAIN ROUTE WITH WORKS	0.0172
DIVERSION	0.1712

PIA: Personal Injury Accidents

IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY (DOLLARS)	\$143,874
CONGESTED HOURS PER DAY*	12

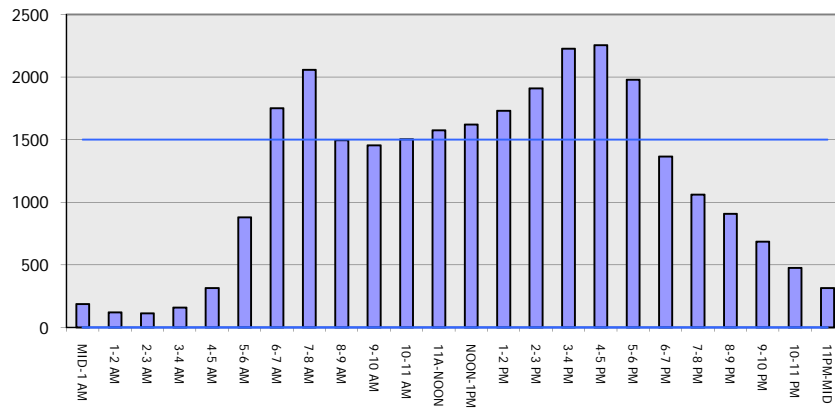
*Delays Exceeding 15 Minutes

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 CONTINUOUS (24 HOUR) 2 LANE CLOSURE
 DIVERSION ROUTE: BUS 51 - STH 52**

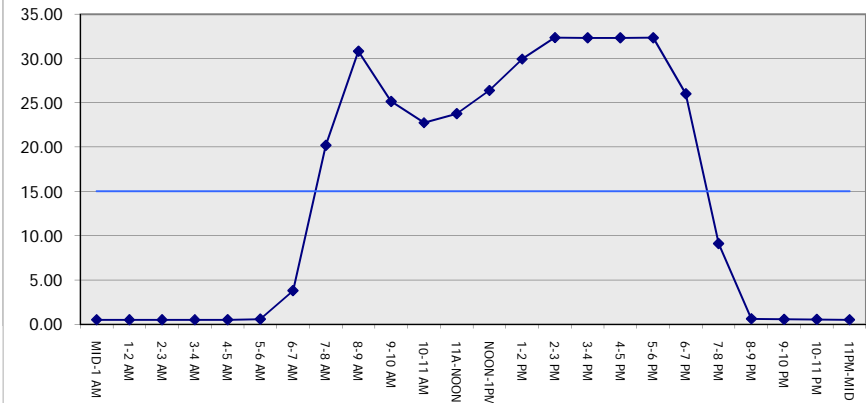
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GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
MON-THUR NORTHBOUND DIRECTION

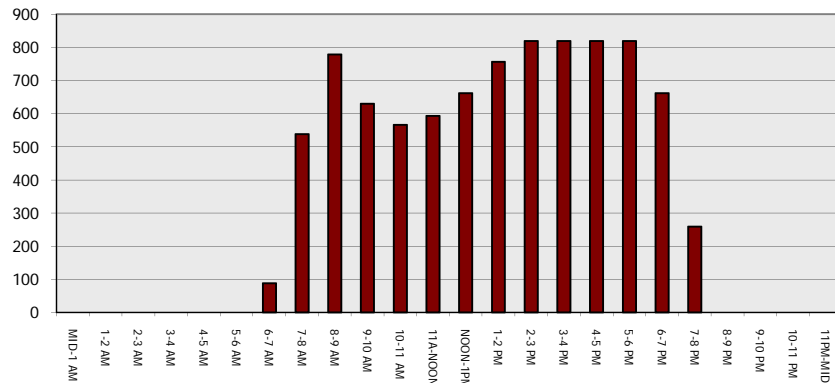
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

