

USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)
OFF-PEAK DAY 2 LANE CLOSURE
DIVERSION ROUTE: BUS 51 - STH 52

MAY
 Analyzed for 2009
 Construction Season

SUMMARY OF TRAFFIC MODEL OUTPUT
FRIDAY 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	189	0.0	80	0.0	OFF	189	0	80	0.00	0	70.2	70.2	70.2	31.4	31.4
1-2 AM	110	0.0	59	0.0	OFF	110	0	59	0.00	0	70.2	70.2	70.2	32.0	32.0
2-3 AM	107	0.0	46	0.0	OFF	107	0	46	0.00	0	70.2	70.2	70.2	32.3	32.3
3-4 AM	173	0.0	58	0.0	OFF	173	0	58	0.00	0	70.2	70.2	70.2	32.0	32.0
4-5 AM	343	0.0	148	0.0	OFF	343	0	148	0.00	0	70.2	70.2	70.2	29.6	29.6
5-6 AM	757	0.0	325	0.0	OFF	757	0	325	0.00	0	69.8	69.8	69.8	24.9	24.9
6-7 AM	1702	0.0	702	0.0	OFF	1702	0	702	0.00	0	68.6	68.6	68.6	16.8	16.8
7-8 AM	1767	0.0	817	0.0	OFF	1767	0	817+	0.00	0	68.6	68.6	68.6	14.5	14.5
8-9 AM	1457	0.0	645	0.0	OFF	1457	0	645	0.00	0	68.9	68.9	68.9	17.9	17.9
9-10 AM	1492	0.0	669	0.0	OFF	1492	0	669	0.00	0	68.9	68.9	68.9	17.5	17.5
10-11 AM	1708	0.0	765	0.0	1499	1708	0	765	4.21	93	68.6	33.9	30.8	15.6	15.6
11A-NOON	1814	0.0	908	0.0	1500	1814	0	908+	14.18	358	68.5	15.4	30.8	12.9	13.0
NOON-1PM	1918	0.0	983	0.0	1500	1847	70	1054+	27.96	716	68.4	8.8	31.0	12.4	11.9
1-2 PM	1996	0.0	1011	0.0	1500	1500	496	1507+	32.34	818	68.2	7.7	30.8	12.0	11.2
2-3 PM	2275	0.0	1222	0.0	1500	1500	775	1997+	32.32	818	67.9	7.7	30.8	11.2	11.2
3-4 PM	2616	0.0	1408	0.0	OFF	2616	0	1408+	1.18	111	67.5	52.6	52.6	11.2	11.2
4-5 PM	2763	0.0	1456	0.0	OFF	2763	0	1456+	0.00	0	67.3	67.3	67.3	11.2	11.2
5-6 PM	2558	0.0	1218	0.0	OFF	2558	0	1218+	0.00	0	67.6	67.6	67.6	11.2	11.2
6-7 PM	1842	0.0	868	0.0	OFF	1842	0	868+	0.00	0	68.4	68.4	68.4	13.5	13.5
7-8 PM	1468	0.0	705	0.0	OFF	1468	0	705	0.00	0	68.9	68.9	68.9	16.8	16.8
8-9 PM	1233	0.0	603	0.0	OFF	1233	0	603	0.00	0	69.2	69.2	69.2	18.7	18.7
9-10 PM	855	0.0	449	0.0	OFF	855	0	449	0.00	0	69.7	69.7	69.7	21.7	21.7
10-11 PM	630	0.0	353	0.0	OFF	630	0	353	0.00	0	69.9	69.9	69.9	24.2	24.2
11PM-MID	377	0.0	212	0.0	OFF	377	0	212	0.00	0	70.2	70.2	70.2	27.9	27.9

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

+ 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	0.0240
MAIN ROUTE WITH WORKS	0.0225
DIVERSION	0.1620

PIA: Personal Injury Accidents

IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY (DOLLARS)	\$51,290
CONGESTED HOURS PER DAY*	3

*Delays Exceeding 15 Minutes

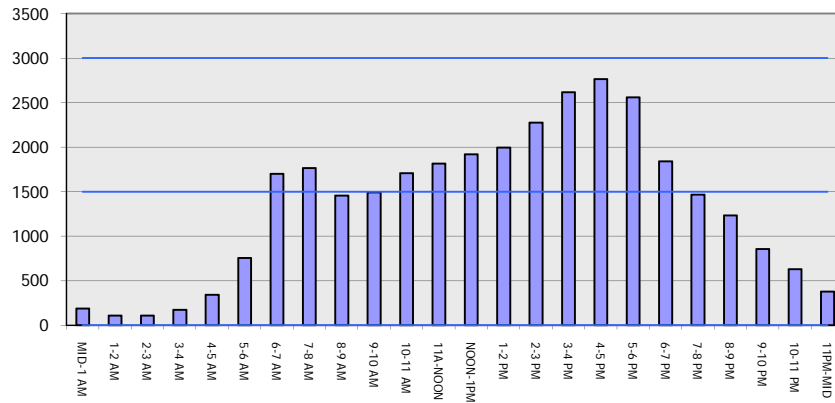
**USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)
 OFF-PEAK DAY 2 LANE CLOSURE
 DIVERSION ROUTE: BUS 51 - STH 52**

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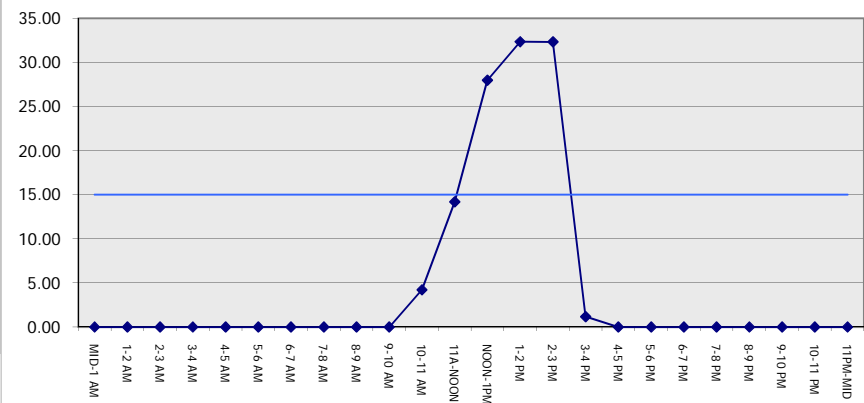
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY SOUTHBOUND DIRECTION

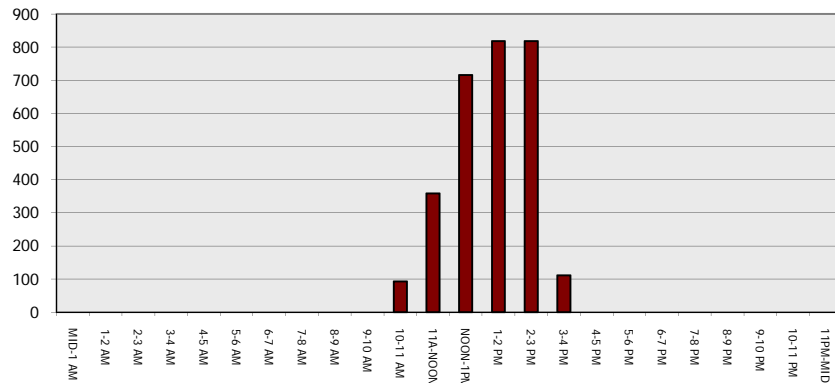
Main Route - Traffic Demand (Vehicles Per Hour)



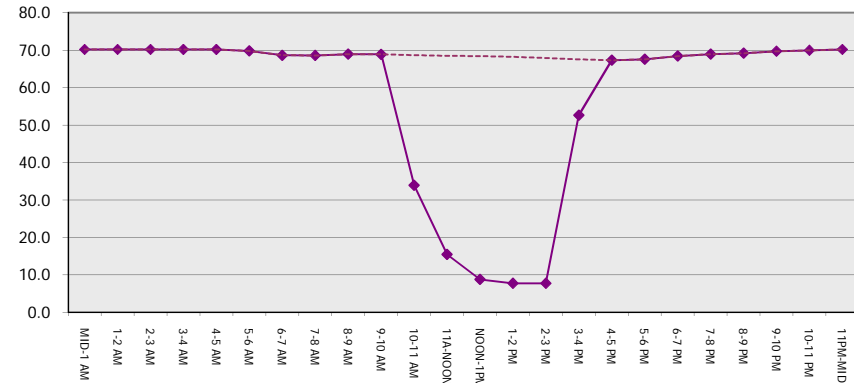
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY) OFF-PEAK DAY 2 LANE CLOSURE DIVERSION ROUTE: BUS 51 - STH 52	MAY
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SUMMARY OF TRAFFIC MODEL OUTPUT	
FRIDAY	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		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	343	0.0	72	0.0	OFF	343	0	72	0.00	0	70.2	70.2	70.2	31.6	31.6
1-2 AM	197	0.0	68	0.0	OFF	197	0	68	0.00	0	70.2	70.2	70.2	31.7	31.7
2-3 AM	162	0.0	61	0.0	OFF	162	0	61	0.00	0	70.2	70.2	70.2	31.9	31.9
3-4 AM	206	0.0	82	0.0	OFF	206	0	82	0.00	0	70.2	70.2	70.2	31.4	31.4
4-5 AM	272	0.0	168	0.0	OFF	272	0	168	0.00	0	70.2	70.2	70.2	29.1	29.1
5-6 AM	782	0.0	460	0.0	OFF	782	0	460	0.00	0	69.7	69.7	69.7	21.4	21.4
6-7 AM	1807	0.0	1004	0.0	OFF	1807	0	1004+	0.00	0	68.5	68.5	68.5	12.0	12.0
7-8 AM	2321	0.0	1280	0.0	OFF	2321	0	1280+	0.00	0	67.9	67.9	67.9	11.2	11.2
8-9 AM	1886	0.0	933	0.0	OFF	1886	0	933+	0.00	0	68.4	68.4	68.4	12.7	12.7
9-10 AM	2091	0.0	872	0.0	OFF	2091	0	872+	0.00	0	68.1	68.1	68.1	13.4	13.4
10-11 AM	2260	0.0	924	0.0	1499	2260	0	924+	12.39	370	67.9	17.0	30.8	12.8	12.8
11A-NOON	2383	0.0	947	0.0	1500	1500	883	1830+	32.31	818	67.8	7.7	30.8	12.7	11.2
NOON-1PM	2501	0.0	1007	0.0	1500	1500	1000	2007+	32.30	818	67.6	7.7	30.8	12.0	11.2
1-2 PM	2822	0.0	1053	0.0	1500	1500	1322	2375+	32.28	818	67.3	7.7	30.8	11.4	11.2
2-3 PM	2996	0.0	1169	0.0	1500	1500	1496	2665+	32.26	818	67.0	7.7	30.8	11.2	11.2
3-4 PM	3561	0.0	1327	0.0	OFF	3561	0	1327+	1.53	118	66.3	48.7	48.7	11.2	11.2
4-5 PM	3496	0.0	1370	0.0	OFF	3496	0	1370+	0.00	0	66.4	66.4	66.4	11.2	11.2
5-6 PM	3491	0.0	1177	0.0	OFF	3491	0	1177+	0.00	0	66.4	66.4	66.4	11.2	11.2
6-7 PM	3068	0.0	780	0.0	OFF	3068	0	780	0.00	0	66.9	66.9	66.9	15.3	15.3
7-8 PM	2749	0.0	558	0.0	OFF	2749	0	558	0.00	0	67.3	67.3	67.3	19.6	19.6
8-9 PM	2446	0.0	386	0.0	OFF	2446	0	386	0.00	0	67.7	67.7	67.7	23.3	23.3
9-10 PM	2067	0.0	296	0.0	OFF	2067	0	296	0.00	0	68.2	68.2	68.2	25.6	25.6
10-11 PM	1474	0.0	250	0.0	OFF	1474	0	250	0.00	0	68.9	68.9	68.9	26.9	26.9
11PM-MID	827	0.0	169	0.0	OFF	827	0	169	0.00	0	69.7	69.7	69.7	29.1	29.1

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

+ 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	0.0345
MAIN ROUTE WITH WORKS	0.0305
DIVERSION	0.2006

PIA: Personal Injury Accidents

IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY (DOLLARS)	\$85,361
CONGESTED HOURS PER DAY*	4

*Delays Exceeding 15 Minutes

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 OFF-PEAK DAY 2 LANE CLOSURE
 DIVERSION ROUTE: BUS 51 - STH 52**

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GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
FRIDAY NORTHBOUND DIRECTION

