

**USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)  
CONTINUOUS (24 HOUR) 1 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       | 3000           | 138             | 0                | 62              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7            | 31.9            | 31.9         |
| 1-2 AM      | 100                          | 0.0       | 41              | 0.0       | 3000           | 100             | 0                | 41              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7            | 32.4            | 32.4         |
| 2-3 AM      | 103                          | 0.0       | 38              | 0.0       | 3000           | 103             | 0                | 38              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7            | 32.5            | 32.5         |
| 3-4 AM      | 182                          | 0.0       | 62              | 0.0       | 3000           | 182             | 0                | 62              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7            | 31.9            | 31.9         |
| 4-5 AM      | 408                          | 0.0       | 169             | 0.0       | 3000           | 408             | 0                | 169             | 0.36                  | 0                   | 70.2            | 64.4         | 49.7            | 29.1            | 29.1         |
| 5-6 AM      | 995                          | 0.0       | 357             | 0.0       | 3000           | 995             | 0                | 357             | 0.35                  | 0                   | 69.5            | 64.0         | 49.7            | 24.0            | 24.0         |
| 6-7 AM      | 1723                         | 0.0       | 764             | 0.0       | 3000           | 1723            | 0                | 764             | 0.34                  | 0                   | 68.6            | 63.3         | 49.7            | 15.6            | 15.6         |
| 7-8 AM      | 1745                         | 0.0       | 860             | 0.0       | 3000           | 1745            | 0                | 860+            | 0.34                  | 0                   | 68.6            | 63.3         | 49.7            | 13.7            | 13.7         |
| 8-9 AM      | 1544                         | 0.0       | 649             | 0.0       | 3000           | 1544            | 0                | 649             | 0.34                  | 0                   | 68.8            | 63.5         | 49.7            | 17.8            | 17.8         |
| 9-10 AM     | 1640                         | 0.0       | 640             | 0.0       | 3000           | 1640            | 0                | 640             | 0.34                  | 0                   | 68.7            | 63.4         | 49.7            | 18.0            | 18.0         |
| 10-11 AM    | 1799                         | 0.0       | 691             | 0.0       | 3000           | 1799            | 0                | 691             | 0.34                  | 0                   | 68.5            | 63.3         | 49.7            | 17.0            | 17.0         |
| 11A-NOON    | 1919                         | 0.0       | 776             | 0.0       | 3000           | 1919            | 0                | 776             | 0.34                  | 0                   | 68.4            | 63.2         | 49.7            | 15.4            | 15.4         |
| NOON-1PM    | 2005                         | 0.0       | 826             | 0.0       | 3000           | 2005            | 0                | 826+            | 0.33                  | 0                   | 68.2            | 63.2         | 49.7            | 14.4            | 14.4         |
| 1-2 PM      | 2098                         | 0.0       | 874             | 0.0       | 3000           | 2098            | 0                | 874+            | 0.33                  | 0                   | 68.1            | 63.0         | 49.7            | 13.4            | 13.4         |
| 2-3 PM      | 2363                         | 0.0       | 1106            | 0.0       | 3000           | 2363            | 0                | 1106+           | 0.33                  | 0                   | 67.8            | 62.8         | 49.7            | 11.2            | 11.2         |
| 3-4 PM      | 2673                         | 0.0       | 1362            | 0.0       | 3000           | 2673            | 0                | 1362+           | 0.52                  | 0                   | 67.4            | 60.0         | 43.0            | 11.2            | 11.2         |
| 4-5 PM      | 2695                         | 0.0       | 1468            | 0.0       | 3000           | 2695            | 0                | 1468+           | 0.53                  | 0                   | 67.4            | 59.8         | 42.5            | 11.2            | 11.2         |
| 5-6 PM      | 2279                         | 0.0       | 1194            | 0.0       | 3000           | 2279            | 0                | 1194+           | 0.33                  | 0                   | 67.9            | 62.9         | 49.7            | 11.2            | 11.2         |
| 6-7 PM      | 1442                         | 0.0       | 753             | 0.0       | 3000           | 1442            | 0                | 753             | 0.34                  | 0                   | 68.9            | 63.6         | 49.7            | 15.8            | 15.8         |
| 7-8 PM      | 1156                         | 0.0       | 583             | 0.0       | 3000           | 1156            | 0                | 583             | 0.35                  | 0                   | 69.3            | 63.8         | 49.7            | 19.1            | 19.1         |
| 8-9 PM      | 908                          | 0.0       | 495             | 0.0       | 3000           | 908             | 0                | 495             | 0.35                  | 0                   | 69.6            | 64.0         | 49.7            | 20.8            | 20.8         |
| 9-10 PM     | 627                          | 0.0       | 328             | 0.0       | 3000           | 627             | 0                | 328             | 0.36                  | 0                   | 69.9            | 64.3         | 49.7            | 24.8            | 24.8         |
| 10-11 PM    | 461                          | 0.0       | 273             | 0.0       | 3000           | 461             | 0                | 273             | 0.36                  | 0                   | 70.2            | 64.4         | 49.7            | 26.3            | 26.3         |
| 11PM-MID    | 231                          | 0.0       | 135             | 0.0       | 3000           | 231             | 0                | 135             | 0.36                  | 0                   | 70.2            | 64.4         | 49.7            | 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              | 0.0213 |
| DIVERSION                          | 0.1378 |

PIA: Personal Injury Accidents

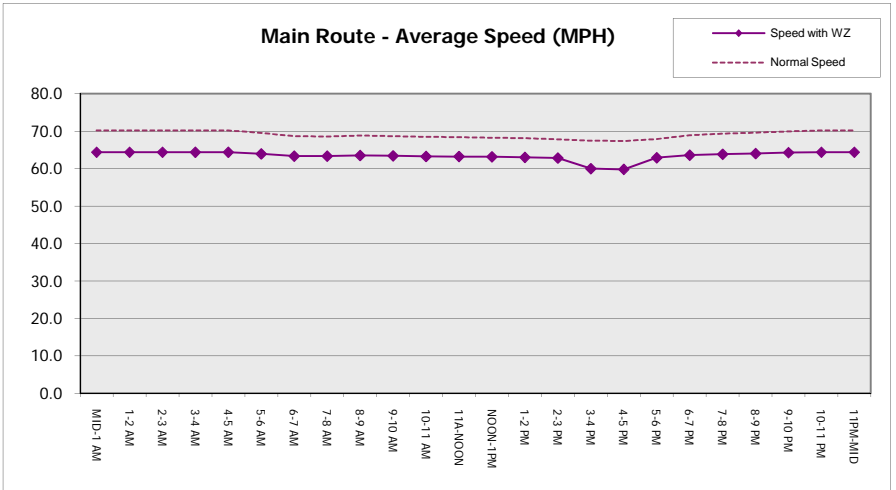
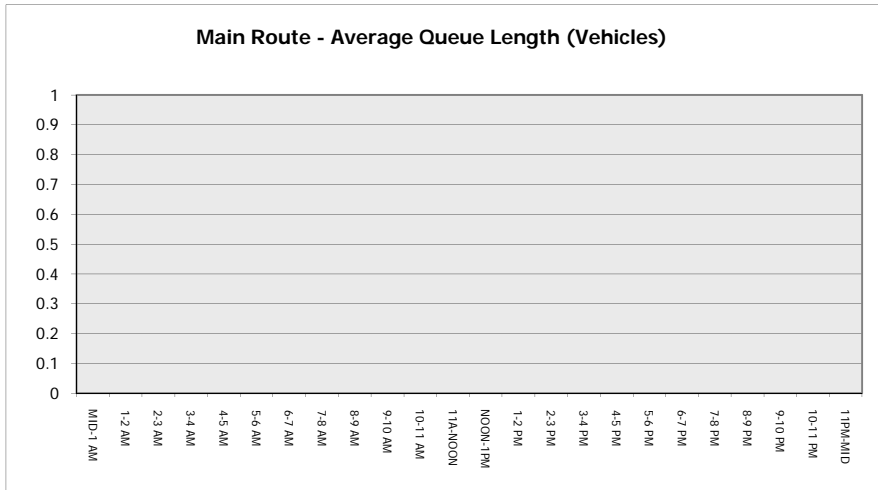
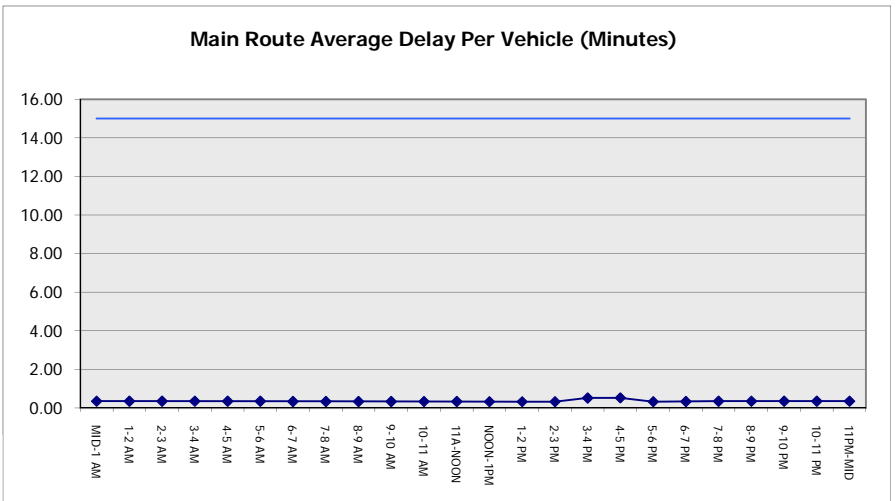
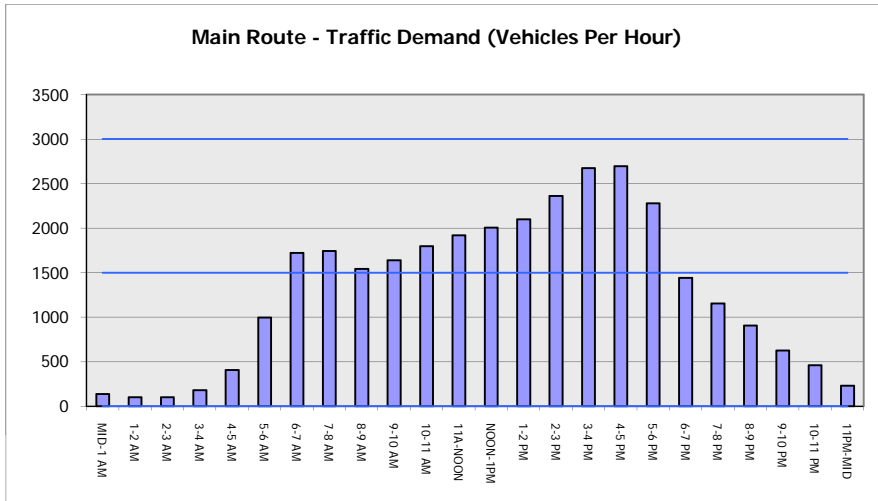
| IMPACTS ON ROAD USERS              |         |
|------------------------------------|---------|
| ROAD USER COSTS PER DAY ( DOLLARS) | \$2,233 |
| CONGESTED HOURS PER DAY*           | 0       |

\*Delays Exceeding 15 Minutes

**USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)  
 CONTINUOUS (24 HOUR) 1 LANE CLOSURE  
 DIVERSION ROUTE: BUS 51 - STH 52**

**MAY**  
 Analyzed for 2009  
 Construction Season

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



|  |  |
|--|--|
| <b>USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)</b><br><b>CONTINUOUS (24 HOUR) 1 LANE CLOSURE</b><br><b>DIVERSION ROUTE: BUS 51 - STH 52</b> | <b>MAY</b>                               |
|  | Analyzed for 2009<br>Construction Season |

**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       | 3000           | 188             | 0                | 58              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7 | 32.0            | 32.0         |
| 1-2 AM      | 120                          | 0.0       | 50          | 0.0       | 3000           | 120             | 0                | 50              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7 | 32.2            | 32.2         |
| 2-3 AM      | 114                          | 0.0       | 54          | 0.0       | 3000           | 114             | 0                | 54              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7 | 32.1            | 32.1         |
| 3-4 AM      | 159                          | 0.0       | 72          | 0.0       | 3000           | 159             | 0                | 72              | 0.36                  | 0                   | 70.2            | 64.4         | 49.7 | 31.6            | 31.6         |
| 4-5 AM      | 316                          | 0.0       | 177         | 0.0       | 3000           | 316             | 0                | 177             | 0.36                  | 0                   | 70.2            | 64.4         | 49.7 | 28.8            | 28.8         |
| 5-6 AM      | 881                          | 0.0       | 540         | 0.0       | 3000           | 881             | 0                | 540             | 0.35                  | 0                   | 69.6            | 64.0         | 49.7 | 19.9            | 19.9         |
| 6-7 AM      | 1751                         | 0.0       | 1132        | 0.0       | 3000           | 1751            | 0                | 1132+           | 0.34                  | 0                   | 68.6            | 63.3         | 49.7 | 11.2            | 11.2         |
| 7-8 AM      | 2058                         | 0.0       | 1363        | 0.0       | 3000           | 2058            | 0                | 1363+           | 0.33                  | 0                   | 68.2            | 63.1         | 49.7 | 11.2            | 11.2         |
| 8-9 AM      | 1495                         | 0.0       | 917         | 0.0       | 3000           | 1495            | 0                | 917+            | 0.34                  | 0                   | 68.9            | 63.5         | 49.7 | 12.9            | 12.9         |
| 9-10 AM     | 1455                         | 0.0       | 780         | 0.0       | 3000           | 1455            | 0                | 780             | 0.34                  | 0                   | 68.9            | 63.6         | 49.7 | 15.3            | 15.3         |
| 10-11 AM    | 1503                         | 0.0       | 772         | 0.0       | 3000           | 1503            | 0                | 772             | 0.34                  | 0                   | 68.9            | 63.5         | 49.7 | 15.5            | 15.5         |
| 11A-NOON    | 1574                         | 0.0       | 798         | 0.0       | 3000           | 1574            | 0                | 798             | 0.34                  | 0                   | 68.8            | 63.5         | 49.7 | 15.0            | 15.0         |
| NOON-1PM    | 1621                         | 0.0       | 837         | 0.0       | 3000           | 1621            | 0                | 837+            | 0.34                  | 0                   | 68.7            | 63.5         | 49.7 | 14.2            | 14.2         |
| 1-2 PM      | 1731                         | 0.0       | 896         | 0.0       | 3000           | 1731            | 0                | 896+            | 0.34                  | 0                   | 68.6            | 63.3         | 49.7 | 13.0            | 13.0         |
| 2-3 PM      | 1909                         | 0.0       | 1025        | 0.0       | 3000           | 1909            | 0                | 1025+           | 0.34                  | 0                   | 68.4            | 63.2         | 49.7 | 11.8            | 11.8         |
| 3-4 PM      | 2228                         | 0.0       | 1157        | 0.0       | 3000           | 2228            | 0                | 1157+           | 0.33                  | 0                   | 67.9            | 63.0         | 49.7 | 11.2            | 11.2         |
| 4-5 PM      | 2255                         | 0.0       | 1210        | 0.0       | 3000           | 2255            | 0                | 1210+           | 0.33                  | 0                   | 67.9            | 62.9         | 49.7 | 11.2            | 11.2         |
| 5-6 PM      | 1979                         | 0.0       | 1022        | 0.0       | 3000           | 1979            | 0                | 1022+           | 0.33                  | 0                   | 68.2            | 63.2         | 49.7 | 11.8            | 11.8         |
| 6-7 PM      | 1366                         | 0.0       | 685         | 0.0       | 3000           | 1366            | 0                | 685             | 0.34                  | 0                   | 69.1            | 63.7         | 49.7 | 17.1            | 17.1         |
| 7-8 PM      | 1061                         | 0.0       | 491         | 0.0       | 3000           | 1061            | 0                | 491             | 0.35                  | 0                   | 69.4            | 63.9         | 49.7 | 20.9            | 20.9         |
| 8-9 PM      | 907                          | 0.0       | 380         | 0.0       | 3000           | 907             | 0                | 380             | 0.35                  | 0                   | 69.6            | 64.0         | 49.7 | 23.5            | 23.5         |
| 9-10 PM     | 687                          | 0.0       | 283         | 0.0       | 3000           | 687             | 0                | 283             | 0.36                  | 0                   | 69.9            | 64.2         | 49.7 | 26.0            | 26.0         |
| 10-11 PM    | 476                          | 0.0       | 245         | 0.0       | 3000           | 476             | 0                | 245             | 0.36                  | 0                   | 70.1            | 64.4         | 49.7 | 27.0            | 27.0         |
| 11PM-MID    | 315                          | 0.0       | 123         | 0.0       | 3000           | 315             | 0                | 123             | 0.36                  | 0                   | 70.2            | 64.4         | 49.7 | 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              | 0.0192 |
| DIVERSION                          | 0.1431 |

PIA: Personal Injury Accidents

| IMPACTS ON ROAD USERS              |         |
|------------------------------------|---------|
| ROAD USER COSTS PER DAY ( DOLLARS) | \$1,840 |
| CONGESTED HOURS PER DAY*           | 0       |

\*Delays Exceeding 15 Minutes

**USH 51: STH 29 W TO STH 29 E (MARATHON COUNTY)  
 CONTINUOUS (24 HOUR) 1 LANE CLOSURE  
 DIVERSION ROUTE: BUS 51 - STH 52**

**MAY**  
 Analyzed for 2009  
 Construction Season

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

