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| <b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)</b><br><b>NIGHTTIME CLOSURE</b><br><b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b> | <b>OCTOBER</b>                           |
|  | Analyzed for 2009<br>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                   |           | 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    | 729                          | 0.0       | 3000           | 729        | 0           | 0.35                  | 0                     | 69.8              | 58.4           | 49.7 |
| 1-2 AM      | 482                          | 0.0       | 3000           | 482        | 0           | 0.36                  | 0                     | 70.1              | 58.4           | 49.7 |
| 2-3 AM      | 425                          | 0.0       | 3000           | 425        | 0           | 0.36                  | 0                     | 70.2              | 58.5           | 49.7 |
| 3-4 AM      | 496                          | 0.0       | 3000           | 496        | 0           | 0.36                  | 0                     | 70.1              | 58.4           | 49.7 |
| 4-5 AM      | 816                          | 0.0       | 3000           | 816        | 0           | 0.35                  | 0                     | 69.7              | 58.3           | 49.7 |
| 5-6 AM      | 2264                         | 0.0       | OFF            | 2264       | 0           | 0.00                  | 0                     | 67.9              | 67.9           | 67.9 |
| 6-7 AM      | 4972                         | 0.0       | OFF            | 4972       | 0           | 0.00                  | 0                     | 56.9              | 56.9           | 56.9 |
| 7-8 AM      | 5772                         | 0.0       | OFF            | 5772       | 0           | 0.00                  | 0                     | 51.4              | 51.4           | 51.4 |
| 8-9 AM      | 5057                         | 0.0       | OFF            | 5057       | 0           | 0.00                  | 0                     | 56.3              | 56.3           | 56.3 |
| 9-10 AM     | 4459                         | 0.0       | OFF            | 4459       | 0           | 0.00                  | 0                     | 60.4              | 60.4           | 60.4 |
| 10-11 AM    | 3426                         | 0.0       | OFF            | 3426       | 0           | 0.00                  | 0                     | 66.4              | 66.4           | 66.4 |
| 11AM-NOON   | 4675                         | 0.0       | OFF            | 4675       | 0           | 0.00                  | 0                     | 58.9              | 58.9           | 58.9 |
| NOON-1PM    | 4902                         | 0.0       | OFF            | 4902       | 0           | 0.00                  | 0                     | 57.4              | 57.4           | 57.4 |
| 1-2 PM      | 5013                         | 0.0       | OFF            | 5013       | 0           | 0.00                  | 0                     | 56.6              | 56.6           | 56.6 |
| 2-3 PM      | 5676                         | 0.0       | OFF            | 5676       | 0           | 0.00                  | 0                     | 52.1              | 52.1           | 52.1 |
| 3-4 PM      | 4722                         | 0.0       | OFF            | 4722       | 0           | 0.00                  | 0                     | 58.6              | 58.6           | 58.6 |
| 4-5 PM      | 4558                         | 0.0       | OFF            | 4558       | 0           | 0.00                  | 0                     | 59.7              | 59.7           | 59.7 |
| 5-6 PM      | 4318                         | 0.0       | OFF            | 4318       | 0           | 0.00                  | 0                     | 61.4              | 61.4           | 61.4 |
| 6-7 PM      | 4201                         | 0.0       | OFF            | 4201       | 0           | 0.00                  | 0                     | 62.2              | 62.2           | 62.2 |
| 7-8 PM      | 3405                         | 0.0       | 2999           | 3405       | 0           | 4.89                  | 253                   | 66.5              | 19.1           | 37.3 |
| 8-9 PM      | 2554                         | 0.0       | 2999           | 2554       | 0           | 3.47                  | 213                   | 67.6              | 24.1           | 40.8 |
| 9-10 PM     | 2452                         | 0.0       | 3000           | 2452       | 0           | 0.37                  | 0                     | 67.7              | 56.4           | 48.0 |
| 10-11 PM    | 1865                         | 0.0       | 3000           | 1865       | 0           | 0.34                  | 0                     | 68.4              | 57.8           | 49.7 |
| 11PM-MID    | 1562                         | 0.0       | 3000           | 1562       | 0           | 0.34                  | 0                     | 68.8              | 58.0           | 49.7 |

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

| *----- 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           | 0.0263  |
| MAIN ROUTE WITH WORKS              | 0.0254  |
| 'DIVERSION'                        | 0.0000  |
| PIA: Personal Injury Accidents     |         |
| IMPACTS ON ROAD USERS              |         |
| ROAD USER COSTS PER DAY            | \$7,255 |
| CONGESTED HOURS PER DAY*           | 0       |

\*Delays Exceeding User-Specified Maximum

**USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)  
NIGHTTIME CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

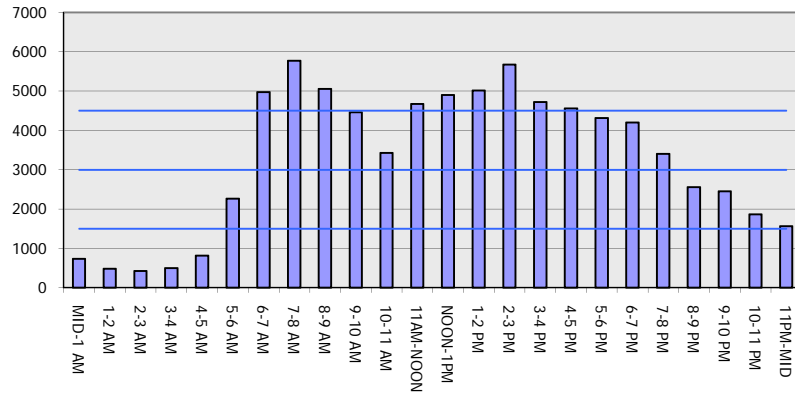
**OCTOBER**

Analyzed for 2009  
Construction Season

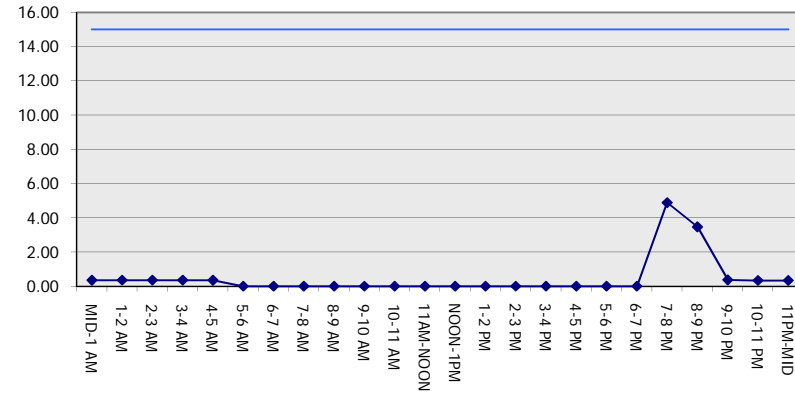
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**FRIDAY SOUTHBOUND DIRECTION**

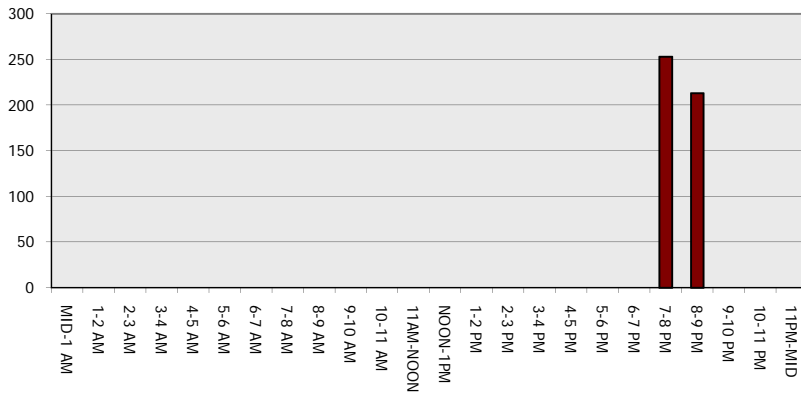
**Main Route - Traffic Demand (Vehicles Per Hour)**



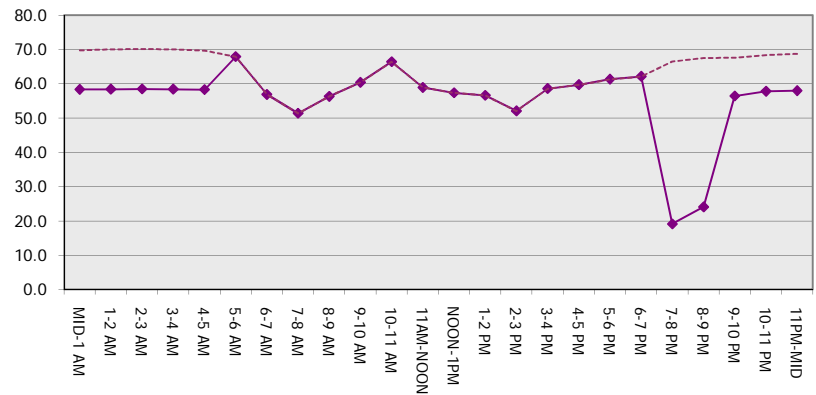
**Main Route Average Delay Per Vehicle (Minutes)**



**Main Route - Average Queue Length (Vehicles)**



**Main Route - Average Speed (MPH)**



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| <b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)</b><br><b>NIGHTTIME CLOSURE</b><br><b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b> | <b>OCTOBER</b>                           |
|  | Analyzed for 2009<br>Construction Season |

**SUMMARY OF TRAFFIC MODEL OUTPUT**

FRIDAY NORTHBOUND 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    | 992                          | 0.0       | 3000           | 992        | 0           | 0.35                  | 0                     | 69.5              | 58.2           | 49.7 |
| 1-2 AM      | 763                          | 0.0       | 3000           | 763        | 0           | 0.35                  | 0                     | 69.8              | 58.3           | 49.7 |
| 2-3 AM      | 705                          | 0.0       | 3000           | 705        | 0           | 0.36                  | 0                     | 69.9              | 58.4           | 49.7 |
| 3-4 AM      | 748                          | 0.0       | 3000           | 748        | 0           | 0.35                  | 0                     | 69.8              | 58.3           | 49.7 |
| 4-5 AM      | 1311                         | 0.0       | 3000           | 1311       | 0           | 0.35                  | 0                     | 69.1              | 58.1           | 49.7 |
| 5-6 AM      | 3150                         | 0.0       | OFF            | 3150       | 0           | 0.00                  | 0                     | 66.8              | 66.8           | 66.8 |
| 6-7 AM      | 5295                         | 0.0       | OFF            | 5295       | 0           | 0.00                  | 0                     | 54.7              | 54.7           | 54.7 |
| 7-8 AM      | 6310                         | 0.0       | OFF            | 6310       | 0           | 0.00                  | 0                     | 47.8              | 47.8           | 47.8 |
| 8-9 AM      | 5149                         | 0.0       | OFF            | 5149       | 0           | 0.00                  | 0                     | 55.7              | 55.7           | 55.7 |
| 9-10 AM     | 4472                         | 0.0       | OFF            | 4472       | 0           | 0.00                  | 0                     | 60.3              | 60.3           | 60.3 |
| 10-11 AM    | 3629                         | 0.0       | OFF            | 3629       | 0           | 0.00                  | 0                     | 66.1              | 66.1           | 66.1 |
| 11AM-NOON   | 4875                         | 0.0       | OFF            | 4875       | 0           | 0.00                  | 0                     | 57.6              | 57.6           | 57.6 |
| NOON-1PM    | 5210                         | 0.0       | OFF            | 5210       | 0           | 0.00                  | 0                     | 55.3              | 55.3           | 55.3 |
| 1-2 PM      | 5476                         | 0.0       | OFF            | 5476       | 0           | 0.00                  | 0                     | 53.5              | 53.5           | 53.5 |
| 2-3 PM      | 6101                         | 0.0       | OFF            | 6101       | 0           | 0.00                  | 0                     | 49.2              | 49.2           | 49.2 |
| 3-4 PM      | 6011                         | 0.0       | OFF            | 6011       | 0           | 0.00                  | 0                     | 49.8              | 49.8           | 49.8 |
| 4-5 PM      | 6507                         | 0.0       | OFF            | 6507       | 0           | 0.00                  | 0                     | 46.4              | 46.4           | 46.4 |
| 5-6 PM      | 6481                         | 0.0       | OFF            | 6481       | 0           | 0.00                  | 0                     | 46.6              | 46.6           | 46.6 |
| 6-7 PM      | 4339                         | 0.0       | OFF            | 4339       | 0           | 0.00                  | 0                     | 61.2              | 61.2           | 61.2 |
| 7-8 PM      | 3677                         | 0.0       | 2999           | 3677       | 0           | 6.87                  | 382                   | 65.8              | 15.9           | 37.3 |
| 8-9 PM      | 2926                         | 0.0       | 2999           | 2926       | 0           | 12.72                 | 660                   | 67.1              | 11.4           | 37.3 |
| 9-10 PM     | 3002                         | 0.0       | 3000           | 3002       | 0           | 12.01                 | 621                   | 67.0              | 11.7           | 37.3 |
| 10-11 PM    | 2354                         | 0.0       | 2999           | 2354       | 0           | 4.75                  | 317                   | 67.8              | 20.6           | 42.2 |
| 11PM-MID    | 1885                         | 0.0       | 3000           | 1885       | 0           | 0.34                  | 0                     | 68.4              | 57.8           | 49.7 |

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

| *----- 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           | 0.0305 |
| MAIN ROUTE WITH WORKS              | 0.0293 |
| 'DIVERSION'                        | 0.0000 |

PIA: Personal Injury Accidents

| ECONOMIC IMPACT ON ROAD USERS |          |
|-------------------------------|----------|
| ROAD USER COSTS PER DAY       | \$28,365 |
| CONGESTED HOURS PER DAY*      | 0        |

\*Delays Exceeding User-Specified Maximum

**USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)  
NIGHTTIME CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

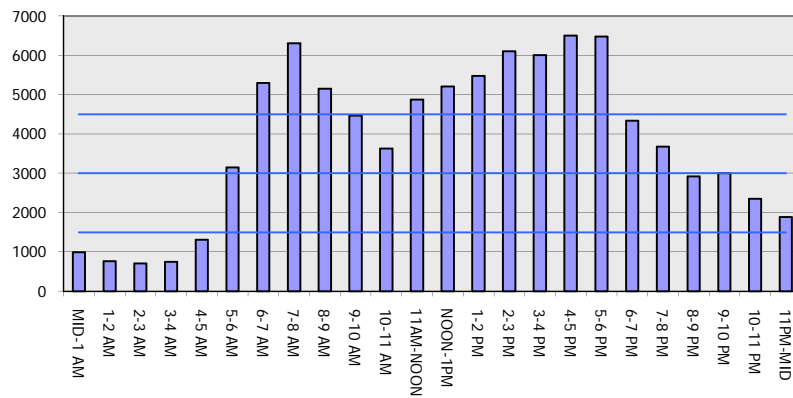
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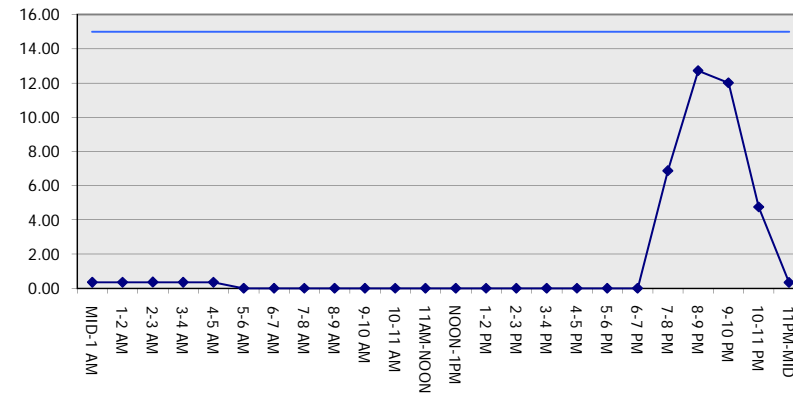
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**FRIDAY NORTHBOUND DIRECTION**

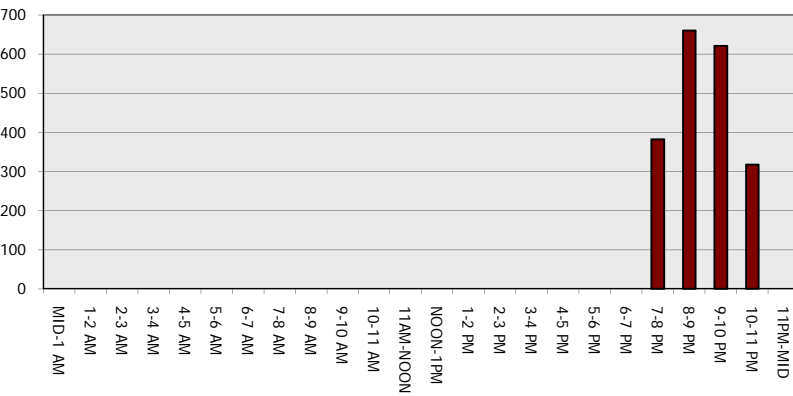
**Main Route - Traffic Demand (Vehicles Per Hour)**



**Main Route Average Delay Per Vehicle (Minutes)**



**Main Route - Average Queue Length (Vehicles)**



**Main Route - Average Speed (MPH)**

