

|   |  |
|---|--|
| <b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)<br/>                 CONTINUOUS (24 HOUR) CLOSURE<br/>                 NO DIVERSION ROUTE (MAX QUEUE METHOD)</b> | <b>OCTOBER</b>                           |
|   | Analyzed for 2009<br>Construction Season |

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SATURDAY 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    | 900                          | 0.0       | 2000           | 900        | 0           | 0.58                  | 0                   | 69.6                  | 52.8           | 42.0 |  |
| 1-2 AM      | 491                          | 0.0       | 2000           | 491        | 0           | 0.53                  | 0                   | 70.1                  | 54.1           | 43.5 |  |
| 2-3 AM      | 478                          | 0.0       | 2000           | 478        | 0           | 0.53                  | 0                   | 70.1                  | 54.2           | 43.6 |  |
| 3-4 AM      | 349                          | 0.0       | 2000           | 349        | 0           | 0.52                  | 0                   | 70.2                  | 54.5           | 44.1 |  |
| 4-5 AM      | 474                          | 0.0       | 2000           | 474        | 0           | 0.53                  | 0                   | 70.2                  | 54.2           | 43.6 |  |
| 5-6 AM      | 906                          | 0.0       | 2000           | 906        | 0           | 0.58                  | 0                   | 69.6                  | 52.8           | 42.0 |  |
| 6-7 AM      | 1845                         | 0.0       | 1999           | 1845       | 0           | 1.43                  | 5                   | 68.4                  | 38.5           | 28.0 |  |
| 7-8 AM      | 2484                         | 0.0       | 2000           | 2484       | 0           | 6.15                  | 217                 | 67.6                  | 16.2           | 27.9 |  |
| 8-9 AM      | 3295                         | 0.0       | 1999           | 2054       | 1242        | 17.30+                | 570                 | 66.6                  | 8.3            | 27.9 |  |
| 9-10 AM     | 3459                         | 0.0       | 2000           | 2015       | 1444        | 17.39+                | 573                 | 66.4                  | 8.3            | 27.9 |  |
| 10-11 AM    | 4030                         | 0.0       | 1999           | 2000       | 2030        | 17.46+                | 580                 | 63.3                  | 8.3            | 27.9 |  |
| 11AM-NOON   | 4633                         | 0.0       | 2000           | 2000       | 2633        | 17.28+                | 580                 | 59.2                  | 8.3            | 27.9 |  |
| NOON-1PM    | 4724                         | 0.0       | 2000           | 2000       | 2724        | 17.25+                | 580                 | 58.6                  | 8.3            | 27.9 |  |
| 1-2 PM      | 4384                         | 0.0       | 2000           | 2000       | 2384        | 17.36+                | 580                 | 60.9                  | 8.3            | 27.9 |  |
| 2-3 PM      | 4629                         | 0.0       | 2000           | 2000       | 2629        | 17.28+                | 580                 | 59.2                  | 8.3            | 27.9 |  |
| 3-4 PM      | 4460                         | 0.0       | 2000           | 2000       | 2460        | 17.33+                | 580                 | 60.4                  | 8.3            | 27.9 |  |
| 4-5 PM      | 4713                         | 0.0       | 2000           | 2000       | 2713        | 17.25+                | 580                 | 58.7                  | 8.3            | 27.9 |  |
| 5-6 PM      | 4111                         | 0.0       | 2000           | 2000       | 2111        | 17.44+                | 580                 | 62.8                  | 8.3            | 27.9 |  |
| 6-7 PM      | 3886                         | 0.0       | 2000           | 2000       | 1886        | 17.50+                | 580                 | 64.3                  | 8.3            | 27.9 |  |
| 7-8 PM      | 2980                         | 0.0       | 2000           | 1994       | 986         | 17.15+                | 564                 | 67.0                  | 8.3            | 27.9 |  |
| 8-9 PM      | 2194                         | 0.0       | 2000           | 1999       | 195         | 17.09+                | 560                 | 68.0                  | 8.4            | 27.9 |  |
| 9-10 PM     | 2127                         | 0.0       | 1999           | 1999       | 128         | 17.09+                | 560                 | 68.1                  | 8.4            | 27.9 |  |
| 10-11 PM    | 1894                         | 0.0       | 1999           | 1884       | 9           | 16.21+                | 530                 | 68.4                  | 8.6            | 27.9 |  |
| 11PM-MID    | 1314                         | 0.0       | 1999           | 1314       | 0           | 3.16                  | 172                 | 69.1                  | 25.7           | 32.6 |  |

+ 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                      | 0.0216    |
| MAIN ROUTE WITH WORKS                         | 0.0105    |
| 'DIVERSION'                                   | 0.0198    |
| <small>PIA: Personal Injury Accidents</small> |           |
| IMPACTS ON ROAD USERS                         |           |
| ROAD USER COSTS PER DAY                       | \$271,022 |
| CONGESTED HOURS PER DAY*                      | 15        |

\*Delays Exceeding User-Specified Maximum

**USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)  
CONTINUOUS (24 HOUR) CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

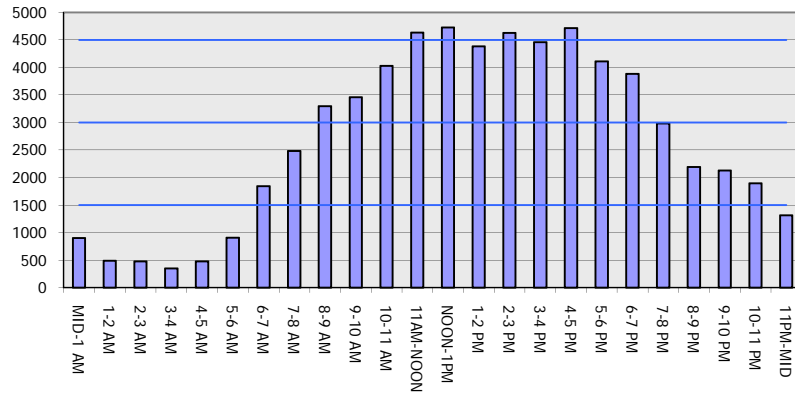
**OCTOBER**

Analyzed for 2009  
Construction Season

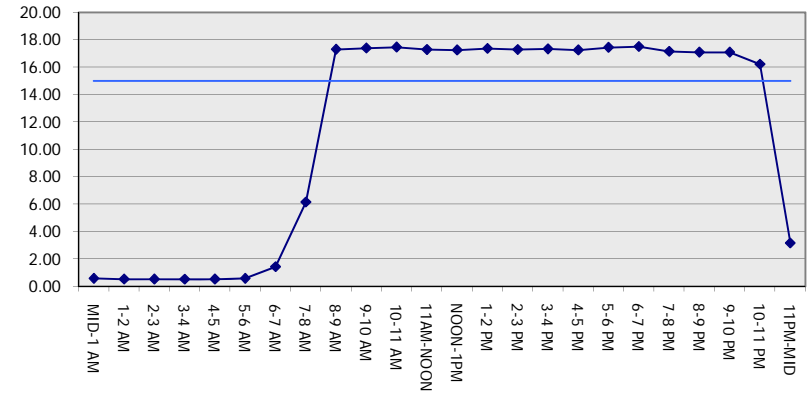
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SATURDAY SOUTHBOUND DIRECTION**

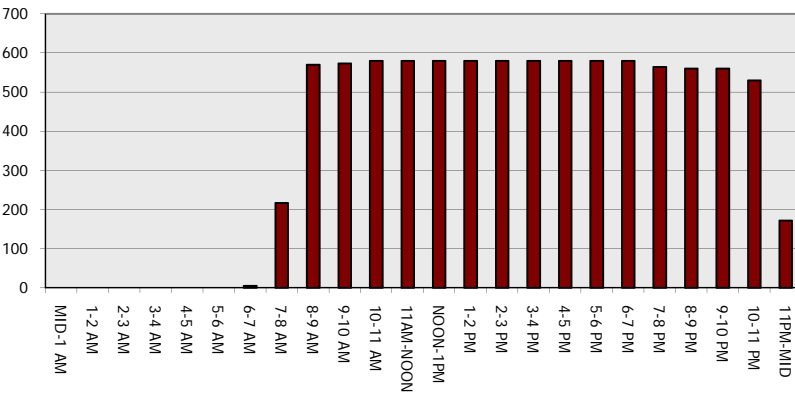
**Main Route - Traffic Demand (Vehicles Per Hour)**



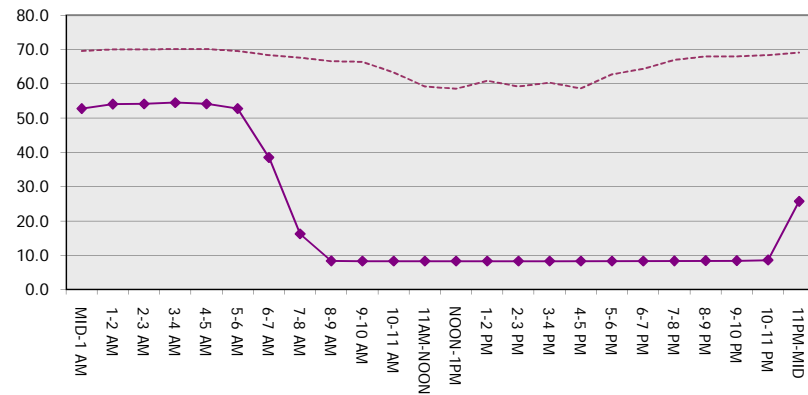
**Main Route Average Delay Per Vehicle (Minutes)**



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



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



|   |  |
|---|--|
| <b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)<br/>                 CONTINUOUS (24 HOUR) CLOSURE<br/>                 NO DIVERSION ROUTE (MAX QUEUE METHOD)</b> | <b>OCTOBER</b>                           |
|   | Analyzed for 2009<br>Construction Season |

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SATURDAY 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    | 1256                         | 0.0       | 1999           | 1256       | 0           | 2.55                  | 146                 | 69.2                  | 29.1           | 34.0 |
| 1-2 AM      | 895                          | 0.0       | 2000           | 895        | 0           | 0.58                  | 0                   | 69.6                  | 52.8           | 42.0 |
| 2-3 AM      | 836                          | 0.0       | 2000           | 836        | 0           | 0.57                  | 0                   | 69.7                  | 53.0           | 42.3 |
| 3-4 AM      | 681                          | 0.0       | 2000           | 681        | 0           | 0.55                  | 0                   | 69.9                  | 53.5           | 42.8 |
| 4-5 AM      | 839                          | 0.0       | 2000           | 839        | 0           | 0.57                  | 0                   | 69.7                  | 53.0           | 42.2 |
| 5-6 AM      | 1357                         | 0.0       | 1999           | 1357       | 0           | 0.90                  | 0                   | 69.1                  | 46.3           | 34.3 |
| 6-7 AM      | 1928                         | 0.0       | 1999           | 1928       | 0           | 1.53                  | 9                   | 68.3                  | 37.3           | 27.9 |
| 7-8 AM      | 2522                         | 0.0       | 2000           | 2522       | 0           | 7.36                  | 260                 | 67.6                  | 14.3           | 27.9 |
| 8-9 AM      | 3118                         | 0.0       | 1999           | 2006       | 1112        | 17.18+                | 565                 | 66.9                  | 8.3            | 27.9 |
| 9-10 AM     | 3826                         | 0.0       | 1999           | 2004       | 1821        | 17.50+                | 579                 | 64.7                  | 8.3            | 27.9 |
| 10-11 AM    | 4259                         | 0.0       | 2000           | 2000       | 2259        | 17.39+                | 580                 | 61.8                  | 8.3            | 27.9 |
| 11AM-NOON   | 4334                         | 0.0       | 2000           | 2000       | 2334        | 17.37+                | 580                 | 61.2                  | 8.3            | 27.9 |
| NOON-1PM    | 4494                         | 0.0       | 2000           | 2000       | 2494        | 17.32+                | 580                 | 60.2                  | 8.3            | 27.9 |
| 1-2 PM      | 4335                         | 0.0       | 2000           | 2000       | 2335        | 17.37+                | 580                 | 61.2                  | 8.3            | 27.9 |
| 2-3 PM      | 4736                         | 0.0       | 2000           | 2000       | 2736        | 17.24+                | 580                 | 58.5                  | 8.3            | 27.9 |
| 3-4 PM      | 4465                         | 0.0       | 2000           | 2000       | 2465        | 17.33+                | 580                 | 60.4                  | 8.3            | 27.9 |
| 4-5 PM      | 4466                         | 0.0       | 2000           | 2000       | 2466        | 17.33+                | 580                 | 60.4                  | 8.3            | 27.9 |
| 5-6 PM      | 4065                         | 0.0       | 2000           | 2000       | 2065        | 17.45+                | 580                 | 63.1                  | 8.3            | 27.9 |
| 6-7 PM      | 3428                         | 0.0       | 2000           | 2002       | 1426        | 17.38+                | 573                 | 66.4                  | 8.3            | 27.9 |
| 7-8 PM      | 3061                         | 0.0       | 2000           | 1996       | 1065        | 17.15+                | 564                 | 66.9                  | 8.3            | 27.9 |
| 8-9 PM      | 2472                         | 0.0       | 2000           | 1999       | 472         | 17.10+                | 561                 | 67.7                  | 8.4            | 27.9 |
| 9-10 PM     | 2445                         | 0.0       | 1999           | 1999       | 446         | 17.10+                | 561                 | 67.7                  | 8.4            | 27.9 |
| 10-11 PM    | 2492                         | 0.0       | 1999           | 1999       | 493         | 17.10+                | 561                 | 67.6                  | 8.4            | 27.9 |
| 11PM-MID    | 1887                         | 0.0       | 2000           | 1866       | 21          | 16.16+                | 529                 | 68.4                  | 8.6            | 27.9 |

+ INDICATES QUEUEING EXCEEDS USER-SPECIFIED MAXIMUM LIMIT

|  |      |
|--|------|
| 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  |

|  |   |
|--|---|
| 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 |

|                          |        |
|--------------------------|--------|
| MAIN ROUTE WITHOUT WORKS | 0.0228 |
| MAIN ROUTE WITH WORKS    | 0.0113 |
| 'DIVERSION'              | 0.0201 |

PIA: Personal Injury Accidents

|                          |           |
|--------------------------|-----------|
| ROAD USER COSTS PER DAY  | \$283,216 |
| CONGESTED HOURS PER DAY* | 16        |

\*Delays Exceeding User-Specified Maximum

**USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)  
CONTINUOUS (24 HOUR) CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

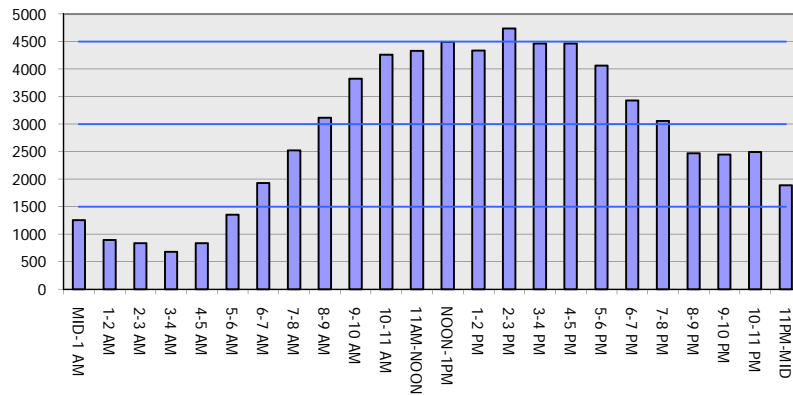
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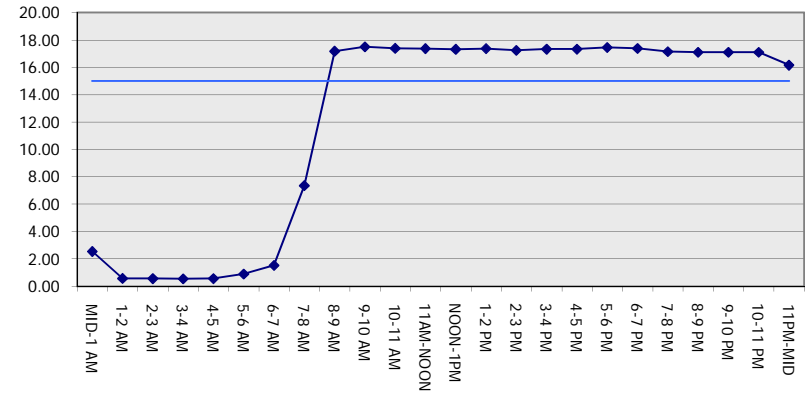
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SATURDAY NORTHBOUND DIRECTION**

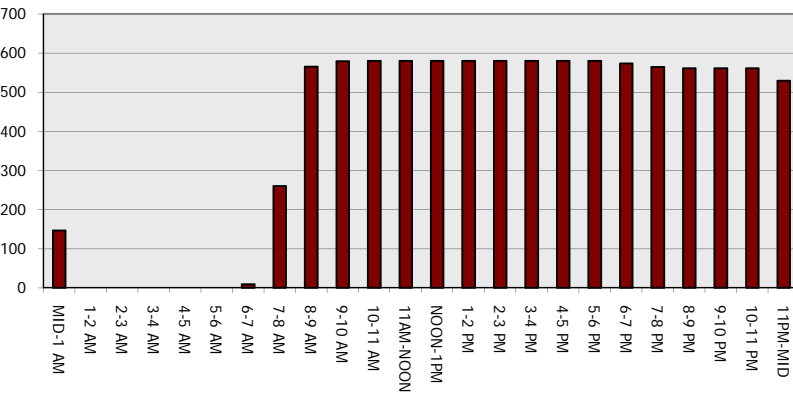
**Main Route - Traffic Demand (Vehicles Per Hour)**



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



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



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

