

**STH 441: USH 41 TO RACINE ST (WINNEBAGO COUNTY)  
CONTINUOUS (24 HOUR) CLOSURE  
DIVERSION ROUTE: PROSPECT AVENUE - STH 47**

**AUGUST**

Analyzed for 2009  
Construction Season

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SUNDAY WESTBOUND 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    | 348                          | 0.0       | 107             | 0.0       | 1500           | 348             | 0                | 107             | 0.46                  | 0                   | 65.8            | 46.4         | 44.1            | 24.0            | 24.0         |
| 1-2 AM      | 228                          | 0.0       | 70              | 0.0       | 1500           | 228             | 0                | 70              | 0.44                  | 0                   | 66.0            | 46.8         | 44.6            | 24.3            | 24.3         |
| 2-3 AM      | 191                          | 0.0       | 59              | 0.0       | 1500           | 191             | 0                | 59              | 0.44                  | 0                   | 66.0            | 47.0         | 44.7            | 24.4            | 24.4         |
| 3-4 AM      | 138                          | 0.0       | 42              | 0.0       | 1500           | 138             | 0                | 42              | 0.44                  | 0                   | 66.1            | 47.2         | 45.0            | 24.5            | 24.5         |
| 4-5 AM      | 144                          | 0.0       | 44              | 0.0       | 1500           | 144             | 0                | 44              | 0.44                  | 0                   | 66.1            | 47.2         | 44.9            | 24.5            | 24.5         |
| 5-6 AM      | 292                          | 0.0       | 90              | 0.0       | 1500           | 292             | 0                | 90              | 0.45                  | 0                   | 65.8            | 46.6         | 44.3            | 24.2            | 24.2         |
| 6-7 AM      | 393                          | 0.0       | 120             | 0.0       | 1500           | 393             | 0                | 120             | 0.46                  | 0                   | 65.6            | 46.2         | 43.9            | 23.9            | 23.9         |
| 7-8 AM      | 436                          | 0.0       | 134             | 0.0       | 1500           | 436             | 0                | 134             | 0.46                  | 0                   | 65.6            | 46.1         | 43.8            | 23.8            | 23.8         |
| 8-9 AM      | 638                          | 0.0       | 196             | 0.0       | 1500           | 638             | 0                | 196             | 0.48                  | 0                   | 65.2            | 45.3         | 43.0            | 23.3            | 23.3         |
| 9-10 AM     | 934                          | 0.0       | 286             | 0.0       | 1499           | 934             | 0                | 286             | 0.51                  | 0                   | 64.6            | 44.3         | 41.9            | 22.7            | 22.7         |
| 10-11 AM    | 1436                         | 0.0       | 441             | 0.0       | 1499           | 1436            | 0                | 441             | 1.00                  | 2                   | 63.7            | 33.8         | 32.5            | 21.5            | 21.5         |
| 11A-NOON    | 1598                         | 0.0       | 490             | 0.0       | 1500           | 1598            | 0                | 490             | 2.62                  | 48                  | 63.4            | 19.9         | 30.8            | 21.1            | 21.2         |
| NOON-1PM    | 1747                         | 0.0       | 535             | 0.0       | 1500           | 1747            | 0                | 535             | 9.09                  | 227                 | 63.2            | 10.1         | 30.8            | 20.7            | 21.7         |
| 1-2 PM      | 1700                         | 0.0       | 521             | 0.0       | 1499           | 1666            | 35               | 556             | 17.71                 | 452                 | 63.2            | 7.5          | 30.8            | 20.9            | 22.6         |
| 2-3 PM      | 1667                         | 0.0       | 511             | 0.0       | 1499           | 1493            | 174              | 685             | 20.27                 | 519                 | 63.3            | 7.1          | 30.8            | 20.9            | 21.9         |
| 3-4 PM      | 1543                         | 0.0       | 473             | 0.0       | 1499           | 1462            | 81               | 555             | 19.23                 | 491                 | 63.5            | 7.3          | 30.8            | 21.2            | 22.7         |
| 4-5 PM      | 1384                         | 0.0       | 424             | 0.0       | 1499           | 1384            | 0                | 424             | 16.68                 | 423                 | 63.8            | 7.6          | 30.8            | 21.6            | 23.5         |
| 5-6 PM      | 1342                         | 0.0       | 412             | 0.0       | 1500           | 1342            | 0                | 412             | 11.53                 | 286                 | 63.9            | 8.9          | 30.8            | 21.7            | 22.9         |
| 6-7 PM      | 1194                         | 0.0       | 366             | 0.0       | 1499           | 1194            | 0                | 366             | 2.21                  | 77                  | 64.1            | 23.6         | 36.0            | 22.0            | 22.3         |
| 7-8 PM      | 889                          | 0.0       | 273             | 0.0       | 1500           | 889             | 0                | 273             | 0.51                  | 0                   | 64.7            | 44.4         | 42.0            | 22.7            | 22.7         |
| 8-9 PM      | 746                          | 0.0       | 229             | 0.0       | 1500           | 746             | 0                | 229             | 0.49                  | 0                   | 65.0            | 44.9         | 42.6            | 23.1            | 23.1         |
| 9-10 PM     | 710                          | 0.0       | 218             | 0.0       | 1500           | 710             | 0                | 218             | 0.49                  | 0                   | 65.1            | 45.0         | 42.7            | 23.2            | 23.2         |
| 10-11 PM    | 510                          | 0.0       | 156             | 0.0       | 1500           | 510             | 0                | 156             | 0.47                  | 0                   | 65.5            | 45.8         | 43.5            | 23.7            | 23.7         |
| 11PM-MID    | 444                          | 0.0       | 136             | 0.0       | 1500           | 444             | 0                | 136             | 0.47                  | 0                   | 65.6            | 46.0         | 43.7            | 23.8            | 23.8         |

**\*----- 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 | 0.0039 |
| MAIN ROUTE WITH WORKS    | 0.0025 |
| DIVERSION                | 0.0529 |

PIA: Personal Injury Accidents

**IMPACTS ON ROAD USERS**

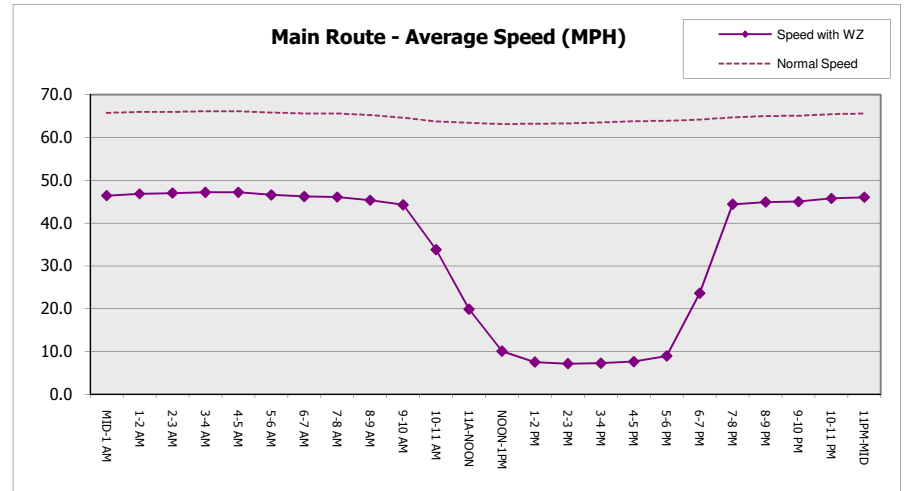
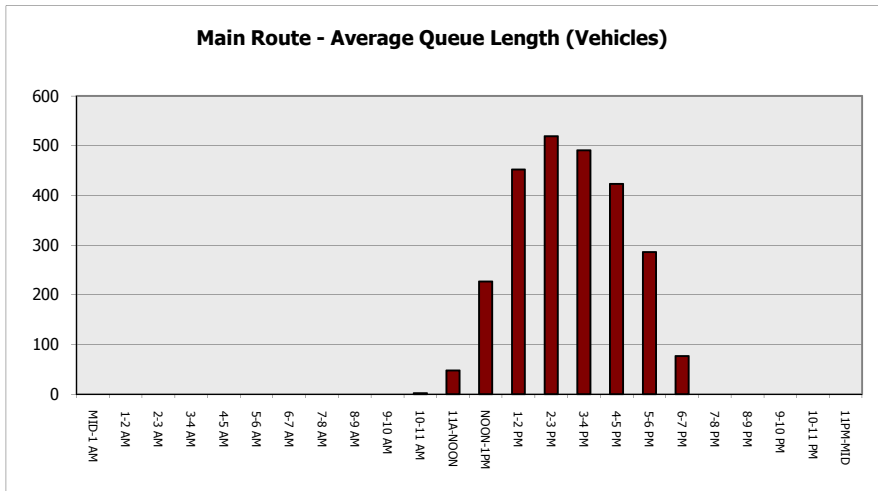
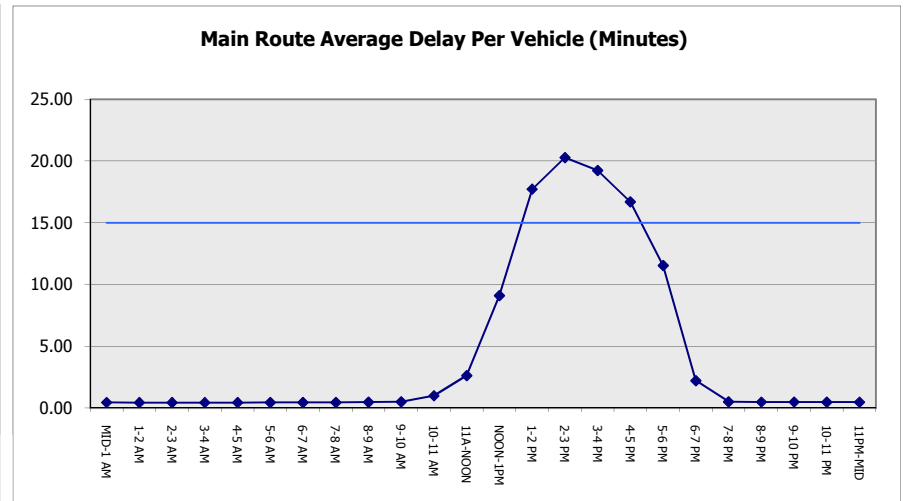
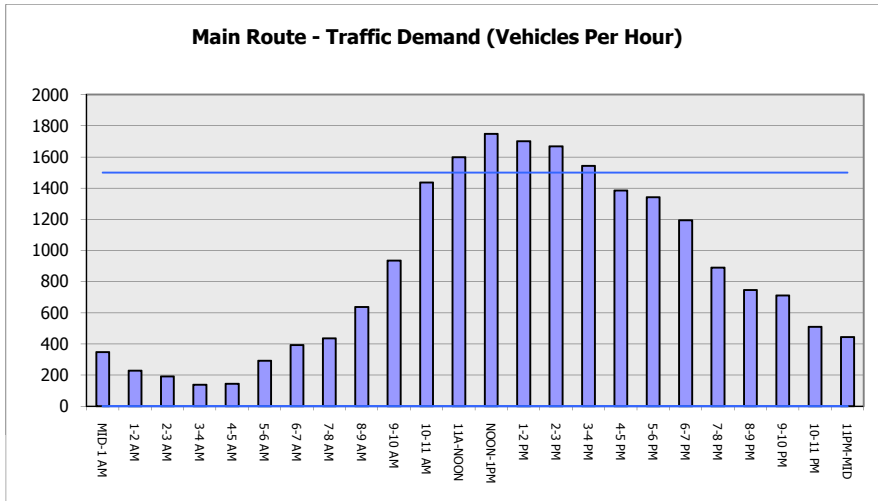
|                                    |          |
|------------------------------------|----------|
| ROAD USER COSTS PER DAY ( DOLLARS) | \$49,142 |
| CONGESTED HOURS PER DAY*           | 4        |

\*Delays Exceeding 15 Minutes

**STH 441: USH 41 TO RACINE ST (WINNEBAGO COUNTY)  
CONTINUOUS (24 HOUR) CLOSURE  
DIVERSION ROUTE: PROSPECT AVENUE - STH 47**

**AUGUST**  
Analyzed for 2009  
Construction Season

**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**  
**SUNDAY WESTBOUND DIRECTION**



|   |  |
|---|--|
| <b>STH 441: USH 41 TO RACINE ST (WINNEBAGO COUNTY)</b><br><b>CONTINUOUS (24 HOUR) CLOSURE</b><br><b>DIVERSION ROUTE: PROSPECT AVENUE - STH 47</b> | <b>AUGUST</b>                            |
|   | Analyzed for 2009<br>Construction Season |

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SUNDAY EASTBOUND 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    | 478                          | 0.0       | 146         | 0.0       | 1500           | 478             | 0                | 146             | 0.47                  | 0                   | 65.5            | 45.9         | 43.6 | 23.7            | 23.7         |
| 1-2 AM      | 295                          | 0.0       | 91          | 0.0       | 1500           | 295             | 0                | 91              | 0.45                  | 0                   | 65.8            | 46.6         | 44.3 | 24.2            | 24.2         |
| 2-3 AM      | 221                          | 0.0       | 68          | 0.0       | 1500           | 221             | 0                | 68              | 0.44                  | 0                   | 66.0            | 46.9         | 44.6 | 24.3            | 24.3         |
| 3-4 AM      | 152                          | 0.0       | 46          | 0.0       | 1500           | 152             | 0                | 46              | 0.44                  | 0                   | 66.1            | 47.1         | 44.9 | 24.5            | 24.5         |
| 4-5 AM      | 123                          | 0.0       | 38          | 0.0       | 1500           | 123             | 0                | 38              | 0.43                  | 0                   | 66.1            | 47.3         | 45.0 | 24.5            | 24.5         |
| 5-6 AM      | 219                          | 0.0       | 67          | 0.0       | 1500           | 219             | 0                | 67              | 0.44                  | 0                   | 66.0            | 46.9         | 44.6 | 24.3            | 24.3         |
| 6-7 AM      | 452                          | 0.0       | 139         | 0.0       | 1500           | 452             | 0                | 139             | 0.47                  | 0                   | 65.5            | 46.0         | 43.7 | 23.8            | 23.8         |
| 7-8 AM      | 364                          | 0.0       | 111         | 0.0       | 1500           | 364             | 0                | 111             | 0.46                  | 0                   | 65.7            | 46.3         | 44.0 | 24.0            | 24.0         |
| 8-9 AM      | 644                          | 0.0       | 198         | 0.0       | 1500           | 644             | 0                | 198             | 0.48                  | 0                   | 65.2            | 45.3         | 43.0 | 23.3            | 23.3         |
| 9-10 AM     | 993                          | 0.0       | 305         | 0.0       | 1499           | 993             | 0                | 305             | 0.52                  | 0                   | 64.5            | 44.0         | 41.7 | 22.5            | 22.5         |
| 10-11 AM    | 1437                         | 0.0       | 441         | 0.0       | 1499           | 1437            | 0                | 441             | 1.04                  | 3                   | 63.7            | 33.2         | 32.6 | 21.5            | 21.5         |
| 11A-NOON    | 1756                         | 0.0       | 538         | 0.0       | 1500           | 1756            | 0                | 538             | 5.25                  | 131                 | 63.1            | 13.6         | 30.8 | 20.7            | 21.2         |
| NOON-1PM    | 1835                         | 0.0       | 563         | 0.0       | 1499           | 1790            | 46               | 609             | 16.48                 | 424                 | 63.0            | 7.8          | 30.8 | 20.5            | 22.0         |
| 1-2 PM      | 2073                         | 0.0       | 635         | 0.0       | 1499           | 1614            | 458              | 1094            | 24.43                 | 633                 | 62.5            | 6.7          | 30.8 | 20.0            | 19.0         |
| 2-3 PM      | 2060                         | 0.0       | 632         | 0.0       | 1499           | 1498            | 562              | 1194            | 25.70                 | 666                 | 62.5            | 6.6          | 30.8 | 20.0            | 18.3         |
| 3-4 PM      | 2269                         | 0.0       | 696         | 0.0       | 1500           | 1601            | 667              | 1363            | 28.15                 | 734                 | 62.2            | 6.5          | 30.8 | 19.5            | 17.1         |
| 4-5 PM      | 2198                         | 0.0       | 674         | 0.0       | 1500           | 1461            | 737              | 1411            | 28.94                 | 754                 | 62.3            | 6.4          | 30.8 | 19.7            | 16.8         |
| 5-6 PM      | 2162                         | 0.0       | 663         | 0.0       | 1499           | 1476            | 686              | 1349            | 27.93                 | 727                 | 62.3            | 6.5          | 30.8 | 19.7            | 17.3         |
| 6-7 PM      | 2028                         | 0.0       | 622         | 0.0       | 1500           | 1421            | 607              | 1228            | 26.18                 | 680                 | 62.6            | 6.6          | 30.8 | 20.1            | 18.1         |
| 7-8 PM      | 1623                         | 0.0       | 497         | 0.0       | 1499           | 1351            | 272              | 769             | 21.09                 | 542                 | 63.3            | 7.1          | 30.8 | 21.1            | 21.2         |
| 8-9 PM      | 1360                         | 0.0       | 417         | 0.0       | 1499           | 1355            | 5                | 422             | 16.85                 | 428                 | 63.8            | 7.6          | 30.8 | 21.7            | 23.5         |
| 9-10 PM     | 1043                         | 0.0       | 320         | 0.0       | 1499           | 1043            | 0                | 320             | 3.33                  | 144                 | 64.5            | 19.7         | 37.1 | 22.4            | 23.0         |
| 10-11 PM    | 704                          | 0.0       | 216         | 0.0       | 1500           | 704             | 0                | 216             | 0.49                  | 0                   | 65.1            | 45.1         | 42.7 | 23.2            | 23.2         |
| 11PM-MID    | 405                          | 0.0       | 125         | 0.0       | 1500           | 405             | 0                | 125             | 0.46                  | 0                   | 65.6            | 46.2         | 43.8 | 23.9            | 23.9         |

| *----- 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           | 0.0051 |
| MAIN ROUTE WITH WORKS              | 0.0029 |
| DIVERSION                          | 0.0981 |

PIA: Personal Injury Accidents

| IMPACTS ON ROAD USERS              |           |
|------------------------------------|-----------|
| ROAD USER COSTS PER DAY ( DOLLARS) | \$138,062 |
| CONGESTED HOURS PER DAY*           | 9         |

\*Delays Exceeding 15 Minutes

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 CONTINUOUS (24 HOUR) CLOSURE  
 DIVERSION ROUTE: PROSPECT AVENUE - STH 47**

**AUGUST**  
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 Construction Season

**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**  
**SUNDAY EASTBOUND DIRECTION**

