

Traffic Analysis Report for:

DEWEY STREET CORRIDOR TRAFFIC STUDY
S. 42nd Street (CTH CR) to S. 10th Street

Prepared for:
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Collisions by Time of Day

Figure 2.4 illustrates the number of crashes by hour of the day. The number of crashes by time of day compares well with daily traffic volumes along Dewey Street. In analysis, it was noted that approximately 50% of nighttime crashes involved injuries compared to approximately 40% of total crashes involved injuries throughout the entire day. However, there does not appear to be a specific problem trend with nighttime crashes.

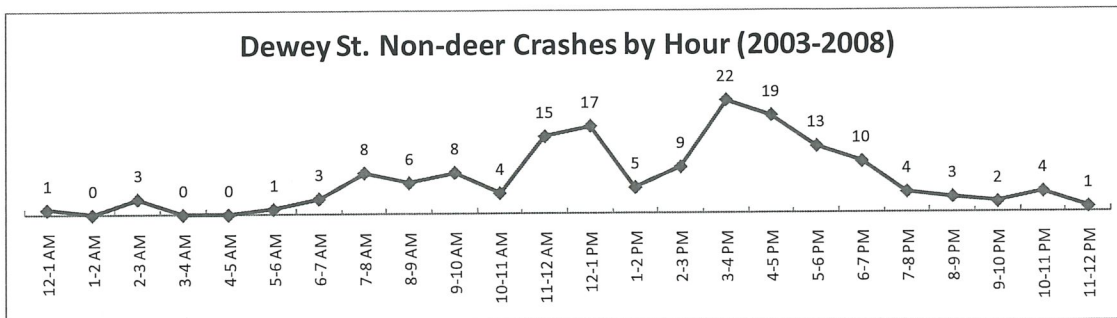


Figure 2.4 – Dewey Street Crashes by Hour

Other Corridor Crash Trends

Analysis of the Dewey Street crash information also revealed the following trends:

- 32% of the crashes were related to weather/road conditions. Of the 54 weather/road condition crashes, 30% crashes were related to snowy roadway conditions, 60% crashes were related to wet roadway conditions and 10% crashes were related to icy roadways.
- Drivers age 18 or under were involved in 21% of the crashes. This is attributed to Lincoln High School located near the east end of the project. Many of these crashes occur in the hours just before or after school.
- Only 2.0% of all crashes were related to alcohol.

Intersection Crashes

Intersection crashes were analyzed at intersections along Dewey Street. Table 2.1 below shows the total number of crashes at each intersection along the study corridor. S. 35th Street had the most crashes at 24 during the six-year period, followed by S. 42nd Street with 22, and S. 23rd Street with 20. The following is a summary of specific crash trends and probable explanation if one can be hypothesized for these crashes at the study intersections. Individual crash data by intersection is provided in [Appendix C](#).

- **CTH CR (S. 42nd Street)** – 20 of the 22 crashes were angle collisions. Southbound with eastbound (11) and northbound (or northbound left turns) with westbound (6) were the vast majority of these. These crashes were likely due to high volume of crossing or turning traffic at an intersection that is on a horizontal curve. This intersection was realigned approximately 150 feet east and a traffic signal was installed in 2008. It is believed that the number of angle collisions will be minimized with this new alignment and traffic control. Little data is available at this time to verify this; however, no crashes were found after June 2008.
- **S. 39th Street** – Southbound and southbound left turns with westbound traffic (4).
- **S. 35th Street** – Large majority of crashes (14 of 24) and injuries (17 of 20) from angle crashes, involving many different combinations of movements: northbound with westbound (4), northbound (or northbound left turns) with eastbound (3), southbound (left turns) with

eastbound (3), southbound with westbound (2), eastbound with westbound left turns (2), and westbound with eastbound left turns (2). Five rear end crashes on Dewey Street were likely due to vehicles slowing to make turns at 35th Street. Crashes may be due to high side street stop delay and drivers taking shorter gaps.

- **S. 30th Street (Signalized)** – 5 of 7 angle collisions involved left turn movements. Sideswipe crashes on the side street may result from unmarked approaches at signal. Only 4 injury crashes, but resulted in 8 total injuries.
- **S. 26th Street** – 5 angle crashes between various movements resulted in 8 injuries. 2 westbound rear end crashes involved a vehicle slowing to make a turn onto north approach. Some collisions may be due to restricted sight distance with vertical curve at intersection.
- **S. 23rd Street** – Large majority of crashes (14 of 20) and injuries (19 of 24) from angle crashes, involving many different combinations of movements: northbound (left turn) with eastbound (5), southbound with eastbound (3), southbound with westbound (2), northbound left turn with westbound (2). Crashes may be due to side street stop delay and drivers taking shorter gaps.
- **S. 18th Street** – Angle crashes between eastbound and northbound (2), eastbound and southbound (2), and eastbound with westbound left turns (2). Fatality occurred at this intersection. Crashes may be due to the change in speed limit at this intersection and cross traffic does not anticipate higher speeds of vehicles from the west than east.
- **S. 14th Street** – Rear end collisions (4) along Dewey Street likely resulting from vehicles slowing to turn at intersection.
- **S. 10th Street** – Angle crashes between eastbound (and eastbound left turns) and northbound (6) and eastbound and southbound (2). Northbound rear end collisions (3) resulting from vehicles slowing/turning at intersection. A retaining wall in the southwest quadrant of intersection may limit sight distance for eastbound and northbound traffic.

The majority of crashes at these intersections are angle collisions. Angle collisions at unsignalized intersections are typically due to restricted sight distance, high intersection traffic movement volumes, or high approach speeds. Possible improvements that could be considered for Dewey Street may include removing sight obstructions near intersections including restriction of parking near corners, channelizing movements at intersections, increasing law enforcement efforts of traffic speeds, and installing traffic signals where warranted.

Intersection	Total Crashes	Total Injuries	Intersection Crash Rate (MVE)
S. 35th Street	24	20	0.94
S. 42nd Street (CTH CR)	22	7	0.76
S. 23rd Street	20	4	0.98
S. 10th Street	19	15	1.01
S. 30th Street	17	22	0.61
S. 39th Street	15	8	0.63
S. 18th Street	10	12	0.57
S. 26th Street	8	5	0.35
S. 14th Street	7	3	0.46

signals in 2008
 - signals in 2002

Table 2.1 – Intersection Crash Summary

Intersection Crash Rates

Intersection crash rates were also reviewed for the project. WisDOT considers an intersection crash rate below 1.5 crashes per one million vehicles entering the intersection (MVE) to be normal. An intersection

crash rate from 1.5 to 2.0 MVE indicates a potential crash problem and the intersection should be watched, while a rate above 2.0 MVE indicates the intersection warrants urgent investigation.

Intersection crash rates for Dewey Street were calculated from WisDOT traffic data where known, while daily traffic volumes on side streets without traffic data were estimated. Table 2.1 shows the intersection crash rates calculated for the study intersections.

Intersections with a high proportion of angle collisions also had the highest intersection crash rates. The Dewey Street & S. 10th Street intersection had a crash rate of 1.01 MVE, Dewey Street & S. 23rd Street had an intersection crash rate of 0.98 MVE, and Dewey Street & S. 35th Street had a crash rate of 0.94 MVE. Although the rates do not indicate an immediate need for improvement, these intersections would likely benefit the most from geometric or traffic control improvements.