

TRAFFIC COUNT & SPEED STUDY

12th Street & Park Avenue

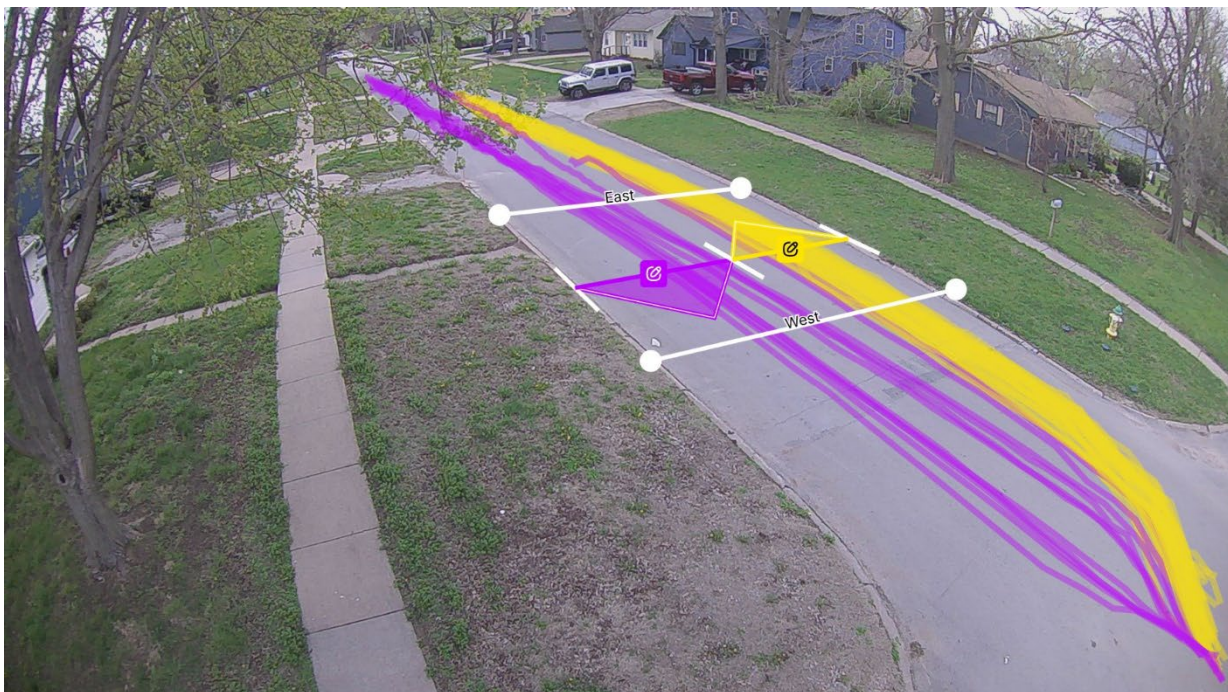
City of Blair, Nebraska | April 16–17, 2026 | Prepared by: Tom White

1. Study Overview

The City of Blair conducted a multi-day vehicle count and speed study at the intersection of 12th Street and Park Avenue from April 16 through April 20, 2026. The study was initiated to characterize traffic volumes and travel speeds along this residential corridor and to assess compliance with the posted 25 mph speed limit.

Data was collected using a traffic monitoring camera positioned at coordinates 41.5481° N, 96.1295° W, oriented slightly westward to capture eastbound primary flow while also recording westbound vehicles in the near lane. The device recorded vehicle classifications and individual speed measurements across both travel lanes for a total of 91 hours and 46 minutes, spanning parts of Thursday through Monday and capturing one full weekday (Friday, April 17) and two full weekend days (Saturday and Sunday).

Study Period	Location	Speed Limit	Total Vehicles
Apr 16 – Apr 20, 2026	12th St & Park Ave	25 mph	2,100
Start / End	Duration	GPS Coordinates	Camera Orientation
2:15 PM Apr 16 – 10:01 AM Apr 20	91 hrs 46 min	41.5481 N, 96.1295 W	Facing West
Primary Direction	Lanes Monitored	AM Peak Hour	PM Peak Hour
Eastbound	2 (Both Directions)	7:15–8:15 AM (Apr 20)	2:45–3:45 PM (Apr 16)



2. Traffic Volume Summary

A total of 2,100 vehicles were recorded during the study period, 1,476 traveling eastbound (70.3%) and 624 westbound (29.7%). The corridor carries predominantly light passenger vehicles, with eastbound passenger cars and light trucks accounting for nearly all observed traffic. Only 2 buses and a handful of multi-axle vehicles were detected across the entire study period.

Friday, April 17 was the highest-volume day with 635 vehicles, consistent with typical weekday residential traffic. Weekend volumes were moderate (489 on Saturday, 355 on Sunday), reflecting the area's residential character. The daily pattern on the full weekday shows clear morning and afternoon peaks, with the PM peak of 89 vehicles occurring during the 3:00 PM hour, consistent with school dismissal and early afternoon commute activity.

Date	Eastbound	Westbound	Combined	Notes
Thursday, April 16	290	117	407	(partial — study began 2:15 PM)
Friday, April 17	457	178	635	(full weekday)
Saturday, April 18	330	159	489	(full weekend day)
Sunday, April 19	243	112	355	(full weekend day)
Monday, April 20	156	58	214	(partial — study ended 10:01 AM)
STUDY TOTAL	1,476	624	2,100	

Table 2: Daily Traffic Volumes | Highlighted row (Friday) is the highest-volume full day

The table below shows hourly volumes for Friday, April 17, the only complete weekday captured, and is most representative of typical weekday conditions on this corridor.

Hour	Eastbound	Westbound	Combined
3:00 AM	1	0	1
4:00 AM	0	1	1
5:00 AM	3	4	7
6:00 AM	23	4	27
7:00 AM	50	16	66
8:00 AM	50	19	69
9:00 AM	24	15	39
10:00 AM	15	5	20
11:00 AM	18	5	23
12:00 PM	22	12	34
1:00 PM	17	8	25
2:00 PM	25	20	45
3:00 PM	59	30	89
4:00 PM	39	13	52
5:00 PM	39	6	45
6:00 PM	22	5	27

7:00 PM	23	3	26
8:00 PM	13	5	18
9:00 PM	7	7	14
10:00 PM	5	0	5
11:00 PM	2	0	2
DAILY TOTAL	457	178	635

Table 3: Hourly Volumes, Friday April 17 (full weekday) | Highlighted row indicates PM peak hour

3. Peak Hour Analysis

The AM peak hour for the overall study period was identified as 7:15–8:15 AM on Monday, April 20, with 114 combined vehicles (93 eastbound, 21 westbound). This elevated Monday morning count likely reflects a return-to-work pattern after the weekend. The PM peak hour was 2:45–3:45 PM on Thursday, April 16, with 92 combined vehicles — coinciding with school dismissal time on the first afternoon of the study.

On the representative full weekday (Friday, April 17), the PM peak hour recorded 89 vehicles and the AM peak reached 69 vehicles during the 8:00 AM hour, both consistent with a residential neighborhood adjacent to school zones. The relative balance between AM and PM peaks and the pronounced eastbound dominance in the morning suggest this corridor serves as a primary outbound route from the neighborhood toward school and commercial areas to the east.

4. Speed Analysis

Speed data was recorded for 1,569 of the 2,100 counted vehicles. The overall mean travel speed of 24.3 mph is just below the posted 25 mph limit; however, this figure is significantly influenced by the lower-speed westbound traffic. The eastbound mean speed of 25.9 mph exceeds the limit, and the combined 85th percentile speed, the engineering standard used to represent prevailing free-flow conditions, was 29.6 mph, nearly 5 mph above the posted limit.

Eastbound speeding is widespread and statistically significant. Of 1,107 eastbound vehicles with recorded speeds, 692 (62.5%) exceeded 25 mph and 181 (16.4%) exceeded 30 mph. Twenty-two eastbound vehicles exceeded 35 mph, with the highest recorded speed reaching 41.3 mph, more than 16 mph over the limit. Westbound speeds were considerably lower, with only 22.5% exceeding the posted limit, likely influenced by the intersection geometry and approach from the west.

Metric	Eastbound	Westbound	Combined
Vehicles with Speed Data	1,107	462	1,569
Mean Speed	25.9 mph	20.5 mph	24.3 mph
85th Percentile Speed	30.2 mph	26.5 mph	29.6 mph
Maximum Recorded Speed	41.3 mph	37.4 mph	41.3 mph
Exceeding 25 mph (Posted Limit)	692 (62.5%)	104 (22.5%)	796 (50.7%)
Exceeding 30 mph	181 (16.4%)	20 (4.3%)	201 (12.8%)
Exceeding 35 mph	22 (2.0%)	4 (0.9%)	26 (1.7%)

Table 4 — Speed Compliance Summary by Direction

5. Speed Distribution

The speed distribution for all measured vehicles reveals that the 25–30 mph bracket is the single largest group, capturing 597 vehicles (38.0% of all measured traffic). This confirms that speeding in this corridor is a prevailing behavior rather than limited to isolated incidents. In total, 49.3% of vehicles with measured speeds were compliant with the 25 mph posted limit.

Speed Range	Vehicles	Percentage	Compliance
Under 15 mph	132	8.4%	Compliant
15 – 20 mph	179	11.4%	Compliant
20 – 25 mph	460	29.3%	Compliant
25 – 30 mph	597	38.0%	Exceeds Limit
30 – 35 mph	175	11.2%	Exceeds Limit
35 – 40 mph	25	1.6%	Exceeds Limit
40+ mph	1	0.1%	Exceeds Limit

Table 5: Speed Distribution, All Measured Vehicles Combined

6. Findings

The data collected at 12th Street and Park Avenue over four days reveals a residential corridor with moderate daily volumes and a measurable, consistent speeding problem concentrated in the eastbound direction. Key findings are summarized below:

1. Traffic volumes are moderate for a residential street. The highest full-day volume was 635 vehicles on Friday, April 17. Weekend volumes were lower (355–489 per day), consistent with a residential neighborhood.
2. Eastbound speeding is both widespread and persistent across the entire study period. Over 62% of eastbound drivers exceeded the 25 mph posted limit, and the 85th percentile speed of 30.2 mph indicates that speeding is the prevailing behavior rather than the exception.
3. High-speed violations are a serious concern. Twenty-two vehicles were recorded exceeding 35 mph, and one vehicle reached 41.3 mph — over 16 mph above the limit on a residential street with pedestrian exposure.
4. The PM peak hour is concentrated around 2:45–3:45 PM on weekdays, consistent with school dismissal. This overlap of elevated volumes and elevated speeds represents the highest-risk window on this corridor.
5. Vehicle classifications were almost entirely passenger vehicles and light trucks. No significant commercial or heavy truck presence was identified.

Data collected using Miovision traffic monitoring equipment, April 16–20, 2026. Speed data represents individual vehicle measurements; not all vehicles yielded a classifiable speed record. One sensor-reported NaN speed value was excluded from analysis. Study conducted by the City of Blair Information Technology Department.