



Memo

To: Lee County Engineer's office
From: Travis Kraus, SEIRPC Regional Planner
Date: June 17, 2014
Re: Speed Report
Pages: 3

This memo includes the results of the vehicle speed study conducted by the Southeast Iowa Regional Planning Commission from May 28th to June 12th, 2014. The purpose of the study was to analyze vehicle speeds on 320th Avenue in Lee County, traveling north from Highway 16 to Great River Quarry.

The speed indicator sign was set to "stealth mode". This setting allows traffic and speed data collection without displaying any information on the sign (i.e. the sign did not tell drivers how fast they were going).

Summary

- During the 16-day study period, a total count of 4,806 vehicles were recorded. Average daily vehicle count for the period was 687.
- NO VEHICLES exceeded the speed limit of 55 mph.
- Nearly 99% of vehicles traveled at speeds of 40 mph or less.
- Nearly 80% of vehicles traveled at speeds of 30 mph or less.

Statistics Summary Report

Location: Great River Quarry

Data Session: quarry road

Address:

Report Period: 5/28/2014 to 6/12/2014

Speed Limit: 55

Total Vehicle Count: 4,806



Hour	Total Vehicles	Average Vehicles	Total Violations	% Violations	Min. Speed	Max. Speed	Avg. Speed	85% Speed
00-01	18	3	0	0%	8	43	32	37
01-02	29	4	0	0%	8	43	32	42
02-03	5	1	0	0%	8	38	27	32
03-04	9	1	0	0%	8	38	26	37
04-05	91	13	0	0%	8	43	24	37
05-06	76	11	0	0%	13	53	29	12
06-07	184	26	0	0%	8	48	28	37
07-08	356	51	0	0%	8	48	26	32
08-09	433	62	0	0%	8	38	26	32
09-10	466	67	0	0%	8	43	26	32
10-11	427	61	0	0%	8	53	25	32
11-12	439	63	0	0%	8	43	26	32
12-13	465	66	0	0%	8	48	26	32
13-14	438	63	0	0%	8	43	27	32
14-15	414	59	0	0%	8	43	27	32
15-16	414	59	0	0%	8	43	26	32
16-17	139	20	0	0%	13	48	29	32
17-18	78	11	0	0%	8	48	31	37
18-19	58	8	0	0%	8	53	29	37
19-20	80	11	0	0%	8	43	27	37
20-21	87	12	0	0%	8	38	24	32
21-22	32	5	0	0%	8	38	24	32
22-23	25	4	0	0%	8	43	28	32
23-24	43	6	0	0%	8	53	30	37
Total	4,806	687	0	0%	8	45	27	33

Count by speed Bins

Speed	Count
0...5	0
5...10	204
10...15	174
15...20	501
20...25	1,347
25...30	1,572
30...35	718
35...40	223
40...45	52
45...50	11
50...55	4
Total	4,806



Please let me know if you have any questions about the report.

Thank you,

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Memo

To: Lee County Engineer's office
From: Travis Kraus, SEIRPC Regional Planner
Date: June 27, 2014
Re: 320th Avenue Speed Report Supplement
Pages: 2

This memo supplements results of the vehicle speed study conducted by the Southeast Iowa Regional Planning Commission from May 28th to June 12th, 2014. The purpose of the study was to analyze vehicle speeds on 320th Avenue in Lee County, traveling north from Highway 16 to Great River Quarry.

The following information is included in response to the request from the Lee County Engineer for clarification of information on the report .

1) The "average count" on the initial report is not accurate.

The report including the inaccurate information is automatically generated using the speed indicator software. Average count is higher than expected. The report included a period of 16 days. Average vehicles, therefore, should be total vehicles divided by 16.

SEIRPC staff reviewed the raw data and confirmed that the "total count" indicated on the report is correct based on the data collected. Average count can be calculated manually.

SEIRPC staff contacted Traffic Logix technical assistance regarding the discrepancy, and learned that the "average traffic" column is not reporting average daily traffic, but rather 5 or 7 day weekly traffic. The explanation from the company is:

"The statistics are correct. They work as follows; to get a weekly average, the total amount of cars for the entire period are counted, and then divided by 5 (for weekdays, or 7 for full week) to get the weekly avg. It is not divided by the total number of days, because that would then give me the daily average."

The explanation does not entirely clear up what the data is supposed to represent. SEIRPC staff recommends that, because it does not help answer the original question regarding whether vehicles are speeding, the average traffic data on the original report be disregarded.

2) The data includes several entries that seem unlikely to have been vehicle traffic.

SEIRPC staff analyzed and edited the raw data, and eliminated records that seemed unlikely to be vehicle traffic. Data was deleted based on two assumptions a) recorded entries of 8mph or less at any point throughout the day may have been caused by something other than a moving vehicle, such as an animal; and b) recorded entries of 13 mph or less during late night / early morning hours may have been caused by something other than a moving vehicle.

After deleting records based on the two assumptions mentioned above, overall outcomes changed very slightly. A total of 238 entries were deleted. Average mph increased by less than 1 mph. Daily totals and averages before and after deleting records is shown on the table below.

As the previous report expressed, the data suggests that a very high percentage of vehicles drive well below the 55 mph speed limit.

Date	Using Total Count		Less "Animal" Counts	
	Count	Average	Count	Average
Thursday, May 29, 2014	445	25.4	428	26.1
Friday, May 30, 2014	436	25.7	429	25.9
Saturday, May 31, 2014	514	25.0	469	26.4
Sunday, June 01, 2014	57	25.6	52	27.3
Monday, June 02, 2014	495	25.5	491	25.7
Tuesday, June 03, 2014	498	24.7	464	25.8
Wednesday, June 04, 2014	371	21.0	256	26.5
Thursday, June 05, 2014	401	26.0	401	26.0
Friday, June 06, 2014	416	26.6	416	26.6
Saturday, June 07, 2014	299	26.9	290	27.5
Sunday, June 08, 2014	51	31.1	51	31.1
Monday, June 09, 2014	320	26.3	320	26.3
Tuesday, June 10, 2014	104	27.3	104	27.3
Wednesday, June 11, 2014	243	27.7	243	27.7
Daily Average	332	26.1	315	26.9

*"Animal Counts" refers to unusual entries that seem unlikely to be vehicle traffic, and may have been caused by an animal or some other moving object.

** Table shows only dates in which data was collected for the full day

Please let me know if you have any questions about the report.

Thank you,

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