

IOWA DEPARTMENT OF TRANSPORTATION

To Office District 4 **Date** September 14, 2018
Attention Rex Allen **Ref. No.** 456
Scott Schram Dallas County
From David Matulac
Office Traffic and Safety
Subject Recommendation to District: Speed Study on US 169 / US 6 in Adel, IA

District 4 requested a Speed Study, on behalf of the City of Adel, in the Subject area. An attorney had contacted the Iowa D.O.T. director to request lowered speed limits from near the school, southward, to the new developments because it is "getting dangerous". The City subsequently agreed with the request for a speed study.

It was decided that the Iowa D.O.T. would conduct a speed study to determine the appropriate speed zones for the area.

Speed Data was collected (see below) and a review of the area was conducted.

Last Staff Action/Commission Resolution: H-81-794 dated May 26, 1981 and 05-0839 dated June 5, 2005

The following observations were made of the area reviewed:

- No signalized intersections south of US 6 (Greene Street).
- Sight distance not limited as to merit a warning sign.
- Center-turn and right-turn lane into school driveway.

Crash data was not provided for review.

The collected data and review of the area supports:

- a 5mph increase to the 45mph and 30mph zones. These new speed limits would increase compliance in these areas to the maximum safe speed limit (85th percentile speed). The 35mph school speed zone will be increased to 40mph.

If the District agrees to increasing the 30mph zone (to 35mph), we will extend the speed study further north to determine the north terminus of this zone.

Please respond to this Recommendation with your concurrence or suggestions for change. If the District would like to maintain the existing zones, please notify Traffic and Safety.

If you have any questions or concerns, please contact Ron McDaniel at 515-239-1537 or Ron.McDaniel@iowadot.us.

Project ID : A1
Street : US 169/US 6
Capture Zone : 302ND PLACE

Direction(s) : BOTH -- FACING NORTH
Posted Speed Limit: 55
Types of Vehicles : ALL VEHICLES
Weather Conditions: 60S AND SUNNY

Filter Settings

Date Range : 07/31/18 Through 07/31/18
Time Range : 08:57:00A Through 10:59:00A
Direction(s) : Approaching & Departing
Types of Vehicles : All Vehicles

Lowest Recorded Speed : 41 15th Percentile : 52
Highest Recorded Speed : 69 50th Percentile : 57
Average Speed : 56.2 85th Percentile : 60
Vehicles Observed : 320 95th Percentile : 62

10 MPH Pace Speed : 51 Through 60
Percent In Pace Speed : 80.6
Percent Under Pace Speed : 9.4
Percent Over Pace Speed : 10.0

SPEED	COUNT	PERCENT	CUM.%	SPEED	COUNT	PERCENT	CUM.%
30	0	0.0	0.0	56	23	7.2	49.7
31	0	0.0	0.0	57	23	7.2	56.9
32	0	0.0	0.0	58	40	12.5	69.4
33	0	0.0	0.0	59	31	9.7	79.1
34	0	0.0	0.0	60	35	10.9	90.0
35	0	0.0	0.0	61	10	3.1	93.1
36	0	0.0	0.0	62	13	4.1	97.2
37	0	0.0	0.0	63	3	0.9	98.1
38	0	0.0	0.0	64	2	0.6	98.8
39	0	0.0	0.0	65	1	0.3	99.1
40	0	0.0	0.0	66	1	0.3	99.4
41	1	0.3	0.3	67	1	0.3	99.7
42	0	0.0	0.3	68	0	0.0	99.7
43	0	0.0	0.3	69	1	0.3	100.0
44	2	0.6	0.9	70	0	0.0	100.0
45	3	0.9	1.9	71	0	0.0	100.0
46	0	0.0	1.9	72	0	0.0	100.0
47	4	1.3	3.1	73	0	0.0	100.0
48	4	1.3	4.4	74	0	0.0	100.0
49	3	0.9	5.3	75	0	0.0	100.0
50	13	4.1	9.4	76	0	0.0	100.0
51	11	3.4	12.8	77	0	0.0	100.0
52	12	3.8	16.6	78	0	0.0	100.0
53	18	5.6	22.2	79	0	0.0	100.0
54	27	8.4	30.6	80	0	0.0	100.0
55	38	11.9	42.5				

Project ID : A2
Street : US 169/US 6
Capture Zone : MEADOW RD

Direction(s) : BOTH -- FACING NORTH
Posted Speed Limit: 55
Types of Vehicles : ALL VEHICLES
Weather Conditions: 80S AND SUNNY

Filter Settings

Date Range : 07/31/18 Through 07/31/18
Time Range : 11:47:00A Through 01:49:00P
Direction(s) : Approaching & Departing
Types of Vehicles : All Vehicles

Lowest Recorded Speed : 40 15th Percentile : 50
Highest Recorded Speed : 63 50th Percentile : 54
Average Speed : 53.5 85th Percentile : 57
Vehicles Observed : 287 95th Percentile : 60

10 MPH Pace Speed : 49 Through 58
Percent In Pace Speed : 79.8
Percent Under Pace Speed : 10.5
Percent Over Pace Speed : 9.8

SPEED	COUNT	PERCENT	CUM.%	SPEED	COUNT	PERCENT	CUM.%
30	0	0.0	0.0	56	30	10.5	77.0
31	0	0.0	0.0	57	23	8.0	85.0
32	0	0.0	0.0	58	15	5.2	90.2
33	0	0.0	0.0	59	7	2.4	92.7
34	0	0.0	0.0	60	13	4.5	97.2
35	0	0.0	0.0	61	5	1.7	99.0
36	0	0.0	0.0	62	2	0.7	99.7
37	0	0.0	0.0	63	1	0.3	100.0
38	0	0.0	0.0	64	0	0.0	100.0
39	0	0.0	0.0	65	0	0.0	100.0
40	2	0.7	0.7	66	0	0.0	100.0
41	0	0.0	0.7	67	0	0.0	100.0
42	3	1.0	1.7	68	0	0.0	100.0
43	0	0.0	1.7	69	0	0.0	100.0
44	2	0.7	2.4	70	0	0.0	100.0
45	5	1.7	4.2	71	0	0.0	100.0
46	6	2.1	6.3	72	0	0.0	100.0
47	6	2.1	8.4	73	0	0.0	100.0
48	6	2.1	10.5	74	0	0.0	100.0
49	13	4.5	15.0	75	0	0.0	100.0
50	16	5.6	20.6	76	0	0.0	100.0
51	27	9.4	30.0	77	0	0.0	100.0
52	19	6.6	36.6	78	0	0.0	100.0
53	27	9.4	46.0	79	0	0.0	100.0
54	26	9.1	55.1	80	0	0.0	100.0
55	33	11.5	66.6				

Project ID : A3
Street : US 169/US 6
Capture Zone : BAILEYS GROVE DR

Direction(s) : BOTH -- FACING NORTH
Posted Speed Limit: 55
Types of Vehicles : ALL VEHICLES
Weather Conditions: 80S SUNNY

Filter Settings

Date Range : 07/31/18 Through 07/31/18
Time Range : 02:04:00P Through 04:06:00P
Direction(s) : Approaching & Departing
Types of Vehicles : All Vehicles

Lowest Recorded Speed : 32 15th Percentile : 46
Highest Recorded Speed : 63 50th Percentile : 52
Average Speed : 51.6 85th Percentile : 57
Vehicles Observed : 389 95th Percentile : 59

10 MPH Pace Speed : 49 Through 58
Percent In Pace Speed : 66.1
Percent Under Pace Speed : 26.5
Percent Over Pace Speed : 7.5

SPEED	COUNT	PERCENT	CUM. %	SPEED	COUNT	PERCENT	CUM. %
30	0	0.0	0.0	56	23	5.9	79.9
31	0	0.0	0.0	57	28	7.2	87.1
32	1	0.3	0.3	58	21	5.4	92.5
33	1	0.3	0.5	59	13	3.3	95.9
34	1	0.3	0.8	60	7	1.8	97.7
35	0	0.0	0.8	61	4	1.0	98.7
36	1	0.3	1.0	62	4	1.0	99.7
37	0	0.0	1.0	63	1	0.3	100.0
38	1	0.3	1.3	64	0	0.0	100.0
39	4	1.0	2.3	65	0	0.0	100.0
40	6	1.5	3.9	66	0	0.0	100.0
41	3	0.8	4.6	67	0	0.0	100.0
42	7	1.8	6.4	68	0	0.0	100.0
43	7	1.8	8.2	69	0	0.0	100.0
44	7	1.8	10.0	70	0	0.0	100.0
45	14	3.6	13.6	71	0	0.0	100.0
46	14	3.6	17.2	72	0	0.0	100.0
47	16	4.1	21.3	73	0	0.0	100.0
48	20	5.1	26.5	74	0	0.0	100.0
49	24	6.2	32.6	75	0	0.0	100.0
50	24	6.2	38.8	76	0	0.0	100.0
51	25	6.4	45.2	77	0	0.0	100.0
52	23	5.9	51.2	78	0	0.0	100.0
53	25	6.4	57.6	79	0	0.0	100.0
54	34	8.7	66.3	80	0	0.0	100.0
55	30	7.7	74.0				

SpeedStat Version 2.3 11/96
 Project ID : A4
 Street : US 169/US 6
 Capture Zone : TIMBERVIEW DRIVE

Direction(s) : BOTH -- FACING SOUTH
 Posted Speed Limit: 55
 Types of Vehicles : ALL VEHICLES
 Weather Conditions: 70S AND SUNNY

Filter Settings

Date Range : 08/01/18 Through 08/01/18
 Time Range : 09:03:00A Through 10:59:00A
 Direction(s) : Approaching & Departing
 Types of Vehicles : All Vehicles

Lowest Recorded Speed : 35 15th Percentile : 42
 Highest Recorded Speed : 60 50th Percentile : 47
 Average Speed : 47.1 85th Percentile : 52
 Vehicles Observed : 398 95th Percentile : 55

10 MPH Pace Speed : 43 Through 52
 Percent In Pace Speed : 71.1
 Percent Under Pace Speed : 16.6
 Percent Over Pace Speed : 12.3

SPEED	COUNT	PERCENT	CUM. %	SPEED	COUNT	PERCENT	CUM. %
30	0	0.0	0.0	56	6	1.5	97.7
31	0	0.0	0.0	57	4	1.0	98.7
32	0	0.0	0.0	58	2	0.5	99.2
33	0	0.0	0.0	59	1	0.3	99.5
34	0	0.0	0.0	60	2	0.5	100.0
35	3	0.8	0.8	61	0	0.0	100.0
36	3	0.8	1.5	62	0	0.0	100.0
37	1	0.3	1.8	63	0	0.0	100.0
38	4	1.0	2.8	64	0	0.0	100.0
39	9	2.3	5.0	65	0	0.0	100.0
40	15	3.8	8.8	66	0	0.0	100.0
41	15	3.8	12.6	67	0	0.0	100.0
42	16	4.0	16.6	68	0	0.0	100.0
43	24	6.0	22.6	69	0	0.0	100.0
44	29	7.3	29.9	70	0	0.0	100.0
45	28	7.0	36.9	71	0	0.0	100.0
46	24	6.0	43.0	72	0	0.0	100.0
47	34	8.5	51.5	73	0	0.0	100.0
48	39	9.8	61.3	74	0	0.0	100.0
49	40	10.1	71.4	75	0	0.0	100.0
50	20	5.0	76.4	76	0	0.0	100.0
51	26	6.5	82.9	77	0	0.0	100.0
52	19	4.8	87.7	78	0	0.0	100.0
53	15	3.8	91.5	79	0	0.0	100.0
54	12	3.0	94.5	80	0	0.0	100.0
55	7	1.8	96.2				

SpeedStat Version 2.3 11/96
 Project ID : A5
 Street : US 169/US 6
 Capture Zone : 1150 FT NORTH OF TIMBERVIEW DRIVE

Direction(s) : BOTH -- FACING SOUTH
 Posted Speed Limit: 45
 Types of Vehicles : ALL VEHICLES
 Weather Conditions: 80S AND CLOUDY

Filter Settings

Date Range : 08/06/18 Through 08/06/18
 Time Range : 12:08:00P Through 02:05:00P
 Direction(s) : Approaching & Departing
 Types of Vehicles : All Vehicles

Lowest Recorded Speed : 34 15th Percentile : 40
 Highest Recorded Speed : 56 50th Percentile : 45
 Average Speed : 44.7 85th Percentile : 49
 Vehicles Observed : 400 95th Percentile : 51

10 MPH Pace Speed : 40 Through 49
 Percent In Pace Speed : 80.0
 Percent Under Pace Speed : 9.5
 Percent Over Pace Speed : 10.5

SPEED	COUNT	PERCENT	CUM.%	SPEED	COUNT	PERCENT	CUM.%
30	0	0.0	0.0	56	2	0.5	100.0
31	0	0.0	0.0	57	0	0.0	100.0
32	0	0.0	0.0	58	0	0.0	100.0
33	0	0.0	0.0	59	0	0.0	100.0
34	2	0.5	0.5	60	0	0.0	100.0
35	2	0.5	1.0	61	0	0.0	100.0
36	2	0.5	1.5	62	0	0.0	100.0
37	8	2.0	3.5	63	0	0.0	100.0
38	7	1.8	5.3	64	0	0.0	100.0
39	17	4.3	9.5	65	0	0.0	100.0
40	23	5.8	15.3	66	0	0.0	100.0
41	19	4.8	20.0	67	0	0.0	100.0
42	27	6.8	26.8	68	0	0.0	100.0
43	42	10.5	37.3	69	0	0.0	100.0
44	46	11.5	48.8	70	0	0.0	100.0
45	41	10.3	59.0	71	0	0.0	100.0
46	34	8.5	67.5	72	0	0.0	100.0
47	32	8.0	75.5	73	0	0.0	100.0
48	30	7.5	83.0	74	0	0.0	100.0
49	26	6.5	89.5	75	0	0.0	100.0
50	17	4.3	93.8	76	0	0.0	100.0
51	5	1.3	95.0	77	0	0.0	100.0
52	7	1.8	96.8	78	0	0.0	100.0
53	6	1.5	98.3	79	0	0.0	100.0
54	4	1.0	99.3	80	0	0.0	100.0
55	1	0.3	99.5				

SpeedStat Version 2.3 11/96
 Project ID : A6
 Street : US 169/US 6
 Capture Zone : BETWEEN SCHOOL DRIVEWAY AND GREENWOOD HILLS DRIVE

Direction(s) : BOTH -- FACING NORTH
 Posted Speed Limit: 45
 Types of Vehicles : ALL VEHICLES
 Weather Conditions: 70S AND SUNNY

Filter Settings

Date Range : 08/01/18 Through 08/01/18
 Time Range : 12:25:00P Through 02:27:00P
 Direction(s) : Approaching & Departing
 Types of Vehicles : All Vehicles

Lowest Recorded Speed : 27 15th Percentile : 34
 Highest Recorded Speed : 50 50th Percentile : 38
 Average Speed : 38.3 85th Percentile : 43
 Vehicles Observed : 240 95th Percentile : 45

10 MPH Pace Speed : 34 Through 43
 Percent In Pace Speed : 75.4
 Percent Under Pace Speed : 12.9
 Percent Over Pace Speed : 11.7

SPEED	COUNT	PERCENT	CUM.%	SPEED	COUNT	PERCENT	CUM.%
25	0	0.0	0.0	46	1	0.4	95.4
26	0	0.0	0.0	47	4	1.7	97.1
27	1	0.4	0.4	48	2	0.8	97.9
28	3	1.3	1.7	49	2	0.8	98.8
29	2	0.8	2.5	50	3	1.3	100.0
30	3	1.3	3.8	51	0	0.0	100.0
31	3	1.3	5.0	52	0	0.0	100.0
32	11	4.6	9.6	53	0	0.0	100.0
33	8	3.3	12.9	54	0	0.0	100.0
34	20	8.3	21.3	55	0	0.0	100.0
35	12	5.0	26.3	56	0	0.0	100.0
36	26	10.8	37.1	57	0	0.0	100.0
37	22	9.2	46.3	58	0	0.0	100.0
38	18	7.5	53.8	59	0	0.0	100.0
39	18	7.5	61.3	60	0	0.0	100.0
40	15	6.3	67.5	61	0	0.0	100.0
41	17	7.1	74.6	62	0	0.0	100.0
42	20	8.3	82.9	63	0	0.0	100.0
43	13	5.4	88.3	64	0	0.0	100.0
44	10	4.2	92.5	65	0	0.0	100.0
45	6	2.5	95.0				

SpeedStat Version 2.3 11/96
 Project ID : A7
 Street : US 169/US 6
 Capture Zone : BRYAN STREET

Direction(s) : BOTH -- FACING NORTH
 Posted Speed Limit: 30
 Types of Vehicles : ALL VEHICLES
 Weather Conditions: 80S AND CLOUDY

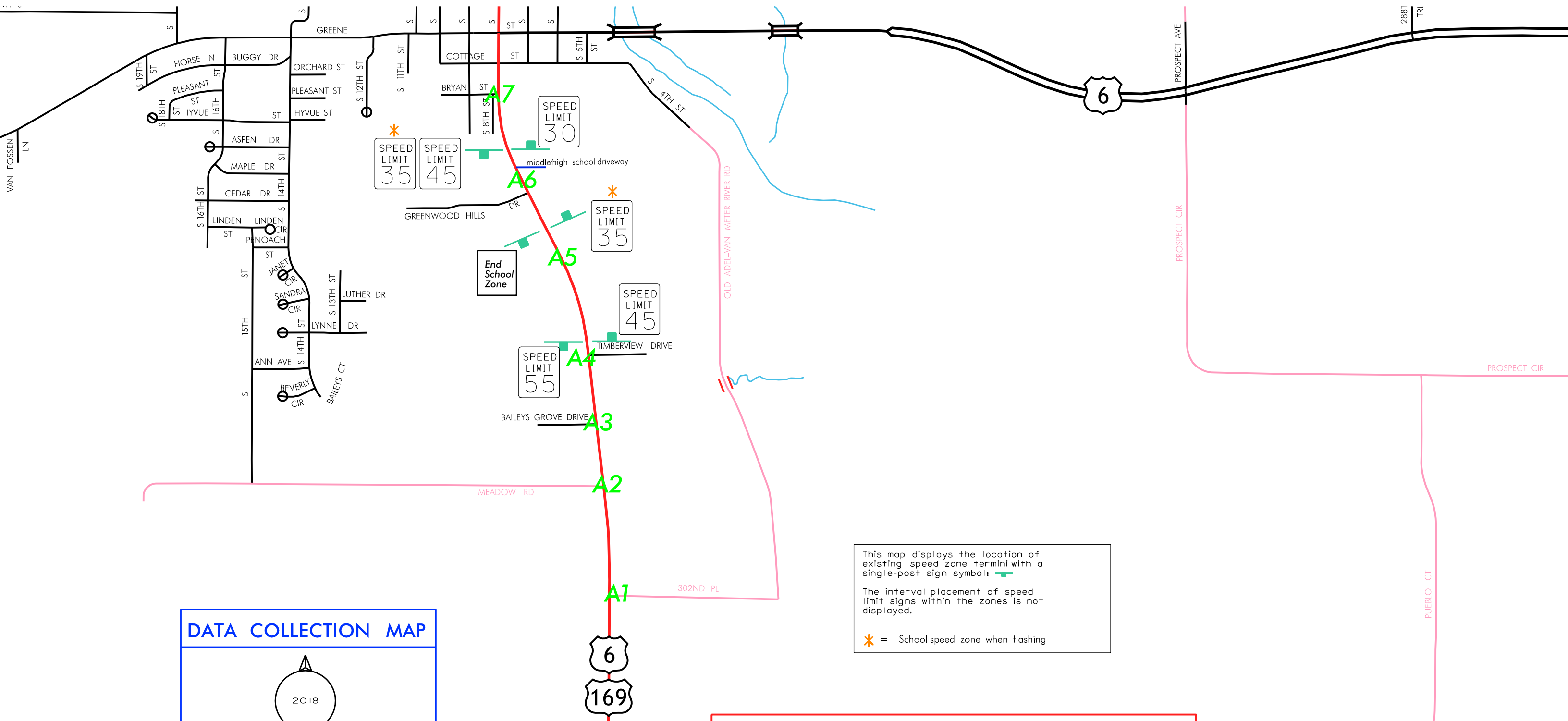
Filter Settings

Date Range : 08/06/18 Through 08/06/18
 Time Range : 02:14:00P Through 03:55:00P
 Direction(s) : Approaching & Departing
 Types of Vehicles : All Vehicles

Lowest Recorded Speed : 22 15th Percentile : 27
 Highest Recorded Speed : 44 50th Percentile : 30
 Average Speed : 30.5 85th Percentile : 34
 Vehicles Observed : 399 95th Percentile : 37

10 MPH Pace Speed : 26 Through 35
 Percent In Pace Speed : 84.2
 Percent Under Pace Speed : 6.8
 Percent Over Pace Speed : 9.0

SPEED	COUNT	PERCENT	CUM.%	SPEED	COUNT	PERCENT	CUM.%
22	4	1.0	1.0	34	25	6.3	86.0
23	4	1.0	2.0	35	20	5.0	91.0
24	9	2.3	4.3	36	16	4.0	95.0
25	10	2.5	6.8	37	7	1.8	96.7
26	22	5.5	12.3	38	4	1.0	97.7
27	29	7.3	19.5	39	5	1.3	99.0
28	46	11.5	31.1	40	1	0.3	99.2
29	48	12.0	43.1	41	1	0.3	99.5
30	40	10.0	53.1	42	1	0.3	99.7
31	41	10.3	63.4	43	0	0.0	99.7
32	40	10.0	73.4	44	1	0.3	100.0
33	25	6.3	79.7	45	0	0.0	100.0




DATA COLLECTION MAP

2018

US 169 /US 6
Adel
Dallas County

NOT TO SCALE

This map displays the location of existing speed zone termini with a single-post sign symbol: 

The interval placement of speed limit signs within the zones is not displayed.

* = School speed zone when flashing

LASER DATA COLLECTION					
Date	Site No.	Location	Direction of Travel	85th Percentile	Posted Speed Limit
7-31-18	A1	302nd Place	Both	60	55
7-31-18	A2	Meadow Road	Both	57	55
7-31-18	A3	Bailey's Grove Drive	Both	57	55
8-1-18	A4	Timberview Drive	Both	52	55
8-6-18	A5	1150' n. of Timberview Drive	Both	49	45
8-1-18	A6	between Greenwood Hills Dr & school driveway	Both	43	45
8-6-18	A7	Bryan Street	Both	34	30