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**Williamson County
Unified Road System**

To: Williamson County Commissioners' Court
From: Joe M. England P.E., County Engineer
Date: September 8, 2011
**Subject: Proposed Speed Limit on
County Road 446**



According to the 2006 edition of the Texas Manual on Uniform Traffic Control Devices the following factors should form the basis of an engineering and traffic investigation for determining the proper numerical value for a speed zone. The factors are as follows:

When a speed limit is to be posted, it should be within 5 mph of the 85th-percentile speed of free-flowing traffic.

Option:

Other factors that may be considered when establishing speed limits are the following:

- A. Road characteristics, shoulder condition, grade, alignment, and sight distance;
- B. The pace speed;
- C. Roadside development and environment;
- D. Parking practices and pedestrian activity; and
- E. Reported crash experience for at least a 12-month period.

Upon my field investigation, I found that the section of County Road 446 from County Road 445 to FM 112 consist of a rural street design within a rural agricultural environment with no currently posted speed limit.

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The section of County Road 446 from County Road 445 to FM 112 consist of approximately 40 feet of right-of-way (ROW), a two lane undivided section. The grade is flat with several severe horizontal curves. There is some roadside development and culture (rural residential) which generates roadside friction. There is no parking within the right-of-way. There is no pedestrian activity. To this date, I have no accident information for the last 12-month period that would dictate any certain speed limit.

A speed study was conducted on May 10, 2011. The result of these studies shows an 85% speed of 35 MPH. The 10 MPH pace speed was a range of 28-37.

The pace speeds would indicate a proposed posting of either 30 or 35 MPH with the 85% suggesting the upper limit of this range. Due to the rural nature of the roadway, we should consider the upper limit of this range. With these factors in mind, it is my professional opinion that a posting of 35 MPH is proper for the section of County Road 446 from County Road 445 to FM 112.

21220 Jakes Hill Rd
Hutto, TX 78634
512-832-8650

CR 446

Southbound, Northbound															Latitude: 0' 0.000 Undefined		
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number
5/10/11	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed <td>In Pace</td>	In Pace
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
09:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	27-36	1
10:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	27-36	2
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	23-32	2
16:00	0	2	0	1	1	0	0	0	0	0	0	0	0	0	4	8-17	2
17:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	22-31	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	17-26	2
Total	0	2	1	2	5	2	0	0	0	0	0	0	0	0	12		
Percent	0.0%	16.7%	8.3%	16.7%	41.7%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak					10:00	09:00									10:00		
Vol.					1	1									2		
PM Peak		16:00	23:00	16:00	15:00										16:00		
Vol.		2	1	1	2										4		
Percent	0	2	1	2	5	2	0	0	0	0	0	0	0	0	12		
Total	0	2	1	2	5	2	0	0	0	0	0	0	0	0	12		
Percent	0.0%	16.7%	8.3%	16.7%	41.7%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
15th Percentile : 17 MPH																	
50th Percentile : 31 MPH																	
85th Percentile : 35 MPH																	
95th Percentile : 36 MPH																	
Stats																	
10 MPH Pace Speed : 28-37 MPH																	
Number in Pace : 9																	
Percent in Pace : 75.0%																	
Number of Vehicles > 55 MPH : 0																	
Percent of Vehicles > 55 MPH : 0.0%																	
Mean Speed(Average) : 30 MPH																	