

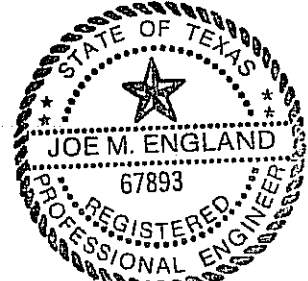
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Williamson County
Unified Road System

To: Williamson County Commissioners' Court
From: Joe M. England P.E., County Engineer
Date: January 7, 2010
Subject: Proposed Speed Limit on Great Oaks Drive



Joe M. England
1/7/10

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 Great Oaks Drive from O'Connor Blvd. to Brushy Creek Road consist of an urban street design within a suburban environment with a currently posted speed limit of 30 MPH.

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The section of Great Oaks Drive from O'Connor Blvd. to Brushy Creek Road consist of approximately 100 feet of right-of-way (ROW), two 24 foot driving lanes, and curb and gutter. The grade is flat with few horizontal curves. There is roadside development and culture (limited commercial and an elementary school with single family homes that back up to the street) which generates restrained roadside friction. Parking is off of the right-of-way. There is moderate 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 from March 10 to March 11, 2009 on the section of Great Oaks Drive from O'Connor Blvd. to Brushy Creek Road. The result of this study shows an 85% speed of 36 MPH. The 10 MPH pace speed was 26-35 MPH.

The pace speeds would indicate a proposed posting of either 30 or 35 MPH with the 85% suggesting the upper limit of this range. It is my professional opinion that a posting of 35 MPH is proper for the section of Great Oaks Drive from O'Connor Blvd. to Brushy Creek Road.

Williamson County Unified Road System

3151 SE Inner Loop, Suite B
Georgetown, Texas 78626
512-943-3330

Site Code: Great Oaks Dr
Station ID:

Latitude: 0' 0.000 Undefined

North bound, South bound		16	21	26	31	36	41	46	51	56	61	66	71	76	Pace	Number
Start	Time	15	20	25	30	35	40	45	50	55	60	65	70	75	Speed	In Pace
03/10/09	01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	11:00	0	0	2	25	65	18	3	0	0	0	0	0	0	113	26-35 90
	12 PM	0	0	4	31	77	24	5	0	0	0	0	0	0	141	26-35 108
	13:00	0	0	2	24	98	31	3	1	0	0	0	0	0	159	31-40 129
	14:00	0	0	2	51	119	38	3	0	0	0	0	0	0	213	26-35 170
	15:00	0	1	11	99	135	34	3	0	1	0	0	0	0	284	26-35 234
	16:00	2	1	5	68	165	52	3	0	0	0	0	0	0	286	26-35 233
	17:00	0	0	9	54	202	52	11	0	0	0	0	0	0	328	27-36 257
	18:00	0	1	5	41	154	65	4	0	0	0	0	0	0	270	31-40 219
	19:00	0	0	4	41	113	41	6	0	0	0	0	0	0	205	27-36 155
	20:00	0	0	3	37	75	17	6	1	0	0	0	0	0	139	26-35 112
	21:00	0	0	1	9	57	19	3	0	0	0	0	0	0	89	31-40 76
	22:00	0	1	1	9	13	9	0	0	0	0	0	0	0	33	27-36 23
	23:00	0	0	0	2	8	5	0	0	0	0	0	0	0	15	29-38 13
Total		2	4	49	491	1281	405	50	2	1	0	0	0	0	2285	
Percent		0.1%	0.2%	2.1%	21.5%	56.1%	17.7%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%		
AM Peak				11:00	11:00	11:00	11:00	11:00							11:00	
Vol.				2	25	65	18	3							113	
PM Peak		16:00	15:00	15:00	15:00	17:00	18:00	17:00	13:00	15:00					17:00	
Vol.		2	1	11	99	202	65	11	1	1					328	

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North bound, South bound																	Pace				Number	
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	799	Total	Speed	In	Pace	Number		
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85							
03/11/09	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	6	29-38	4				
01:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	27-36	2				
02:00	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	4	13-22	2				
03:00	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	28-37	3				
04:00	0	0	1	0	3	1	0	0	0	0	0	0	0	0	0	5	27-36	4				
05:00	0	0	2	10	6	0	0	0	0	0	0	0	0	0	0	18	24-33	16				
06:00	0	1	4	37	34	5	0	0	0	0	0	0	0	0	0	81	26-35	71				
07:00	0	0	14	230	234	18	1	0	0	0	0	0	0	0	0	497	26-35	464				
08:00	0	1	13	130	126	22	0	0	0	0	0	0	0	0	0	292	26-35	256				
09:00	0	0	4	52	74	7	0	0	0	0	0	0	0	0	0	137	26-35	126				
10:00	0	0	5	29	75	22	1	0	0	0	0	0	0	0	0	132	26-35	104				
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Total	0	2	45	490	556	82	2	0	0	0	0	0	0	0	0	1177						
Percent	0.0%	0.2%	3.8%	41.6%	47.2%	7.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%							
AM Peak	06:00	07:00	07:00	07:00	07:00	08:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00						
Vol	1	14	14	230	234	22	1									497						
PM Peak																						
Vol																						

Total	2	6	94	981	1537	487	52	2	1	0	0	0	0	0	0	0	3462
Percent	0.1%	0.2%	2.7%	28.3%	53.1%	14.1%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Stats

10 MPH Pace Speed : 26-35 MPH

Number in Pace : 2818

Percent in Pace : 81.4%

Number of Vehicles > 30 MPH : 2379

Percent of Vehicles > 30 MPH : 68.7%

Mean Speed(Average) : 32 MPH