

# GRAM Traffic North Texas, Inc.

1120 W. Lovers Lane  
Arlington, Texas 76013  
(817) 265-8968

STEWART BLVD @ ST. ANDREWS - APPROACH COUNTS  
Site Code: 221  
Date Start: 07-Feb-12

Start Time	07-Feb-12 Tue	NB	SB	EB	WB	Total
12:00 AM		3	0	0	0	3
12:15		0	1	0	0	1
12:30		1	1	0	0	2
12:45		0	0	0	0	0
01:00		0	0	0	0	0
01:15		0	0	0	0	0
01:30		0	0	0	0	0
01:45		0	0	0	0	0
02:00		1	1	0	0	2
02:15		0	0	0	0	0
02:30		0	0	0	0	0
02:45		0	0	0	0	0
03:00		0	0	0	0	0
03:15		0	1	0	0	1
03:30		1	0	0	0	1
03:45		1	1	0	0	2
04:00		0	0	2	0	2
04:15		0	0	0	0	0
04:30		0	0	2	0	2
04:45		0	0	0	0	0
05:00		1	2	3	0	6
05:15		1	0	0	0	1
05:30		0	1	2	0	3
05:45		1	2	1	0	4
06:00		1	3	2	0	6
06:15		0	3	5	0	8
06:30		0	1	2	2	5
06:45		4	7	5	0	16
07:00		1	10	9	1	21
07:15		11	10	8	2	31
07:30		8	11	12	0	31
07:45		14	7	8	0	29
08:00		7	10	9	0	26
08:15		14	6	10	2	32
08:30		10	11	9	0	30
08:45		1	6	4	0	11
09:00		3	3	1	0	7
09:15		4	5	4	0	13
09:30		4	5	4	1	14
09:45		3	5	0	0	8
10:00		2	6	2	0	10
10:15		8	4	10	1	23
10:30		3	2	3	0	8
10:45		3	5	2	1	11
11:00		3	4	2	0	9
11:15		4	3	0	0	7
11:30		1	2	2	0	5
11:45		4	4	3	2	13
Total		123	143	126	12	404
Percent		30.4%	35.4%	31.2%	3.0%	
Peak		07:45	06:45	07:30	06:30	07:30
Vol.		45	38	39	5	118
P.H.F.		0.804	0.864	0.813	0.625	0.922

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Start Time	07-Feb-12 Tue	NB	SB	EB	WB	Total
12:00 PM		3	2	2	1	8
12:15		1	4	1	0	6
12:30		4	6	1	0	11
12:45		5	3	0	0	8
01:00		11	2	4	1	18
01:15		5	10	3	1	19
01:30		8	5	0	0	13
01:45		5	3	1	0	9
02:00		7	3	3	0	13
02:15		4	2	3	0	9
02:30		6	3	2	0	11
02:45		6	6	0	0	12
03:00		14	1	1	0	16
03:15		7	3	1	0	11
03:30		9	1	1	0	11
03:45		7	4	3	1	15
04:00		20	28	2	0	50
04:15		7	10	4	2	23
04:30		8	7	5	1	21
04:45		16	8	2	1	27
05:00		18	10	1	2	31
05:15		12	10	5	2	29
05:30		14	10	3	0	27
05:45		16	9	3	2	30
06:00		18	3	1	0	22
06:15		14	6	3	0	23
06:30		17	3	8	4	32
06:45		11	3	2	0	16
07:00		16	3	2	1	22
07:15		9	3	2	1	15
07:30		11	0	1	0	12
07:45		8	3	2	0	13
08:00		6	4	0	3	13
08:15		9	4	3	0	16
08:30		5	0	0	0	5
08:45		7	3	1	0	11
09:00		7	0	0	2	9
09:15		4	0	1	0	5
09:30		3	2	4	0	9
09:45		5	1	0	0	6
10:00		5	0	1	0	6
10:15		3	1	0	0	4
10:30		1	0	0	0	1
10:45		4	0	1	0	5
11:00		2	0	0	0	2
11:15		1	1	0	0	2
11:30		2	2	0	0	4
11:45		1	0	1	0	2
<b>Total</b>		382	192	84	25	683
<b>Percent</b>		55.9%	28.1%	12.3%	3.7%	
<b>Peak</b>		17:45	16:00	17:45	16:15	16:00
<b>Vol.</b>		65	53	15	6	121
<b>P.H.F.</b>		0.903	0.473	0.469	0.750	0.605
<b>Grand Total</b>		505	335	210	37	1087
<b>Percent</b>		46.5%	30.8%	19.3%	3.4%	
<b>ADT</b>		ADT 1,087		AADT 1,087		

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01:00		0	0	0	0	0
02:00		1	1	0	0	2
03:00		2	2	0	0	4
04:00		0	0	4	0	4
05:00		3	5	6	0	14
06:00		5	14	14	2	35
07:00		<b>34</b>	<b>38</b>	<b>37</b>	<b>3</b>	<b>112</b>
08:00		32	33	32	2	99
09:00		14	18	9	1	42
10:00		16	17	17	2	52
11:00		12	13	7	2	34
12:00 PM		13	15	4	1	33
01:00		29	20	8	2	59
02:00		23	14	8	0	45
03:00		37	9	6	1	53
04:00		51	<b>53</b>	13	4	<b>121</b>
05:00		<b>60</b>	39	12	<b>6</b>	117
06:00		60	15	<b>14</b>	4	93
07:00		44	9	7	2	62
08:00		27	11	4	3	45
09:00		19	3	5	2	29
10:00		13	1	2	0	16
11:00		6	3	1	0	10
Total		505	335	210	37	1087
Percent		46.5%	30.8%	19.3%	3.4%	
AM Peak		07:00	07:00	07:00	07:00	07:00
Vol.		34	38	37	3	112
PM Peak		17:00	16:00	18:00	17:00	16:00
Vol.		60	53	14	6	121
Grand Total		505	335	210	37	1087
Percent		46.5%	30.8%	19.3%	3.4%	
ADT		ADT 1,087		AADT 1,087		

**Stop Sign Warrant based on Gram Traffic North Texas, Inc. Approach Counts (February 2012)  
And Crash Accident Reports from City Police Department  
(Stewart Boulevard at St. Andrews Intersection)**

**What are Warrants for Multi-Way Stop Signs per Section 2B.07 of December 2011 MUTCD Manual:**

**Condition A:** Not Applicable.

**Condition B.** Criteria: Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

*Results from Data Collected:*

- One (1) hit and run of a parked vehicle was reported at this intersection in a 12 month period.
- **Condition B is not met**

**Condition C.** Criteria: Minimum Volumes

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but
3. If the 85<sup>th</sup>-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

*Results from Data Collected:*

- Number 1 is not met above. The highest average based on the traffic count on Stewart Creek Blvd., the major street (NB and SB), was 104 vehicles from 4 – 5 PM which was the busiest hour of the day.
- Number 2 was not evaluated as bicycle and pedestrian volumes were not taken.
- Number 3 is not met above. The 85<sup>th</sup> percentile approach speed of the major street traffic does not exceed 40 mph per posted speed limit. Also, the minimum vehicular volume warrants are not 70 percent of the values provided in Items 1 and 2.
- **Condition C is not met.**

**Condition D.** Criteria: Where no single criterion is satisfied, but where Criteria B, C.1. and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

*Results from Data Collected:*

- Criteria B, C.1, and C.2 are not satisfied to the 80 percent of the minimum values.
- **Condition D is not met.**