



TRAFFIC 101

YIELD AND STOP SIGNS

TRAFFIC SAFETY COMMISSION - CITY OF DENTON

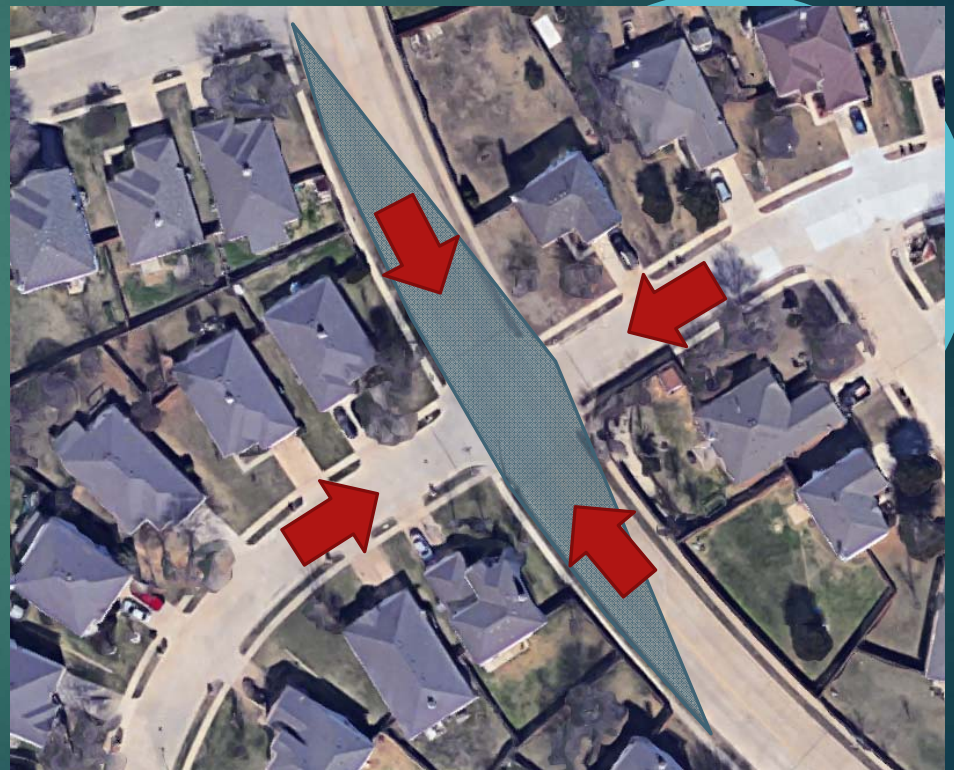
Steps Followed by the City

- ▶ Engineering Review and Analysis
- ▶ Location must satisfy State and Federal criteria
- ▶ Review of other less restrictive solutions
- ▶ Selection of appropriate traffic control sign (Yield or Stop)
- ▶ Installation of appropriate signage



Engineering Review and Analysis

- ▶ Vehicular, bicycle, and pedestrian traffic volumes on all approaches;
- ▶ Number and angle of approaches;
- ▶ Approach speeds;
- ▶ Sight distance available on each approach; and
- ▶ Reported crash experience



Federal and State Guidelines



The Texas Transportation Code, Section 545.151 Right-of-Way Rule

The code establishes the right-of-way rule at intersections having no regulatory traffic control signs such that the driver of a vehicle approaching an intersection must yield the right-of-way to any vehicle or pedestrian already in the intersection. When two vehicles approach an intersection from different streets or highways at approximately the same time, the right-of-way rule requires the driver of the vehicle on the left to yield the right-of-way to the vehicle on the right. The right-of-way can be modified at through streets or highways by placing YIELD signs or STOP signs on one or more approaches.

Federal and State Guidelines for Yield or Stop Sign

One or more of the Following conditions exist at the intersection

- ▶ *An intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;*
- ▶ *A street entering a designated through highway or street; and/or*
- ▶ *An unsignalized intersection in a signalized area.*

Federal and State Guidelines for Yield or Stop Sign

One or more of the Following conditions exist at the intersection

- ▶ *The combined vehicular, bicycle, and pedestrian volume entering the intersection is more than 2,000 units per day*
- ▶ *The availability of adequate line of sight*
- ▶ ***Five** or more crashes in 3 years or **three** or more crashes in 2 year period*



Federal and State Guidelines

YIELD or STOP signs should not be used for speed control.



Federal and State Guidelines for Stop Signs on Minor Street

One or more of the Following conditions exist at the intersection

- ▶ *The vehicular traffic volume on major street exceeds 6,000 vehicles per day*
- ▶ *The availability of adequate line of sight*
- ▶ ***Three** or more crashes in 12 months or **five** or more crashes in 2 year period*



Federal and State Guidelines for Multi-Way Stop Sign

One or more of the Following conditions exist at the intersection

- ▶ *As an interim measure at a location where traffic signal is justified*
- ▶ ***Five** or more crashes in a 12 month period*
- ▶ *Minimum Volumes*
 - ▶ *Total vehicular volume entering the intersection from Major Street averages at least 300 vph for 8 hours of an average day and*
 - ▶ *The combined vehicular, bicycle, and pedestrian volume entering the intersection from Minor Street is at least 200 units per hour for the same 8 hours with average delay of at least 30 sec/veh in highest hour*



Case Study for Multi-Way Stop Sign

Bell Avenue at Windsor Drive

- ▶ *Traffic signal is not justified*
- ▶ *No crash in last 24 month period*
- ▶ *Minimum Volumes*
 - ▶ *Total vehicular volume entering the intersection from Windsor Drive averages at 500 vph for 8 hours of an average day and*
 - ▶ *The combined vehicular, bicycle, and pedestrian volume entering the intersection from Bell Avenue averages at 150 units per hour for the same 8 hours*



Disadvantages of installing stop signs at unwarranted locations

- ▶ Poor stop compliance: “California rolling stops” and disregard for law.
- ▶ Lower pedestrian/bicycle safety
- ▶ Use of stop signs for controlling speed
- ▶ Violates federal and state law
- ▶ Increases enforcement cost to achieve compliance

Other Jurisdictions

- ▶ City of Lewisville: Follows TMUTCD. Does not recommend installing any signage at T-intersections within residential neighborhood unless required by an engineering study.
- ▶ Town of Flower Mound: Follows TMUTCD. <http://www.flower-mound.com/index.aspx?nid=272>
- ▶ City of McKinney: Follows TMUTCD. <http://www.mckinneytexas.org/faq.aspx?qid=389>
- ▶ City of Frisco: Follows TMUTCD. The City discourages the use of stop signs for controlling speed along residential street. <http://www.ci.frisco.tx.us/faq.aspx?qid=437>
- ▶ City of Grapevine: Follows TMUTCD. The City discourages the use of stop signs for controlling speed along residential street. <http://www.grapevinetexas.gov/index.aspx?nid=744>

Questions

