# **Regulatory Sign Policy**

Regulatory signs are installed to establish right-of-way at intersections between motorists, cyclists, and pedestrians; to reduce delay; and to enhance safety for all roadway users. On November 1, 2016, Kyle City Council adopted the below policy relative to the designation of regulatory signs (YIELD and STOP Signs) at intersections.

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# **Policy**

Installation of a regulatory sign at an intersection should meet or exceed the minimum guidelines set forth in the latest edition of the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

# **Procedure for Requesting Regulatory Signs**

Citizens or City staff can request a study to install regulatory signs through the Traffic Engineer's office.

Based on a site visit and/or accident records, a decision will be made as to whether the specific location(s) requires a more comprehensive traffic study.

Once the study is completed, the results will be provided to the requestor. If the study does not support the request, no further action will be required unless an appeal is filed (See APPEAL PROCESS). If the study does support the request, City Council action shall be required authorizing the installation of the appropriate signs

# **Guidelines**

### **Stop Sign Applications:**

Stop signs should be used if engineering judgment indicates that one or more of the following conditions exist:

- 1. 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;
- 2. Street entering a through highway;

- 3. Unsignalized intersection in a signalized area; and/or
- 4. High speeds, restricted view, or crash records indicate a need for control by the STOP sign.

### **Stop Sign Guidance:**

At intersections where a full stop is not necessary at all times, consideration should be given first to using less restrictive measures such as YIELD signs.

Stop signs should not be used for speed control.

Stop signs should be installed in a manner that minimizes the number of vehicles having to stop.

The use of stop signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:

- <u>Condition 1</u> The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day.
- <u>Condition 2</u> A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or
- Condition 3 Crash records indicate that three or more crashes that are susceptible to correction by installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right- of-way to traffic on the through street or highway.

### **Yield Sign Applications:**

The yield sign assigns right-of-way to traffic on certain approaches to an intersection. Vehicles controlled by a YIELD sign need to slow down to a speed that is reasonable for the existing conditions or stop when necessary to avoid interfering with conflicting traffic.

### Yield signs may be installed:

- 1. On the approaches to a through street or highway where conditions are such that a full stop is not always required.
- 2. At the second crossroad of a divided highway, where the median width at the intersection is 30 feet or greater. In this case, a STOP or YIELD sign may be installed at the entrance to the first roadway of a divided highway, and a YIELD sign may be installed at the entrance to the second roadway.
- 3. For a channelized turn lane that is separated from the adjacent travel lanes by an island, even if the adjacent lanes at the intersection are controlled by a highway traffic control signal or by a STOP sign.
- 4. At an intersection where a special problem exists and where engineering judgment indicates the problem to be susceptible to correction by the use of a YIELD sign.
- 5. Facing the entering roadway for a merge-type movement if engineering judgment indicates that control is needed because acceleration geometry and/or sight distance is not adequate for merging traffic operation.

Other than for all approaches to a roundabout, YIELD signs shall not be placed on all approaches to an intersection.

#### **Multi-Way Stop Applications**

#### **Guideline 1 – Interim Controls**

Where traffic signals are warranted and urgently needed, multi-way stop control is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.

#### **Guideline 2 – Crash History**

If five or more reported crashes occur in a 12-month period, multi-way stop control should be considered. These crashes should be susceptible to correction by multi-way stop control, such as right-turn, left-turn, and right-angle collisions.

#### **Guideline 3 – Minimum Traffic Volumes**

This guideline should be used when the volume split of traffic on the intersecting roads is nearly equal and the following three conditions are satisfied.

- <u>Condition 1</u> The total vehicular volume entering the intersection from the major street approaches (total of both approaches) average at least 300 vehicles per hour for any 8 hours of an average day; and
- <u>Condition 2</u> The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) average 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
- <u>Condition 3</u> When the 85<sup>th</sup> percentile approach speed of the major street traffic exceeds 40 mph, the minimum vehicular volume requirements are 210 and 140 vehicles per hour for any eight hours for the major and minor streets, respectively.

#### **Guideline 4 – Combination of Guidelines**

A multi-way stop may be appropriate if no single guideline is met, but where Guideline 2 and Guideline 3 (Conditions 1 and 2) are satisfied to 80% of the minimum values. The reduced volume criteria for speeds over 40 mph are excluded from this guideline.

- Condition 1 If four crashes occur in a 12-month period, multi-way stop control should be considered.
  These crashes should be susceptible to correction by multi-way stop control, such as right-turn, left-turn, and right-angle collision; and
- <u>Condition 2</u> The total vehicular volume entering the intersection from the major street approaches (total of both approaches) average at least 240 vehicles per hour for any 8 hours of an average day; and
- Condition 3 The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) average at least 160 units per hour for the same 8 hours, with an average delay to minor street vehicular traffic of a t least 30 second per vehicle during the highest hour.

#### Guideline 5 – Other Criteria

The TMUTCD gives the option of considering the following other criteria in the multi-way stop investigation.

- Criterion 1 The need to control left-turn lanes;
- <u>Criterion 2</u> The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;

- <u>Criterion 3</u> Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
- <u>Criterion 4</u> An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve operational characteristics of the intersection.

## **Contact Information**

For more information on regulatory signs or other traffic related issues, contact the City of Kyle Engineering Department at skeane [at] cityofkyle.com (skeane@cityofkyle.com).

If you believe there is a chronic traffic concern in your area, please contact the Kyle Police Department Non-Emergency Line at 512-268-3232 or fill out the Traffic Complaint Form.

To report missing or damaged signs, contact the Kyle Department of Public Works at All-PublicWorks [at] cityofkyle.com (All-PublicWorks@cityofkyle.com) or 512-262-3024.

# **Frequently Asked Questions**

# **Related Questions**

Is it true that stop signs can reduce traffic speeds?

Studies have shown stop signs are ineffective speed control devices. Drivers often increase speed after a stop sign to make up for "lost time".

Clone of What is the harm in installing traffic signs that are not really needed?

Again, studies have shown when stop signs are placed at intersections where they don't appear to be needed, motorists become careless about stopping. Stop signs should be installed only where they are absolutely necessary. Other solutions – for example, a yield sign, may also provide enough safety without any detriment to traffic flow.

Where can stop signs be installed?

Stop signs can be installed at entrances to certain through streets or where a stop sign warrant study indicates the need for a stop sign.

What is a stop sign warrant?

Stop sign warrants are basically studies used to determine whether or not a stop sign should be installed at a particular intersection.

## Warrants analyze:

• The number of vehicles at an intersection

- Accident history
- Vehicular and pedestrian conflicts
- Visibility, and/or
- Unusual conditions including:
  - High concentrations of pedestrians or vehicles
  - Regular use of the intersection by children, the elderly or disabled.

### What costs are involved with installing stop signs?

The installation of a single stop sign is relatively inexpensive, but many don't take into account the associated costs. The following costs should be considered before a stop sign is installed:

- Cost of the stop sign warrant study
- Sign maintenance
- Extra fuel consumed when a vehicle accelerates after stopping
- Air pollution increases as a result of increased fuel consumption
- Residents living near STOP signs experience increased air and noise pollution

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