

**Memorandum
Public Works Department**



To: City Manager
Subject: Installation of a Stop Sign
Date: July 1, 2014
Number: 2014-139

SOURCE OF REQUEST:

Sam Johnson
1237 12th Street
Rock Island, IL 61201

NATURE OF REQUEST:

The Traffic Engineering Committee received a request to install stop signs at the intersection of 12th Street and 13th Avenue.

MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES WARRANTS:

The excerpts from the Manual of Uniform Traffic Control Devices (MUTCD) are attached.

CONTACTS WITH RESIDENTS:

None.

TRAFFIC STUDY INFORMATION:

The Engineering Division conducted a traffic study of this intersection and determined that the installation of stop signs is not warranted.

A copy of the traffic study is attached.

COST:

The cost to the city is minimal.

RECOMMENDATION:

The Traffic Engineering Committee recommends that the City Council deny the request.

Submitted by: Randall D. Tweet, Public Works Director
Traffic Engineering Committee

Approved by: Thomas Thomas, City Manager

Memorandum

Public Works Department



To: Traffic Engineering Committee
Subject: Request for STOP signs 12th Street and 13th Avenue
Date: June 19, 2014
TEC No: 14-08

The Engineering Division evaluated a request about installing three-way STOP signs along 12th Street at the intersection of 13th Avenue. 13th Avenue is a one-way westbound avenue and current traffic control signage is a STOP sign on 13th Avenue. Traffic at the above intersection was counted on May 29th and 30th, 2014. According to the latest Manual of Uniform Traffic Control and Devices (MUTCD), STOP signs can be warranted at an intersection if one of the following warrants is met:

Intersection of a less important road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law: The traffic study indicated the following volumes at this intersection:

- 12th Street carried 659 (southbound) to 665 (northbound) AADT;
- 13th Avenue carried 310 AADT.

The intersection was observed to meet the application of the normal right-of-way rule with reasonable compliance with the law in accordance with their current traffic control signage. Therefore this warrant was not met.

Street entering a through highway or street (arterial): 12th Street and 13th Avenue are classified as local streets. *Therefore this warrant was not met.*

Unsignalized intersection in a signalized area: In accordance with MUTCD criteria, there are no signalized intersections in this area. *Therefore this warrant was not met.*

Minimum vehicular volumes: To satisfy the traffic warrant, the vehicular volume entering the intersection from the major street (20th Avenue) approaches (total of both approaches) should average at least 300 vehicles/hour for any 8 hours of an average day. The study indicated that the major street averaged less than 152 vehicles/hours for the busiest 8 hours of an average day. *Therefore this warrant was not met.*

Restricted view or crash records indicate a need for control by the STOP sign: There are no obstructions that would restrict a motorist's vision at this intersection. To satisfy the accident experience warrant, at least 5 or more reported crashes in a 12-month period that is susceptible to correction by a STOP sign installation at each intersection. Accident reports filed with the City of Rock Island Police Department indicate that there were a total of three (3) reported accidents at this intersection in the past 3 years and that only one (1) may have been avoided with the installation of 4-way STOP Signs. *Therefore this warrant was not met.*

Summary: *The traffic study performed on the dates referenced above indicated that the intersection of 12th Street with 13th Avenue did not meet any of the above warrants or conditions for the installation of 3-way STOP signs.*

Submitted by: Michael J. Kane, P.E., City Engineer
Approved by:

13th St & 13th Ave
BEFORE A KID GET ^{4 way stop}

Killed

786-6920

1237 12 ST
SAM JOHNSON

STOP

Regulatory Signs

2B-5 Warrants for Stop Sign

Because the STOP sign causes a substantial inconvenience to motorists, it should be used only where warranted. A STOP sign may be warranted at an intersection where 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 is unduly hazardous.
2. Street entering a through highway or street.
3. Unsignalized intersection in a signalized area.
4. Other intersections where a combination of high speed, restricted view, and serious accident record indicates a need for control by the STOP sign.

Prior to the application of these warrants, consideration should be given to less restrictive measures, such as the YIELD sign (2B-7) where a full stop is not necessary at all times. Periodic reviews of existing installations may be desirable to determine whether, because of changed conditions the use of less restrictive control or no control could accommodate traffic demands safely and more effectively.

STOP signs should never be used on the through roadways of expressways. Properly designed expressway interchanges provide for the continuous flow of traffic, making STOP signs unnecessary even on the entering roadways. Where at-grade intersections are temporarily justified for local traffic in sparsely populated areas, STOP signs should be used on the entering roadways to protect the through traffic. STOP signs may also be required at the end of diverging roadways at the intersection with other highways not designed as expressways. In most of these cases, the speeds will not warrant any great increase in the sign sizes.

STOP signs shall not be erected at intersections where traffic control signals are operating. The conflicting commands of two types of control devices are confusing. If traffic is required to stop when the operation of the stop-and-go signals is not warranted, the signals should be put on flashing operation with the red flashing light facing the traffic that must stop.

Where two main highways intersect, the STOP sign or signs should normally be posted on the minor street to stop the lesser flow of traffic. Traffic engineering studies, however, may justify a decision to install a STOP sign or signs on the major street, as at a three-way intersection where safety considerations may justify stopping the greater flow of traffic to permit a left-turning movement.

STOP signs may be used at selected railroad-highway grade crossings only after their need has been determined by a detailed traffic engineering study. Use of the STOP

sign at railroad-highway grade crossings is described in section 8B-9.

Portable or part-time STOP signs shall not be used except for emergency purposes. Also, STOP signs should not be used for speed control.

