



DEPARTMENT OF ENVIRONMENTAL SERVICES
Division of Transportation

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August 1, 2008

Mr. Bruce Cameron, President
Aurora Highlands Civic Association
716 South 21 Street
Arlington, Virginia 22202

Dear Mr. Cameron:

During a walking meeting regarding the Water Treatment Plant, it was requested that staff evaluate the intersection of South Grant Street and 31st Street South for multiway stop signs. The Division of Transportation has completed its analysis to determine whether or not this intersection qualifies for additional stop signs, according to County policy. In our investigation, we collected data on traffic volumes, the number of accidents, as well as reviewed the street plans and field conditions to identify potential problems or hazards.

According to Arlington County policy on multiway stop signs, one of six specific criteria known as "warrants" must be met in order to place multiway stop signs at any particular intersection.

Staff conducted an analysis of the intersection utilizing the warrants mentioned above. The analysis indicated that this intersection does not qualify for the installation of multiway stop signs, since none of the warrants are met. The results of our analysis are enclosed.

During staff evaluation of this intersection, it was observed that the westbound stop bar was missing due to repaving and the southbound stop bar was faded. These have been ordered and should be completed in the fall of 2008.

It was a pleasure to review this matter for you. If you have any further questions or concerns, please feel free to call me at (703) 228-3735.

Sincerely,

A handwritten signature in cursive script that reads 'Elizabeth Diggs'.

Elizabeth Diggs
Transportation Planner III

C: County Managers Office
Neighborhood Traffic Calming Committee

**Adopted Warrants for Multiway Stop Evaluation for Neighborhood Streets
South Grant Street and 31st Street South**

Warrant		Explanation
<p>1. Signal Installation (MUTCD) Where traffic signals are warranted and urgently needed, multiway stop signs can be installed as an interim measure.</p>	<p>Does not meet warrants for a traffic signal</p>	<p>Does not meet warrants for a traffic signal</p>
<p>2. Traffic Accidents a) Where the total number of reported accidents of a type susceptible of correction by a multiway stop sign within the most recent 12-month period is fewer than five, but where the number of accidents has averaged three or more per year over the past five years. (Arlington County Warrant)</p>	<p>Does not meet warrant due to: This intersection has a very good safety record there has been no reported accidents in the last five years.</p>	<p>Does not meet warrant due to: This intersection has a very good safety record there has been no reported accidents in the last five years.</p>
<p>3. Minimum Traffic Volumes For neighborhood streets (Arlington County Warrant):</p> <p>1) The combined pedestrian, bicycle and motor vehicle volume entering the intersection from all approaches must average at least 300 <i>weighted</i> units* per hour for any eight hours of an average day, and</p> <p>2) The combined pedestrian, bicycle and motor vehicle volume from the minor street must average at least 120 <i>weighted</i> units* per hour for the same eight hours.</p>	<p>Does not meet warrant due to:</p> <p>1) All approaches entering the intersection averages 42 for eight hours not the 300 needed and</p> <p>2) The minor approach (S. Grant Street) average 11 for the same eight hours not the 120 needed.</p>	<p>Does not meet warrant due to:</p> <p>1) All approaches entering the intersection averages 42 for eight hours not the 300 needed and</p> <p>2) The minor approach (S. Grant Street) average 11 for the same eight hours not the 120 needed.</p>
<p>4. Combination Warrant (Arlington County Warrant) A multiway stop sign installation may be considered at intersections where at least two of the following are met:</p> <p>a) The combined pedestrian, bicycle and motor vehicle volumes on each street approaching the intersection are no fewer than 1,000 <i>weighted</i> units* per day on each street, and have a volume distribution within the range of 50/50 to 60/40.</p> <p>b) The total number of reported accidents of a type susceptible of correction by a multiway stop sign has averaged three or more per year for the past three years.</p> <p>c) There is a significant restricted visibility problem, which limits the pedestrians', bicyclists', or motorists' views of oncoming traffic to less than 200 feet, measured from the most distant decision point, that cannot be corrected by normal maintenance activity (vegetation trimming) or the installation of parking restrictions.</p>	<p>Does not meet warrant due to:</p> <p>a) The approach volume for S. Grant Street is 147 and 31st Street S is 431, both are less than the 1,000 needed. Volume distribution is 25%/75%.</p> <p>b) There were no reported accidents at this location in the past three years.</p> <p>c) This is a "Y" intersection with two approaches (westbound and southbound) stopping and visibility is good.</p>	<p>Does not meet warrant due to:</p> <p>a) The approach volume for S. Grant Street is 147 and 31st Street S is 431, both are less than the 1,000 needed. Volume distribution is 25%/75%.</p> <p>b) There were no reported accidents at this location in the past three years.</p> <p>c) This is a "Y" intersection with two approaches (westbound and southbound) stopping and visibility is good.</p>

Warrant	Explanation
<p>5. Crossing Safety Warrant (Arlington County Warrant)</p> <p>A multiway stop sign installation may be considered, after an engineering study, in exceptional cases where other measures have not been effective or are judged not feasible, in regulating crossing safety for pedestrian, bicyclists, or motorists. An engineering study includes, but is not limited to, the consideration of the following factors: reported accidents; pedestrian, bicycle and motor vehicle volumes; pedestrian, bicyclist and motor vehicle patterns; crossings near schools and parks; existing roadway conditions and geometry; and operating characteristics.</p>	<p>Does not meet warrant due to:</p> <p>This intersection is not located near a park or school and is not considered a high pedestrian area such as high density area. This location does not have any roadway conditions, geometry or operation characteristics that would warrant the installation of multiway stop signs. Staff did observe lack of sidewalks.</p>
<p>6. Unimpeded Travel Distance on Neighborhood Streets (Arlington Warrant)</p> <p>Following an engineering study finding that overall intersection safety would not decrease, if the unimpeded travel distance on a neighborhood street exceeds 1200 feet and there is a minor street along it with a pedestrian, bicycle and motor vehicle volume exceeding 500 weighted units* per day, a multiway stop sign installation may be installed at the most appropriate minor street intersection location. The unimpeded distance is that which is free of measures that assign right-of-way (signals, stop signs, and yield signs) and of physical measures (e.g., traffic circles) to influence speeds.</p> <p><i>Units (total of motor vehicles, bicyclists and pedestrians) are weighted by doubling non-motor vehicles, to reflect their higher injury potential in crashes.</i></p>	<p>Does not meet warrant due to:</p> <p>The unimpeded distance is approximately 530 feet and the minor street (S. Grant Street) volume is 147.</p>