

**REPORT TO MAYOR AND COUNCIL****TO THE HONORABLE MAYOR AND COUNCIL:**

DATE: October 6, 2008

SUBJECT: ADOPTION OF RESOLUTION NO. 08-3521.1 AUTHORIZING THE INSTALLATION OF ALL-WAY STOP CONTROL AT THE INTERSECTION OF SIXTH STREET AND THE ALAMEDA**Report in Brief**

Staff conducted a warrant analysis to possibly upgrade the intersection of Sixth Street and The Alameda to all-way stop control operation. Currently, the east-west approaches of The Alameda have stop signs, while travel along Sixth Street is uncontrolled through the intersection. Based on this analysis, it was found that this intersection met the accident history warrant as specified in the City adopted "All-Way Stop Sign Warrants for Local Residential Streets" procedure. Stop sign installation would only be required on the north-south approaches of Sixth Street to upgrade this intersection to all-way stop control.

Staff recommends that the City Council adopt Resolution No. 08-3521.1 authorizing the installation of all-way stop control at the intersection of Sixth Street and The Alameda.

Background

The City recently received a citizen request to install all-way stop control at the Sixth Street/The Alameda intersection, citing safety concerns when entering the intersection from The Alameda. Traffic movements on Sixth Street are currently uncontrolled as it intersects The Alameda. This request triggered the need for the Transportation Division to investigate the justification for upgrading the intersection operation from two-way to all-way stop control. The average daily traffic volumes are 2,260 and 1,220 vehicles on Sixth Street and The Alameda, respectively, for a total of 3,480 vehicles per day. The posted speed limit is 25 mph on both streets, as they are located in a residential area. Observed speeds collected on Sixth Street ranged from 24 to 36 mph, with the 85th percentile speed measured at 32 mph. (The 85th percentile speed measures the speed at or below which 85% of the vehicles are traveling.) Sixth Street follows a curved alignment as it intersects The Alameda, coupled with a vertical curve cresting just north of the intersection. These curves affect sight distance on Sixth Street when entering the intersection from eastbound The Alameda.

Discussion

Stop signs are installed at intersections only after careful engineering evaluation of existing traffic conditions which indicates that their installation is appropriate. Since Sixth Street and The Alameda are located in a residential area and have a total volume of less than 4,000 vehicles per day, Staff employed City Policy and Procedure 67-2.5 for "All-Way Stop Sign Warrants for Local Residential Streets" to analyze and determine whether all-way stop control is warranted at this intersection. Under this policy, traffic data is reviewed and

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THE ALAMEDA**

October 6, 2008

Page 2

analyzed against set thresholds, including traffic volumes entering the intersection, pedestrian volumes, traffic speeds, and recent accident history.

Based on this review, it was determined that this intersection met the accident history warrant for all-way stop control on local residential streets. According to this warrant, an intersection would qualify for all-way stops if there are three or more reported accidents within the most recent 12-month period of the type correctable by all-way stop control. Examples of correctable collisions include right-angle collisions, collisions due to improper turn, and pedestrian collisions. Three right-angle accidents were reported at this intersection since the end of June 2007, and four right-angle collisions were reported in calendar year 2007.

Given that the 85th percentile speed is 32 mph on Sixth Street, the stopping sight distance for a vehicle traveling between 30 and 35 mph ranges from 200 to 250 feet. The measured stopping sight distance of oncoming traffic on Sixth Street when entering the intersection in the eastbound direction from The Alameda is less than 200 feet in either direction of Sixth Street, due the horizontal and vertical curvatures that exist on this street as it crosses The Alameda. Therefore, the minimum stopping sight distance (200 to 250 feet) is not met on Sixth Street when entering the intersection from eastbound The Alameda. This sight distance limitation could potentially contribute to accidents occurring at this intersection, as evident by most accidents since 1999, which involved vehicles traveling through the intersection from eastbound The Alameda.

Based on this accident history and sight distance analysis, Staff concluded that all-way stop control is justified at this intersection to ensure traffic safety.

Fiscal Impact

Stop sign installations would only be needed on the north-south approaches of Sixth Street to bring this intersection to all-way stop control. The cost of installing these stop signs and corresponding pavement markings is under \$1,000. Sufficient funding is available in the Public Works' Signing and Marking operating budget earlier approved by the City Council.

Public Contact

Posting of the Council Agenda provides public notification. Staff has notified the 31 residences within 300-foot radius of this intersection that all-way stop control was being considered at this location. Staff has only received one comment from an area resident opposing the proposed stop sign installation citing potential noise increases near the intersection due to vehicle deceleration and acceleration.

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THE ALAMEDA**

October 6, 2008

Page 3

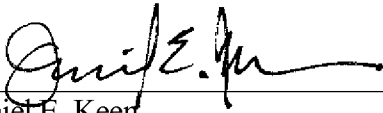
Recommendation for Action

Staff recommends that the City Council adopt Resolution No. 08-3521.1 authorizing the installation of an all-way stop control at the intersection of Sixth Street and The Alameda.

Prepared by: Abul Hossain
Transportation Program Manager II

Reviewed by: Ray Kuzbari
Transportation Manager

Reviewed by: Qamar Khan
Director of Public Works



Daniel E. Keen
City Manager

Attachment 1: Resolution No. 08-3521.1

**BEFORE THE CITY COUNCIL OF THE CITY OF CONCORD
COUNTY OF CONTRA COSTA, STATE OF CALIFORNIA**

**A Resolution Amending the Traffic Resolution,
Section C, Stop Intersections**

Resolution No. 08-3521.1

WHEREAS, the Director of Public Works has recommended that the Traffic Resolution be amended by adding stop signs at the following intersection:

- 1. Sixth Street and The Alameda (all-way stop).

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF CONCORD DOES
RESOLVE AS FOLLOWS:**

Section 1. That the Director of Public Works is authorized and directed to remove and install the appropriate signs and markings to effectuate this resolution.

Section 2. This resolution shall become effective immediately upon its passage and adoption.

PASSED AND ADOPTED by the City Council of the City of Concord on October 6, 2008, by the following vote:

AYES: Councilmembers -

NOES: Councilmembers -

ABSTAIN: Councilmembers -

ABSENT: Councilmembers -

I HEREBY CERTIFY that the foregoing Resolution No. 08-3521.1 was duly and regularly adopted at a regular joint meeting of the City Council and the Redevelopment Agency of the City of Concord on October 6, 2008.

APPROVED AS TO FORM:

By _____
Mary Rae Lehman
City Clerk

Craig Labadie
City Attorney