

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
ACTION AGENDA SUMMARY

DEPT: Public Works *LB*

BOARD AGENDA # *C-3

Urgent Routine

AGENDA DATE July 24, 2012

CEO Concurs with Recommendation YES NO
(Information Attached)

4/5 Vote Required YES NO

SUBJECT:

Approval to Adopt a Resolution for the Installation of an All-Way Stop Sign Control at Lone Tree Road and Victory Avenue in the Valley Home Area

STAFF RECOMMENDATIONS:

Adopt a resolution for the installation of two stop signs on both approaches of the Lone Tree Road and Victory Lane intersection to create an All-Way Stop Sign Control.

FISCAL IMPACT:

There will be no costs for Stanislaus County associated with the installation of the two stop signs at the intersection. Per the existing maintenance agreement with San Joaquin County, all maintenance at the intersection will be performed by San Joaquin County. The estimated cost for San Joaquin County to install this improvement is approximately \$1300.

BOARD ACTION AS FOLLOWS:

No. 2012-389

On motion of Supervisor Chiesa, Seconded by Supervisor De Martini

and approved by the following vote,

Ayes: Supervisors: Chiesa, Withrow, Monteith, De Martini, and Chairman O'Brien

Noes: Supervisors: None

Excused or Absent: Supervisors: None

Abstaining: Supervisor: None

1) X Approved as recommended

2) _____ Denied

3) _____ Approved as amended

4) _____ Other:

MOTION:

Christine Ferraro

ATTEST: CHRISTINE FERRARO TALLMAN, Clerk

File No.

Approval to Adopt a Resolution for the Installation of an All-Way Stop Sign Control at Lone Tree Road and Victory Avenue in the Valley Home Area

DISCUSSION:

Under the authorization granted to local authorities in Vehicle Code Section 21355, local authorities may erect stop signs at any location to control traffic within an intersection.

In 2011, the Department of Public Works Traffic Division received a request to evaluate the installation of two stop signs on Lone Tree Road, requiring both approaches to stop prior to entering the intersection of Lone Tree Road at Victory Avenue. This would create an All-Way Stop traffic controlled intersection.

Lone Tree Road and Victory Avenue are located in the Valley Home area, an unincorporated rural area of Stanislaus County. This location is currently controlled by two-way stop control on the minor approaches of Victory Avenue.

The California Department of Transportation has adopted guidelines and warrant criteria developed by the Federal Highway Administration for establishing all-way stop traffic control at intersections. This procedure enables a standardized approach and application for the all-way stop traffic control. Part of the warrant criteria is based on traffic volumes and avoidable collisions at the intersection.

In order to evaluate the request for two stop signs on the approaches of Lone Tree Road to its intersection with Victory Avenue, Public Works staff collected traffic volume and collision data for this location. The analysis showed that while the intersection traffic volumes are lower than the minimum traffic volumes suggested in the State adopted guidelines for consideration in installing an all-way stop traffic control, the intersection collision history from San Joaquin and Stanislaus Counties does satisfy the all-way stop traffic control warrant of five or more "correctable collisions" in a 12-month period (Attachment A).

San Joaquin County will be considering to adopt a resolution on July 24, 2012 in concurrence with the County's findings.

POLICY ISSUES:

The recommended actions are consistent with the Board's priorities of providing A Safe Community, A Healthy Community, and A Well Planned Infrastructure System by providing the citizens of Stanislaus County a reduced risk of collision.

STAFFING IMPACT:

There is no staffing impact associated with this item.

CONTACT PERSON:

Matt Machado, Public Works Director. Telephone: (209) 525-4130.

AM:sn

L:\Traffic\2012\RESOLUTIONS\Lone Tree_Victory\Adopt Res for All Way Stop at Lone Tree & Victory_BOS 7.24.12

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
STATE OF CALIFORNIA

Date: July 24, 2012

2012-389

On motion of Supervisor Chiesa, Seconded by Supervisor De Martini
and approved by the following vote,
Ayes: Supervisors: Chiesa, Withrow, Monteith, De Martini, and Chairman O'Brien
Noes: Supervisors: None
Excused or Absent: Supervisors: None
Abstaining: Supervisor: None

THE FOLLOWING RESOLUTION WAS ADOPTED:

Item # *C-3

**A RESOLUTION SUPPORTING THE INSTALLATION OF AN ALL-WAY STOP AT THE
INTERSECTION OF LONE TREE ROAD AND VICTORY AVENUE**

WHEREAS, California Vehicle Code Section 21351 Local Authority authorizes local jurisdictions to erect and maintain traffic signs, signals and other traffic control devices upon streets and highways; and

WHEREAS, the California Department of Transportation adopted the California Manual on Uniform Traffic Control Devices (California MUTCD) 2012 edition to provide for uniform standards and specifications for all official traffic control devices in California; and

WHEREAS, Lone Tree Road and Victory Avenue are local highways not affecting state highway traffic; and

WHEREAS, a portion of Lone Tree Road west of the intersection is within the jurisdiction of the County of San Joaquin and implementation has been discussed with San Joaquin County; and

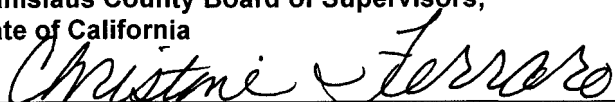
WHEREAS, Lone Tree Road and Victory Avenue are not designated as through highways in accordance with California Vehicle Code Section 21354 Stop Signs on Local Highways within Stanislaus County; and

WHEREAS, Section 2B.07 Multi-Way Stop Applications of the California MUTCD 2012 establishes criteria for the installation of Multi-Way Stop Signs; and

WHEREAS, Stanislaus County Traffic Engineering staff conducted a thorough engineering study dated August 22, 2011; and

NOW, THEREFORE, BE IT RESOLVED THAT THE BOARD OF SUPERVISORS OF STANISLAUS COUNTY does hereby confirm this resolution for the placement of the all-way stop signs.

ATTEST: CHRISTINE FERRARO TALLMAN, Clerk
Stanislaus County Board of Supervisors,
State of California



File No.

ALL-WAY STOP STUDY**INTERSECTION OF:**

Lone Tree Road at Victory Avenue

DATE:

8/22/11

COLLISION SUMMARY BY SEVERITY

| YEAR | PDO | INJURY | FATAL | ANNUAL TOTAL |
|--------------|-----|--------|-------|--------------|
| 2010 | | | | |
| 2009 | | 2 | | 2 |
| 2008 | 2 | 1 | | 3 |
| 2007 | 2 | 4 | | 6 |
| 2006 | 2 | 1 | | 3 |
| TOTAL | | | | |

COLLISION SUMMARY BY TYPE

| YEAR | HEAD-ON | SIDESWIPE | REAR END | BROADSIDE | HIT OBJECT |
|--------------|---------|-----------|----------|-----------|------------|
| 2010 | | | | | |
| 2009 | | | | 2 | 1 |
| 2008 | | | | 2 | 1 (other) |
| 2007 | | | | 5 | 1 |
| 2006 | | | | 2 | 1 |
| TOTAL | | | | | |

TRAFFIC COUNTS (AVERAGE DAILY TRAFFIC)

| ROAD APPROACH (YEAR TAKEN) | DIRECTION OF TRAVEL | ADT | PEAK HOUR VOLUME | 85% SPEED |
|------------------------------------|---------------------|------|------------------|-----------|
| Lone Tree Rd E/o Victory (6/17/08) | EB/WB | 2031 | 176 | 56.8 |
| Victory Ave n/o Lone Tree (1/4/06) | SB | 141 | 15 | |
| Victory Ave s/ Lone Tree (1/4/06) | NB | 259 | 28 | |
| | | | | |
| | | | | |
| | | | | |

SEE ATTACHED VOLUME REPORTS FOR MORE DETAILED INFORMATION

FHWA 2009 MUTCD WARRANTS

INTERSECTION OF: Lone Tree Road at Victory Avenue

DATE: 8/22/11

WARRANT A:

TRAFFIC SIGNALS ARE JUSTIFIED

| | |
|-----------------------------------|-----------|
| YES (SEE ATTACHED WARRANT) | NO |
|-----------------------------------|-----------|

Multi-way stop is an interim measure while signal installation is being arranged

WARRANT B:

FIVE OR MORE REPORTED CRASHES IN A **12-MONTH PERIOD** THAT ARE SUSCEPTIBLE TO CORRECTION

BY A MULTI-WAY STOP INSTALLATION. SUCH CRASHES INCLUDE RIGHT-TURN, LEFT-TURN AND RIGHT ANGLE COLLISIONS.

CHECK DATES TO INSURE ROLLING 12 MONTH PERIOD IS CHECKED.

| | |
|------------|-----------|
| YES | NO |
|------------|-----------|

WARRANT C: MINIMUM VOLUMES

1. THE VEHICULAR VOLUME ENTERING THE INTERSECTION FROM THE MAJOR STREET APPROACHES (TOTAL OF BOTH APPROACHES) AVERAGES AT LEAST 300 VEHICLES PER HOUR FOR ANY 8 HOURS OF AN AVERAGE DAY; AND
2. THE COMBINED VEHICULAR, PEDESTRIAN, AND BICYCLE VOLUME ENTERING THE INTERSECTION FROM THE MINOR STREET APPROACHES (TOTAL OF BOTH APPROACHES) AVERAGES 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;

WARRANT C SATISFIED 100%?

| | |
|------------|-----------|
| YES | NO |
|------------|-----------|

OR

3. IF THE 85TH PERCENTILE APPROACH SPEED OF THE MAJOR-STREET TRAFFIC EXCEEDS 40 MPH, THE MINIMUM VEHICULAR TRAFFIC WARRANTS ARE 70 PERCENT OF THE VALUES PROVIDED IN ITEMS 1 AND 2. (C1) 210 MAJOR RD VEHICLES (C2) 140 MINOR RD VEHICLES

SPEED > 40MPH; WARRANT C SATISFIED 70%?

| | |
|------------|-----------|
| YES | NO |
|------------|-----------|

WARRANT D:

WHERE NO SINGLE CRITERION IS SATISFIED, BUT WHERE CRITERIA B, C.1 AND C.2 ARE ALL SATISFIED TO 80 PERCENT OF THE MINIMUM VALUES. CRITERION C.3 IS EXCLUDED FROM THIS CONDITION. (B) 4 CORRECTABLE COLLISIONS (C1) 240 VEHICLES (C2) 160 VEHICLES

WARRANT B, C.1, **AND** C.2 SATISFIED 80%?

| | |
|------------|-----------|
| YES | NO |
|------------|-----------|

SEE ATTACHED VOLUME SHEETS. THE 8 HIGHEST COMBINED HOURS WILL BE HIGHLIGHTED WITH CORRESPONDING 8 HOURS HIGHLIGHTED ON MINOR ROAD AS WELL.

OPTIONS:

| | | |
|---|-----|----|
| A. IS THERE A NEED TO CONTROL LEFT-TURN CONFLICTS? | YES | NO |
| B. IS THERE A NEED TO CONTROL VEHICLE/PEDESTRIAN CONFLICTS NEAR LOCATIONS THAT GENERATE HIGH PEDESTRIAN VOLUMES | YES | NO |
| C. CAN THE ROAD USER, AFTER STOPPING, SEE CONFLICTING TRAFFIC AND NEGOTIATE THE INTERSECTION WITHOUT CONFLICTING CROSS-TRAFFIC STOPPING | YES | NO |
| D. IS IT THE INTERSECTION OF TWO RESIDENTIAL NEIGHBORHOOD COLLECTOR (THROUGH) STREETS OF SIMILAR DESIGN AND OPERATING CHARACTERISTICS WHERE MULTI-WAY STOP CONTROL WOULD IMPROVE TRAFFIC OPERATIONAL CHARACTERISTICS? | YES | NO |

STAFF RECOMMENDATION:

A 2006 study at this intersection indicated that collision history did not warrant an all-way stop. CHP was only reporting collisions with a Stanislaus location, because this is a split jurisdiction, more data needed to be gathered. Upon further investigation, some were labeled with a location of San Joaquin and were not being delivered to Stanislaus County as part of the i-SWITRS electronic data package.

The data shows that although collision history has reduced significantly from 2007 to 2008, intersection and traffic characteristics have not.

A corner sight distance study was performed and staff found that only limited sight distance is available to stopped traffic on Victory Ave. The California Highway Design Manual requires at minimum the stopping sight distance to be available, which in the case of Lone Tree Road would be 500 ft for 55mph traffic, with a desired Corner Sight Distance of 605 ft. In all four cases, looking in east and west from both approaches, the actual corner sight distance was ~300 ft. This only fulfills the requirements for a design speed of 40mph, but not for 55mph. San Joaquin County met with Stanislaus County staff to confirm the findings & review the intersection.

It is Stanislaus County Traffic Engineering Division's recommendation that an all-way stop be installed at this intersection. An all-way stop will hopefully be a temporary measure while safety funding is explored for better measures, such as the purchasing of ROW to provide adequate sight distance.

As part of the agreement with San Joaquin County, the intersection is maintained by them, and this study will be forwarded to them for further action.

PERFORMED BY: Andrew Malizia, PE

ATTACHMENTS:

- COLLISION HISTORY REPORT
- MAJOR ROAD VOLUME REPORT
- MINOR ROAD VOLUME REPORT
- TRAFFIC SIGNAL WARRANT ANALYSIS

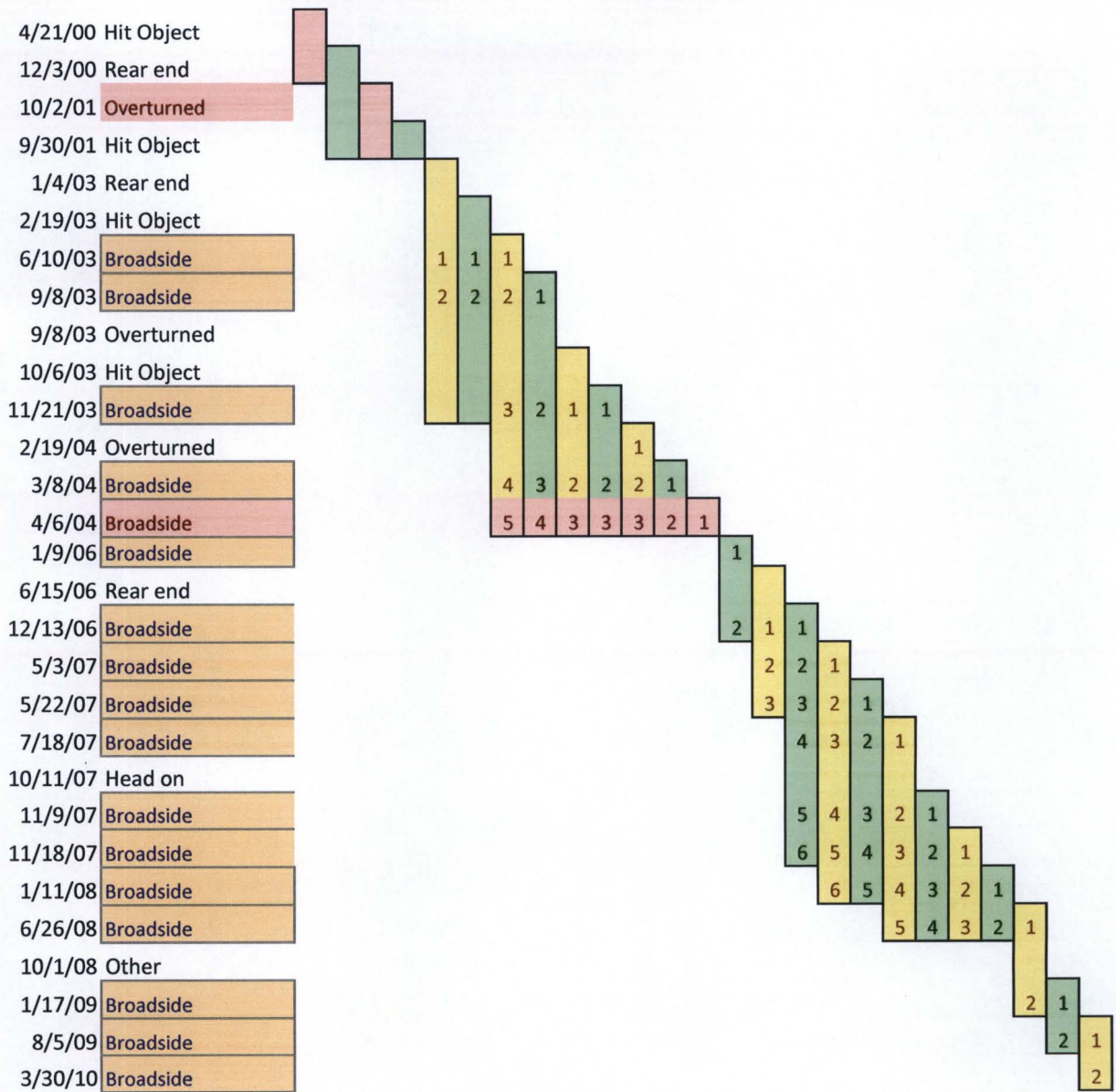
ROADWAY VOLUMES

| | MAJOR | | | MINOR | | |
|----------------------------|-------------------|-----|-------------|-------|----|------------|
| | Vehicles per hour | | | | | |
| | EB | WB | Combined | NB | SB | Combined |
| 0000 | 10 | 10 | 20 | 1 | 0 | 1 |
| 0100 | 6 | 4 | 10 | 0 | 0 | |
| 0200 | 4 | 4 | 8 | 1 | 1 | 2 |
| 0300 | 4 | 17 | 21 | 0 | 0 | |
| 0400 | 7 | 31 | 38 | 4 | 2 | 6 |
| 0500 | 23 | 60 | 83 | 6 | 3 | 9 |
| 0600 | 33 | 98 | 131 | 20 | 10 | 30 |
| 0700 | 40 | 109 | 149 | 14 | 9 | 23 |
| 0800 | 40 | 79 | 119 | 12 | 11 | 23 |
| 0900 | 46 | 62 | 108 | 18 | 5 | 23 |
| 1000 | 41 | 48 | 89 | 13 | 12 | 25 |
| 1100 | 39 | 43 | 82 | 16 | 5 | 21 |
| 1200 | 52 | 52 | 104 | 17 | 10 | 27 |
| 1300 | 58 | 51 | 109 | 16 | 6 | 22 |
| 1400 | 59 | 47 | 106 | 17 | 4 | 21 |
| 1500 | 93 | 67 | 160 | 28 | 14 | 42 |
| 1600 | 108 | 59 | 167 | 24 | 15 | 39 |
| 1700 | 116 | 60 | 176 | 16 | 12 | 28 |
| 1800 | 78 | 39 | 117 | 7 | 5 | 12 |
| 1900 | 39 | 33 | 72 | 4 | 5 | 9 |
| 2000 | 35 | 18 | 53 | 7 | 4 | 11 |
| 2100 | 36 | 18 | 54 | 7 | 4 | 11 |
| 2200 | 20 | 14 | 34 | 7 | 3 | 10 |
| 2300 | 10 | 11 | 21 | 4 | 1 | 5 |
| TOTAL DAILY TRAFFIC | | | 2031 | | | 400 |

| | | | |
|----------------------|------------|----------------------|-----------|
| Average of Top 8: | 141 | Average | 28 |
| (100%) Average > 300 | | (100%) Average > 200 | |
| (80%) Average > 240 | | (80%) Average > 160 | |
| (70%) Average > 210 | | (70%) Average > 140 | |

Top 8 hours in red

Rolling 12-Month Periods



Rolling 12-Month Periods

