

CITY OF YUBA CITY
STAFF REPORT

Date: August 18, 2009
To: Honorable Mayor & Members of the City Council
From: Public Works
Presented by: George Musallam, Public Works Director

Summary

Subject: Stop Sign Installation at Northgate Drive & Clark Avenue

Recommendation: Adopt a resolution approving the installation of stop signs at the Northgate Drive & Clark Avenue intersection, creating a four way stop.

Adopt a resolution authorizing the Public Works Department to mark the crosswalks located at the intersection of Northgate Drive & Clark Avenue.

Fiscal Impact: Engineer's Estimate \$2,000 – Account No. 921024-65501 (Stripings and Markings)

Background:

The Public Works Department has prepared a stop sign warrant study to investigate the need for stop signs and crosswalks at the intersection of Northgate Drive and Clark Avenue.

The intersection of Northgate Drive and Clark Avenue currently has posted stop signs for northbound and southbound traffic on Clark Avenue. Speed limits for the intersection are currently posted at 25mph in each direction.

Analysis:

The Public Works Department has conducted a traffic engineering study at the intersection of Northgate Drive and Clark Avenue, see attached. The traffic engineering study was performed to determine if the subject intersection meets the California Manual of Uniform Traffic Control Devices (MUTCD) guidelines for the implementation of Multiway Stop Applications.

As part of the engineering study, staff studied the traffic conditions, pedestrian characteristics, and physical characteristics of the location to determine whether the installations of traffic control devices is justified. Included in the study were twenty-four hour Average Daily Traffic (ADT) counts beginning on August 5, 2009. Our study determined the following:

1. Northgate Drive is a forty eight (48) foot wide street classified as an Urban Collector. Clark Avenue is a thirty six (36) foot wide street classified as an Urban Collector. Northgate Drive is the major roadway at the intersection.
2. The posted speed limit for Northgate Drive is 25 mph, while the 85th percentile was determined to be 37 mph.

3. The collision records for the intersection indicate a total of ten accidents since 2003. Seven of the ten collisions have occurred within the last twelve months. The collision types of six of the collisions were susceptible to correction by a multi-way stop sign.
4. The Average Daily Traffic (ADT) counts for Northgate Drive at Clark Avenue were determined to be approximately 3,600 vehicles per day through the intersection.

Per the MUTCD for Multiway Stop Applications, stop signs should be used if engineering judgment indicates that "High speeds, restricted view, or crash records indicate a need for control by the STOP sign."

Based on the traffic engineering study, using the MUTCD guidelines, staff recommends placing stop signs at the intersection of Northgate Drive and Clark Avenue. The need for a multiway stop was demonstrated based on the collision history of the intersection.

Staff further recommends the placing of crosswalk markings at the subject intersection to aid pedestrians crossing the roads.

To aid motorists in recognizing these changes, red flags will be temporarily added to the signs, advanced warning signs will be installed, and a public service advisory of the change will be sent to the newspaper and local radio station.

Fiscal Impact:

In the 2009-10 FY Capital Improvement Program, sufficient gas tax funds are budgeted through Account No. 921024-65501 (Stripings and Markings) to cover the estimated \$2,000 project costs.

Alternatives:

Delay or modify the recommended actions.

Recommendation:

Staff recommends that Council do the following:

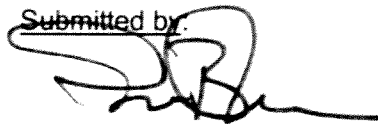
- A. Adopt a resolution approving the installation of stop signs at the Northgate Drive / Clark Avenue intersection, creating a four way stop
- B. Authorize the Public Works Department to mark the crosswalks located at the intersection of Northgate Drive / Clark Avenue.

Prepared by:



Marc Mattox
Assistant Engineer

Submitted by:



Steven R. Jepsen
City Manager

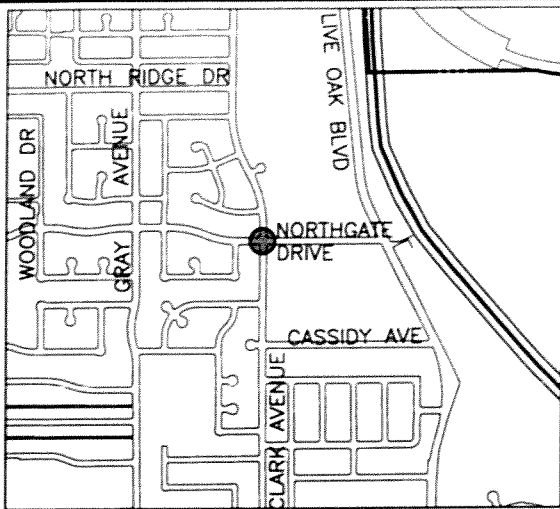
Reviewed by:

Department Head

Finance

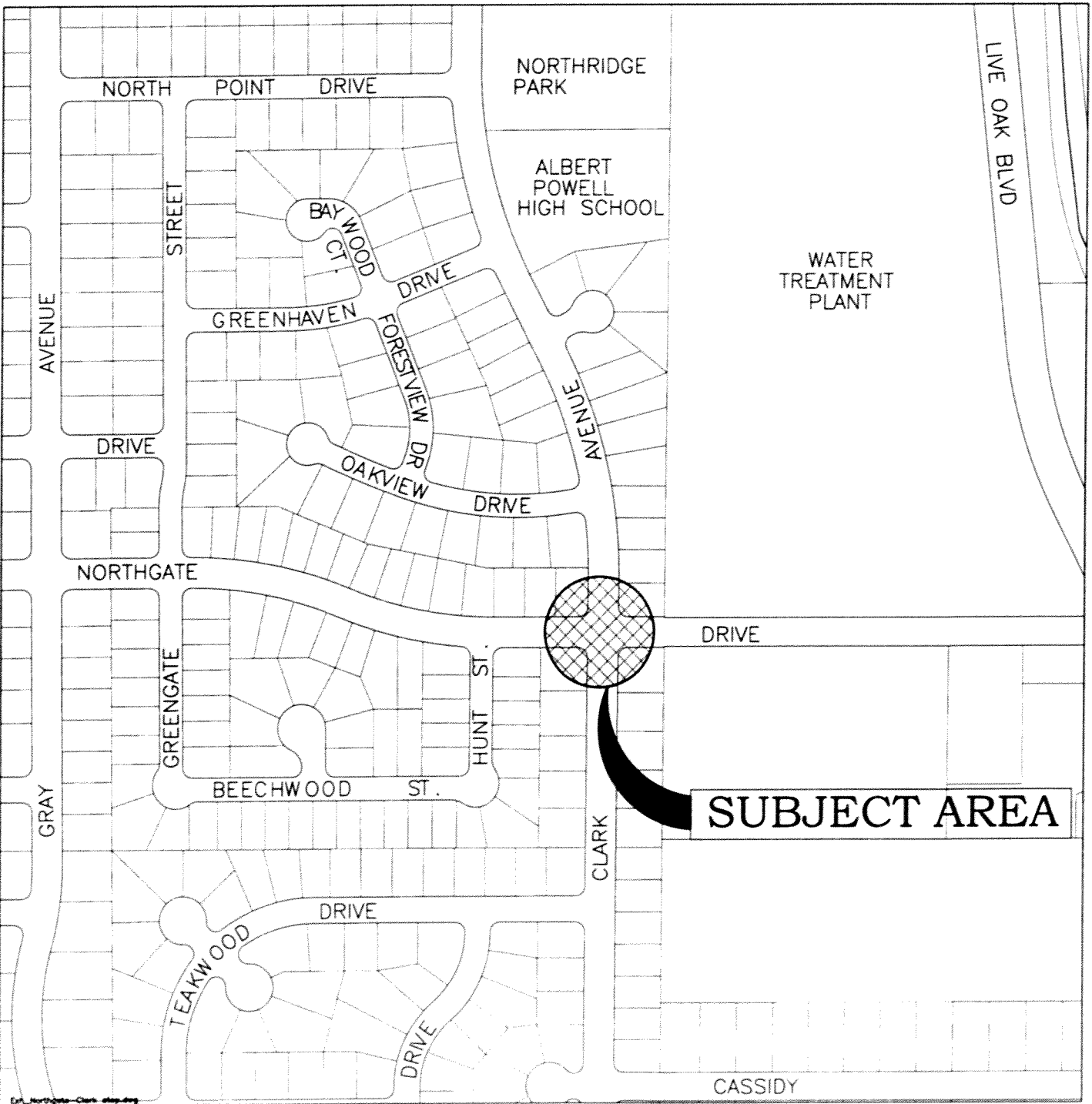
City Attorney

GM
AS



SCALE: 1" = 300'

NORTHGATE DRIVE and CLARK AVENUE STOP SIGN INSTALLATION



CITY OF YUBA CITY

ENGINEERING

1201 CIVIC CENTER BOULEVARD, YUBA CITY, CA 95993 • (530) 822-4632 • FAX (530) 822-4694

Stop Sign Warrant Study

Date: August 11, 2009

Subject Intersection: Northgate Drive & Clark Avenue

Speed Limits: 25mph in all directions

Existing Regulations: Northgate Drive currently is a through road with low to moderate traffic volumes. Clark Avenue currently has posted stop signs for the northbound and southbound lanes at Northgate Drive.

Request: Local users of the intersection have requested a four-way stop be posted at the intersection of Northgate Drive and Clark Avenue.

According to the California Manual on Uniform Traffic Control Devices, STOP signs should be considered if engineering judgment indicates that one or more of the following conditions exist:

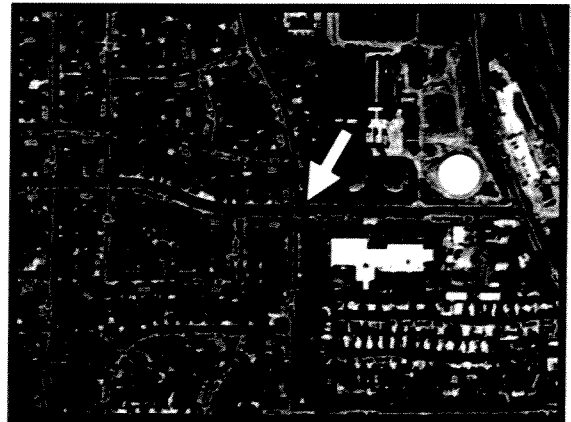
- A. Intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;
- B. Unsignalized intersection in a signalized area; and/or
- C. High speeds, restricted view, or crash records indicate a need for control by the STOP sign.
- D. Other minimum volume requirements

Results of Study:

A traffic and speed study was conducted at the subject intersection on August 5, 2009. Traffic data indicated 2,167 vehicles traveling on Northgate Drive and 1,488 vehicles traveling on Clark Avenue through the intersection in a 24 hour period. Average traffic speeds for the through street, Northgate Drive, were recorded at 30 mph. The 85th percentile speed for Northgate Drive was 37 mph. Accident history for the subject intersection includes 6 accidents in the past year, and 9 total since 2003.

Site Notes:

The intersection of Northgate Drive and Clark Avenue is located in a residential area near the City's Water Treatment Plant. Northgate Drive and Clark Avenue are functionally classified as urban collectors. The intersection is about 1000' from Live Oak Boulevard, classified as an urban minor arterial.



Recommendation:

After completing the engineering study, the intersection does meet one of the criteria listed above, and does warrant the installation of a four-way stop. The California MUTCD maintains that a multiway stop sign application is warranted where the accident history shows 5 accidents in a twelve month period. The accident history for the subject intersection shows, in a twelve month period, six accidents were reported at the intersection. Five of the accidents are susceptible to correction by a multiway stop installation. Based on the information detailed above, a multi-way stop sign is recommended at the intersection of Northgate Drive and Clark Avenue.

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY
AUTHORIZING THE INSTALLATION OF STOP SIGNS**

WHEREAS, George L. Musallam, Public Works Director, recommends placing stop signs on eastbound and westbound Northgate Drive, at Clark Avenue making the intersection a four-way stop, and

WHEREAS, it has been determined by the City Council that such provision is in the public interest,

BE IT FURTHER RESOLVED AND ORDERED, by the City Council of the City of Yuba City, that the Department of Public Works is hereby authorized and directed that stop signs be placed for the eastbound and westbound approaches of Northgate Drive at the intersection with Clark Avenue.

The forgoing resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 18th day of August 2009.

AYES:

NOES:

ABSENT:

MAYOR

ATTEST:

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY
AUTHORIZING THE INSTALLATION OF CROSSWALKS**

WHEREAS, George L. Musallam, Public Works Director, recommends the marking of two north-south crosswalks and two east-west crosswalks at the intersection of Northgate Drive and Clark Avenue on the north, west, east and south sides of the intersection, and

WHEREAS, it has been determined by the City Council that such provision is in the public interest,

BE IT FURTHER RESOLVED AND ORDERED, by the City Council of the City of Yuba City, that the Department of Public Works is hereby authorized and directed that two north-south crosswalks and two east-west crosswalks be placed at the intersection of Northgate Drive and Clark Avenue on the north, west, east and south sides of the intersection.

The forgoing resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 18th day of August 2009.

AYES:

NOES:

ABSENT:

MAYOR

ATTEST:
