

**Council Meeting: January 31, 2012****SUBJECT: Cut-Through Traffic Analysis for the Kaiser Permanente Santa Clara Medical Center Facility 2008 Study Issue Follow-up****REPORT IN BRIEF**

The City Council, as part of its 2008 Study Issues process, approved a study of access alternatives, including allowing left turns out of the Kaiser Permanente Santa Clara Medical Center facility onto Homestead Road. The study was prompted by requests from Kaiser Permanente and several citizens to consider allowing left turns from a driveway on Homestead Road to westbound Homestead Road. After an alternatives analysis and community outreach, the City Council approved adding a left-hand turn lane at the Kaiser facility for two years. The Council further directed that two years after installation of the left turn, staff would study traffic in the area and return to Council for a decision on formal approval. Council would then review whether traffic issues were created by the left turn and have the option of continuing, stopping or modifying the turn lane.

BACKGROUND

The Kaiser Permanente Santa Clara Medical Center at Lawrence Expressway and Homestead Road was considered for approval by the City of Santa Clara in the mid-1990s. The project generated significant controversy involving the developer, residents of the area, the City of Sunnyvale, the County of Santa Clara and the City of Santa Clara. In essence, Sunnyvale had a number of concerns regarding the design of the project, and as a means of influencing the design so as not to orient the facility towards Homestead Road, the City elected to approve the construction of a median barrier in the City-owned right of way to restrict left turn access to the facility. This was later modified, at Kaiser's request and with support of Sunnyvale residents, to allow left turns into the site but not out of the site.

Subsequent to the opening of the new hospital facility, the City was approached by Kaiser with a request to reconsider the left turn restriction. The City also received a number of requests from citizens to reexamine this issue. As a result, the City Council approved a 2008 study issue to examine alternatives for access to the Kaiser facility. The study issue was contingent on Kaiser Permanente providing funds to complete the study, which Kaiser then gifted \$46,530 in funding to complete the study. A study was completed and found that providing left turn access out of the Kaiser facility to

Homestead Road was unlikely to cause traffic issues in the Sunnyvale neighborhood to the north. Council approved providing for left turns for a two-year period, and directed staff to subsequently study traffic and return to Council for final disposition of the issue. The traffic signal and intersection were modified by the City of Santa Clara subsequent to Sunnyvale's conditional approval.

EXISTING POLICY

Land Use and Transportation Element C3.1.4, Study and implement physical and operational improvements to optimize roadway and intersection capacities.

DISCUSSION

The 2008 study comprehensively looked at access and circulation in the area in and around the Kaiser facility. The study evaluated whether allowing left turns from the Kaiser property to westbound Homestead Road would cause neighborhood cut-through traffic in the residential area north of Homestead Road and whether access alternatives to allowing this left turn would provide convenient access without encouraging neighborhood traffic. The study found that allowing the left turn would not encourage neighborhood cut-through traffic because travel times on neighborhood streets are greater than utilizing main streets such as Homestead and Wolfe and other access alternatives would potentially create significant traffic increases or require non-standard roadway design and traffic controls.

Cut-through traffic was defined as vehicles exiting the Kaiser facility and utilizing either Swallow Drive, Quail Drive, Peacock Drive, or Nightingale Drive and not being destined for a location within the neighborhood bounded by Homestead Road, Lawrence Expressway, El Camino Real, and Wolfe Road. For the follow-on study, staff focused on a key element of the previous study: the car-following analysis of traffic exiting the Kaiser facility and traveling west. This determines the degree of cut-through traffic. The 2008 study found that during two study periods, 11:00 a.m. to 1:00 p.m., and 2:00 p.m. to 4:00 p.m., no vehicles used neighborhood streets to cut through. Study periods were selected based on the highest observed trip generation times of the Kaiser facility. The 2011 follow on study found similar results. No cut through vehicles were observed in the mid-day study period and only one cut through vehicle was observed in the afternoon study period. Staff also conducted car-following in the 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. periods for purposes of providing a comprehensive analysis. Staff found that two vehicles, out of 40 vehicles followed, cut through the neighborhood in the morning study period, and two vehicles out of 59 vehicles followed, cut through the neighborhood in the evening study period. The sample size for each study was 10% to 17% of traffic exiting the Kaiser facility at the Homestead driveway and traveling west on Homestead Road. A comparison of traffic data from the 2008 and 2011 studies is included as Attachment A.

Traffic volume counts were also taken on neighborhood streets. The study found increases and decreases in traffic volumes since 2008, ranging from a 30% decrease on Nightingale Avenue to a 23% increase on Marion Way. Most increases are on streets that provide access to Wolfe Road from the neighborhood. A volume comparison is included as Attachment B.

Based on these findings, staff believes that no traffic issues have been created by allowing left turns out of the Kaiser facility. Staff recommends no further action on the Kaiser left turn issue.

FISCAL IMPACT

Depending upon the City Council's direction, fiscal impacts may vary significantly.

There is no fiscal impact for maintaining the existing condition.

Pursuing changed access to the west and south of the Kaiser site would have unknown fiscal impacts. Modification of Homestead Road in Sunnyvale would require capital construction and associated costs.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, in the Council Chambers lobby, in the Office of the City Clerk, at the Library, Senior Center, Community Center and Department of Public Safety; posting the agenda and report on the City's Web site; and making the report available at the Library and the Office of the City Clerk.

ALTERNATIVES

1. Council accept the follow-on traffic analysis for the Kaiser Santa Clara Medical Facility and take no further action on this issue.
2. Council accept the follow-on traffic analysis for the Kaiser Santa Clara Medical Facility and direct staff to pursue alterations to access to and from the Kaiser facility to Homestead Road.
3. Council direct staff to collect further information on Kaiser Facility traffic.

RECOMMENDATION

Staff recommends Alternative 1: Council accept the traffic analysis for the Kaiser Santa Clara Medical Facility and take no further action on this issue.

Traffic making left turns out of the Kaiser facility and traveling to cut through the neighborhood to the north are very low, and staff does not believe they represent a significant or noticeable contribution to traffic levels in the neighborhood.

Reviewed by:

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Approved by:

Gary M. Luebbbers
City Manager

Attachments:

- A) Comparison of 2008 and 2011 Car Following Data
- B) Comparison of 2008 and 2011 Traffic Volumes

Kaiser Left Turn Study**Car Following Count Data**

2011 Vehicle Counts	10/25/2011 7 AM – 9 AM	10/19/2011 11 AM - 1 PM	10/19/2011 2 PM – 4 PM	10/25/2011 4 PM – 6 PM
# Vehicles turning left from Kaiser	226	289	357	592
Total # vehicles followed	40	48	51	59
# Vehicles that do not enter neighborhood	37	44	49	57
# Vehicles with neighborhood destination	1	4	1	0
# Vehicles cutting through neighborhood	2	0	1	2

2008 Vehicle Counts	11/17/2008 11 AM - 1 PM	11/21/2008 11 AM - 1 PM	11/17/2008 2 PM – 4 PM	11/21/2008 2 PM – 4PM
# Vehicles westbound from Kaiser driveway	333	507	426	426
Total # vehicles followed	25	38	32	32
# Vehicles that do not enter neighborhood	21	38	31	26
# Vehicles with neighborhood destination	4	0	1	6
# Vehicles cutting through neighborhood	0	0	0	0



CITY OF SUNNYVALE

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ATTACHMENT B

Study Roadway Segment

<u>Roadway</u>	<u>Limits</u>	<u>2008 AWDT</u>	<u>2011 AWDT</u>	<u>Change in Volume</u>
Marion	Navarro Dr. and Norman Dr.	2610	3233	23.87%
Dunford Wy	Partridge Ave and Quail Ave	3000	3529	17.63%
Inverness Wy	Peacock Ave and Quail Ave	1510	1762	16.69%
Lochinvar Ave	Inverness Ave and Kerry Ave	1710	2100	22.81%
Nightingale Av	Inverness Ave and Meadowlake Ln	710	495	-30.28%
Peacock Ave	Leighton Wy and Lorne Wy	860	903	5.00%
Quail Ave	Lochness Ct and Lorne Wy	2330	2725	16.95%
Swallow Dr	Kildare Ave and Lorne Wy	1220	1207	-1.07%

AWDT = Average Week Day Traffic