

2014 Council Study Issue

DPW 14 - 14 Optimization of Wolfe Road for Neighborhood and Commuters via Reconfiguration and Signalization

Lead Department Department of Public Works

Sponsor(s) Councilmembers Whittum, Meyering

History 1 year ago: 2 years ago:

1. Scope of the Study

a. What are the key elements of the study?

This study would evaluate the reconfiguration of Wolfe Road roadway geometry and signalization between Homestead Road and Fremont Avenue. A set of alternative configuration concepts would be identified and evaluated for traffic, parking and bicycling impacts. Alternatives could include a 2-lane plus one reversible/two way left turn lane configuration, elimination of on-street parking to provide additional lanes, and managed lanes.

b. What precipitated this study?

There is a perception that significant congestion and queuing occurs in the peak commute hours. Also, concern has been expressed about the effects of Wolfe Road traffic on quality of life in the adjacent residential area, and that addition of a two way left turn lane in the non-commute hours could improve neighborhood quality of life. Also, a revised configuration could restore on-street parking previously removed to provide bike lanes, and allow for elimination of bike lane transitions around remaining parking areas.

c. Is this a multiple year project? No Planned Completion Year 2014

2. Fiscal Impact

a. Cost to Conduct Study

i. Level of staff effort required (opportunity cost)

☐ Major ☒ Moderate ☐ Minor

ii. Amount of funding above current budget required \$ 150,000

iii. ☒ Will seek budget supplement ☐ Will seek grant funding

iv. Explanation of Cost:

b. Costs to Implement Study Results

- ☐ No cost to implement.
☒ Unknown. Study would include assessment of potential costs.
☐ Some cost to implement. Explanation:

3. **Expected participation in the process**

- ☐ Council-approved work plan
☐ Council Study Session
☒ Board/Commission Review by BPAC

4. **Staff Recommendation**

a. Position: Drop

- b. Explanation: Capacity issues on Wolfe Road in the proposed study area are driven by intersection capacity rather than the number of travel lanes and access. It is unlikely that alternatives exist to add capacity without acquiring additional right of way and widening intersections, notably at Wolfe Road and Homestead (which is in the City of Cupertino) and Wolfe Road at Fremont/El Camino Real (which was studied for widening previously and determined to be infeasible due to neighborhood concerns).

Installation of a reversible lane concept would decrease both commute direction and non-commute direction capacity by eliminating turn pockets in the commute direction and replacing them with a shared through/turn lane, and eliminating a lane of traffic in the non-commute direction. The configuration would also likely cause non-commute hour congestion given the current traffic volumes on Wolfe Road, which are too high to be accommodated in a single lane configuration.

Installation of bike lanes and reconfiguration of on-street parking "pockets" resulted in a series of striping tapers that has had a positive effect at lowering vehicle speeds and reducing the collision rate; the project would likely reverse this improvement. Restoration of on street parking would also increase the potential for dooring of bicyclists.

Signalized reversible lanes are an uncommon traffic feature that may cause driver confusion and reduce safety. Cost of installation of a system and modification of existing signals would be significant with likely negative impacts to both capacity and safety.

Elimination of on-street parking would likely result in parking demand not being able to be met by the off-street parking supply.

Parking supply and demand was studied in detail when bike lanes were installed on Wolfe Road, and the current on-street supply is optimized to on- and off- street demand.

Reviewed By:	Approved By:
<i>Kent Stephens</i> 12-11-13	<i>[Signature]</i> 12/11/13
Department Director Date	City Manager Date