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Title: Annual update of the Traffic Operations and Planning Division lists for new traffic signal installations and traffic signal left turn phasing modifications.

Sponsors: Public Works Department

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Attachments: 1. 18-0337 Attachment A - 2018 signal list 030418.pdf, 2. 18-0337 Attachment B - 2018 Left Turn Phasing List.pdf

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REPORT TO THE CITY COUNCIL

March 22, 2018

FROM: SCOTT L. MOZIER, PE, Director
Public Works Department

BY: ANDREW J. BENELLI, PE, City Engineer / Assistant Director
Public Works Department

JILL GORMLEY, TE, City Traffic Engineer / Public Works Manager
Public Works Department, Traffic Operations and Planning Division

SUBJECT

Annual update of the Traffic Operations and Planning Division lists for new traffic signal installations and traffic signal left turn phasing modifications.

RECOMMENDATIONS

Staff recommends that the Council receive the updated Annual Citywide Traffic Operations and Planning Division lists for proposed new traffic signal installations and traffic signal left turn phasing modifications.

EXECUTIVE SUMMARY

Staff has completed the annual update of Citywide Traffic Operations and Planning Division lists for proposed new traffic signal installations and left turn phasing installations. The update of these lists includes new traffic counts, analysis of accidents during the past year, traffic signals which have gone into construction during the past year and engineering consideration of other field changes such as new schools that have opened in the vicinity of the subject intersections. The scoring criteria are based upon traffic engineering criteria established by the Federal Highway Administration (FHWA) and the California Department of Transportation.

BACKGROUND

Every year, the Traffic Operations and Planning Division in Public Works conducts updated traffic counts, reviews intersection accident reports and performs an engineering analysis in accordance with adopted standards of the FHWA and California Department of Transportation. This analysis includes eight-hour traffic volumes, peak hour volumes, pedestrian counts, accident history and proximity of schools to the intersections. Unsignalized intersections are analyzed to determine if installation of a traffic signal is warranted. Warrants are evaluated purely using the Administration standards from the Manual on Uniform Traffic Control Devices. Existing signalized intersections that do not have left turn phasing (i.e., protected left turn movements via green arrows) are analyzed to determine if the installation of left turn phasing should be considered, which is based upon the number of peak hour conflicts between through traffic and opposing left turning vehicles or the number of accidents that would be correctable with installation of left turn phasing.

Intersections where new signal warrants are met, or where left turn phasing is recommended for consideration, are then objectively scored and ranked in order Citywide. The point system for new traffic signal installations conforms to the FHWA's requirements and is based upon overall traffic volumes for both directions (10 points maximum), peak hour traffic (10 points maximum), three-year history for correctable accidents (5 points per correctable reported collision in the annual average), schools within 0.25 miles (10 points maximum), activity centers within 1,000 feet (3 points maximum), potential signal coordination benefits (5 points maximum), intersection sight distance (2 points maximum), funding opportunities or cost/benefit ratio (2 points maximum) and engineering judgment of special conditions (3 points maximum). The point system for left turn phasing installations is based upon the peak hour product of left turning vehicles and opposing through traffic (5 points maximum), three-year history for correctable accidents (5 points per correctable reported collision in the annual average), schools within 0.25 miles (10 points maximum), activity centers within 1,000 feet (3 points maximum), intersection sight distance (2 points maximum), funding opportunities or cost/benefit ratio (2 points maximum) and engineering judgment of special conditions (3 points maximum).

The updated City-wide Traffic Operations and Planning Division lists are included as Attachments "A" and "B". The lists also indicate the funding status of each intersection. Some intersections must be signalized as a condition of approval for a specific development and have been noted as "Developer to Install". Other intersections have been funded as capital improvement projects based upon scores in prior years and/or a successful grant application for state and federal funds.

Intersections that have been completed or that have started construction since the 2017 annual report have been removed from the ranking lists. It should be noted that this past year since the last update, one existing signalized intersection was upgraded with left turn phasing and four intersections were signalized. These intersections have been removed from the ranking worksheets. The ranking lists will be used to prepare the FY18 capital improvement budget and to apply for grants in an objective manner based upon available and projected traffic signal mitigation impact fees.

Council approved an update of the impact fees and the intersections covered by those fees on December 8, 2016. Attached to this report, are the ranking lists for new signal installations, modifications for left turn phasing, and traffic flow improvements.

Funding for traffic signals in areas where new development is occurring is generated by the Traffic Signal Mitigation Impact Fee. The fee program revenues were very high in 2006 and 2007, but declined significantly during the recession.

Previous fiscal year monthly averages are as follows:

Budget Year	Monthly Revenue
FY18	\$145,861
FY17	\$120,523
FY16	\$89,773
FY15	\$93,607
FY14	\$81,356
FY13	\$95,243
FY12	\$60,009
FY11	\$75,707
FY10	\$63,885
FY09	\$95,572
FY08	\$124,223
FY07	\$247,024
FY06	\$258,020

As compared to FY06 and FY07, there are currently a larger proportion of new developments which have construction requirements in excess of their fee obligation, which as a result of the City's construction fee credit policy yields a more limited amount of impact fee revenue. Given the limited impact fees currently available for capital projects, the Department's goal has been to pursue alternative funding sources such as federal and state grants for delivery of these projects. Impact fee revenue is also utilized to reimburse developers who have installed traffic signal improvements in excess of their fee obligation amount. Currently the traffic signal fee program owes approximately \$670,000 to developers for previously completed traffic signal improvements.

ENVIRONMENTAL FINDINGS

By the definition in the California Environmental Quality Act (CEQA) Guidelines Section 15378, the update of the Traffic Operations and Planning Division lists does not qualify as a "project" as defined CEQA.

LOCAL PREFERENCE

Local preference was not implemented because the update of the lists does not include a bid or award a construction or services contract.

FISCAL IMPACT

The annual update of traffic signal ranking lists has been accomplished within the operating budget of the Public Works Department. There will be no additional impact on the General Fund.

Attachments:

“A” - 2018 Warranted New Traffic Signal Locations

“B” - 2018 Left Turn Signal Phasing Locations for Consideration