



DATE: December 12, 2023

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Adopt a Resolution Authorizing the City Manager to Accept and Appropriate \$515,000 in Awarded Transportation Fund for Clean Air Funding from the Alameda County Transportation Commission for the Winton Avenue/D Street and Tennyson Road Corridors Signal Timing Project for Construction of Traffic Signal Infrastructure and Implementation of Adaptive Signal Timing

RECOMMENDATION

That the Council adopts a resolution (Attachment II) authorizing the City Manager to accept and appropriate \$515,000 from the Alameda County Transportation Commission for the Winton Avenue/D Street and Tennyson Road Corridors Signal Timing Project.

SUMMARY

The Transportation Fund for Clean Air (TFCA) is distributed by the Bay Area Air Quality Management District (BAAQMD) and is regionally managed by the Alameda County Transportation Commission (ACTC). City staff applied for this annual funding source and was awarded \$515,000 to upgrade traffic signal infrastructure and implement adaptive signal timing on the Winton Avenue/D Street and Tennyson Road corridors. Staff recommends adopting the resolution to accept and appropriate the awarded funding from ACTC. The City will contribute \$297,000 of funding from Measure BB Local Transportation Fund 212 and Transportation System Improvement Fund 460 to the project.

BACKGROUND

State law permits BAAQMD to collect a fee of four dollars per vehicle per year with annual registration fees to reduce air pollution from motor vehicles. The fee provides revenues for the TFCA, which is distributed by BAAQMD at the regional and county levels. Forty percent of the annual funding from BAAQMD is allocated for programming and in turn is allocated by the program manager for each county. ACTC is the TFCA Program Manager for Alameda County. Only projects that result in the reduction of motor vehicle emissions are eligible for TFCA funding. Projects must achieve surplus emission reductions beyond what is currently required through regulations, ordinances, contracts, or other legally binding obligations.

In August of 2023, City staff applied for TFCA funding through the arterial management category of projects. The City's request for funding for an arterial management project required a case-by-case approval from the BAAQMD Board. Arterial management projects are no longer specifically identified in the current BAAQMD TFCA CPM policies, having been recently removed, but they are still identified in the TFCA authorizing legislation. Alameda CTC and BAAQMD staff found the City's proposed project to be cost-effective to receive \$515,000. The TFCA cost-effectiveness for this project is calculated to be \$249,698/ton. The TFCA cost-effectiveness is a ratio of the TFCA funds awarded to the sum of surplus emissions (in weighted tons) reduced during a project's operational period. Of the seven total City/County projects on the TFCA 2023-24 program list, this project ranks as the third most effective at reducing emissions. ACTC, City of Hayward, and BAAQMD staff coordinated to bring the request to the BAAQMD Board, which granted its approval on November 1, 2023.

On November 9, 2023, ACTC staff included the project in the recommended County draft TFCA 2023-24 program to the Alameda County Technical Advisory Committee and on November 13, 2023, to the Programs and Projects Committee. The TFCA 2023-24 program was approved by the ACTC Board on December 7, 2023.

DISCUSSION

Both the Winton Avenue/D Street and Tennyson Road corridors would receive adaptive signal timing systems with this project. Adaptive signal timing optimizes signal timing dynamically in response to variations in traffic volume. Most traffic signals without adaptive timing need to have timing plans manually set, requiring additional staff and maintenance costs. Optimized timing plans will result in reduced congestion, pollution, and greenhouse gas emissions. To meet the requirements to implement an adaptive timing system, a portion of the funding will be used to modernize the City's traffic signal infrastructure on the Winton Avenue/D Street corridor. These upgrades will include new traffic signal controllers, video detection cameras, and communications equipment. Tennyson Road will not need any additional infrastructure upgrades to implement adaptive signal timing. By keeping the City's traffic signal infrastructure up to date, the City will be better positioned to pursue other technologies in the future, including transit-signal priority, automated traffic signal performance measures, and connected vehicle technologies.

A funding agreement with ACTC will need to be executed following the approval of this resolution. Of the expected \$812,000 total project cost, ACTC will contribute \$515,000 to the construction of the project. The City is required to contribute a twenty-five percent match of the \$515,000 and any additional amount to cover the remaining project costs. Therefore, the total City construction contribution will be \$297,000. There will be additional design costs required of the City, which will be completed outside of the scope of the TFCA program.

ECONOMIC IMPACT

Residents, employers, and employees in the City will benefit from this project through travel time reductions due to dynamically optimized signal timing. Excessive congestion has been shown to negatively affect mobility, job growth, and worker productivity. Reducing congestion will aid in maintaining the region's economic competitiveness, while also reducing

pollution and greenhouse gas emissions, which are related to negative health and environmental consequences.

FISCAL IMPACT

There is no impact to the General Fund. The \$297,000 funding provided by the City will come from Measure BB Local Transportation Fund 212 and Transportation System Improvement Fund 460.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority of Confront Climate Crisis & Champion Environmental Justice. This item specifically relates to the following Project:

Project C1: Implement Year 1 Programs from adopted GHG Roadmap (Climate Action Plan)

SUSTAINABILITY FEATURES

This funding will result in physical upgrades to the traffic signal infrastructure on the Winton Avenue/D Street corridor and the purchase and implementation of an adaptive signal timing system for Winton Avenue/D Street and Tennyson Road corridors. These actions are aligned with the adopted Climate Action Plan Program M 9: Improved Traffic Flow Program: "The City shall work with the Metropolitan Transportation Commission and the Alameda County Transportation Commission to plan and obtain funding for projects that improve traffic flow on arterials and reduce vehicle idling."

PUBLIC CONTACT

No public contact has been made related to this agenda item.

NEXT STEPS

If Council approves this request, the City Manager will enter into a funding agreement with ACTC for a total amount of \$515,000 TFCA funds. Once the funding agreement is executed, TFCA funds will be available to reimburse project costs.

Prepared by: Byron Tang, Senior Transportation Engineer
Kathy Garcia, Deputy Director of Public Works

Recommended by: Alex Ameri, Director of Public Works

Approved by:



Kelly McAadoo, City Manager