



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: John Ristow
Jim Shannon

SUBJECT: SEE BELOW

DATE: November 20, 2020

Approved

Date

11/23/2020

COUNCIL DISTRICTS: 2, 3, 4, 7, 9

**SUBJECT: TRANSPORTATION FUND FOR CLEAN AIR GRANT FUNDING
AGREEMENT 2020-2021**

RECOMMENDATIONS

- (a) Adopt a resolution authorizing the City Manager or designee to negotiate and execute a Transportation Fund for Clean Air (TFCA) grant agreement with the Santa Clara Valley Transportation Authority (VTA) in an amount not to exceed \$1,022,000 for reimbursement of work that occurs on or after July 1, 2020.
- (b) Adopt the following 2020-2021 Funding Sources Resolution and Appropriation Ordinance amendments in the Building and Structure Construction Tax Fund:
 - (1) Increase the estimate for Revenue from Local Agencies by \$352,000; and
 - (2) Establish the TFCA 2020-2021 Monterey Road Signal Retiming appropriation to the Department of Transportation (DOT) in the amount of \$192,000; and
 - (3) Establish the TFCA 2020-2021 Transit Signal Priority (TSP) appropriation to DOT in the amount of \$80,000; and
 - (4) Establish the TFCA 2020-2021 Hillsdale Avenue Safety and Bikeway Improvements appropriation to DOT in the amount of \$80,000.

OUTCOME

This grant provides funding for traffic signal retiming and transit signal priority work to improve traffic safety and transit travel efficiency for VTA bus routes 66 and 68 along Monterey Road; and funding to construct roadway safety improvements along Hillsdale Avenue.

BACKGROUND

Traffic patterns and demand have changed significantly as many companies are allowing work from home due to the pandemic. In March, DOT removed traffic signal synchronization timing that was necessary to efficiently address peak traffic volumes along major commute corridors, and the signals were reprogrammed to operate on demand, which is more appropriate for lower traffic volume and sporadic pattern. The current traffic volume level is estimated to be about seventy percent (70%) of normal traffic. Traffic Signal Operations staff continually monitors traffic demand and pattern remotely from the City's Traffic Management Center and optimizes signal operations based on observed traffic patterns. Today, after observing increasing growth in traffic, one-third (22 out of 68) of the major commute corridors have been reprogrammed to operate with coordinated or progression timing. To ensure traffic signals are operating efficiently, DOT regularly reviews traffic patterns along major commute corridors and updates traffic signal timing plans to address changes in demand or pattern. Intersection safety signal timing parameters, such as pedestrian crossing time and all red vehicle clearance time, are reviewed as part of the retiming process. Signal timing strategies are also used to advance both mobility and safety goals.

Transit Signal Priority (TSP)

DOT has worked diligently with VTA over the last two decades to improve transit service through operational strategies such as TSP to reduce delay for transit vehicles at signalized intersections. Signals equipped with proper vehicle detection sensor and communication devices can be programmed to extend green lights, shorten red lights, and rotate signal phases to improve the chances of transit buses receiving a green signal upon arrival at a signalized intersection. TSP systems allow for more reliable transit travel times, which is important in maintaining and increasing transit ridership, decreasing single-occupancy vehicle trips, and ultimately reducing traffic congestion and harmful air emissions. Traffic signals along the lightrail corridors and rapid bus corridors are programmed to provide transit priority service to approaching lightrail and rapid bus vehicles.

Vision Zero Safety and Bikeway Expansion Goals

The Vision Zero transportation safety initiative was adopted by the City in 2015 with a goal of reducing fatal and severe injuries caused by traffic collisions. Through comprehensive evaluation and analysis of traffic collision data citywide, DOT identified 17 Priority Safety Corridors (PSCs), where fatal and severe injuries are most clustered and have the highest need for safety investments. In February 2020, City Council adopted a Vision Zero Action Plan that prioritized resources on developing robust data analytics, outreach and education, and quick-build geometric improvements on all PSCs, as well as other strategies.

Hillsdale Avenue is one of the PSCs; and is also identified in the San José Bike Plan 2025 as a priority corridor for establishing a bicycle facility to support a robust and safe bicycle network.

ANALYSIS

DOT actively pursues grant funding opportunities for projects that support the City's transportation mode shift and/or safety goals. TFCA is a Bay Area Air Quality Management District (BAAQMD) program funded by a surcharge of \$4.00 on motor vehicle registration fees collected within its jurisdiction. The surcharge revenues are to be used to implement specified transportation control measures that are included in BAAQMD's Clean Air Plan, developed and adopted pursuant to the requirements of the 1988 California Clean Air Act.

TFCA provides grants to local governments for projects that will reduce air pollution. Sixty percent of the annually available funds are administered by BAAQMD and the remaining 40% are returned to Bay Area counties. In Santa Clara County, the 40% of funds are administered by VTA and awarded on a competitive basis. Eligible projects include arterial management and signal timing, smart growth/traffic calming, trip reduction, and bicycle projects. A major factor for project selection is cost effectiveness of emissions reduced.

In March 2020, DOT submitted three applications for funding consideration under the Arterial Management and Trip Reduction categories of the TFCA Program Manager 40% Fund administered by VTA.

On September 3, 2020, the BAAQMD board approved VTA's recommendation to award a total of \$1,022,000 in TFCA funds to the City. The grant award will provide \$192,000 for retiming and synchronization of traffic signals and \$600,000 for implementing Transit Signal Priority along portions of Monterey Road; and \$230,000 for partial funding for the construction of safety improvements and bike lanes along Hillsdale Avenue. A local match of \$1,147,000 is required for the Hillsdale Avenue Safety and Bikeway Improvements.

Signal Retiming and Transit Signal Priority Along Monterey Road

Monterey Road is a major arterial with a speed limit ranging from 35 mph to 55 mph and has average daily traffic volume of approximately 40,000 vehicles. It was last retimed in 2017 and is one of the Vision Zero priority safety corridors. Between 2014 and 2018, 825 collisions occurred on the southern segment of the corridor between Alma Avenue and Ford Avenue, of which 104 involved pedestrians or bicyclists.

The project will retime and synchronize 24 traffic signals on Monterey Road between Alma Avenue and Ford Avenue to reduce travel delay for all roadway users. The work is anticipated to begin in spring 2021; and will account for fluctuations in traffic volume. Signal cycle lengths will be reduced where possible to reduce pedestrian wait times at signalized intersections and to discourage pedestrians from crossing against traffic signals. Pedestrian crossing times will also be reviewed to ensure adequacy for older pedestrians. Minimum bicycle clearance times will be reviewed to ensure bicyclists have the opportunity to cross intersections safely.

TSP will also be implemented for two VTA bus routes with high ridership along Monterey Road: Route 66 and Route 68 to improve transit efficiency and reliability along the corridor. Route 66 passes through 83 traffic signals operated by the City and begins in South San José at International Circle, passes through Downtown San José, and terminates at the Milpitas BART station. Route 68 runs from the Gilroy Transit Center, passes through Morgan Hill, and terminates at the Diridon Station near Downtown San José, passing through a total of 72 traffic signals operated by the City. The project scope includes 122 unique traffic signals.

The project components include:

- Retime and synchronize signals for peak weekday and weekend periods based on current and anticipated traffic patterns and volumes
- Evaluate yellow time, red light clearance, and pedestrian crossing times for safety and accessibility, with a focus on major pedestrian generators such as schools, community centers, senior centers, and libraries
- Develop and implement an advanced TSP system to support transit operations

In addition to the benefits described above, this project is anticipated to reduce vehicle emissions harmful to air quality by 3.3 tons and reduce greenhouse gas emissions (CO₂) by approximately 2,000 tons over the project lifespan.

Hillsdale Avenue Safety and Bikeway Improvements

Hillsdale Avenue is a 40-mph major arterial with an average daily traffic volume of approximately 24,000 vehicles. The roadway is 96 feet wide and consists of six thru-travel lanes and a center two-way left-turn lane. Hillsdale Avenue is also a Priority Safety Corridor. Between 2014 and 2018, 156 collisions occurred on the segment of the corridor between Camden Avenue and Chard Avenue, of which 11 involved pedestrians or bicyclists. The Envision San José 2040 General Plan calls for reducing Hillsdale Avenue from six travel lanes to four.

This project will implement significant improvements along Hillsdale Avenue between Camden Avenue and Chard Avenue, focused on enhancing traffic safety for pedestrians and bicyclists, reducing vehicle speeds, and minimizing turning conflicts. The project components include:

- Install Class II bike lanes with buffer to provide a designated bicycle facility
- Narrow travel lanes to encourage slower vehicular speeds
- Reconfigure the roadway from six to four travel lanes to accommodate bike lanes
- Install median islands using quick-build materials to reduce vehicle conflicts, provide a refuge for pedestrians, and shorten crossing distances
- Tighten intersection geometry to slow turning vehicles and improve visibility between road users
- Upgrade crosswalks with high-visibility markings to improve pedestrian crossing
- Install bicycle detection and realign traffic signal heads

The improvements will be coordinated with and leveraged with the pavement maintenance work scheduled to occur on Hillsdale Avenue in 2021. Quick-build materials will be employed so that safety benefits can be achieved sooner, and will enable staff to evaluate the effectiveness of the quick-build geometry, prior to constructing permanent improvements. Permanent improvements would be constructed as a future capital project when grant or other funds become available.

CONCLUSION

This grant will provide for the retiming of 24 traffic signals along Monterey Road and implement TSP for VTA bus routes 66 and 68. In addition, the grant will support the construction of roadway safety improvements along Hillsdale Avenue, including Class II bike lanes with buffer, a reconfigured roadway, upgraded crosswalks, and improved traffic signal visibility. This will improve safety, comfort, and the level of service for walking, biking, and people taking transit. These projects align and support San José's Access and Mobility efforts and Vision Zero goals.

EVALUATION AND FOLLOW-UP

This memorandum will not require further follow-up.

CLIMATE SMART SAN JOSE

The recommendations in this memo align with one or more Climate Smart San José energy, water, or mobility goals.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the December 8, 2020 City Council meeting. Staff will coordinate a public outreach meeting to the affected neighborhoods and businesses during the design process for the Hillsdale Avenue safety improvements.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, and the Planning, Building and Code Enforcement Department.

COMMISSION RECOMMENDATION/INPUT

This item does not require input from a board or commission.

COST SUMMARY/IMPLICATIONS

The total cost of the three projects included in the TFCA grant agreement is \$2,169,000, of which \$1,022,000 will be reimbursed by the TFCA grant. The local match of \$1,147,000 required for Hillsdale Avenue safety improvements will consist of \$647,000 from the City’s SB1 Road Repair and Accountability Act funding for pavement maintenance budgeted in the Construction Excise Tax Fund and \$500,000 from the Transportation Grants Reserve in the Building and Structure Construction Tax Fund within the Traffic Capital Program.

For the Signal Retiming project, full funding of \$192,000 is recommended programmed in 2020-2021 as part of this memorandum. For the Transit Signal Priority project, project development staff costs of \$80,000 is recommended for 2020-2021, with the remaining \$520,000 scheduled in 2021-2022.

For the Hillsdale Avenue Safety and Bikeway Improvements project, project development staff costs of \$80,000 is recommended in 2020-2021, with additional grant funds of \$150,000 and matching funds of \$1,147,000 scheduled in 2021-2022. The matching amount of \$1,147,000 includes the leveraging of \$647,000 in pavement maintenance funds since Hillsdale Avenue is scheduled to be repaved in 2021-2022.

BUDGET REFERENCE

The table below identifies the fund and appropriations to support this funding.

Fund #	Appn #	Appn Name	Current Total Appn	Rec. Budget Action	2020-2021 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
429	TBD	TFCA Monterey Signal Retiming	\$0	\$192,000	N/A	N/A
429	TBD	TFCA Transit Signal Priority	\$0	\$80,000	N/A	N/A
429	TBD	TFCA Hillsdale Safety and Bikeway Improvements	\$0	\$80,000	N/A	N/A
429	R090	Revenue from Local Agencies	\$655,000	\$352,000	V-614	10/20/2020, 79742

HONORABLE MAYOR AND CITY COUNCIL

November 20, 2020


Subject: TFCA 2019-2020 Grant Funding Agreement for Downtown Signal Retiming

Page 11


CEQA

Categorically Exempt, File No. PP18-029, CEQA Guideline Section 15301(c) Existing Facilities.

/s/
JOHN RISTOW
Director of Transportation


JIM SHANNON
Budget Director

I hereby certify that there will be available funding for appropriation in the Construction Excise Tax Fund in 2020-2021, monies in excess of those heretofore appropriated therefrom, said excess being at least \$352,000.


JIM SHANNON
Budget Director

For questions, please contact Lily Lim-Tsao, DOT Deputy Director, at (408) 975-3269.