

**MEMORANDUM**

Public Works Department

DATE: March 31, 2021

TO: Bicycle/Pedestrian Advisory Committee

FROM: Nancy Doan, Senior Management Analyst
Joy Houghton, Associate Engineer
Damian Skinner, Assistant Public Works Director

SUBJECT: Fiscal Year 2021-22 through Fiscal Year 2025-26 Capital Improvement Program

RECOMMENDATION

Provide input regarding potential capital projects that support active transportation to be considered for inclusion in the City's proposed Five-Year (Fiscal Year 2021-22 through Fiscal Year 2025-26) Capital Improvement Program.

BACKGROUND

The Capital Improvement Program (CIP) is a planning tool used to coordinate location, timing, and funding of capital improvements to maintain and manage City infrastructure that enhances the overall quality of life in the City. The City infrastructure consists of physical structures, systems, and facilities needed to provide critical services to the community such as sidewalks, streets, streetlights, traffic signals, utility pipe systems (stormwater, water, and wastewater), parks, trails, open space, and City buildings.

The CIP is divided into Non-Discretionary and Discretionary projects:

- Non-Discretionary projects are primarily annual and periodic infrastructure maintenance projects to preserve the City's significant investment in its infrastructure and facilities. They also include projects required for regulatory compliance.
- Discretionary projects are those projects that do not fit the Non-Discretionary description and require approval of the City Council. The sources of potential Discretionary projects include City plans and studies (e.g., Precise Plans, Transportation Plans, Sea-Level Rise Study, Utility Master Plans, Parks and Open

Space Plan, etc.), City Council goals and priorities, project submittals from all City departments, and the unscheduled projects in the current CIP.

The City Council held the first Study Session regarding the Five-Year CIP on March 23, 2021 (Attachment 1 to this memo and [Study Session](#) attachments). The Study Session memo presents: (1) an overview of the CIP; (2) information regarding CIP funding sources; (3) discussion of approach and criteria for prioritizing projects requiring unrestricted CIP funding sources; and (4) a proposed CIP project to offset the carbon emissions from the new City Hall/Center for the Performing Arts (CPA) heating, ventilation, and air conditioning (HVAC) system.

Active CIP Projects

The City Council was provided an update on the number of capital projects currently under way and the status of resources available to deliver those projects. While the number and value of new projects vary each year, a review of the past 10 years reveals a substantial increase in the number and value of projects as summarized in Table 1 below.

Table 1 – Five-Year Averages of New Projects

Five-Year Period	Average Number of New Projects Per Year	Average Total Budget of New Projects Per Year
2011-12 through 2015-16	49	\$21.8 million
2016-17 through 2020-21	59	\$65.3 million

Table 1 reflects an increase in new projects each year of more than 20 percent in the second five-year period and nearly a threefold increase in the total value of projects. Significant increases have occurred in a variety of projects, including active transportation improvements, parks and recreation, facilities renovation, and major utilities.

Table 2 provides the status of active Discretionary CIP projects involving active transportation improvements/enhancements.

**Table 2 – Status of Active CIP Projects
Involving Active Transportation Improvements/Enhancements**

Projects	Notes/Status
AccessMV: Comprehensive Modal Plan	Study Under Way
North Bayshore Circulation Study	Study Under Way
Pedestrian Master Plan Update	On Hold, Pending Staff Resources/Proposed to be incorporated into new Active Transportation Plan
Grant Road and Sleeper Avenue Intersection Improvements, Design and Construction	Feasibility Study Under Way
El Monte Corridor Improvements, Design and Construction	Feasibility Study Under Way
Castro Pedestrian Mall Feasibility Study	Feasibility Study Under Way
Bernardo Avenue Pedestrian/Bicycle Undercrossing Feasibility Study	Feasibility Study Under Way (with Sunnyvale)
Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge, Design and Construction	Concept Design Completed
Stierlin Road Bicycle and Pedestrian Improvements	Design Under Way
East Whisman Transit-Oriented Development Improvements, Phase II: Ellis Street Improvements	Design Under Way
Rengstorff Avenue and Leghorn Street Traffic Signal and Geometric Modifications	Design Under Way

Projects	Notes/Status
San Antonio and Bayshore Traffic Signal and Geometric Modifications	Design Under Way
Charleston Road Improvements, Phases II and III Design	Design Under Way
Crosswalk Improvements	Design Under Way
Transit Center Grade Separation and Access Project, Final Design	Design Under Way
Calderon Avenue Bike Lane – Mercy to El Camino Real	Design Under Way
Colony Connection to Permanente Creek Trail	Design Under Way
Rengstorff Avenue Grade Separation, Preliminary Design and Environmental Clearance	Design Under Way (with Caltrain)
El Camino Real Bikeway Improvements, Design	Design Under Way (with Caltrans)
SR 237/Middlefield Interchange Improvement	Design Under Way (with VTA)
Mayfield/San Antonio Pedestrian/Bike Tunnel, Preliminary Design	On Hold Pending Staff Resources
Thompson Avenue and Central Expressway Traffic Signal	Coordination Under Way (with County)
California Street (West) Complete Street Improvements, Pilot	On Hold Pending Staff Resources

In addition to the major CIP projects listed above, there are several Non-Discretionary pavement maintenance projects that present opportunities to integrate active transportation improvements or enhancements, including installing high-visibility crosswalks and Americans with Disabilities Act (ADA)-compliant curb ramps, and installing new bike lanes or enhancements of existing bike lanes where feasible.

As staff continues to make progress in the active CIPs above, nine CIP projects involving active transportation have been completed in the last year or are currently in construction phase (Table 3).

Table 3 – Recently Completed or Currently in Construction CIPs Involving Active Transportation Improvements/Enhancements

Projects	Active Transportation Improvements
Middlefield Road Improvements	Refreshed bike lane and high-visibility crosswalk striping, installed pedestrian refuge island, reduced lane widths.
Annual Street Resurfacing	Refreshed and enhanced bike lanes and high-visibility crosswalk striping and installed ADA-compliant curb ramps, including Shoreline Boulevard and California Street.
Charleston Road Crossing at Permanente Creek Trail	Installed signalized crossing with high-visibility crosswalk on Charleston Road at Permanente Creek Trail.
Annual Concrete and Sidewalk Repair	Repaired existing sidewalks and installed ADA-compliant curb ramps.
Castro Street/Moffett Boulevard/Central Expressway Intersection Near-Term Improvements	Modified traffic signal and intersection geometry to enhance bicycle and pedestrian safety.
Villa Street/Shoreline Boulevard Intersection Improvements (including TDA 3 funds)	Project to remove slip lane, install new crosswalk, high-visibility crosswalk striping, and modify traffic signal to include protected pedestrian phase in summer 2021.

Projects	Active Transportation Improvements
Shoreline Boulevard Interim Bus Lane and Utility Improvements	Project to install Class II bike lanes and Class IV protected bikeways, high-visibility crosswalks, and ADA-compliant curb ramps starting March 2021.
Sonia Way, Park Drive, and Park Court Reconstruction	Project to install high-visibility crosswalks and ADA-compliant curb ramps in summer 2021.
Metal Beam Guardrail Installation	Project to install guardrail systems at intersections of Grant Road/South Drive and Dana Street/Moorpark Way to enhance pedestrian safety in summer 2021.

CIP Funding Sources and Status

Depending on project scope and locations, different funding sources may be used for CIP projects. A full list of available funding sources for CIPs is included in the Council Study Session Memo (Attachment 1). Staff has been carefully monitoring the impact of the COVID-19 pandemic on several CIP funding sources, and a summary of the status of those funding sources is also included in Attachment 1.

Below is a summary of the status of the funds that can be used towards projects that support active transportation:

- **Unrestricted Funds** – The Unrestricted Funds consist of CIP Reserve and Construction/Conveyance (C/C) Tax funds. These are extremely valuable funding sources because there are no restrictions on the type or location of projects. They can be used for any capital project that does not have its own dedicated funding source or to supplement when dedicated funding source is insufficient. City facility rehabilitation/renovation, information technology, and transportation improvements rely heavily on these funding sources.

The availability of CIP Reserve funding has been significantly reduced due to the impacts of COVID-19, and the C/C Tax revenue available for CIPs next year is less than one-half the amount available in previous years. There is a possibility that more CIP Reserve and/or C/C Tax will be available than forecasted in the outer years of the Five-Year CIP, but staff expects the first two years of the CIP (Fiscal Years 2021-22 and 2022-23) to be lean.

- **Transportation Funds**—The funding received from the General Fund Transportation Reserve, SB 1, Vehicle License Fee (VLF), and VTA Measure B Local Streets and Roads is expected to remain relatively stable. These four funds combined provide an average of \$7.4 million a year to the CIP. With the exception of the General Fund Transportation Reserve, these funds are geared to the improvement the City's PCI (Pavement Condition Index). Staff continues to integrate active transportation improvements or enhancements where feasible on street resurfacing or reconstruction projects funded with these sources.

The gas tax, however, has experienced a significant decline in revenues due to the stay-at-home orders. Between Fiscal Years 2016-17 and 2019-20, the CIP received an annual allocation of gas tax for road maintenance and improvements in the range of \$1.5 million to \$1.9 million. This was reduced to \$1.1 million in Fiscal Year 2020-21. The forecast for Fiscal Year 2021-22 is currently only \$371,000 for the CIP, a reduction of over \$1.2 million a year received prior to COVID-19. Gas tax funding is also used for street resurfacing or reconstruction projects as well as active transportation projects.

- **Shoreline Regional Park Community**— At this time, this revenue source, which is used for projects in the North Bayshore Area, has not been significantly affected by COVID-19 economic impacts.
- **Developer Fees and Charges**— At this time, development activity continues to be strong. One factor that may affect CIP funding is the policy decisions related to the use of community and public benefits, which have frequently provided significant funding for transportation improvements, including active transportation.

DISCUSSION

New Five-Year CIP Development

Staff compiles the list of candidate Discretionary projects for the upcoming Five-Year CIP as follows:

- Roll forward the projects planned for Years 3 to 5 in the previous Five-Year CIP into Years 1 to 3 in the new CIP. Attachment 2 lists the "roll-forward" projects that are related to or involve active transportation improvements/enhancements. While staff is committed to delivering these projects, some projects may be deferred to Years 4 or 5 due to funding limitations.

- Add new project proposals. Typically, new projects are planned for Years 4 and 5 of the CIP, which have no roll-forward projects. However, some projects may be considered for Years 1 to 3 if requested by the project sponsor or to reflect changing City needs and Council priorities; and
- Add requests for amendments to active CIP projects, which can include both scope changes and additional funding.

Funding Considerations

The decline in CIP Unrestricted Funds and gas tax revenue has the potential to affect the amount of funding available for active transportation improvements in the next Five-Year CIP. Staff has proposed to Council that the General Fund Transportation Reserve be drawn down for bicycle/pedestrian and other related transportation projects more extensively than has been done previously. However, some caution here is needed as this reserve provides additional midyear funding for an active project if needed, matching funds for new grant opportunities, and the long-term needs of the Mountain View Community Shuttle.

For the CIP unrestricted funds, staff recommended to Council that an approach of maximizing these funds for projects with no dedicated funding sources, funding the Non-Discretionary projects off the top, and using the criteria listed below to prioritize any remaining funds:

- Public and personnel safety;
- Compliance with regulatory requirements;
- Local match or cost-sharing to secure grants or other funding;
- Pavement rehabilitation/reconstruction and preventive maintenance, as needed, to maintain the City's current PCI rating (including active transportation enhancements where possible);
- City Council Strategic Plan priorities; and
- Projects that benefit and/or do not burden communities of color and/or low-income residents.

Staffing Considerations

Another factor that affects scheduling new CIP projects is staffing resources. The significant increases in the number of capital projects over the last five years, as shown in Table 1, has created challenges in delivering the projects in a timely manner with more projects than project managers, engineers, and management staffing can carry at one time.

The City is moving forward to replace an Active Transportation Planner position which was vacated in March 2020. Additionally, the City has funded a new Transportation Planner position associated with the Sustainability Action Plan. Filling these two Transportation Planner positions will allow the City to be more proactive in pursuing grant opportunities for transportation projects to help backfill for declining revenues as well as moving forward on various transportation plans and studies.

Public Works is also currently reviewing options to increase the engineering and management resources needed for the design and construction of capital projects.

Recommendations for New Projects

Staff is requesting that the Bicycle/Pedestrian Advisory Committee (B/PAC) review and provide input regarding the inclusion of active transportation-related projects in the Five-Year CIP. Staff recommends that the B/PAC not focus discussion on the “roll-forward” projects as the City is committed to delivering these projects, though some may be deferred to Years 4 or 5 due to funding and staffing limitations.

Input on any new projects proposed to be programmed into Years 4 or 5 would be useful to staff and the City Council as staff prepares a draft Five-Year CIP for review by the City Council on May 11, 2021. New projects proposed for inclusion in the Five-Year CIP may be previously identified *Unscheduled CIP Projects* or other new projects.

Unscheduled CIP Projects

Projects identified during the planning process of the previous Five-Year CIP that were excluded due to funding and staffing limitations are classified as “Unscheduled.” The unscheduled projects are reviewed yearly to evaluate the need and opportunity for inclusion in the proposed CIP. The unscheduled projects related to or involving active transportation are listed in Attachment 3.

New Projects

The source of new active transportation projects ideally would be the Bicycle Transportation Plan, Pedestrian Master Plan, and City Precise Plans; however, all new project ideas will be considered. Feasible projects consistent with the City's plans and goals that are not included in the new Five-Year CIP will be added to the Unscheduled List, which is evaluated yearly for inclusion in the proposed CIP.

Discussion Questions

Staff requests input on the following question(s):

Question 1: Are there any projects in the Unscheduled List (Attachment 3) that the B/PAC would like to be considered for inclusion in the Five-Year CIP?

Question 2: Are there any other projects the B/PAC would like to be considered for inclusion in the Five-Year CIP?

NEXT STEPS

Staff will provide a summary of B/PAC input at the City Council Study Session scheduled for May 11, 2021.

ND-JH-DS/1/PWK

907-03-31-21M

- Attachments:
1. March 23, 2021 City Council Study Session Memo; and [Study Session](#) attachments
 2. Active Transportation-Related Roll-Forward Projects
 3. Active Transportation-Related Unscheduled Projects

cc: PWD, APWD – Arango, APWD – Skinner, SMA – Doan, SMA – Goedicke, PCE – Gonzales, AE – Houghton

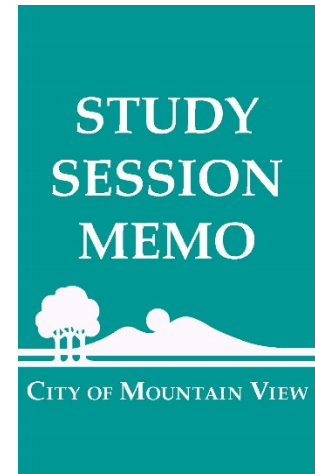
DATE: March 23, 2021

TO: Honorable Mayor and City Council

FROM: Nancy Doan, Senior Management Analyst
Joy Houghton, Associate Engineer
Dawn S. Cameron, Public Works Director

VIA: Kimbra McCarthy, City Manager

TITLE: **Fiscal Year 2021-22 through Fiscal Year 2025-26 Capital Improvement Program**



PURPOSE

The purpose of this Study Session is to provide the City Council an overview of the Capital Improvement Program (CIP) and obtain City Council input to guide staff in the preparation of the proposed Fiscal Year 2021-22 through Fiscal Year 2025-26 CIP. This is the first of two planned Study Sessions prior to the scheduled adoption of the CIP in June. This report presents: (1) an overview of the CIP; (2) information about CIP funding sources; (3) discussion of approach and criteria for prioritizing projects requiring unrestricted CIP funding sources; and (4) a proposed CIP project to offset the carbon emissions from the new City Hall/Center for the Performing Arts (CPA) heating, ventilation, and air conditioning (HVAC) system.

BACKGROUND

The CIP is a planning tool used to coordinate location, timing, and funding of capital improvements to maintain and manage City infrastructure that enhances the overall quality of life in the City. City infrastructure consists of physical structures, systems, and facilities needed to provide critical services to the community, such as sidewalks, streets, streetlights, traffic signals, utility pipe systems (stormwater, water, and wastewater), parks, trails, open space, and City buildings, including City Hall, the Center for the Performing Arts (CPA), Library, fire stations, Police/Fire Administration Building, Community Center, Senior Center, Teen Center, Michaels at Shoreline, Adobe Building, Rengstorff House, and the Municipal Operations Center.

The five-year CIP is adopted biennially, with a full plan developed in odd-numbered years and a focus only on the upcoming fiscal year in even-numbered years. In June 2021, staff will request that the City Council appropriate funding for the Fiscal Year 2021-22 CIP and adopt the plan for the four subsequent fiscal years.

Active CIP Projects

Prior to the COVID-19 Public Health emergency, the strong local economy, debt proceeds available for capital projects, and legislative developments generated significant funding for capital improvement projects over the last several years. While the number and value of new projects vary each year, there was an overall substantial increase in the number and value of projects over the last 10 years, as shown in Table 1 below:

Table 1: Five-Year Averages of New Projects

Five-Year Period	Average Number of New Projects Per Year	Average Total Budget of New Projects Per Year
2011-12 through 2015-16	49	\$21.8 million
2016-17 through 2020-21	59	\$65.3 million

Table 1 reflects an increase in new projects each year of more than 20 percent in the second five-year period and nearly a threefold increase in the total value of projects. Significant increases have occurred in a variety of project types, including pedestrian and bicycle improvements, parks and recreation, facilities renovation, major utilities, and transportation. This trend has created challenges in delivering projects in a timely manner with more projects than the project managers, engineers, and management staffing can carry at one time. There are currently 348 active projects in the CIP, of which 148 are Non-Discretionary Projects and 200 are Discretionary Projects. Attachment 1 provides the status of the major active CIP projects funded in Fiscal Year 2020-21 and earlier.

New Five-Year CIP Development

The CIP is divided into Non-Discretionary and Discretionary projects.

Non-Discretionary Projects

Non-Discretionary projects (Attachment 2) are primarily annual and periodic infrastructure maintenance projects to preserve the City’s significant investment in its infrastructure and facilities. They also include projects required for regulatory compliance. While Council can alter funding, these projects are generally approved with few changes on a consistent cycle (annual or biennial) with small inflationary adjustments.

As part of the current five-year CIP development process, staff has evaluated the list of Non-Discretionary projects and determined that they continue to play an essential role in providing for critical infrastructure maintenance. Staff may be proposing some refinements to the Non-Discretionary projects within existing funding levels as part of the proposed five-year CIP to be presented to Council in May 2021.

Discretionary Projects

Discretionary projects are those that do not fit the Non-Discretionary description and require approval of the City Council. The sources of potential Discretionary projects include City plans and studies (e.g., Precise Plans, Transportation Plans, Sea-Level Rise Study, Utility Master Plans, Parks and Open Space Plan, etc.), City Council goals and priorities, project submittals from all City departments, and the unscheduled projects in the current CIP. Staff compiles the list of candidate Discretionary projects for the upcoming five-year CIP as follows:

- Roll forward the projects planned for Years 3 to 5 in the previous five-year CIP into Years 1 to 3 in the new CIP. Attachment 2 provides the list of planned Discretionary projects for Fiscal Years 2021-22, 2022-23, and 2023-24 from the five-year CIP adopted in 2019;
- Add new project proposals. Typically, new projects are to be considered for Years 4 and 5 of the CIP, which have no roll-forward projects. However, some projects are considered for Years 1 to 3 if requested by the project sponsor or to reflect changing City needs and Council priorities; and
- Add requests for amendments to active CIP projects, which can include both scope changes and additional funding.

CIP Funding Sources

Depending on the project scope and location, different funding sources may be used. Table 2 lists the funding sources used to fund capital improvement projects.

Table 2: CIP Funding Sources

Funding	Source and Uses
UNRESTRICTED FUNDS	
CIP Reserve	General Fund surpluses as approved by the City Council and a portion of lease revenues. There are no restrictions on the type or location of projects to be funded.
Construction and Conveyance Tax	Revenues derived from construction and real property conveyance fees. Expenses are restricted to implementation of the CIP, including servicing bonds issued in connection with capital improvements; however, there are no restrictions on the type or location of projects.
ENTERPRISE FUNDS	
Water Fund	Restricted to operation and maintenance of all facilities required to supply, distribute, and meter potable and recycled water.
Wastewater Fund	Restricted to operation and maintenance of all facilities required to transport and process wastewater.
Solid Waste Management Fund	Restricted to solid waste collection, transportation, processing, and recycling services of the City and two of the City's landfill postclosure maintenance activities.
TRANSPORTATION FUNDS	
Gas Tax Fund	As prescribed by State law, restricted to transportation purposes, primarily: <ul style="list-style-type: none"> • Road construction; • Maintenance and repair of roads, highways, bridges, and culverts; • Improvement of public transportation, trade corridors, and infrastructure promoting walking and bicycling; • Reduction of congestion on major corridors; and • Certain administrative costs.
Senate Bill 1 (SB 1)/ Road Maintenance and Rehabilitation account (RMRA)	Revenue from the State derived from an increase in diesel excise and sales taxes, gasoline excise tax, the assessment of an annual transportation improvement fee based on the value of the vehicle, and an annual \$100 Zero Emissions Vehicle fee. The use of the City's share of formula funds received from the State is primarily restricted to road infrastructure maintenance and repair. The CIP receives an average of \$1.4 million per year from this source.

Funding	Source and Uses
Vehicle License Fee – 2010 Measure B	<p>In November 2010, Santa Clara County voters approved a measure to increase the annual Vehicle Registration Fee (VRF) by \$10 for transportation-related projects. This fund is managed by the Santa Clara County Valley Transportation Authority (VTA), and 80 percent is allocated to the cities and County of Santa Clara based on city population and County road and expressway lane mileage; primary use of this funding is for road infrastructure maintenance and repair. The CIP receives an average of \$500,000 per year from this source.</p>
VTA Measure B 2016 Sales Tax	<p>In November 2016, Santa Clara County voters approved Measure B, a 30-year, half-cent Countywide sales tax to enhance transit, highways, expressways, and active transportation (bicycles, pedestrians, and complete streets):</p> <ul style="list-style-type: none"> • The City receives an annual allocation from the Local Street and Road program to be used for road infrastructure maintenance and repair with the option to use for congestion relief projects whenever the City’s average Pavement Condition Index (PCI) is over 70. The CIP receives an average of \$1.5 million per year from this source. • The City’s Transit Center (Castro) and Rengstorff Grade Separation projects will receive Measure B Grade Separation Program funding. <p>The City also was awarded some Measure B Bicycle/Pedestrian Capital project competitive grants.</p>
General Fund – Transportation Reserve	<p>The Transportation Reserve was initially funded with \$4 million from General Fund surplus. Based on a Council resolution adopted in 2018, 80 percent of the increased revenue from the business license tax (2018 Measure P) is also placed into the Transportation Reserve to be used for transportation and innovative transit solutions, including:</p> <ul style="list-style-type: none"> • Mountain View Community Shuttle; • Caltrain grade separation projects; • Bicycle and pedestrian improvements; and • New transit systems to employment centers.

Funding	Source and Uses
SHORELINE REGIONAL PARK COMMUNITY FUND	
<p>The State Legislature created the Shoreline Regional Park Community (Shoreline Community or SRPC). Tax increment derived on the difference between the frozen base year value and the current fiscal year assessed value and other revenues generated from the activities of the Shoreline Community are to be utilized to develop and support the Shoreline Community and surrounding North Bayshore Area. In addition to annual operations and maintenance expenses, the SRPC is used for the following types of capital projects to support the North Bayshore Area:</p> <ul style="list-style-type: none"> • Transportation improvements, including North Bayshore Precise Plan Priority Transportation Improvements; • Sea-level rise infrastructure improvements; • Landfill postclosure; and • Utility (water, sewer, storm drain) improvements. 	
DEVELOPMENT FEES AND CHARGES	
Impact Fees	<p>Uses are restricted to projects/improvements identified in the relevant impact fee's nexus study:</p> <ul style="list-style-type: none"> • Shoreline Community Development Impact Fee – Sewer; • Shoreline Community Development Impact Fee – Transportation; • Shoreline Community Development Impact Fee – Water; and • Citywide Transportation Impact Fee.
Utility Capacity Charges	Used for new or upsized water and sewer utility mains to meet growing service demands Citywide.
Storm Drain Fund	Revenues derived from off-site drainage fees authorized by Mountain View City Code Section 28.51, which are restricted for storm drainage capital improvements.
Park Land Dedication Fund	Revenues derived from fees authorized by Chapter 41 of the Mountain View City code, which are restricted for park and recreation projects.
Community and Public Benefit Funds	A developer may be required by Council under certain conditions to provide community or public benefits, such as area improvements or affordable housing, as a result of their development project. A developer may pay a fee in lieu of providing these community or public benefits which will then be used by the City to provide capital improvements in the general area of the development as approved by the City Council.

The Finance and Administrative Services Department provides the estimated revenue and/or fund balances for all funding sources available for allocation in the CIP. The Public Works Department reviews and evaluates project scope and location to determine

appropriate funding sources and presents the proposed projects with proposed funding sources to the City Council for review and approval.

DISCUSSION

The number and types of projects to be included in the CIP are dependent on staffing and funding resources. As noted in the Active CIP Projects section above, the number and value of CIP projects in the last five years have increased substantially due to a booming economy and some new funding sources. This volume of projects has overwhelmed staffing resources, primarily at the management level, leading to delays in delivering the current list of funded projects. Staff plans to give stronger consideration to staffing capacity in terms of the number of new projects to be recommended for the five-year CIP in order to give project staff an opportunity to “catch up.”

CIP Funding Status

Staff has been giving special attention to the potential impacts of the COVID-19 pandemic on the CIP funding sources listed in Table 2. Listed below is a summary of the status of these funding sources:

- **Unrestricted Funds** – Construction/Conveyance (C/C) Tax revenue available for CIP projects will be significantly less next fiscal year than in past years. Allocations to the CIP Reserve are also anticipated to be much lower than previous years. The impact of these reduced funding levels on planning the five-year CIP is discussed in detail below.
- **Enterprise Funds** – These funds are generated by fees charged to residential and business customers and are used to fund both Non-Discretionary and Discretionary utility projects. Pre-COVID forecasts indicated that there may be insufficient funding for future major utility infrastructure replacement/rehabilitation needs, but this situation has not been worsened by COVID-19 economic impacts, assuming all planned fee increases are implemented.
- **Transportation Funds** – The funding received from SB 1, Vehicle License Fee, and VTA Measure B for road infrastructure maintenance and repair is expected to remain relatively stable. These three funds combined provide an average of \$3.4 million a year to the CIP.

The gas tax, however, has experienced a significant decline in revenues due to the stay-at-home orders. Between Fiscal Years 2016-17 and 2019-20, the CIP received an annual allocation of gas tax for road maintenance and improvements in the range of

\$1.5 million to \$1.9 million. This was reduced to \$1.1 million in Fiscal Year 2020-21. The forecast for Fiscal Year 2021-22 is currently only \$371,000 for the CIP, a reduction of over \$1.2 million a year received prior to COVID-19. At this time, the five-year CIP will be assuming a range of \$405,000 to 512,000 a year for Years 2 to 5 until there is evidence that gas tax revenue has rebounded.

- **Shoreline Regional Park Community** – At this time, this revenue source has not been significantly affected by COVID-19 economic impacts.
- **Developer Fees and Charges** – At this time, development activity continues to be strong. One factor that may affect CIP funding are policy decisions related to the use of Community and Public Benefits, which have frequently provided significant funding for transportation improvements.

CIP Unrestricted Funds

CIP Reserve and C/C Tax are extremely valuable CIP funding sources because there are no restrictions on the type or location of projects. They can be used for any capital project that does not have its own dedicated funding source or to supplement when the dedicated funding source is not enough. These unrestricted funds have been particularly useful in funding the following types of projects:

- City buildings/facilities repairs, renovations, remodels, and expansion. With the exception of City facilities in North Bayshore which can use SRPC funds, there is no other CIP funding source for most City facilities, which are facing growing demands due to the aging of buildings and increasing staff and public use;
- Information Technology projects which have limited access to the other funding sources;
- Certain parks and pathways rehabilitation/renovation needs that do not have access to the Park Land Dedication Fund;
- Supplementing the transportation funds dedicated to road pavement rehabilitation projects to improve the City's pavement conditions and to repair/improve other roadway infrastructure such as traffic signals, streetlights, sidewalks, and trees/landscaping; and
- Supplementing bicycle, pedestrian, and other transportation improvements to meet sustainability goals by reducing greenhouse gas (GHG) emissions and to support the City's jobs and housing growth.

CIP Reserve – The availability of CIP Reserve funding is significantly reduced due to the impacts of COVID-19. The CIP Reserve receives most of its revenue from General Fund annual surpluses, which are at risk of going away over the next few years pending the outcome of COVID-19 and other economic factors. The only other source is a portion of lease revenue. As shown in Table 3, the CIP received a total of \$36 million in CIP Reserve over the last five years but is currently projected to receive less than \$10 million in the next five years.

**Table 3: CIP Reserve Funding Levels
(Dollars in Thousands)**

	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total
Budgeted	\$7,813	\$6,766	\$8,124	\$9,203	\$4,146	\$36,052
	2021-22	2022-23	2023-24	2024-25	2025-26	5-Year Total
Planned	\$1,047	\$1,910	\$2,065	\$2,223	\$2,391	\$9,636

C/C Tax – The City’s forecasting of C/C Tax revenue has historically been conservative, with actual funding usually being considerably higher than forecast during good economic times. This conservative forecasting reflects the volatile nature of these funds, which can vary by more than \$10 million annually depending on economic conditions. The five-year CIP typically assumes between \$4 million and \$5 million a year in C/C Tax for Years 2 to 5. Year 1 C/C Tax revenue, however, is based on the actual C/C Tax collected in the prior fiscal year, which frequently led to a budget in excess of \$10 million for Year 1. As shown in Table 4, however, the C/C Tax budgeted this year was only \$6.4 million. Based on current C/C Tax revenue received, \$4.3 million will be available for the Fiscal Year 2021-22 CIP.

**Table 4: Construction and Conveyance Tax Funding Levels
(Dollars in Thousands)**

	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total
Budgeted	\$9,389	\$12,522	\$10,824	\$13,027	\$6,360	\$52,122
	2021-22	2022-23	2023-24	2024-25	2025-26	5-Year Total
Planned	\$4,280	\$4,496	\$4,400	\$4,281	\$4,206	\$21,663

There is a possibility that more CIP Reserve and/or C/C Tax will be available than forecasted in the outer years of the five-year CIP, but staff expects the first two years of the CIP (Fiscal Years 2021-22 and 2022-23) to be lean as shown on the tables.

In order to ensure as much funding as possible for projects that rely on these unrestricted funds, staff has analyzed the following approach:

- Maximize the use of all other funding sources for the roll-forward CIP projects and potential new projects to the extent feasible to save the CIP Reserve and C/C Tax for projects without dedicated funding sources;
- Utilize Transportation Reserve for bicycle/pedestrian and other related transportation projects more extensively than has been done previously; and
- Return excess CIP Reserve and C/C Tax funds from nearly completed projects before full close-out of the projects.

After applying the measures listed above, staff calculated the remaining demand for the CIP unrestricted funds. As shown in Table 5, the demand for CIP Reserve and C/C Tax combined from the roll-forward projects, project amendments, and new projects greatly exceeds the amount of funding expected to be available each year.

**Table 5: CIP Unrestricted Funds Available and Required
(Dollars in Thousands)**

	2021-22	2022-23	2023-24	2024-25	2025-26
Estimated Available Funding as of July 1	\$5,327	\$ 6,406	\$ 6,465	\$ 6,504	\$ 6,597
Estimated Balance from Return of Excess Funds from Active Projects and Projects to be Closed	6,000	-	-	-	-
Amount Available for Capital Projects	\$11,327	\$ 6,406	\$ 6,465	\$ 6,504	\$ 6,597
Non-Discretionary CIPs	\$5,096	\$ 4,963	\$ 6,228	\$ 5,130	\$ 6,540
Discretionary CIPs	11,285	34,332	13,570	4,900	21,330
Amendments to Existing Projects	4,708	-	-	-	-

	2021-22	2022-23	2023-24	2024-25	2025-26
Total of All Projects	\$21,089	\$39,295	\$19,798	\$10,030	\$27,870
Deficit for Fiscal Year	(\$9,762)	(\$32,889)	(\$13,333)	(\$3,526)	(\$21,273)

The deficit for projects requiring the unrestricted CIP funding is \$9.8 million for Fiscal Year 2021-22 and \$32.9 million for Fiscal Year 2022-23. Although the annual deficits for the remaining three years are high, they are somewhat less concerning because many factors could change before the next five-year CIP is developed in 2023. However, it is important to balance out the first two years of the CIP.

Impact of Reduced Gas Tax Funds on CIP Unrestricted Funds

For Fiscal Year 2021-22, the gas tax funding available for the CIP will be \$1.2 million less than the annual allocations received prior to COVID-19. This situation could continue into the following four fiscal years and could significantly impact the City’s ability to maintain and improve the pavement conditions of City streets. Attachment 4 provides an overview of the PCI rating system and the City’s historical network PCI. As noted in the Attachment, the most cost-effective way to maintain a good pavement condition is to avoid deferred maintenance and invest in preventive maintenance and pavement preservation. In addition, the City has streets whose pavement quality has deteriorated to poor conditions and are in need of major rehabilitation and reconstruction. Should the gas tax funding not rebound, it will be necessary to backfill for this lost revenue from C/C Tax and CIP Reserve in order to maintain and improve pavement conditions for the City’s streets.

Recommendations for Prioritizing Use of CIP Unrestricted Funds

Staff recommends that the Non-Discretionary projects with no or insufficient dedicated funding sources continue to be funded off the top of available CIP Reserve and C/C Tax funds. These projects are essential in providing for critical infrastructure maintenance, maintaining current Citywide service levels, and supporting municipal operations.

For Discretionary Projects, staff recommends the following criteria be used to determine which roll-forward and new projects will receive priority for the unrestricted CIP revenues:

- Public and personnel safety;

- Compliance with regulatory requirements;
- Local match or cost-sharing to secure grants or other funding;
- Pavement rehabilitation/reconstruction and preventive maintenance as needed to maintain the City's current PCI rating;
- City Council Strategic Plan priorities; and
- Projects that benefit and/or do not burden communities of color and/or low-income residents.

In summary, staff recommends an approach of maximizing the availability of the unrestricted CIP Reserve and C/C Tax funds for projects with no dedicated funding sources, funding the Non-Discretionary projects off the top, and using the criteria listed above to prioritize the remaining Discretionary projects for CIP Reserve and C/C Tax funds.

Question 1: Does City Council support staff's recommended approach and criteria to determine which projects to prioritize for the CIP Reserve and C/C Tax funds?

City Hall/CPA HVAC System – Offsetting Carbon Emissions

On November 10, 2020, the City Council awarded a contract for replacement of the HVAC systems at City Hall/CPA and at Fire Station No. 1. Because of the extraordinary cost of and time required to install an all-electric system at City Hall/CPA, the Scope of Work includes replacement in-kind of the natural gas boilers. Staff recommended that the City seek offsets for 200 percent of GHG generation associated with the natural gas use of the new boilers at an estimated cost in the range of \$300,000 to \$600,000 over the 25-year life of the project.

Council directed staff to return during the budget review process with information about the following three options for offsetting the City Hall/CPA natural gas use:

1. Offsets, as recommended in the November 10, 2020 Council report;
2. Creating a sustainability fund to be used for costs associated with carbon emission reduction efforts on projects at other City facilities; and
3. Offsetting the emissions with carbon sequestration or reduction efforts in or near Mountain View.

Staff evaluated each of these options (see Attachment 5) and recommends Option No. 2, to create a sustainability fund in the CIP to use for replacement of natural gas appliances, such as water heaters, at City facilities. Converting these appliances is more expensive and requires more time than just replacing these natural gas appliances in-kind because electrical upgrades and/or installation of solar panels are required. Using “City Facility Natural Gas Appliance Replacement” CIP projects, staff could prioritize replacing the existing units based on age and condition before they fail, allowing the time necessary to convert from natural gas. Unlike the offsets evaluated in the other options, Option No. 2 would reduce the City’s municipal operations GHG inventory by replacing natural gas with clean electricity from Silicon Valley Clean Energy and/or solar panels.

Staff recommends budgeting \$450,000 in the five-year CIP for the replacement of City facility natural gas appliances, which is the midpoint of staff’s estimate of the cost of market offsets for 200 percent of the lifetime emissions of the new natural gas boilers at City Hall/CPA. The funding would come from either CIP Reserve or C/C Tax. Since appliances would be replaced over the next few years based on age and condition, staff would propose spreading this \$450,000 out over multiple CIP fiscal years to minimize the impact on these two funding sources.

Question 2: Does the City Council support adding “City Facility Natural Gas Appliance Replacement” projects to the five-year CIP to offset the GHG generation associated with the natural gas use of the new City Hall/CPA HVAC system?

RECOMMENDATION

Staff seeks Council input regarding the following to guide staff in determining the projects to include in the Proposed Fiscal Year 2021-22 through Fiscal Year 2025-26 CIP:

Question 1: Does Council support staff’s recommended approach and criteria to determine which projects to prioritize for the CIP Reserve and C/C Tax funds?

Question 2: Does Council support adding “City Facility Natural Gas Appliance Replacement” projects to the five-year CIP to offset the GHG generation associated with the natural gas use of the new City Hall/CPA HVAC system?

NEXT STEPS

Based on the direction provided by Council at the Study Session, staff will develop the proposed list of capital projects for the Fiscal Year 2021-22 through Fiscal Year 2025-26 CIP.

Staff will present the list of proposed transportation capital projects to the Bicycle/Pedestrian Advisory Committee in March 2021 and the proposed Park Land Fund projects to the Parks and Recreation Commission in April 2021 for review and input.

Staff will return to the City Council at a Study Session in May 2021 with the list of recommended capital projects and any further questions staff has in order to finalize the CIP for City Council adoption in June 2021.

PUBLIC NOTICING

Agenda posting, e-mail to neighborhood associations, and posts on social media and the City's website.

ND-JH-DSC/TS/1/CAM

771-03-23-21SS

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- Attachments:
1. Status of Active CIP Projects
 2. CIP Non-Discretionary Project List
 3. Planned CIP Discretionary Projects for Fiscal Years 2021-22, 2022-23, and 2023-24
 4. Pavement Condition Index and Pavement Management Program Update
 5. Options for Offsetting Carbon Emissions from City Hall/Center for the Performing Arts HVAC System

cc: APWD – Arango, APWD – Au, APWD – Skinner, SMA – Doan, SMA – Goedicke, PCE – Gonzales, AE – Houghton

Status of Active Capital Improvement Program Projects

While not all-inclusive, the following is a summary of the projects currently under way. Minor projects, most Non-Discretionary projects, and those that are complete or nearly complete have been omitted.

Number	Projects	Notes/Status
Transportation Projects		
14-46	Caltrain Modernization Program - Environmental Review	Underway
16-48	East Whisman Transit-Oriented Development Improvements, Phase II: Ellis Street Improvements	In Design Phase
16-58 18-43	Shoreline Boulevard Interim Bus Lane and Utility Improvements, Design and Construction	In Construction Phase
16-60 20-38	Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge, Design and Construction	Conceptual Design Completed
17-37	Rengstorff Avenue Grade Separation, Preliminary Design and Environmental Clearance	Underway
18-44	Rengstorff Ave and Leghorn St Traffic Signal and Geometric Modifications	In Design Phase
18-45	San Antonio and Bayshore Traffic Signal and Geometric Modifications	In Design Phase
18-68 21-39	Grant Road and Sleeper Avenue Intersection Improvements, Design and Construction	On Hold Pending Completion of Study Phase
19-34	Charleston Road Improvements, Design	In Design Phase
19-36	Mayfield/San Antonio Ped/Bike Tunnel, Preliminary Design	On Hold Pending Resources
19-59 20-37	NB Shoreline /101 Off-Ramp Realignment, Design and Construction	In Design Phase
19-61 21-38	El Monte Corridor Improvements, Design and Construction	On Hold Pending Completion of Study Phase
19-65	SR237/Middlefield Interchange Improvement	Underway
20-40	Plymouth/SpacePark Realignment	In Design Phase
20-52	Downtown Parking Lot Improvements	In Design Phase
20-58	Castro Pedestrian Mall Feasibility Study	Underway
20-63	Thompson Av & Central Expr Traffic Signal	Coordination With County Underway
21-34	North Bayshore Transportation Improvements, Coordination, and Implementation	Underway
21-35	Transit Center Grade Separation and Access Project, Final Design	In Design Phase
21-36	Pedestrian Master Plan Update	Underway
21-40	California Street (West) Complete Street Improvements, Pilot	On Hold Pending Resources
20-47	Calderon Avenue Bike lane - Mercy to El Camino Real	In Design Phase
20-59	Automated Guideway Transportation Phase II, Feasibility Study	On Hold Pending New Council Priorities
20-61	El Camino Real Bike Improvements, Design	In Design Phase
Streets and Sidewalks Projects		
19-48 20-45	Street Reconstruction Project (Sonia Drive, Park Drive, and Park Court)	In Design Phase
19-50	Crosswalk Improvements	In Design Phase
21-41	Street Reconstruction Project (Leong Drive and Crittenden Lane)	In Design Phase
Information Technology Projects		
12-45	Regional Public Safety Automated Information Systems	Underway
15-49	Police Department/Library CCTV Replacement	Underway
16-51	Replacement of Utility Billing/Cash Receipting/Business License System	Underway
21-42	Project Management Database	Underway
21-44	Adobe Building A/V Upgrade	On Hold Pending Resources
Parks and Recreation Projects		
11-36	Improvements to Open Space at Bonnie and Beatrice Streets	Construction On Hold Pending Resources
13-34	Landels Park Restroom	Coordination With School District Underway
17-47	Castro School Bathroom, Partnership with School District	Coordination With School District Underway
18-38	Rengstorff Park - Aquatics Center Replacement, Design	In Design Phase
18-48	Colony Connection to Permanent Creek Trail	In Design Phase
20-48	400 San Antonio Rd Mini Park	In Design Phase
20-50	Stevens Creek Trail Extension from Dale/Heatherstone Way to West Remington Drive, Design	Underway
20-55	Shoreline Play Structure Replacement	In Design Phase
21-45	South Whisman Park, Construction	In Design Phase
21-46	Sand Volleyball Court at Sylvan Park	In Design Phase
21-47	Sylvan Park Trellis Replacement	Underway

Status of Active Capital Improvement Program Projects

While not all-inclusive, the following is a summary of the projects currently under way. Minor projects, most Non-Discretionary projects, and those that are complete or nearly complete have been omitted.

Number	Projects	Notes/Status
21-48	Rengstorff Park Maintenance and Tennis Buildings Replacement, Design	Underway
Facilities Projects		
18-41	Fire/Police Training and Classroom Facility at Fire Station 5, Design	In Design Phase
18-51	MOC Security Upgrades	In Design Phase
19-60 20-49	Police/Fire Administration Building Expansion, Study and Design	In Study Phase
19-68	City Hall/CPA Roof Repair	City Hall Roof Completed/CPA in Design
20-35	Fire Station 5 Classroom/Training, Construction	In Design Phase
20-39	Shoreline Boathouse Expansion	In Design Phase
20-53	Michaels at Shoreline Improvements	Construction Begins Spring 2021
20-54	Civic Center Infrastructure, Phase I	Underway
20-64	Solar Panel Systems at City Facilities, Study	Underway
20-65	Fire Station No. 4 - Internal Modifications to FS4 and MOC	In Design Phase
21-49	Center for the Performing Arts Sound System, Phase II	On Hold Pending Resources
21-50	City Buildings Workspace Study	Underway
Miscellaneous Projects		
19-66	Gateway Master Plan	Underway
19-69	Lease/Purchase of Evelyn Lot	Underway
20-66	Downtown Precise Plan Update	Underway
20-67	R3 Zone	Underway
20-99	Sustainability Projects	Underway
21-51	Capital Improvement Program Development	Underway
Regulatory Requirements Projects		
18-52	Lower Stevens Creek Levee Improvements	In Design Phase
18-53	South Bay Salt Pond Restoration Project - Mountain View Ponds Components	In Design Phase
18-54	Charleston Slough Improvement - Environmental Clearance	Underway
20-36	Sailing Lake Improvements, Construction	In Design Phase
21-53	Sailing Lake Access Road Improvements, Construction	In Design Phase
21-54	Shoreline Sea Level Rise Study Update	Underway
Utilities Projects		
10-28	California Street Rule 20A Underground Utility District No. 40	In Design Phase
14-49	Water and Sewer Capacity Analyses	Underway
16-61	Water & Sewer Main Replacement Crossing Hwy 101 at Three Locations, Design	In Design Phase
19-39	Well Abandonment (10 and 17) and Well Siting Study	In Design Phase
19-43	Upgrades to Irrigation Pump Station, Phase I	On Hold Pending Resources
19-44	Amphitheatre Pump Station, Evaluation and Repair	On Hold Pending Resources
19-45	San Antonio Area Sewer Improvements, Construction (Phase I)	In Design Phase
19-46	Water System Operations Study and Transmission Main Condition Assessment	Underway
19-49	Cross Culvert Removal and Storm Drain Extensions	In Design Phase
20-41	Water & Sewer Replacement 101 at Two Locations, Construction	In Construction Phase
20-42	Interceptor Force Trunk Rehab, Construction, Phase II	In Design Phase
20-43	Water & Sewer Master Plan Update	Underway
20-44	Charleston Pump Station Realignment	Underway
20-51	Storm Drain Fee Study	On Hold Pending Resources
20-62	Shoreline Area Irrigation Main Replacements, Study and Design	On Hold Pending Resources
21-55	Whisman Pump Station Engineering Study	Underway

Planned Non-Discretionary Projects

(Source: Five-Year CIP for Fiscal Year 2019-20 through Fiscal Year 2023-24)

Proj. No.	Non-Discretionary Projects	Budget (\$000)		
		2021-22	2022-23	2023-24
xx-01	Street Resurfacing and Slurry Seal Program	\$ 1,698	\$ 1,732	\$ 1,767
xx-02	Traffic Infrastructure - Miscellaneous Replacements and Modifications	322	329	336
xx-03	Street Light Pole Replacements	301	307	313
xx-04	Water System Improvements and Recycled Water System Improvements	667	680	694
xx-05	Wastewater System Improvements	171	174	178
xx-06	Concrete Sidewalk/Curb Repairs	702	717	731
xx-07	Parks Pathway Resurfacing	89	91	92
xx-08	Shoreline Pathway, Roadway, Parking Improvements	211	215	220
xx-09	Forestry Maintenance Program and Street Tree Replanting	399	407	416
xx-10	Shoreline Landfill Cap Maintenance and Repairs	145	148	151
xx-11	Developer Reimbursements	128	132	136
xx-12	Street Lane Line and Legend Repainting	61	409	63
xx-13	Landfill Gas/Leachate System Repairs & Improvements	145	148	151
xx-14	Facilities Maintenance Plan	762	777	792
xx-15	Annual Traffic Studies/NTMP Improvements/Bicycle	291	297	303
xx-16	Maintenance Agreement for JPB/VTA Transit Center	66	67	69
xx-17	Shoreline Infrastructure Maintenance	264	269	275
xx-18	Planned and Emergency Facilities Projects	595	607	619
xx-19	Biennial Turf and Bunker Improvements	-	312	-
xx-19	Biennial Median Renovations and Roadway Landscape Renovations	79	-	82
xx-20	Biennial Good Neighbor Fence Replacements	-	41	-
xx-20	Biennial Real Estate Technical and Legal Services	79	-	82
xx-21	Miscellaneous Water Main/Service Line Replacement	2,742	2,797	2,853
xx-22	Miscellaneous Storm/Sanitary Sewer Main Replacement	1,716	1,750	1,785
xx-23	TDA Projects	60	60	60
xx-24	Biennial ADA Improvements to City Facilities	-	101	-
xx-24	Biennial Installation of ADA Curb Ramps	69	-	72
xx-25	Annual New Energy Conservation Measures	99	202	102
xx-26	Biennial Tennis Court Resurfacing	-	95	-
xx-26	Biennial PMP Recertification	78	-	81
xx-27	Intersection Traffic Signal System - Major Replacements and Upgrades (Intersection TBD)	426	435	444
xx-28	North Bayshore Semi-Annual Traffic Counts	169	172	176
xx-29	Annual Regional Public Safety	150	150	150
xx-30	SB-1 Streets Project	1,300	1,300	1,300
xx-31	Annual Parks Renovations/Improvements	166	170	173
xx-32	Information Technology Projects (1-5 Separate Projects Per Fiscal Year)	500	500	500
Total: Non-Discretionary Projects		\$ 14,650	\$ 15,591	\$ 15,166

Planned Discretionary Projects for Fiscal Years 2021-22, 2022-23, and 2023-24

(Source: Five-Year CIP for Fiscal Year 2019-20 through Fiscal Year 2023-24)

Fiscal Year 2021-22 Roll-Forward Projects

Project Title	Category	Budget (\$000)
Rengstorff Grade Separation, Design/ROW	Traffic, Parking and Transportation	\$ 3,000
Citywide Travel Demand Model Update	Traffic, Parking and Transportation	100
Stierlin Road Bicycle and Pedestrian Improvements, Construction	Traffic, Parking and Transportation	4,300
El Camino Real Bikeway (Sylvan to Castro) and Pedestrian Improvements (City Limits), Phase 1	Traffic, Parking and Transportation	3,300
Bicycle/Pedestrian Improvements	Traffic, Parking and Transportation	300
Replacing Temporary Rubber-Curb Islands with Permanent Concrete Islands, Design and Construction	Traffic, Parking and Transportation	440
Traffic Operations Center, Design and Installation	Traffic, Parking and Transportation	5,150
Hope Street and Villa Street Traffic Signal Installation	Traffic, Parking and Transportation	1,070
Street Reconstruction Project	Streets and Sidewalks	1,000
Civic Center Infrastructure, Phase II	Facilities	2,500
Rengstorff Park Aquatics Center Replacement,	Parks and Recreation	15,310
Stevens Creek Trail Bridge Over Central Expressway and Evelyn Avenue Deck Replacement and Painting	Parks and Recreation	4,850
Callahan (Crittenden) Field Lighting Upgrade	Parks and Recreation	430
Signage Program for Shoreline at Mountain View - Implementation of Shoreline Master Plan	Parks and Recreation	1,000
Citywide Trash Capture	Regulatory	880
2021/22 City Bridges and Culverts Structural Inspection and Repairs	Regulatory	220
Middlefield and Moffett Sewer Replacement, Design	Utilities	1,550
Hwy 237 Critical Crossing Utility Improvement and Ferguson Road Water Main Relocation	Utilities	2,920
Cross Culvert Removal and Storm Drain Extensions	Utilities	550
Coast Casey Storm Drain Pipe Rehabilitation	Utilities	2,840
Coast Casey Pump Station, Evaluation and Repair	Utilities	1,000
High Level Ditch, Evaluation and Repair	Utilities	1,120
Shoreline Area Water, Recycled Water, and Irrigation Main Replacements, Construction	Utilities	4,730

Fiscal Year 2022-23 Roll-Forward Projects		
Project Title	Category	Budget (\$000)
Transit Center Grade Separation and Access Project, Construction	Traffic, Parking and Transportation	\$ 5,000
Rengstorff Grade Separation, Construction	Traffic, Parking and Transportation	12,000
El Camino Real Crossings	Traffic, Parking and Transportation	3,700
Shoreline Blvd Pathway (Villa St to Wright Ave),	Traffic, Parking and Transportation	4,120
Bicycle/Pedestrian Improvements	Traffic, Parking and Transportation	300
El Camino Real Bikeway (Sylvan to Castro) and Pedestrian Improvements (City Limits), Phase 2	Traffic, Parking and Transportation	3,100
Bernardo Avenue Undercrossing, Local Match	Traffic, Parking and Transportation	5,000
Rengstorff Avenue Adaptive Signal System	Traffic, Parking and Transportation	2,880
Street Reconstruction Project	Streets and Sidewalks	1,000
Citywide Benchmark Program	Streets and Sidewalks	190
Fire Station No. 4 - External Modifications	Facilities	3,720
Civic Center Infrastructure, Phase III	Facilities	3,620
Adobe HVAC Upgrade	Facilities	160
Center for the Performing Arts SecondStage Lighting System Upgrade	Facilities	70
North Bayshore Branding and Wayfinding Signage Installation (PLACEHOLDER)	Parks and Recreation	250
Turf Replacement - Shoreline Athletic Field	Parks and Recreation	2,230
Citywide Trash Capture	Regulatory	200
2022/23 City Bridges and Culverts Structural Inspection and Repairs	Regulatory	280
Cross Culvert Removal and Storm Drain Extensions	Utilities	570
Storm Drain System Improvements	Utilities	1,410
Middlefield and Moffett Sewer Replacement, Construction	Utilities	8,350

Fiscal Year 2023-24 Roll-Forward Projects		
Project Title	Category	Budget (\$000)
Bicycle/Pedestrian Improvements	Traffic, Parking and Transportation	\$ 300
Update Bicycle Master Plan	Traffic, Parking and Transportation	300
Middlefield Road Bikeway, Whisman - City Limit (Sunnyvale), Feasibility Study	Traffic, Parking and Transportation	500
Middlefield Road Sidewalk Across SR-85, Feasibility	Traffic, Parking and Transportation	300
Moffett Boulevard Class IV Bikeway, Middlefield-Clark - Preliminary Design	Traffic, Parking and Transportation	500
Central Expressway Bicycle and Pedestrian Crossing, Feasibility Study	Traffic, Parking and Transportation	450
Mayfield/San Antonio Bicycle and Pedestrian Tunnel - Construction	Traffic, Parking and Transportation	11,000
Street Reconstruction Project	Streets and Sidewalks	1,000
Mountain View Community Shuttle EV Charging Units (PLACEHOLDER FUNDING ESTIMATE)	Miscellaneous	260
Police/Fire Administration (Public Safety) Building - Construction (PLACEHOLDER)	Facilities	40,000
Fire Station No. 3 - Replacement Programming Study	Facilities	250
Civic Center Infrastructure, Phase IV	Facilities	1,000
Rengstorff House West Grass & Brick Patio Stabilization Project	Facilities	430
Rengstorff Park - Maintenance and Tennis Buildings Replacement - Construction	Facilities	5,000
Senior Center Social Hall Floor Replacement	Facilities	140
2023/24 City Bridges and Culverts Structural Inspection and Repairs	Regulatory	290
Cross Culvert Removal and Storm Drain Extensions	Utilities	590



MEMORANDUM

Public Works Department

DATE: March 23, 2021

TO: City Council

FROM: Edward Arango, Assistant Public Works Director/City Engineer
Dawn S. Cameron, Public Works Director

VIA: Kimbra McCarthy, City Manager

SUBJECT: **Pavement Condition Index and Pavement Management Program Update**

PURPOSE

This memorandum provides an update on the City's current Pavement Condition Index (PCI) and Pavement Management Program (PMP).

BACKGROUND

The March 17, 2020 Study Session memo regarding the "Preliminary Review of the Fiscal Year 2020-21 Capital Improvement Program (CIP)" noted that the City's average pavement condition had decreased significantly based on the 2018 biennial PMP report received in 2019. In response to concerns raised by Council at the time, staff committed to evaluating funding and future pavement improvement projects as part of the five-year CIP in 2021 to make progress toward meeting the City's goal for a network PCI of 75. This memo provides new information on the City's latest pavement condition ratings and recommendations for the CIP.

Pavement Condition Index

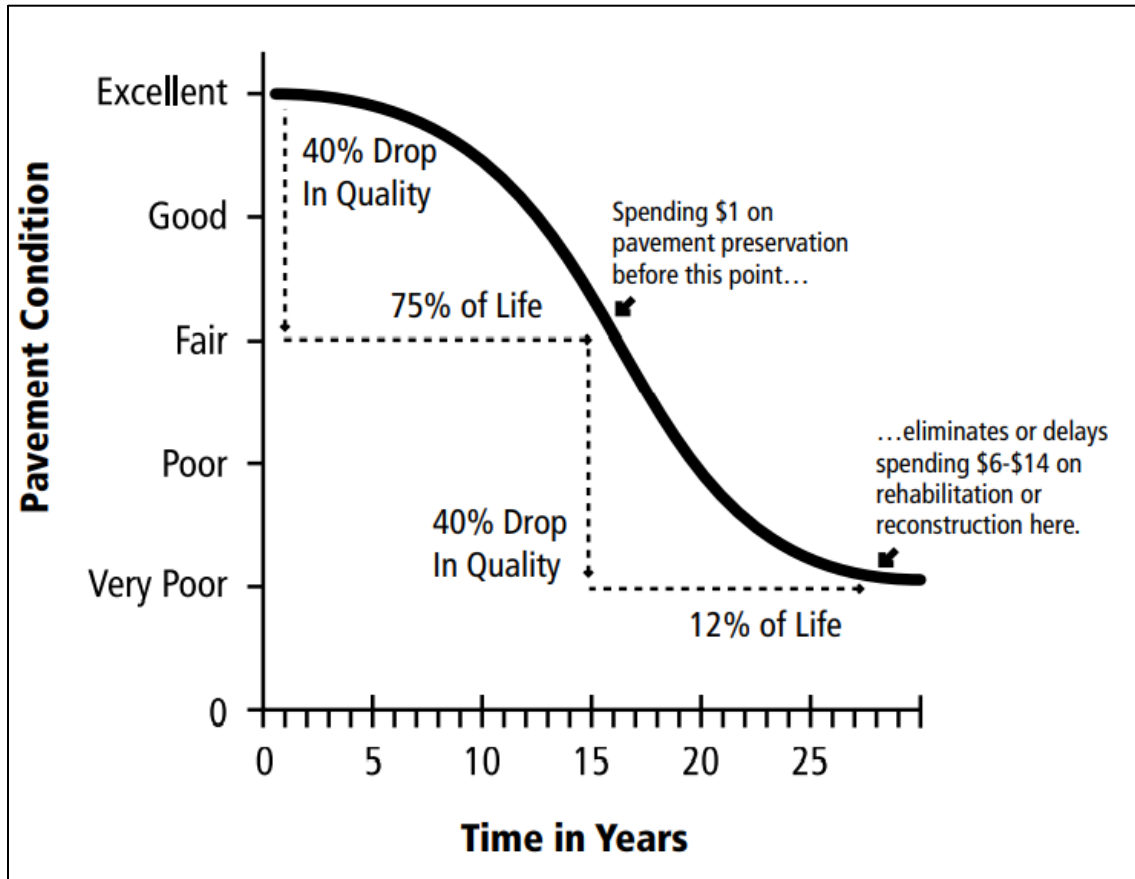
The City coordinates with the Metropolitan Transportation Commission (MTC) to evaluate the overall condition of the City's street network and develop a rehabilitation and maintenance strategy that will improve the overall condition of the street network. The City's street network is evaluated biennially by an MTC-assigned consultant who provides a PMP report with a PCI rating. PCI is a measurement of pavement condition that ranges from 0 to 100. A newly constructed or overlaid street would have a PCI of

100, while a Poor/Failed roadway (requiring major rehabilitation or reconstruction) would have a PCI under 49 (see Table 1).

Table 1 – Pavement Condition Categories

Very Good – Excellent PCI = 80-100	Newly constructed for resurfaced pavement with few signs of distress.
Good PCI=70-79	Pavement requiring mostly preventive maintenance and showing only low levels of distress.
Fair PCI=60-69	Pavement at the low end of this range is significantly distressed and may require a combination of rehabilitation and preventive maintenance.
At Risk PCI=50-59	Deteriorated pavement requiring immediate attention, including rehabilitative work.
Poor PCI=25-49	Pavement showing extensive distress and requiring major rehabilitation or reconstruction.
Failed PCI=24	Extremely rough pavement that needs complete reconstruction.

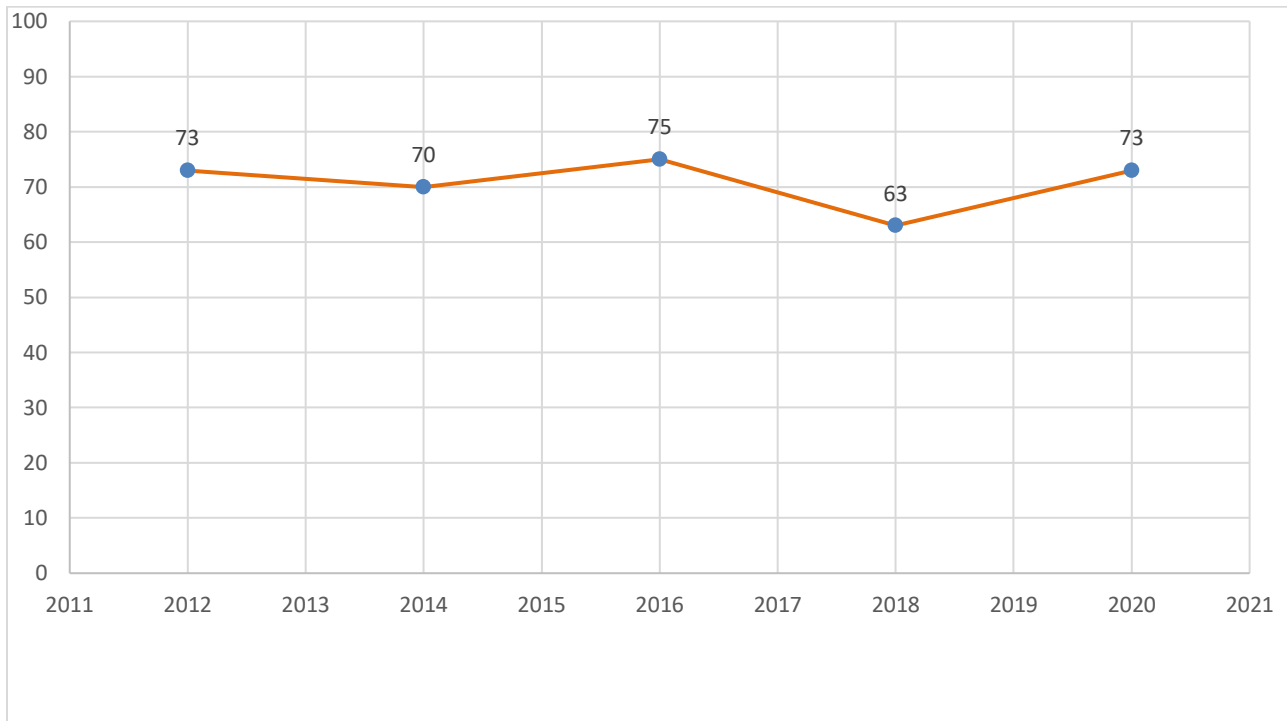
The City's goal is to maintain a Citywide network PCI above 75, which is rated as Good. The most cost-effective way to maintain a Good pavement condition is to avoid deferred maintenance and invest in preventive maintenance and pavement preservation. According to the American Association of State Highway and Transportation Officials (AASHTO), every \$1 spent to keep a road in good condition avoids \$6 to \$14 needed later to rebuild the same road once it has deteriorated significantly (see Figure 1).



Source: AASHTO

Figure 1 – Pavement Condition Costs and Timeline

Figure 2 provides the City's average PCI since 2012. With the exception of 2018, the City has managed to keep its average PCI in the Good range above 70, but the high of 75 in 2016 was just shy of the City's goal to be above 75. The severe drop to 63 in 2018 and current PCI status is discussed in more detail below.



Notes:

- 1) The City network PCI of 73 for 2020 is preliminary with final confirmation from MTC in April 2021.
- 2) The City’s network PCI does not include the pavement conditions on El Camino Real and Central Expressway. These two roads are the responsibility of Caltrans and the County of Santa Clara, respectively.

Figure 2—City of Mountain View’s Historical Pavement Condition Index

DISCUSSION

Based on the 2018 evaluation of the City’s street network, the City received an overall PCI rating of 63, which dropped significantly from the previous rating of 75 in 2016 while the City’s pavement funding and program was generally consistent from previous years. While some streets in the City had degraded to less than 60 PCI (Fair to Failed), this should not have led to a 12-point drop in the Citywide average in just two years. Staff appealed the 2018 rating to MTC and requested and received a third-party audit of the results. The audit concluded that the PCI rating of 63 was valid.

As a result of the significant drop in the City’s PCI, staff recommended, and the City Council approved, increasing funding for the pavement improvement projects (Annual Street Resurfacing Program, Project 21-01, and Street Reconstruction, Project 21-41) to address the poor pavement conditions of Fairchild Drive, Leong Drive, and Crittenden Lane. To fund these pavement improvement projects and work towards meeting the

City's performance measure goal of a PCI above 75, the City utilized numerous funding sources, including the 2010 Vehicle License Fee, Senate Bill 1 (SB 1), Gas Tax, and 2016 VTA Measure B (Local Roads and Streets Program) funds, in addition to the City's Construction/Conveyance Tax and CIP Reserve.

Staff is currently awaiting MTC to complete the 2020 evaluation of the City's roadway pavement condition, and while the PMP report from MTC is not yet available, staff received a very preliminary update showing the City's PCI is currently at 73.

Comparing the last three PCI ratings (75 in 2016, 63 in 2018, and the preliminary 73 in 2020), staff considers the 2018 rating of 63 an anomaly as the City's network ratings prior to and after the 2018 rating have been above 70. While the City has completed some pavement projects in the last two years, Fairchild Drive, Leong Drive, and Crittenden Lane are still in design. Therefore, there is no clear basis for a 10-point increase in just two years. Staff is contacting MTC to better understand the inconsistencies of the City's PCI rating in 2018.

RECOMMENDATION

Staff recommends continuing to prioritize pavement projects in the five-year CIP to maintain and improve the PCI to reach the goal of a Citywide average over 75. The preliminary network PCI of 73 is an average rating for the City overall, and while some streets may have higher PCI ratings, many still remain with low PCI ratings and will continue to degrade if not addressed.

NEXT STEPS

Staff will provide an update to City Council at the scheduled second CIP Study Session in May 2021 based on the PMP report anticipated to be submitted to the City from MTC in April 2021.

EA-DSC/TS/1/PWK
932-03-23-21M

cc: PWD, APWD – Arango, SMA – Doan, SMA – Goedicke, PCE – Gonzales, AE – Houghton



MEMORANDUM

City Manager's Office

DATE: March 23, 2021

TO: Audrey Seymour Ramberg, Assistant City Manager/
Chief Operating Officer
Dawn S. Cameron, Public Works Director

FROM: Kimbra McCarthy, City Manager

SUBJECT: **Offsetting Carbon Emissions from City Hall/Center for the Performing Arts HVAC System**

PURPOSE

This memorandum provides a response to the City Council's request for information about options to offset the carbon emissions from the City Hall/Center for the Performing Arts boilers.

BACKGROUND

On November 10, 2020, the City Council awarded a contract for replacement of the heating, ventilation, and air conditioning (HVAC) systems at City Hall/ Center for the Performing Arts (CPA) and at Fire Station 1. Because of the extraordinary cost of and time required to install an all-electric system at City Hall/CPA, the approved Scope of Work includes replacement in-kind of the natural gas boilers. As noted in the [November 10, 2020 Council report](#), the fiscal and logistical challenges were driven by the space constraints at the City Hall/CPA site for placement of the heat exchange systems that would be required for an all-electric HVAC option. Staff recommended that the City seek offsets for 200 percent of the greenhouse gas (GHG) generation associated with the natural gas use of the new City Hall/CPA boilers.

Options for Offsetting City Hall/CPA Natural Gas Use

Council directed staff to return during the Operating Budget review process with information about the following three options for offsetting the City Hall/CPA natural gas use:

- Option 1: Market offsets, as recommended in the November 10, 2020 Council report;
- Option 2: Creating a sustainability fund to be used for costs associated with carbon-emission reduction efforts on projects at other City facilities; and
- Option 3: Offsetting the emissions with carbon sequestration or reduction efforts in or near Mountain View.

The carbon emissions from the new natural gas system at City Hall/CPA are estimated to be 725 metric tons of carbon dioxide (MTCO₂) per year. Over the 25-year life of the system, total emissions are estimated to be approximately 18,000 MTCO₂.

DISCUSSION

Each option is described further below.

Market Offsets

Market offsets fund GHG reduction or sequestration through projects conducted by other agencies or organizations. Examples include tree planting, methane capture at agricultural sites, and forest conservation programs. For an offset to actually reduce emissions, it is important to ensure that the projects would not have been implemented without funding from the offset purchase. Using market offsets, staff estimates that the cost of one-to-one offsets for City Hall/CPA carbon emissions to be \$6,000 to \$12,000 per year, or \$150,000 to \$300,000 over the 25-year life of the project.

There are a variety of national and international organizations that create, implement, and operate a portfolio of emission reduction projects from which institutions, businesses, and individuals can purchase offsets; examples include Terrapass, Carbon Fund, and Gold Standard Climate Portfolio. As a local example, the City of Palo Alto funds an offset program through its municipal-run power utility to offset

communitywide natural gas use. Projects listed in the City of Palo Alto's program include:

- **GreenTrees**, a reforestation program with nearly 120,000 acres under contract in Mississippi, Louisiana, and Arkansas with plans to restore 1 million acres of forest along the Mississippi River.
- **Grotegut Dairy Farm**, a 3,900 milk-cow operation in Wisconsin, which installed two anaerobic digesters to capture and combust biogas emissions (methane) to reduce GHG and generate electricity.
- The community of **San Juan Lachao** has launched a forest offset project to improve the management of the forests and help the native community.

Some aspects of market offsets that Council may wish to consider include:

- While the reliability of some early market offset programs were questioned, current programs are available that are reviewed and certified by third-party organizations. This provides reasonable assurance that offset programs provide actual GHG reductions.
- The projects would likely not be local. GHGs are generally considered a global rather than a local air pollution concern, unlike ozone, particulates, or nitrogen, and sulfur oxides. From that standpoint, the location of the project need not be an essential criteria. However, Council may consider a local project desirable to demonstrate a visible local commitment to sustainability and GHG reductions.
- The City has not previously purchased market offsets. If Council selects offsets, staff would investigate alternatives for purchasing offsets and also whether a one-time payment is required or if there is an option for annual payments that could be made over the life of the HVAC equipment.

Sustainability Fund

Using the estimated cost of market offsets as a basis, a sustainability fund could be established to support additional carbon reduction efforts at City facilities. Examples for use of such a fund include:

- Funding the incremental additional cost of installing electric heating systems at the Library or another City building. While staff does not have an estimate of the

additional cost of an electric system at any of the City's buildings, when such a project is undertaken, staff could recommend using the funds for this purpose. The HVAC systems at relatively large facilities, such as the Library and Eagle Pool, will need to be renovated or replaced within the next five years and are potential candidates for such funding.

- Funding the replacement of some of the City's smaller natural gas appliances with carbon-free alternatives. For example, a design has been completed for a solar water heating system at the Senior Center, but no construction funding has been allocated. There are also natural gas water heating systems at four fire stations, the Adobe Building, and other City facilities that could be replaced with electric systems. In the past, such units were typically replaced relatively quickly with a new natural gas unit when the old appliance failed. Quick replacement is not feasible when replacing natural gas with electrical systems because electrical system upgrades are generally needed. With funding available, staff could prioritize the existing units based on age and condition and replace the units before they fail with little down time. Council could place the funding in a capital improvement project from which staff could draw to replace as many units as possible.

Some aspects of a sustainability fund that Council may wish to consider include:

- Most of the City's facilities are better candidates for electrification than the buildings at the Civic Center (City Hall/CPA and the Library). The relatively large size of the Civic Center buildings, coupled with the space constraints at the site, pose unique challenges. Electrification of the City's other buildings may be possible without the need for this additional funding source.
- Staff has not evaluated the feasibility (including cost) of installing an all-electric system at the Library. This project will begin within the next two years as the boiler nears the end of its useful life. Considering the site constraints at the Library, the City may deem an electrification project infeasible even with the support of a sustainability fund.
- There are a number of smaller natural gas appliances at City facilities that could be prioritized and replaced. This is a scalable project that could be sized to meet the available funding.

Local Offset Project

This option is similar to the first option (Market Offsets), but funding in this case would be earmarked for local projects that remove carbon from the air and sequester it in the soil, typically through tree planting, wetland restoration, or similar mitigation projects. Wetland projects are technically challenging, expensive, and generally more focused on habitat enhancement than carbon avoidance. There are no cost-effective opportunities to reduce carbon at the City's closed landfill because the City already has effective methane capture measures in place. Tree planting is simpler and the carbon offset value is more easily quantified. However, because of the amount of GHG emissions estimated from the new natural gas boilers at City Hall/CPA, staff does not recommend such a project based primarily on the limited opportunity to plant a sufficient number of trees. Additional analysis is provided below.

Tree Planting by City Staff

This option would direct funding to the Forestry and Roadway Division of the Community Services Department to plant trees within the City. Tree planting brings a number of benefits, among them GHG reduction, oxygen generation, habitat creation, and temperature cooling. However, staff has expressed concern regarding the lack of viable planting locations for the number of trees required to offset the estimated emissions. Staff has expressed interest in utilizing the money to improve, replace, or construct new irrigation infrastructure for plots where trees could be planted or are already planted. Carbon offset estimates of irrigation replacement and planting, as well as the cost for such an undertaking, are currently unknown.

Although a local carbon offset project has benefits, it is important to look at scalability and how much carbon dioxide tree planting can offset. Research from the European Environment Agency suggests that a typical hardwood tree sequesters approximately 48 pounds of CO₂ per year, or approximately 1 MT of CO₂ by the time it reaches 40 years old. To offset the 18,000 MTCO₂ emissions generated by the HVAC system over 25 years, approximately 33,300 trees would need to be planted. As a point of comparison, the current Community Tree Master Plan (2015) calls for planting an additional 11,000 trees to increase City's canopy by 5 percent over 15 years.

Even if staff was able to identify space for 33,300 new trees, tree planting of this scale is beyond the capacity of City staff. With market offsets, this challenge is resolved since the third parties managing such large-scale projects have infrastructure in place to do so.

Tree Planting by a Local Organization

With this option, the City would seek to engage with a local organization such as Canopy (a Bay Area urban forestry nonprofit that runs tree-planting events in our community) to determine how many trees they could plant for the funding provided. However, the same problem exists here as with tree planting by City staff. There likely is not enough space within the City to plant the 33,300 trees required to offset the 18,000 MT CO₂ emissions generated by the HVAC system over 25 years.

Some aspects of Local Offset Projects the Council may wish to consider include:

- City funds invested in local tree planting would have long-term environmental, health, and quality-of-life benefits for the community, regardless of their carbon-offsetting footprint.
- Local Offset Projects would likely be more expensive per MT CO₂ reduced than most commercially available market offsets.
- The City will likely not be able to offset all emissions from the new HVAC system using Local Offset Projects alone.

Summary of Options

Of the three options presented, market offsets likely provide the greatest GHG reduction per dollar spent. While staff does not have estimates for the cost per ton of GHG reduction for the other two options, the flexibility of offsets, both in terms of type and location of project, would likely provide the greatest reduction for the cost allocated. However, staff recommends Option 2, which creates a sustainability fund for projects that will reduce carbon emissions at City facilities. This will allow the City to accelerate the electrification of municipal operations and demonstrate local leadership. It will also provide an opportunity to utilize solar water heating to reduce energy costs.

RECOMMENDATION

Staff recommends Option 2, the creation of a sustainability fund in the amount of \$450,000. This amount is the midpoint of staff's estimate of the cost of market offsets for 200 percent of the lifetime emissions of the new natural gas boilers at City Hall/CPA. This funding could be placed in a capital improvement project to be used for replacement of natural gas appliances at City facilities. Unlike market offsets, this option would

reduce the City's municipal operations GHG inventory by replacing natural gas with clean electricity from Silicon Valley Clean Energy.

If Council selects Option 2, staff would return during the Capital Improvement Program development process and propose one or more projects consistent with this recommendation.

ALTERNATIVES

As an alternative, Council could choose Option 1 or could direct staff to explore a smaller-scale local tree planting project (Option 3), in combination with either Option 1 or Option 2.

KM/TS/1/MGR
602-03-23-21M

Bike and Pedestrian Roll-Forward Projects
(in thousands of dollars)

6.3 Attachment 2

	Project Title	Description	Budget
1	Active Transportation Plan	This study will update both the Pedestrian Master Plan, which was last updated in 2014, and the Bicycle Master Plan, which was last updated in 2015. This work will allow the City to identify new and updated pedestrian and bicycle projects, which will then be eligible for inclusion in the Regional Transportation Plan and regional funding sources.	\$ 390
2	Rengstorff Grade Separation, Design/ROW and Construction	Project will depress Rengstorff Avenue and Central Expressway below grade and maintain the railroad tracks at approximate existing grade.	15,000 (City Share)
3	Citywide Travel Demand Model Update (PLACEHOLDER)	Update the Citywide Travel Demand model (i.e. Traffic Model) used in transportation planning and analysis.	200
4	Stierlin Road Bicycle and Pedestrian Improvements, Construction	Construction of bicycle and pedestrian improvements along Stierlin Road between Washington Street and Montecito Avenue, including improvements to the Shoreline/Montecito signalized intersection and bike lane improvements on Shoreline Boulevard from Montecito to Middlefield. Other improvements include construction of speed humps, raised crosswalks/ raised intersections and lighting improvements on Stierlin Road.	4,300
5	El Camino Real Bikeway (Sylvan to Castro) and Pedestrian Improvements (City Limits), Phase 1 and II	Class IV/II facilities, lane narrowing, bike-bus treatments, intersection improvements, construction.	6,400
6	Replacing Temporary Rubber-Curb Islands with Permanent Concrete Islands, Design and Construction	Remove temporary rubber curb islands at various locations and replace with permanent concrete islands.	440
7	Traffic Operations Center, Design and Installation	Based on Feasibility Study in CIP 19-51, install Hardware/Software and Create Office Space for Traffic Operations Center. Provide Training for Staff on Hardware/Software.	5,150
8	Hope Street and Villa Street Traffic Signal Installation	Install a new 8-phase traffic signal at the intersection of Hope Street and Villa Street. Install a new Signal Interconnect Conduit (SIC) with twisted copper wires to connect the new signal to the existing signal at Castro Street and Villa Street to coordinate signal timing between these two signals.	1,070
9	Stevens Creek Trail Bridge Over Central Expressway and Evelyn Avenue Deck Replacement and Painting	The project will improve the existing Stevens Creek Trail pedestrian and bicycle overcrossing over Central Expressway with access to Evelyn Avenue. The project scope includes replacing the existing timber decking on the bridge with a slip-resistant and longer lasting surface and painting the existing bridge structure.	4,850
10	Transit Center Grade Separation and Access Project, Construction	This project will construct grade separation and other road improvements,	5,000
11	El Camino Real Crossings	New crossings at Pettis, Bonita, Crestview. CIP estimates include traffic signals, signal synch, signing and striping, curb ramp construction, demo and construction of PCC sidewalk, curb and gutter, remove/replace landscape irrigation system, info signs, mobilization and traffic control.	3,700
12	Shoreline Blvd Pathway (Villa St to Wright Ave), Construction	The project proposes to reconstruct the pathway on the eastern side of Shoreline Boulevard from Wright Avenue to Villa Street and install new pathway connections to Jackson Street and Central Expressway. The project scope includes removal and replacement of the existing pathway for bicycles and pedestrians and installation of new curb, gutter, curb ramps, stairs, pathways, pathway lighting, landscaping, irrigation, storm drains and retaining walls.	4,300

Bike and Pedestrian Roll-Forward Projects
(in thousands of dollars)

6.3 Attachment 2

	Project Title	Description	Budget
13	Bicycle/Pedestrian Improvements	This project will enhance intersections to improve pedestrian and/or bicycle safety. Depending on location of improvements, project scope may include curb ramps, curb, gutter, sidewalk, median refuge islands, raised crosswalks, bulb-outs, rectangular rapid-flashing beacons (RRFBs), in-roadway warning lights, LED-enhanced signs, traffic signal modifications, roadway lighting, signs, striping, etc.	600
14	Bernardo Avenue Undercrossing, Local Match	This is a Mountain View local match for the Undercrossing project being undertaken by Sunnyvale. Work will involve Design and Construction of pedestrian/bicycle undercrossing beneath Caltrain and Central Expressway at Bernardo Avenue. This project has been identified as a pedestrian/bicycle candidate project under VTA's Measure B, at a cost of approximately \$20 million.	5,000 (City Share)
15	Rengstorff Avenue Adaptive Signal System	Install adaptive traffic signal technology, including a new signal interconnect system along Rengstorff Avenue, from Montecito Avenue to Garcia Avenue/ Amphitheatre Parkway.	2,880
16	Middlefield Road Bikeway, Whisman - City Limit (Sunnyvale), Feasibility Study	Study will assess feasibility of installing Class II bike lanes, buffered Class II bike lanes, or Class IV bike lanes. CIP includes pilot, preliminary engineering and outreach.	500
17	Middlefield Road Sidewalk Across SR-85, Feasibility Study	This project would help to achieve General Plan Policies LUD 8.2 on encouraging a network of streets friendly to bicyclists and pedestrians and MOB 3.3 on enhancing pedestrian and bicycle crossings at key locations across physical barriers.	300
18	Moffett Boulevard Streetscape, Preliminary Design and Construction	This project will provide preliminary design and pilot implementation of streetscape improvements along Moffett Boulevard. The project will include streetscape design for Moffett Boulevard consistent with its designation as a Change Area under the 2030 General Plan. For the segment from Central Expressway to Middlefield Road, streetscape improvements to be considered include pedestrian improvements, Class IV bikeways, parking changes, speed reduction treatments including a road diet, transit priority treatments, landscaping, medians, lighting improvements, and wayfinding signage for this key gateway into downtown Mountain View. For the segment from Middlefield Road to Clark Road in Moffett Field, streetscape improvements to be considered include Class IV bikeways, pedestrian improvements, transit priority treatments, and landscaping improvements. As part of this project, pilot implementation of Class IV bikeways between Middlefield and Clark will be undertaken. This element is required to close a gap in the City's bikeway network as directed by City Council in relation to the California Vehicle Code and Mountain View City Code Chapter 19 Article VI (MVCC §19.54).	4,730

Bike and Pedestrian Roll-Forward Projects
(in thousands of dollars)

	Project Title	Description	Budget
19	Central Expressway Bicycle and Pedestrian Crossing, Feasibility Study	Perform a study to determine the feasibility of a bicycle and pedestrian crossing at Central Expressway between Rengstorff Avenue and Moffett Boulevard/Castro Street. The study will look at alternative designs for a crossing at Central Expressway between the 1.2 mile stretch between Rengstorff Avenue and Moffett Boulevard/Castro Street to improve bicycle and pedestrian connectivity options for the community and residents. This proposed feasibility will evaluate a crossing under Caltrain tracks and Central Expressway with access points at Meridian Way and the 1696-1798 Villa Street development project. The study will also determine costs for right-of-way acquisition (if necessary), design, construction, and other associated costs related to design and construction.	450
20	Mayfield/San Antonio Bicycle and Pedestrian Tunnel - Construction	Construct the pedestrian and bicycle tunnel under Central Expressway at Mayfield Avenue to align with existing tunnel under Caltrain tracks at San Antonio Station per the Feasibility Study completed by CIP 07-25 and design CIP 19-36.	11,000

Unscheduled Projects

	Project Description	Estimated Cost
1	Light Rail Trail Lighting, Pacific Drive to MOC Landscaping and fencing to improve safety and appearance of trail.	\$420
2	Stevens Creek Trail: Dale Avenue/Heatherstone Way to West Remington, Construction Construction of pedestrian/bike trail from Dale/Heatherstone neighborhood to trailhead at Mountain View High School.	\$21,380
3	Stevens Creek Trail - Northside Trail Access Point (to Middlefield) This project would provide an approximately 300' long accessible access path for pedestrians and bicyclists from the north side of Middlefield Road to the Stevens Creek Trail. While the trail is on the west side of the creek at this location, the access path would start on the east side of the creek because there is a freeway near the trail and to achieve the longitudinal slope for the access path required to provide ADA accessibility.	\$760
4	Ellis Street to Light Rail Trail Design and construct a Caltrans Class 1 trail (approximately 400 LF) along the San Francisco Public Utilities Commission Hetch Hetchy right-of-way connecting Ellis Street to the light rail tracks	\$580
5	Rose Avenue Sidewalk Project (from Fordham Way to Miramonte Avenue) Install sidewalks and improve street drainage along Rose Avenue to provide safe walking routes to neighborhood schools.	\$2,370
6	Marich Way Reconstruction This project will reconstruct Marich Way between Blackfield Way and El Monte Avenue. Project scope includes removal of existing roadway pavement and construction of new sidewalk, curb, gutter, and roadway pavement.	\$1,450
7	South Shoreline Boulevard West On/Off Ramp Reconfiguration Complete Streets improvements along Shoreline Boulevard overpass over Central Expressway and the Caltrain right-of-way including: * heavy civil structural work associated with squaring up expressway on- and off-ramps on the west side of the overpass	\$1,650
8	South Shoreline Boulevard East On/Off Ramp Reconfiguration Complete Streets improvements along Shoreline Boulevard overpass over Central Expressway and the Caltrain right-of-way including: * heavy civil structural work associated with squaring up expressway on- and off-ramps on the west side of the overpass	\$4,110
9	Escuela Avenue (North) Traffic Calming Improvements Complete Streets improvements along Escuela Avenue between California Street and Crisanto Avenue including: - bulbouts at Villa Street and near the Senior Center - bulbout and raised crosswalk next to Mountain View Senior Center - continental crosswalks at intersections and the midblock crossing - green street treatments in bulbouts.	\$1,450
10	Escuela Avenue (South) Traffic Calming Improvements Complete Streets improvements along Escuela Avenue between Latham Street and California Street including: - bulbouts at corners on west side of street as well as at Latham Street, - west-side bulbout and raised crosswalk next to Castro Elementary School, - continental crosswalks at intersections and the school crossing, - green street treatments in bulbouts.	\$2,400
11	Escuela Avenue (North) Bicycle Improvements Complete streets improvements along Escuela Avenue between Latham Street and Crisanto Avenue including: - parking removal on the east side of the street - installation of bike lanes as well as green zones.	\$1,500
12	Rengstorff Streetscape and Bikeway Improvement, El Camino Real - Amphitheatre, Pilot and Feasibility Study Study will assess feasibility of bikeway and streetscape improvements along Rengstorff Avenue. CIP includes pilot, preliminary engineering and outreach.	\$200
13	Charleston Road Improvements - Construction This project will design the road and surface improvements along Charleston Road from Shoreline Boulevard to Amphitheatre Pkwy as described in the North Bayshore Precise Plan and analyzed in the Charleston Road Improvements Feasibility Study. This project is the first phase of the plan and will create transit boulevard improvements within the City's existing right-of-way.	\$16,110

Unscheduled Projects

	Project Description	Estimated Cost
14	<p>East Whisman Area Transit Oriented Development Improvements - Phase II Construction</p> <p>This project will construction Phase II of the East Whisman Area Transit Oriented Development Improvements Project which proposes bicycle and pedestrian access improvements on Ellis Street between Fairchild Drive and Manila Avenue. Scope of work includes widening existing 4' wide sidewalk to 8-10' wide sidewalk, modification of traffic signals on Ellis Street at Fairchild Drive, SB 101 off-ramp, and NB 101 ramps, and installation of new pavement, lighting, retaining wall, planting and irrigation.</p>	\$4,440
15	<p>East Whisman Area Transit Oriented Development Improvements - Phase III</p> <p>This project will design and construction Phase III of the East Whisman Area Transit Oriented Development Improvements Project. The project proposes to design and construct an at-grade pedestrian crossing of Ellis Street at the Highway 101 northbound on-and off ramps. Scope of the project includes changing geometry of the curbs at this intersection and traffic signal modification to accommodate the proposed crossing and a pathway leading to the Bayshore/NASA Light Rail Station.</p>	\$4,940