

• ATTACHMENT 3 •

FY2023 - 2024 5-year Capital Improvement Program

# PROJECT NARRATIVES

## Proposal, New Projects for FY23-24:

1. Stevens Creek Blvd./Calabazas Creek Storm Drain Repair
2. Fiber Expansion - City Hall Annex
3. Bollinger Road Bike Improvements
4. Civic Center Microgrid
5. San Tomas Aquino/Saratoga Creek Trail Extension, Feasibility Study
6. Stevens Creek Bridge Repair

### NOTES:

Cost estimates are generally "Rough Order of Magnitude" (ROM).

### LEGEND



Council, Commissions, and/or Community Priority



Health and Safety improvements



High priorities established through completed Master Plans or Condition Assessment Reports



Projects that are subsequent phases of existing projects; or projects in the queue that need to be activated.



Projects that have secured external funding

# Stevens Creek/Calabazas Creek Storm Drain Repair



## High Priority Preventive Repairs

|                                      |  |
|--------------------------------------|--|
| <b>Proposed Funding</b>              | <b>\$ 420,000 – FY 23-24</b>                                   |
| <b>City Funding</b>                  | <b>\$ 420,000</b>  |
| <b>External Funding</b>              | <b>\$ 0</b>  |
| <b>Dept. Priority</b>                | <b>High</b>  |
| <b>Funding Source, Approved Plan</b> | <b>GF, SDMP/GP</b>   |
| <b>Project Category</b>              | <b>Streets and Infrastructure</b>                              |
| <b>Project Type</b>                  | <b>Design and Construction</b>                                 |
| <b>Location</b>                      | <b>Stevens Creek Blvd ROW<br/>near Calabazas Creek Culvert</b> |
| <b>Origin of Request</b>             | <b>Public Works</b>  |



## Project Description

Investigate, Design, and Replace existing dilapidated 48" CMP storm drain line with new RCP pipe.

## Project Justification

The City operates and maintains the storm drain facilities throughout Cupertino. The storm drain pipes in question have corroded, and should be replaced before storm water scours the surrounding soils and creates further problems such as undermining of the Calabazas Creek Culvert or creating a sinkhole in Stevens Creek Blvd.

## Projected Schedule/5-year Plan information

Summer 2023 - Investigate the extent of the dilapidated facilities.  
Fall/Winter 2023 – Design replacement facilities and acquire necessary permits  
Spring/Summer 2024 – Replace facilities.

## Operating Budget Impacts

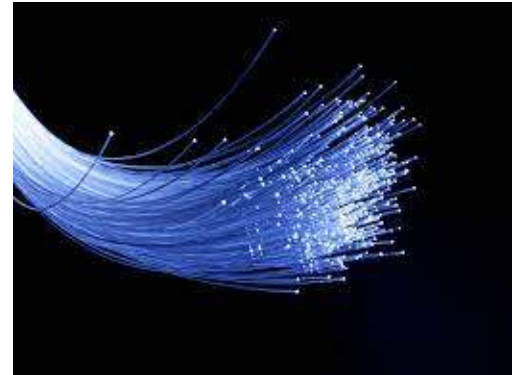
No ongoing operational impacts are expected.



# Fiber Expansion – City Hall Annex

*Expand City Fiber to 10455 Torre Ave*

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| <b>Proposed Funding</b>              | <b>\$ 320,000 – FY 23-24</b>      |
| <b>City Funding</b>                  | <b>\$ 320,000</b>                 |
| <b>External Funding</b>              | <b>\$ 0</b>                       |
| <b>Dept. Priority</b>                | <b>High</b>                       |
| <b>Funding Source, Approved Plan</b> | <b>GF, FMP</b>                    |
| <b>Project Category</b>              | <b>Streets and Infrastructure</b> |
| <b>Project Type</b>                  | <b>Design and Construction</b>    |
| <b>Location</b>                      | <b>10455 Torre Avenue</b>         |
| <b>Origin of Request</b>             | <b>I &amp; T</b>                  |



## Project Description

Expand fiber network to include City Hall Annex, 10455 Torre Ave

## Project Justification

Network connection to new City facility

## Projected Schedule/5-year Plan information

Concurrent with City Hall Annex Remodel and prior to opening of this facility.

## Operating Budget Impacts

There are no anticipated additional impacts to the Operating Budget. Additional fiber optic end point equipment will be procured out of the I&T operations budget.

# Bollinger Road Bike Lanes

## Traffic Analysis and Feasibility

|                                      |   |
|--------------------------------------|---|
| <b>Proposed Funding</b>              | \$ 200,000 – FY23-24 +                        |
| <b>City Funding</b>                  | \$ 200,000                                    |
| <b>External Funding</b>              | \$ 0  |
| <b>5-year Funding Total</b>          | \$ 4,000,000                                  |
| <b>Dept. Priority</b>                | Low   |
| <b>Funding Source, Approved Plan</b> | GF, BTP & BCSS                                |
| <b>Project Category</b>              | Transportation                                |
| <b>Project Type</b>                  | Design and Construction                       |
| <b>Location</b>                      | Bollinger Road, De Anza Blvd to Lawrence Exp. |
| <b>Origin of Request</b>             | Public Works, BPC                             |



## Project Description

In December of 2020, City of Cupertino staff initiated a safety and operational study of the Bollinger Road corridor and is a collaboration between the City of Cupertino and City of San José. The project studied Bollinger Road from De Anza Boulevard to Lawrence Expressway and identifies improvements that will enhance pedestrian, bicycle, motor-vehicle, and transit operations and safety.

- Alternative A includes a road diet where the road would be reduced to one travel lane in each direction, including the provision of a center two-way left turn lane.
- Alternative B maintains the existing lane configuration while providing spot improvements, primarily at intersections.

The proposed project will conduct community outreach and initiate the required topographic surveys and traffic analysis as a basis of evaluating the two options. The project will also complete preliminary engineering and final design documents.

## Project Justification

Further design and analysis work is required. This includes a topographic and utilities survey of Bollinger Road, preliminary engineering and final design, and traffic analysis. The traffic analysis would determine the potential for the road diet (Alternative A) to increase congestion or divert traffic onto residential streets, and any corresponding mitigation measures to limit that impact. Community outreach efforts should continue in future project phases to ensure community awareness and support of the project.

## Projected Schedule/5-year Plan information

Year 1 work includes preliminary community outreach and traffic analysis, as well as topographic surveying (\$200,000). Year 2 will see continuation of the outreach process, completion of traffic analysis and initial preliminary engineering (\$500,000). Year 3 will encompass final preliminary engineering and preparation of final plans, specifications, and estimates.

## Operating Budget Impacts

T.B.D.

# Civic Center Microgrid

## PV and Battery-charging system



|                                      |  |
|--------------------------------------|--|
| <b>Proposed Funding</b>              | <b>\$ 908,000 - FY 23-24</b>               |
| <b>City Funding</b>                  | <b>\$ 150,000</b>                          |
| <b>External Funding</b>              | \$ 681,000                                 |
| <b>5-year Funding Total</b>          | \$908,000                                  |
| <b>Dept. Priority</b>                | Medium                                     |
| <b>Funding Source, Approved Plan</b> | GF & Grant, CAP                            |
| <b>Project Category</b>              | Facilities                                 |
| <b>Project Type</b>                  | Design and Construction                    |
| <b>Location</b>                      | Civic Center                               |
| <b>Origin of Request</b>             | CMO – Emergency Management, Sustainability |



## Project Description

The proposed project will install canopies with solar mounts in the Civic Center Plaza parking lots and install an extensive system of solar photovoltaic panels, step down transformer, and solar charged batteries with connections to all three Civic Center buildings. The project may also require the removal of some trees along the edge of the parking lot if they are tall enough to interfere with power generation. Finally, the project will install and launch microgrid software that allows City staff to operate the microgrid as it switches between grid power, solar generation use, and battery backup power.

## Project Justification

The combination of battery storage, solar, and microgrid controller software can allow for multiple hours of emergency power, depending on outdoor conditions, by charging the system during the sunlight hours or operating in fully islanded mode from grid instability. This allows the Cupertino staff to minimize the use of diesel generator and lowers overall cost to operate the system. This also contributes to a reduction in fossil fuel use called for by the City Council as part of the Cupertino Climate Action Plan and recent direction from the Council to identify a pathway to carbon-neutral municipal facilities by 2035.

## Projected Schedule/5-year Plan information

The project is estimated to take approximately 27 months in two phases. Phase 1 is essentially a 60% design. The timeline for Phase 1 is approximately 14 months from award. While the total project (inclusive of Phase 1 and 2) is estimated at approximately \$908,000 (Federal share \$681,000 and local match \$227,000), Phase 1 has been awarded for a cost of \$129,200. The local cost share required is \$32,300. Staff believes initial contracting costs for design professionals will be greater than the that amount. As the project progresses, improved cost estimates will be developed and shared.

## Operating Budget Impacts

The combination of battery storage, solar, and microgrid controller software can allow for multiple hours of emergency power, depending on outdoor conditions, by charging the system during the sunlight hours or operating in fully islanded mode from grid instability. This allows the Cupertino staff to minimize the use of diesel generator and lowers overall cost to operate the system. This also contributes to a reduction in fossil fuel use called for by the City Council as part of the Cupertino Climate Action Plan and recent direction from the Council to identify a pathway to carbon-neutral municipal facilities by 2035.

# San Tomas Aquino/Saratoga Creek Trail Extension, Feasibility Study



*Investigate future paths at north end of new park*

|                                      |   |
|--------------------------------------|---|
| <b>Proposed Funding</b>              | <b>\$ 150,000 – FY 23-24</b>                              |
| <b>City Funding</b>                  | <b>\$ 150,000</b>   |
| <b>External Funding</b>              | <b>\$ 0</b>   |
| <b>Dept. Priority</b>                | Low   |
| <b>Funding Source, Approved Plan</b> | GF, GP  |
| <b>Project Category</b>              | Transportation  |
| <b>Project Type</b>                  | Feasibility Report  |
| <b>Location</b>                      | Saratoga Creek, Lawrence-Mitty Park to Stevens Creek Blvd |
| <b>Origin of Request</b>             | Public Works, BPC   |



## Project Description

Feasibility Study to determine the feasibility of, and evaluate potential alignments and costs for, bicycle and pedestrian connection access to the north end of Lawrence-Mitty Park.

## Project Justification

A northern extension of the San Tomas Aquino/Saratoga Creek Trail, connecting Sterling Barnhart Park to Stevens Creek Blvd, is identified as a Tier 3 project in the Cupertino 2016 Bicycle Transportation Plan. The recent acquisition of the Lawrence-Mitty parcel combined with the current effort to complete the Lawrence-Mitty Park and Trail Plan presents an ideal opportunity to study the extension of the San Tomas Aquino/Saratoga Creek Trail from the northern end of the Park to Stevens Creek Blvd. Additionally, this project has been identified as a potential project by the Bicycle Pedestrian Commission. It is also part of "Reach 5" of the 1999 San Tomas Aquino/Saratoga Creek Trail Master Plan (Santa Clara County).

## Projected Schedule/5-year Plan Information

Feasibility study duration approximately 18 months from date of funding availability. Schedule includes development of RFP, advertisement, consultant selection and contract execution, public outreach, research, and alternatives development.

## Operating Budget Impacts

No operating budget impacts; feasibility study only.

# Stevens Creek Bridge Repair



*Improve structural foundations*

|                                      |  |
|--------------------------------------|--|
| <b>Proposed Funding</b>              | <b>\$ 860,000 – FY 23-24</b>             |
| <b>City Funding</b>                  | <b>\$ 98,642</b>                         |
| <b>External Funding</b>              | \$ 761,358                               |
| <b>Dept. Priority</b>                | Medium                                   |
| <b>Funding Source, Approved Plan</b> | GF/Grants, GP                            |
| <b>Project Category</b>              | Transportation                           |
| <b>Project Type</b>                  | Design and Construction                  |
| <b>Location</b>                      | Stevens Creek Blvd over<br>Stevens Creek |
| <b>Origin of Request</b>             | Public Works                             |



## Project Description

Repairs to the bridge supports to include countermeasures to scouring (undermining) of the support bases.

## Project Justification

The design of the existing bridge utilizes mat foundations for the bridge supports that have started to become undermined. This project will perform modifications to create a firm structural footing for the supports. The condition of the support foundations has been noted in recent biennial bridge inspection reports and the repairs are recommended by Caltrans. The repair work is funded by the FHWA Highway Bridge Program for 88.53% of the design and construction costs.

## Projected Schedule/5-year Plan information

Funding for the design phase is currently programmed in the FTIP for the 2023/24 FFY and construction funding is programmed for 'beyond 2025/26. Staff will continue to work with Caltrans to identify opportunities to make construction funds available sooner to minimize time from end of design to the start of construction.

## Operating Budget Impacts

Construction of the project will not increase operating budget expenses.