



Tasman Corridor

COMPLETE STREETS STUDY

Sunnyvale City Council Meeting

April 20, 2021

John Sighamony, VTA Project Manager

Kimley»Horn



Background

- VTA promotes Complete Streets through its Complete Streets Policy
- Launched January 2017 - funded by a Caltrans Priority Development Area Planning Grant
- Selected based on geographic/demographic equity; regional significance, major destinations, employment, core transit and major bike corridors
- Partnership between Milpitas, San Jose, Santa Clara, and Sunnyvale

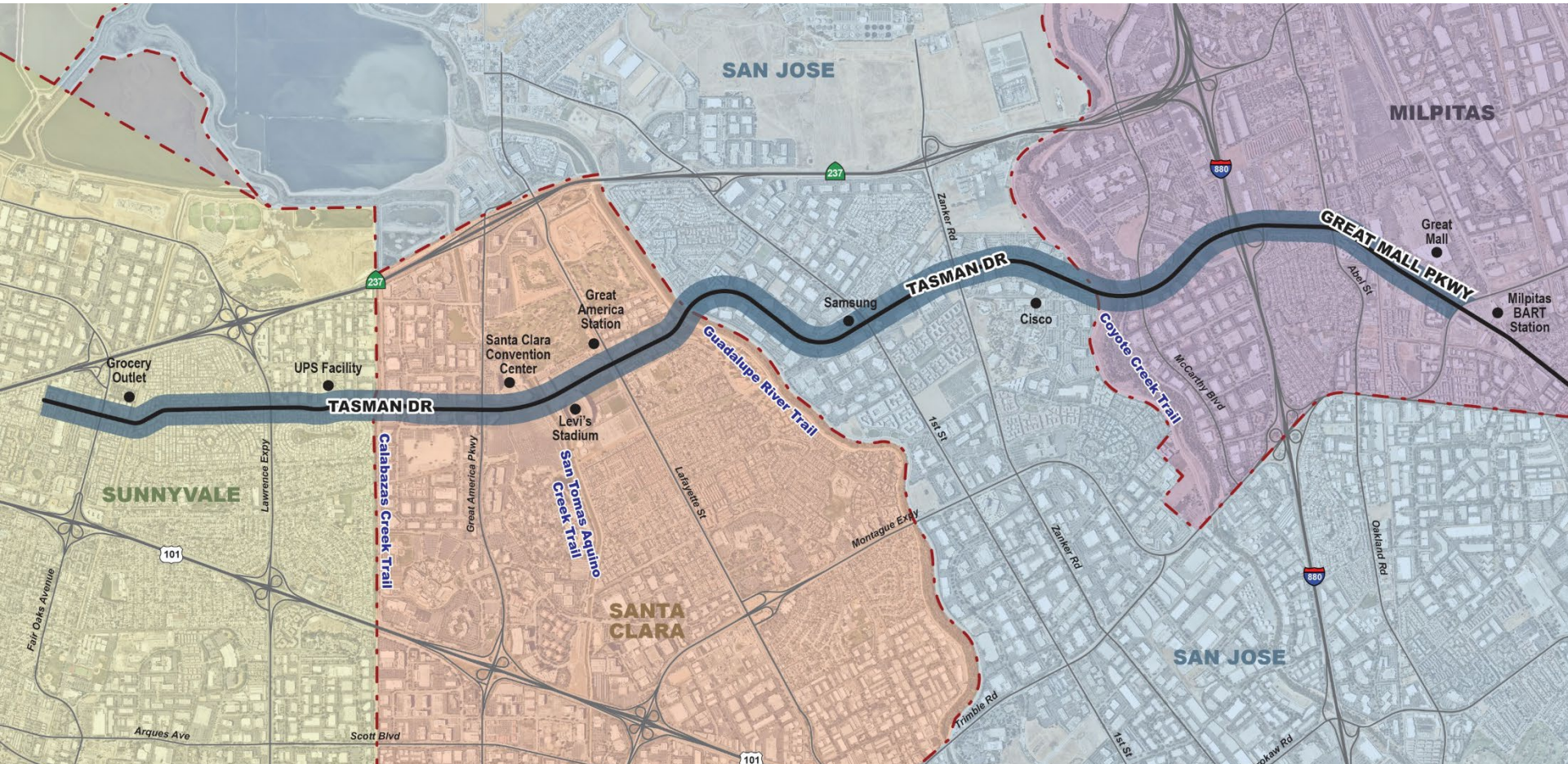


What The Study Is

- 10% Design for the Tasman Corridor; Full Design and Engineering Not Completed
- Not Environmentally Cleared
- This is a First Step: More work to be done
- This is a Vision for the Corridor
- Working with City to look for additional funding

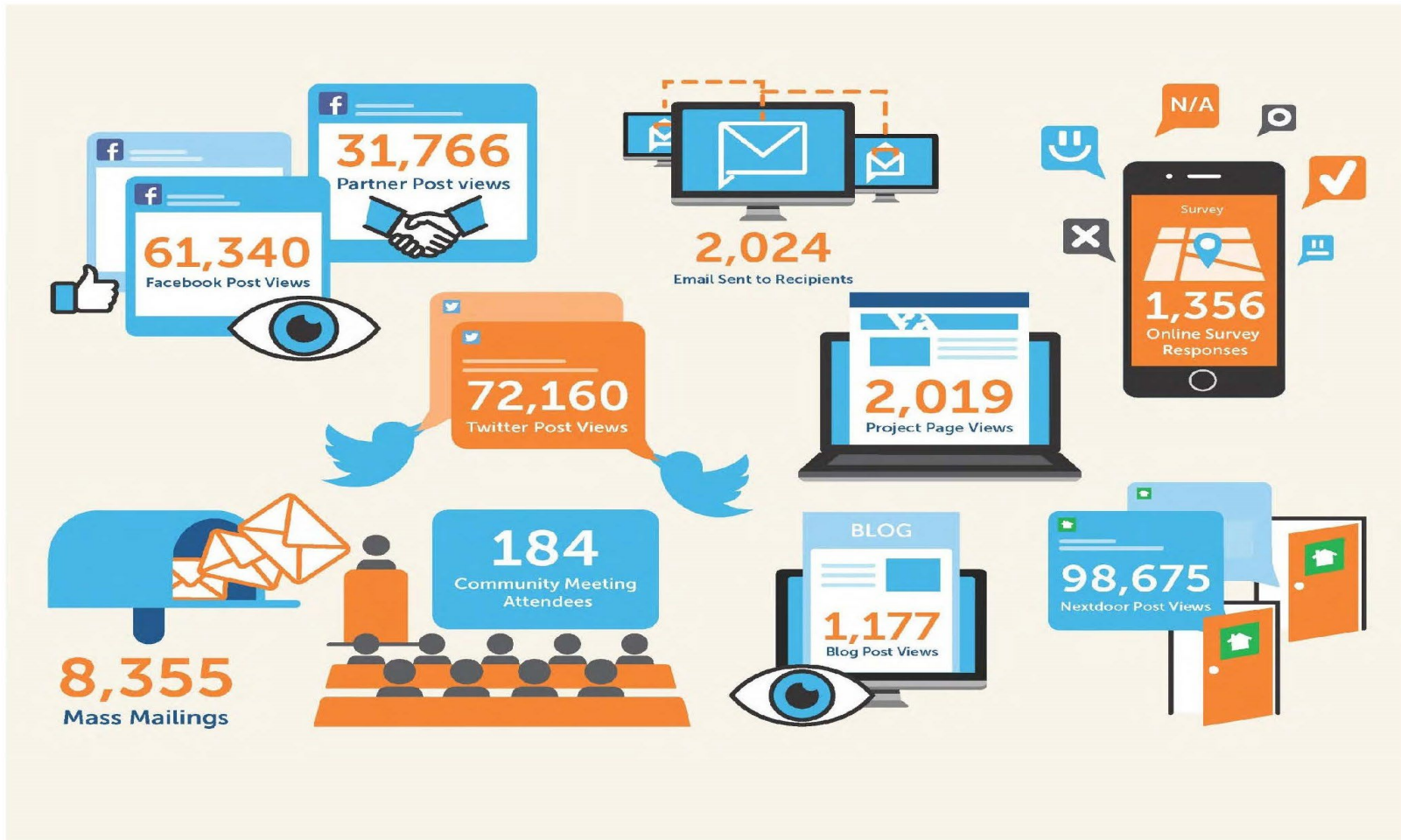


Study Area





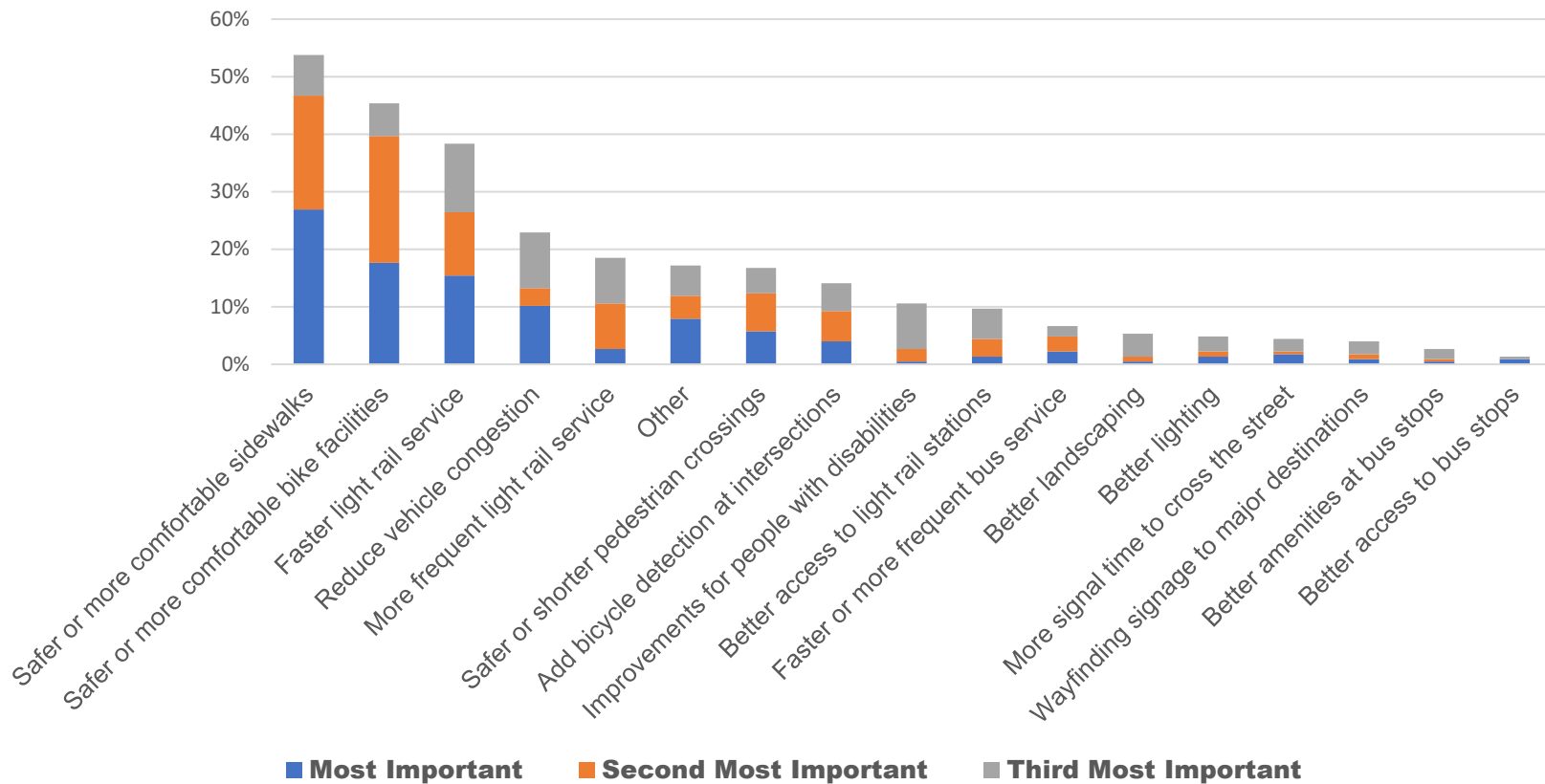
Public Input





Priorities

Ranking the needs of the Tasman Drive/Great Mall Parkway Corridor





Pedestrian Improvements



High Visibility Crosswalks



Adaptive Pedestrian Signals

Other Improvements:

- Sidewalk gap closures
- Widened sidewalks
- New curb ramps
- Reduced curb radii
- Landscape strips
- Widened paths of travel
- Improved wayfinding



Bicycle Improvements



Cycle Track and Vertical Separation

Other Improvements:

- Trail improvements
- Trail connection improvements
- Buffered bicycle lanes



Two-Stage Bike Turn Box

- Off-street path
- Bike slots at intersection
- Green paint in conflict areas



SV-1 TASMAN/FAIR OAKS INTERSECTION IMPROVEMENTS

Improvements Description

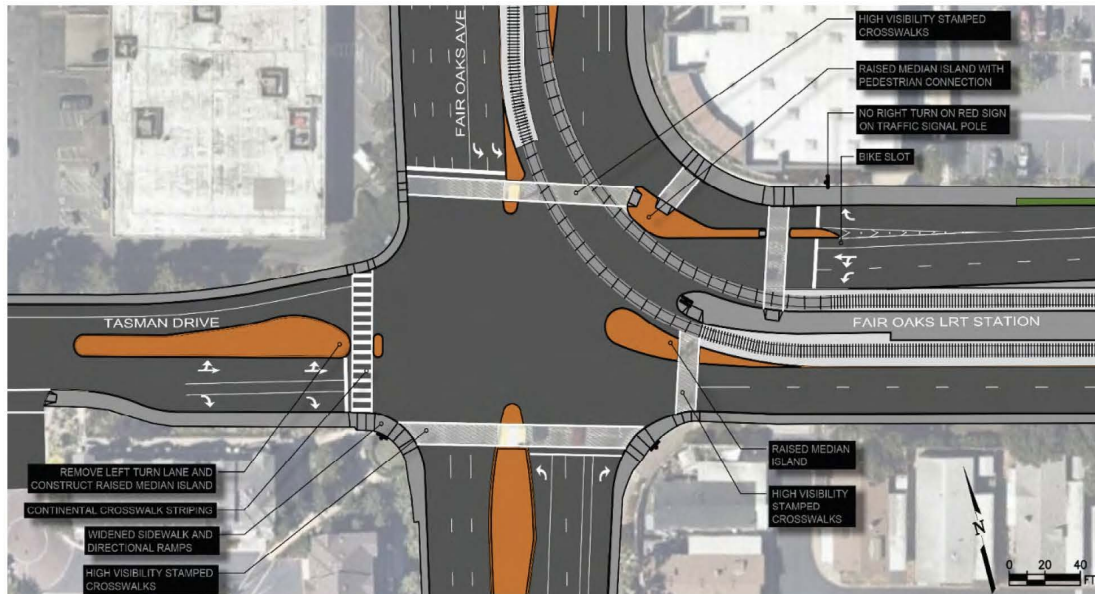
Reconfigure the intersection of Tasman Drive and Fair Oaks Avenue. This would include the following major intersection improvements:

- On the west leg of the intersection, remove the existing eastbound left-turn lane and construct a raised median with a pedestrian refuge island
- Realign the crosswalk on the east leg of the intersection to shorten pedestrian crossing distance
- Remove one existing westbound through lane and convert outside left-turn lane to a shared left-turn/through lane
- Install a bike slot along westbound approach
- Construct traffic signal modifications to support lane configuration and signal phasing changes
- Reduce turn radii and further channelize westbound right-turn movement, including a raised pedestrian crosswalk
- Provide pedestrian countdown signals

Location



Plan View of Proposed Improvements



Why is this Project Needed?

- Navigation of this intersection is challenging for pedestrians and bicyclists—this was a concern that was frequently raised in the public outreach process. A well-utilized light rail station is located at this intersection generating high levels of bicycle and pedestrian activity.

Benefits of Improvements

- New pedestrian refuge islands and median noses improve pedestrian safety and comfort
- Accessing the Fair Oaks LRT station would be more intuitive and clear with reduced conflicts with LRT tracks
- New westbound bike slot improves bicyclist safety and visibility

Cost

- \$1,226,000

Steps to Implementation

1. Incorporate into planning and programming documents, such as countywide transportation plan and City's Bicycle and Pedestrian Plan
2. Obtain environmental clearance (likely a Negative Declaration)
3. Pursue grant funding and program local funds
4. Prepare design plans
5. Coordinate with the California Public Utilities Commission (CPUC) for approval of modified grade crossing (GO-88-B)
6. Construct improvements and modify traffic signal operations

Other Implementation Considerations

- Requires coordination between the City of Sunnyvale and VTA for station-related improvements



SV-2 SUNNYVALE LRT STATION IMPROVEMENTS

Improvements Description

Construct improvements to the Fair Oaks, Vienna, and Reamwood LRT stations and station areas; major improvements include the following items:

1. Install high visibility, distinctive crosswalk treatment at all pedestrian crosswalks providing access to LRT stations
2. Construct traffic signal modifications
3. Implement adaptive pedestrian signal timing and leading pedestrian interval (LPI)
4. Install blankout signs to be activated during LRT crossing to provide additional pedestrian warning
5. Install enhanced LRT station lighting
6. Install bus/bike conflict area pavement marking
7. Construct landscape strips to buffer sidewalks

Location



Rendering of Proposed Improvements



Why is this Project Needed?

- Pedestrians do not feel comfortable getting to and from LRT stations located in the median—this was a common complaint expressed in the outreach process. Additionally, with the opening of the BART Silicon Valley Phase 1 extension, and the implementation of VTA's 2019 New Transit Service Plan, there is high projected growth in LRT passenger activity, creating a need for amenities to accommodate this increased traffic. Feedback in the outreach process also indicated that the LRT stations also do not currently provide adequate wayfinding signage or posted information to guide passengers.



Benefits of Improvements

- Improves pedestrian visibility
- Establishes priority for pedestrians with implementation of LPI and improves pedestrian safety with median refuges, lighting, widened sidewalks, and buffers
- Enhances amenities for transit users
- Improves visibility of light rail
- Improves wayfinding for light rail users and pedestrians



Cost

- \$1,381,000



Steps to Implementation

1. Incorporate into countywide transportation plan
2. Incorporate into VTA Capital Improvement Program
3. Obtain environmental clearance for physical improvements (anticipated to be Categorical Exemption)
4. Pursue grant funding and program local funds
5. Prepare design plans, including urban design, streetscape, and utilities
6. Coordinate with VTA LRT operations on station configuration modifications
7. Construct and update signal timings



SV-3 SUNNYVALE BUS STOP IMPROVEMENTS

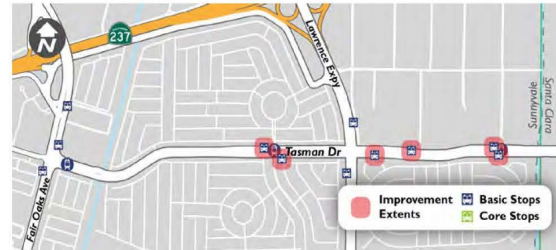
Improvements Description

Provide enhancements to all bus stops along the Corridor in Sunnyvale to make them consistent with VTA's Transit Passenger Environment Plan (TPEP) standards. The TPEP classifies bus stops based on daily ridership. Per these definitions, all bus stops along the Corridor in Sunnyvale are classified as Basic Stops, which are those with fewer than 40 daily boardings. Some of the existing bus stops on the corridor will no longer be served by VTA buses under the 2019 New Transit Service Plan.

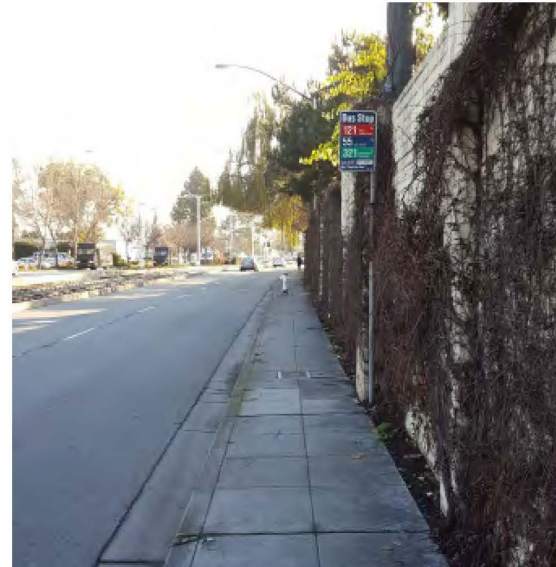
Basic Stops shall be improved to include the following elements:

- Standard bus stop sign with real-time information decal and schedule display
- Seating
- Bicycle parking (at least one U-rack; more if demand warrants)

Location



Existing bus stops



Existing bus stops

Why is this Project Needed?

- Existing stops have little to no amenities, making waiting for the bus undesirable; providing more amenities at bus stops can reduce perceived wait time, attracting new riders and increasing the visibility of transit service.

Benefits of Improvements

- Enhances amenities for transit users
- Potential for increased transit use

Cost

- \$535,000

Steps to Implementation

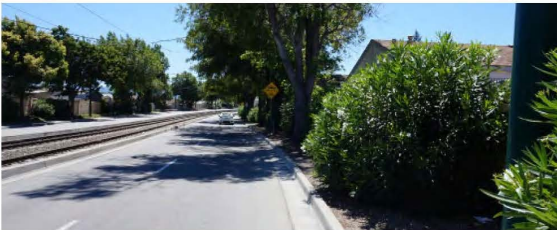
1. Incorporate into VTA Capital Improvement Program
2. Obtain environmental clearance (Categorical Exemption)
3. Pursue grant funding and program local funds
4. Schedule improvements as part of regular stop upgrades process



SV-4 SUNNYVALE SIDEWALK GAP CLOSURE (E/O FAIR OAKS AVENUE TO VIENNA DRIVE)

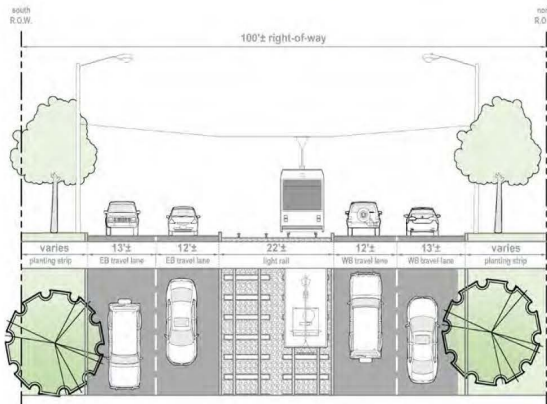
Improvements Description

Provide a new, 1,500-foot separated sidewalk facility (with a landscape strip) on the south side of Tasman Drive to close the existing sidewalk gap to the west of Vienna Drive. Project includes construction of new curb ramps at the Vienna Drive intersection requiring relocation or removal of existing trees.



Existing gap in sidewalk on south side of Tasman Drive between Fair Oaks Avenue and Vienna Drive.

Cross-Sections – West of Vienna Drive (Looking West)



Existing Section between Tasman Ct and Vienna Dr - looking west

Location



Why is this Project Needed?

- There are currently no sidewalks on the south side of the Corridor along the 1,500-foot stretch of Tasman Drive west of Vienna Drive. This gap in the pedestrian network was a major area of concern brought up by residents during the public outreach process

Benefits of Improvements

- Improves pedestrian connectivity
- Improves pedestrian safety through provision of dedicated facility

Cost

- \$1,784,000

Steps to Implementation

- Incorporate into Sunnyvale bicycle/pedestrian plan
- Obtain environmental clearance, including identifying tree impacts and mitigations. Coordinate with adjacent residents for tree removal/replacement.
- Pursue grant funding and program local funds
- Prepare design plans
- Construct



SV-5 SUNNYVALE SIDEWALK GAP CLOSURE (LAWRENCE EXPY TO REAMWOOD AVENUE)

Improvements Description

Close existing gaps in sidewalk coverage in Sunnyvale between Lawrence Expressway and Reamwood Avenue and provide pedestrian intersection improvements at Birchwood Drive.

In the near term, this project would include the following improvements:

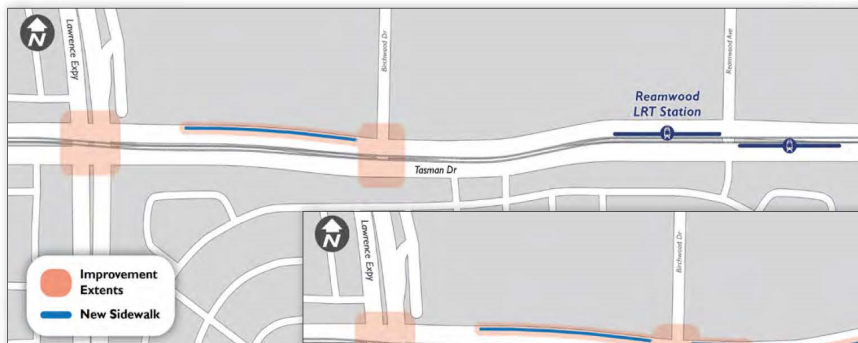
- Construct new sidewalk on the north side of Tasman Drive between Birchwood Drive and Lawrence Expressway
- Construct pedestrian improvements at the intersection of Birchwood Drive and Tasman Drive and the intersection of Reamwood Avenue and Tasman Drive, including tightened curb radii, high-visibility crosswalks, and a pedestrian adaptive signal
- Construct pedestrian improvements at the intersection of Lawrence Expressway and Tasman Drive, including tightened curb radii, high-visibility crosswalks, and a pedestrian adaptive signal."

In ultimate conditions, this project would include the following improvements in addition to the near-term improvements:

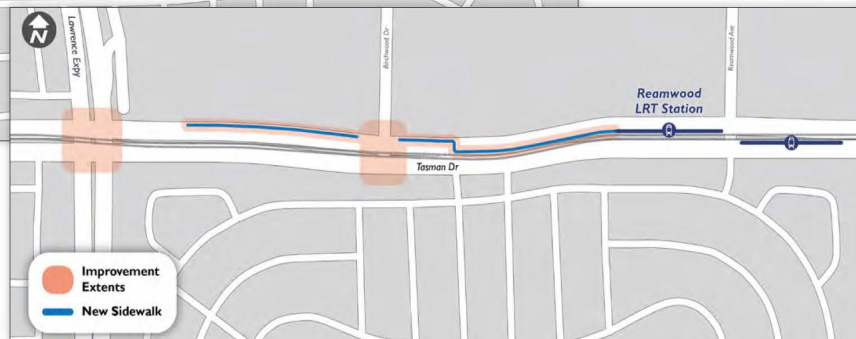
- Construct new sidewalk on the north side of Tasman Drive between Birchwood Drive and Adobe Wells Street
- Install a new crosswalk on the east side of the intersection of Tasman Drive and Adobe Wells Street
- Construct a sidewalk in the median of Tasman Drive, adjacent to the light rail tracks, between the newly-installed crosswalk at Adobe Wells Street and the Reamwood LRT station

Location

Near-term



Ultimate



Why is this Project Needed?

- There is currently a sidewalk gap on the north side of Tasman Drive that stretches from approximately 250 feet east of Lawrence Expressway to the Reamwood LRT station. This diminishes pedestrian circulation in the area and makes it harder to access the Reamwood LRT station. This gap in the pedestrian network was a major area of concern brought up by residents during the public outreach process.

Benefits of Improvements

- Closes pedestrian facility gaps in multiple locations, improving pedestrian connectivity, safety, and comfort
- Improved access to the Reamwood LRT Station

Cost

- \$1,258,000 (near-term)
- \$465,000 (ultimate)
- \$1,723,000 (total)

Steps to Implementation

1. Incorporate near-term and ultimate improvements into Sunnyvale bicycle/pedestrian master plan
2. Obtain environmental clearance for near-term improvements (include ultimate improvements as well depending on timeframe)
3. Pursue grant funding and program local funds for near-term improvements
4. Prepare design plans for near-term improvements
5. Construct for near-term improvements
6. Sunnyvale to adopt corridor plan line for ultimate right-of-way needed
7. Obtain additional right-of-way as part of future development project
8. Pursue grant funding and program local funds for ultimate improvements
9. Obtain environmental clearance for ultimate improvements
10. Prepare design plans for ultimate improvements
11. Construct ultimate improvements and prepare new signal timings



Rendering of Proposed Ultimate Improvements - East of Adobe Wells to Reamwood LRT Station



Cross Section Detail
Median Pedestrian Sidewalk



Cross Section
See Detail



SV-6 SUNNYVALE SIDEWALK GAP CLOSURE (REAMWOOD AVE TO CALABAZAS CREEK)

Improvements Description

Construction of sidewalk facility on the north side of Tasman Drive between Reamwood Ave and Calabazas Creek at the eastern end of the City. This project includes a set of near-term improvements and a set of long-term improvements.

In the near-term, this project would include the conversion of the dedicated bike lane on the north side of Tasman Drive to a shared-use path in order to complete the sidewalk connection between Calabazas Creek and Reamwood Avenue.

In ultimate conditions, this project would include the acquisition of additional right-of-way to provide separate sidewalk and bike lane facilities on the north side of Tasman Drive.



Existing facilities on the north side of Tasman Drive between Reamwood Avenue and Calabazas Creek.

Location

Near-Term



Ultimate



? Why is this Project Needed?

- There is currently no sidewalk on the north side of Tasman Drive between Reamwood Avenue and Calabazas Creek; this reduces connectivity to the Calabazas Creek Trail. This gap in the pedestrian network was a major area of concern brought up by residents during the public outreach process

✓ Benefits of Improvements

- Improves pedestrian connectivity
- Improves pedestrian safety through provision of a dedicated pedestrian facility

\$ Cost

- \$231,000 (near-term)
- \$260,000 (ultimate)
- \$491,000 (total)

📋 Steps to Implementation

- Incorporate near-term and ultimate improvements into Sunnyvale bicycle/pedestrian master plan
- Obtain environmental clearance for near-term ultimate improvements as well depending on timeframe; expected to be Categorical Exemption
- Pursue grant funding and program local funds for near-term improvements
- Prepare design plans
- Construct
- Sunnyvale to adopt corridor plan line for ultimate right-of-way needed
- Obtain right-of-way through coordination with adjacent property owner or with redevelopment of property
- Obtain environmental clearance for ultimate improvements
- Pursue grant funding and program local funds for ultimate improvements
- Prepare design plans
- Construct



SV-7 CALABAZAS CREEK TRAIL CONNECTION IMPROVEMENT

Improvements Description

- Formalize the existing Calabazas Creek Trail under-crossing of Tasman Drive by paving the trail connection
- Provide gateway landmark and wayfinding signage at the trail entrance and adjacent intersections
- Provide fence and signage to prevent at-grade crossing of Tasman Drive at the trail



Existing Trail Connection



Existing Trail Connection

Location



Why is this Project Needed?

- The Calabazas Creek Trail currently intersects with Tasman Drive, but the light rail tracks in the roadway median force trail users to utilize informal pathways to pass underneath Tasman Drive in order to cross the street.



Benefits of Improvements

- Improves connectivity to the Calabazas Creek Trail
- Improves bicyclist safety by improving infrastructure on an informal path



Cost

- \$282,000



Steps to Implementation

- Incorporate into Sunnyvale bicycle/pedestrian master plan
- Coordinate with the Santa Clara Valley Water District (property owner)
- Obtain environmental clearance (anticipated to be categorical exemption)
- Pursue grant funding and program local funds
- Prepare design
- Construct



Example of Proposed Improvement



SV-8 SUNNYVALE ALTERNATIVE BIKE ROUTING (NORTH ROUTE)

Improvements Description

This improvement provides an alternate bike route for bicyclists traveling eastbound or westbound along the Corridor. One of the two alternate routes, which routes bicyclists to the north of Tasman Drive, is shown below.

In the near-term, this project would include upgrades to infrastructure to accommodate a new bicycle route, including new bike lanes, signage, conflict markings, and lighting.

In ultimate conditions, this project would also include the construction of a new bicycle and pedestrian bridge across Calabazas Creek to connect the alternate route to Calabazas Creek Trail.

The full set of the improvements is shown on the figure on the next page.



? Why is this Project Needed?

- There is a gap in bicycle facilities along Tasman Drive in Sunnyvale between Fair Oaks Ave and Calabazas Creek; however, right-of-way is also tightly constrained along this portion of the Study Corridor, resulting in the need for alternative bike route(s). Both north and south routes are recommended to provide convenient routing for a variety of trip origins and destinations

✓ Benefits of Improvements

- Closes a major gap in bicycle facilities along the Corridor between Fair Oaks Ave and Reamwood Avenue
- Improves bicyclist safety and comfort along the proposed routes with infrastructure improvements

\$ Cost

- \$1,262,000 (near-term)
- \$2,075,000 (ultimate)
- \$3,337,000 (total)

📌 Steps to Implementation

- Incorporate into Sunnyvale bicycle/pedestrian master plan
- Obtain environmental clearance for near-term improvements (anticipated to be Categorical Exemption)
- Pursue grant funding and program local funds
- Prepare design
- Construct
- Coordinate with the Santa Clara Valley Water District for the construction of the bridge over Calabazas Creek. This will likely require further analysis of flow lines, topography and visual impacts
- Obtain environmental clearance for ultimate improvements
- Pursue grant funding and program local funds
- Prepare design
- Construct



SV-9 SUNNYVALE ALTERNATIVE BIKE ROUTING (SOUTH ROUTE)

Improvements Description

This improvement provides an alternate bike route for bicyclists traveling eastbound or westbound along the Corridor. One of the two alternate routes, which routes bicyclists to the south of Tasman Drive, is shown below. This improvement would include upgrades to infrastructure to accommodate a new bicycle route, including new bike lanes, signage, conflict markings, and lighting.

The full set of the improvements is shown in the figure on the next page.



Why is this Project Needed?

- There is a gap in bicycle facilities along Tasman Drive in Sunnyvale between Fair Oaks Ave and Calabazas Creek; however, right-of-way is also tightly constrained along this portion of the Study Corridor, resulting in the need for alternative bike route(s). Both north and south routes are recommended to provide convenient routing for a variety of trip origins and destinations

Benefits of Improvements

- Closes a major gap in bicycle facilities along the Corridor between Fair Oaks Avenue and Reamwood Avenue
- Improves bicyclist safety and comfort along the proposed routes with infrastructure improvements
- Connects and extends the John W. Christian Greenbelt to better connect Sunnyvale Avenue neighborhoods
- Replaces the existing Lawrence Expressway overpass that is not compliant with the Americans with Disabilities Act (ADA)

Cost

- \$12,715,000

Steps to Implementation

- Incorporate into Sunnyvale bicycle/pedestrian master plan
- Coordinate with San Francisco Public Utilities Commission (as owner of Hetch Hetchy corridor) for use of corridor for new Lawrence Expressway pedestrian and bicycle overpass
- Obtain environmental clearance
- Pursue grant funding and program local funds
- Prepare design, including minimizing impact to Lakewood Shopping Center parking lot
- Construct

Note: In order to expedite provision of improvements, consider advancing other elements besides Lawrence Expressway overpass and utilizing existing Lawrence Expressway overpass at Lakewood Way until new overpass can be construction.



VTA/Sunnyvale Next Steps

- City Council Study Session – April 2021
- Look for Funding with City to move Project forward (Measure B, One Bay Area Grant, etc.)
- As Project moves forward with Design; Coordinate with City Staff on any changes
- Since completion of Study, identify any new elements not captured in 10% Design



Project Next Steps

- Completed Final Complete Streets Plan – Fall 2020
- Work with Other Partner Agency on City Meetings
 - Milpitas – Council in August 2020
 - San Jose – Transportation Committee in October 2020
 - Santa Clara – BPAC and City Council May/June 2021
- Coordination between VTA and Cities to obtain funding and design/construct projects