



Southeast San Mateo County Community-Based Transportation Plan

City/County Association of Governments of San Mateo County

September 2023



C/CAG
*City/County Association of Governments
of San Mateo County*

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Middlefield Rd

NO U-TURN

U-HAUL

Corrections

1. Tables ES-3 and 5-2 have been revised to read:

Install Class II buffered bike lanes on Marsh Road from Bay Road to Scott Drive in the City of San Mateo Menlo Park, per the 2020 San Mateo Menlo Park Transportation Master Plan. [Location was erroneously identified as San Mateo, rather than Menlo Park]

The “Responsible Agency” for that recommendation has also been revised to replace "San Mateo" with "Menlo Park"

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Executive Summary

This Community-Based Transportation Plan (CBTP) addresses transportation challenges in Equity Priority Communities (EPC) of Southeast San Mateo County (SESM). The CBTP was developed by the City/County Association of Governments of San Mateo County (C/CAG) with Association of Bay Area Governments/ Metropolitan Transportation Commission (MTC) grant funding. In conformance with MTC guidelines, it represents a collaborative effort between C/CAG, community members, local stakeholders, and transit operators to identify and fill local mobility gaps in EPCs.

The CBTP recommends a series of projects, plans and programs prioritized using evaluation criteria developed with a CBTP Advisory Group (AG).

COVID-19 and CBTP Development

The COVID-19 pandemic and resulting shelter-in-place mandate of February/March 2020 occurred following approval of a CBTP Community Outreach Strategy. As such, the outreach strategy was revisited. Following a meeting of the AG on August 24, 2020, the CBTP team and MTC approved a new strategy for distanced community outreach and agreed that input related to emerging COVID-19 mobility challenges was relevant to the CBTP and resulting recommendations.

COVID-19 cases peaked from November 2020 to February 2021, again in August 2021, and a third time in January 2022. Each peak required delaying or adapting outreach and working with new partners, a process described fully in Chapter 4. As a result, some of the community feedback that influences recommendations in this CBTP is directly tied into the mobility context, habits, priorities, and challenges influenced by COVID-19.

Study Area Profile

Demographic Profile

The last CBTP in southeast San Mateo County was the 2005 East Palo Alto CBTP, which was limited to the City of East Palo Alto. The population of the 2005 study was about 30,000, 90 percent of which was composed of people of color.

The current CBTP study area represents a significant geographical expansion from 2005, as shown in Figure ES-1. The study area includes areas of East Palo Alto, Menlo Park, unincorporated San Mateo County and Redwood City, and has a population of approximately 80,000. That population is expected to increase to nearly 100,000 persons by 2040.

The study area remains more diverse than San Mateo County as a whole. About 15 percent of current EPC residents are White, compared to about 40 percent county-wide. Sixty-four percent of the study area population is Hispanic or Latinx, and about seven percent is Black.

Approximately 42 percent of all residents in the EPC were living in poverty in 2017, as compared to 19 percent countywide. To reflect high living costs in the Bay Area, the poverty threshold used in the CBTP analysis is 200 percent of the federal poverty threshold. The resulting local thresholds range from \$31,754 for a family of two to \$101,362 for families of nine or more.

Transit Profile

There are multiple transit options in the CBTP study area, which is served by bus and rail systems managed by several agencies. Commuter rail service is provided by Caltrain, which is routed through Redwood City in the western portion of the study area. Local and intercity bus transit is provided primarily by San Mateo County Transit District (SamTrans). Alameda County Transit District (AC Transit) and Santa Clara Valley Transportation Authority (VTA) provide limited bus and transfer services. The entire study area is served by SamTrans' Redi-Wheels paratransit system.

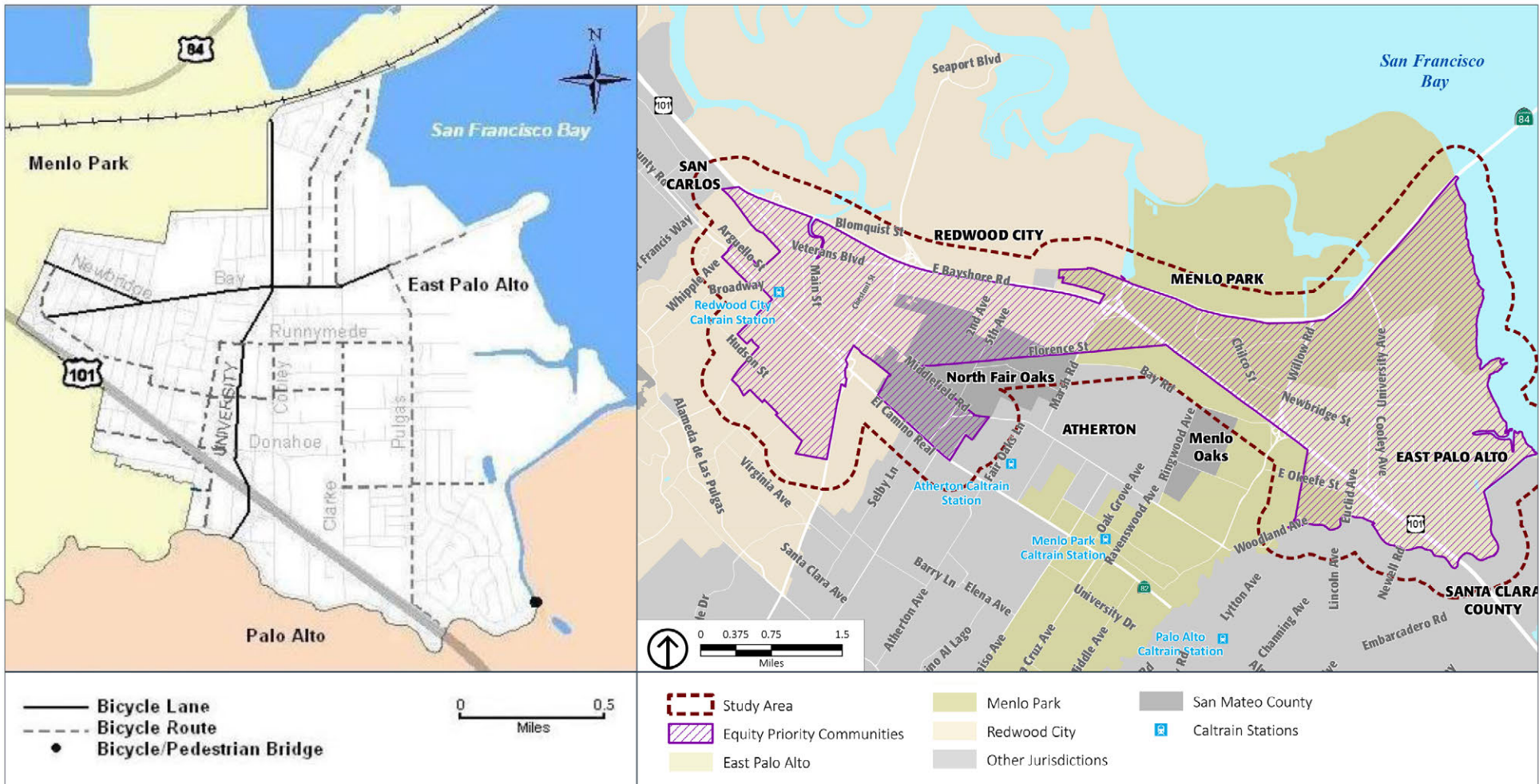


Figure ES-1 2005 and Current CBTP Study Area

Outreach and Engagement

All CBTP recommendations are based on a community coordination campaign consistent with MTC Guidelines. As detailed in Chapter 4, the outreach process was adapted to changing conditions associated with COVID-19.

Outreach and engagement in this plan included the following components:

1. Oversight by an Advisory Group
2. Project web page
3. Project awareness campaign
4. Bilingual digital transportation survey
5. Meetings with city & community leadership
6. “Pop-up” outreach sessions at events in the study area

Advisory Group

Initially, C/CAG convened separate AGs for the Southeast San Mateo County CBTP and Daly City CBTP. However, the AGs were combined at the start of the pandemic. This allowed members to discuss the shared mobility challenges of COVID-19 alongside new outreach strategies. The AG continued to perform its roles of reviewing project milestones, providing direction on reaching specific communities, and prioritizing CBTP recommendations.

The AG was composed of staff from the cities of Menlo Park, Redwood City and East Palo Alto; San Mateo County; various transit agency staff and representatives of transportation-related non-profit organizations. All advisors are listed in Chapter 4.

Project Web Page

The CBTP team developed a project web page on the C/CAG website. The web page included background information on the CBTP process, project submittals such as the Community Needs Assessment and AG meeting presentations. Links to Spanish and English versions of the online transportation survey were also uploaded to the webpage.

Awareness Campaign

The CBTP team developed a graphics-rich Outreach Awareness Notice in English (see Figure 4-1) and Spanish (see Figure 4-2) to notice the public of outreach events in various EPCs. The flier was adapted to each event.

Transportation Survey

A bilingual on-line survey was released in late 2020. It was designed to assess rates of active transportation and transit use, identify barriers to those options, and highlight community resources (hospitals, supermarkets, etc.) that are difficult to access. The survey also included questions about mobility challenges associated with shelter-in-place restrictions and changing work conditions due to COVID-19.

Outreach to Community Leadership

The CBTP team presented to the following community and city leaders during the outreach phase of the process:

- **North Fair Oaks Community Council.** The CBTP team made a virtual presentation to the Council on February 25, 2021.
- **East Palo Alto City Council.** The CBTP team made a virtual presentation to the Council on March 2, 2021.
- **Redwood City Transportation Advisory Committee.** The CBTP team made a virtual presentation to the Committee on March 9, 2021.
- **Menlo Park Complete Streets Commission.** The CBTP team made a virtual presentation to the Commission on March 10, 2021.

“Pop-Up” Sessions

Late 2021 saw increasing COVID-19 vaccination rates and relaxation of shelter-in-place mandates. At this time, the CBTP team utilized previous input from CBTP advisors, City leaders and community surveys to schedule “Pop-Up” outreach sessions at pre-scheduled events in the SESM EPC. The goals of these events were to collect detailed feedback about transportation challenges directly from EPC residents.

Sessions were conducted at the following events with the following participation rates:

1. **East Palo Alto Community Farmer’s Market.** The CBTP team conducted outreach on November 9, 2021. Approximately 60 attendees participated in interactive exercises, comment cards and surveys.
2. **Redwood City Kiwanis Farmer’s Market.** The CBTP team conducted outreach on November 27, 2021. About 50 people participated in map exercises.
3. **Fair Oaks Adult Activity Center Senior Lunch Program.** The CBTP team conducted outreach on February 17, 2022. About 10 people participated in map exercises and surveys.

Key Findings

Table ES-1 summarizes the key findings and feedback from each outreach component.

Table ES-1 Key Findings from Community Outreach Events

Transportation Survey
(Note: responders were able to select multiple options)

Transit system ridden (descending order):

1. Caltrain (61%)
2. BART (35%)
3. SamTrans (22%)
4. Other (22%)
5. Community Shuttle (13%)

Impediments to transit (descending order):

1. Route design (56%)
2. Hours of operation (31%)
3. Delays and unpredictability (26%)
4. Condition of stations or shelters (26%)
5. Location of stops (18%)

Impediments to biking (descending order):

1. Dangerous streets or intersections (78%)
2. Lack of bike lanes (70%)
3. Gaps in existing lanes (48%)
4. Lack of secure bike parking (35%)

Impediments to walking (descending order):

1. Poor sidewalk conditions (65%)
2. Poor lighting and safety (61%)
3. Difficult intersections (52%)
4. Unsafe school access (13%)

Places that are hard to get to (descending order):

1. Supermarket (48%)
2. Work (43%)
3. Transit station (43%)
4. School (30%)
5. Hospital/medical center (22%)

New COVID-19-related transportation challenges (descending order):

1. I feel unsafe on transit (49%)
2. None (22%)
3. Reduced transit schedules (17%)
4. Other (4%)

Table ES-1 Key Findings from Community Outreach Events

<p>East Palo Alto Community Farmer’s Market “Pop-Up”</p>	<p>Bicycle Comments:</p> <ul style="list-style-type: none"> • Belief that bikes should not be on the same roads as cars. All bike routes should be isolated. • The sidewalk is too narrow on University Avenue across 101. A cyclist and a person with a stroller cannot pass each other. • Woodland Avenue is perilous on a bike—until you get to Menlo Park. • Need to prioritize Garden Street for walk/bike to school improvements. • There should be a bike/ped lane along Pulgas Avenue. <p>Pedestrian Comments:</p> <ul style="list-style-type: none"> • Need for traffic calming and active transportation improvements along O’Connor Street. • Need for more pedestrian paths that are parallel to separate from main driving routes. • The sidewalk is too narrow on University Avenue across 101 for a bike and a person with a stroller. • Need for new signalization or a pedestrian overcrossing at Cooley Avenue and University Avenue. • The non-signalized multi-lane crosswalk at University Avenue and Weeks Street, in front of El Concilio, is dangerous. • Need for a signalized crosswalk at Clarke Avenue and Beech Street. • Need for better lighting and wider sidewalks along the bridge on Newell Road at Woodland Avenue. The existing trees add to the blind crosswalk and cars don’t see people trying to cross. • The 5-way stop at Newbridge Street, Ralmar Avenue, and Bay Road is confusing for drivers and dangerous for pedestrians. • Pulgas Avenue is unsafe to walk on for the entire length in both directions. Sidewalks are incomplete and narrow, and cars always speed. • People park in the pedestrian ROW on both sides of Pulgas Avenue. • Intersection at Michigan Avenue and University Avenue needs a signalized crosswalk. • Need better Sidewalks along many parts of West Bayshore Road. • ... 	<p>East Palo Alto Community Farmer’s Market “Pop-Up” <i>(Continued)</i></p>	<p>Transit Comments:</p> <ul style="list-style-type: none"> • Need to restore pre-COVID bus frequencies. • Need for a 2nd BART tube for the South Bay. • Restore the shuttle that went from the train station at University Avenue around East Palo Alto. • Cars speed around bus pull-outs and could hit pedestrians crossing intersections. <p>Safety Comments:</p> <ul style="list-style-type: none"> • Traffic speeds are too high on: <ul style="list-style-type: none"> » Woodland Avenue in both directions. There are also many semi-trucks here. » Euclid Avenue between Woodland Avenue and Okeefe Street. » Lincoln Street and on Bell Street turning off and on to Lincoln Street. » University Avenue. • Police do not come when called and do not take calls seriously. • There have been various accidents on University Avenue in front of City Hall that have almost resulted in pedestrians getting ran over. • The school located at the end of Garden Street [KIPP Esperanza High School] has very dangerous traffic at the school’s exit. It is dangerous for both students and parents during pick-up and drop-off. • There should be more lighting on East Bayshore Road starting at Clark Avenue towards Embarcadero Road. • Accessing the Charter school at Runnymede Street is unsafe—there is no way to access this school by walking or biking.
	<p>Redwood City Kiwanis Farmer’s Market “Pop-Up”</p>	<p>Bicycle Comments:</p> <ul style="list-style-type: none"> • Highway 101 is an ongoing bike barrier: <ul style="list-style-type: none"> » Visibility of the center bike lane on Whipple Avenue over Highway 101 is reduced visibility by roadway vegetation. » Need for a bike lane crossing 101 (either bridge or underpass) that connects south of 101 to the Bay Trail and Marsh Rd/Bay Front Park. • ... 	

Table ES-1 Key Findings from Community Outreach Events

**Redwood City
Kiwanis
Farmer’s
Market
“Pop-Up”
(Continued)**

Bicycle Comments: (Continued)

- The difficulty of cycling through downtown Redwood City due to wide roadways and lack of shade. This makes it unattractive and unsafe to cross most intersections.
- El Camino Real as an ongoing bike barrier:
 - » It feels unsafe to cross any intersection on El Camino Real, but especially those between James Avenue and Redwood Avenue.
 - » Crossing El Camino Real via Oakwood Drive on a bike is dangerous. Also, the train tracks force cyclists trying to get to Middlefield from El Camino Real to use Fifth Avenue.
 - » There needs to be more safe crossings over Middlefield Road between Charter Street and 9th Avenue. Fifth Avenue is the only crossing around this area.
 - » Woodside Avenue and El Camino Real are the biggest barriers to biking. Both are difficult to cross. El Camino could have bike lanes on it but not Woodside.
 - » Drivers often run red lights at the intersection of El Camino and Broadway.
 - » We need for a bike path that runs parallel to the train tracks instead of on El Camino Real.
- The mobile home parks on East Bayshore Avenue between Woodside Avenue and Haven Avenue are impossible to access by biking or walking. Access anything from that area is also difficult.
- Sharrows on Harding Avenue and Jefferson Avenue are scary because there is parking on both sides of the street and people open car doors suddenly.
- Need for a bike lane on the segment of Marsh Road between Middlefield and Bay Road.
- Need for more bike racks in downtown Redwood City.
- The bike lane on Whipple Avenue is terrifying.
- Crossing Woodside Road is scary for cyclists coming from the Caltrain station and riding along Broadway. There should be a complete bike lane between the Caltrain station and Woodside Road.
- Need for a bike lane on segment of Broadway Street between Woodside Road and Charter Street.

**Redwood City
Kiwanis
Farmer’s
Market
“Pop-Up”
(Continued)**

Pedestrian Comments:

- Need for pedestrian crossing improvements at the following intersections:
 - » Whipple Avenue across Highway 101 northbound on-ramp
 - » Jefferson Avenue and Alameda de las Pulgas.
 - » All crosswalks along Jefferson Avenue
 - » El Camino Real and Edgewood Road
 - » Broadway and 2nd Avenue.
 - » Broadway and Bay Road crossing
 - » Marsh Road and Bay Road
 - » Marsh Road and Middlefield Road
- Unsafe or uneven sidewalks on:
 - » Bloomquist Street between Maple Street and Seaport Boulevard.
 - » The north side of Hopkins Avenue between Grand Street and Hudson Street
 - » The perimeter of Dingee Circle park, at Broadway and Hopkins.
 - » Maple Street from Marshall Street to Hilltop Street
 - » Brittan Avenue underpass intersecting El Camino Real

Transit Comments:

- The need for a bus line between Downtown Redwood City and Edgewood Park.
- The need to reinstate SamTrans Route 274: It used to take 6 minutes to get between the Caltrain station and Alameda and Jefferson. Now it takes much longer to get between these two points since this bus was canceled.
- Use the freight train ROW to connect future ferry terminal to Redwood City Caltrain.
- Lack of good public transit around North Fair Oaks. Not enough frequency or routes.
- Need for a bus line connecting Middlefield Road to the ECR route along Fifth Avenue.
- Need for bus route along Jefferson Avenue after lines 274 and 278 stopped running there.
- ...

Table ES-1 Key Findings from Community Outreach Events

<p>Redwood City Kiwanis Farmer’s Market “Pop-Up” (Continued)</p>	<p>Safety Comments:</p> <ul style="list-style-type: none"> • Number of informal encampments along El Camino and Redwood Avenue (near interchange with Woodside Rd and El Camino Real) that can make pedestrians feel unsafe. • Need for improved safety and intersections around Redwood High School. • There is a lot of trash along Industrial Road. • Danger related to high auto speeds on Samson Street between Arguello Street and Allerton Street • Needs for traffic calming on segment of Whipple Avenue between East Bayshore Road and El Camino Real. 	<p>Fair Oaks Adult Activity Center “Pop-Up” (Continued)</p>	<p>Transit Comments: (Continued)</p> <ul style="list-style-type: none"> • The expense and difficulty of getting to San Mateo Medical Center and SamTrans Route ECR isn’t direct enough. • Confusion as to what paratransit service provides access to what medical centers. <p>Safety Comments:</p> <ul style="list-style-type: none"> • The increasing amount of vehicle drop-offs and pick-ups and idling on streets in the residential area southwest of the intersection of Middlefield Road and Charter Street, such as Douglas Avenue. • Decrease safety on Middlefield Road due to ongoing construction. • The fact that Middlefield Road is very busy and intimidating to walk on.
<p>Fair Oaks Adult Activity Center “Pop-Up”</p>	<p>Pedestrian Comments:</p> <ul style="list-style-type: none"> • The need for better traffic controls at many Middlefield Road intersections, especially from about Woodside Road to Fifth Avenue. • The sidewalk quality in North Fair Oaks is only inconsistent; there are areas that need to be improved for the safety of all users. <p>Transit Comments:</p> <ul style="list-style-type: none"> • The need for additional, alternative transportation to the Fair Oaks Adult Activity Center and other senior centers for clients and visitors with health and mobility challenges. • The fact that some clients to the Fair Oaks Adult Activity Center are either not well enough to take public transit or don’t know how to ride paratransit, because program eligibility and access are confusing. • The fact that Fair Oaks Adult Activity Center staff are undertaking a process of identifying who qualifies for various paratransit services and informing clients and visitors of their likely eligibility status. • The lack of efficient transit access to Daly City, particularly that the combined SamTrans Routes ECR/ 296 itinerary to Daly City takes two hours. <p>...</p>		

Recommendations Methodology

Evaluation Criteria

As detailed in Chapter 5, the CBTP project team worked with the AG to establish four evaluation criteria to rank projects and programs by their ability to improve mobility for challenged communities:

1. Reflects Community Priorities
2. Increases Access
3. Is Financially Feasible
4. Ease of Implementation

Scoring Methodology

Recommendations were scored one through five for each evaluation criteria. A score of one reflects the lowest potential for fulfillment of that category; five the highest. For all project and plans, the following score averages were calculated:

- **Average Score:** The average score of Criteria 1 through 4.
- **Area Need Score:** The average score of Criterion 1 (Community Priorities) and Criterion 2 (Increases Access).
- **Project Potential Score:** The average score of Criterion 3 (Financial Feasibility) and Criterion 4 (Ease of Implementation).

The CBTP team consolidated criteria into the two scores above to improve the likelihood that CBTP projects will be implemented. A focus on recommendations with the highest and/or most immediate potential to get funded and built will support the grant selection and planning. It will facilitate more informed decision-making and awareness of potential challenges for future projects.

Implementation TimeFrame

Each of the following recommendations is assigned one the following three implementation timeframes based on community priority:

1. **Short Term (ST).** These recommendations are assumed to be implemented in one to three years.

2. **Medium Term (MT).** These recommendations are assumed to be implemented in three to eight years.

3. **Long Term (LT).** These recommendations are assumed to be implemented in eight or more years.

Project Types

Recommendations fall within the following groups of projects and plans:

Active Transportation. These are generally capital improvements that increase safe, healthy, active transportation choices, namely walking and biking, for everyday trips. Active transportation also includes micromobility, which refers to the use of individual, lightweight vehicles, such as bikeshares and e-scooters, typically on a per-ride basis.

Transit and Paratransit. Transit projects may include new routes, expanding operating hours of certain lines, increasing transit line frequency, or improving transit stops with lighting, shelter, and seating.

Safety. School safety projects provide safe, non-motorized routes between where people live and local schools. Examples of safety projects include improvements to school access and student safety, traffic calming on streets with high rates of pedestrians, neighborhood lighting improvements and poorly-secured transit facilities.

Recommendations

The following tables summarize recommended projects and plans, including estimated cost, timeframe and responsible agency(ies) for the three project types. All recommendations are listed in descending order of average score.

Active Transportation Projects and Plans

Table ES-2 lists recommended pedestrian projects and plans. Table ES-3 lists recommended bike and micromobility projects and plans.

Transit and Paratransit Projects and Plans

Table ES-4 lists recommended SESM CBTP transit and paratransit projects and plans.

Safety Projects and Plans

Table ES-5 lists recommended SESM CBTP safety projects and plans.

Table ES-2 Recommended Pedestrian Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
Complete the following to improve pedestrian safety near and on the Ringwood Avenue Pedestrian Bridge: <ul style="list-style-type: none"> Implement an interior and exterior bridge lighting plan consistent with Caltrans’ standards for luminaire type, light level and pole and fixture mounting standards. Perform walk audits along Pierce Road at the Newbridge Street/Market Place intersection and along Van Buren Road at Ringwood Avenue to identify needed pedestrian access and safety improvements on both sides of the bridge. 	4.75	5	4.5	\$300,000 to \$700,000	PT	Menlo Park
Reset the timing of all traffic signals at Chilco St. and Bayfront Expwy. to allow for adequate pedestrian crossing times.	4.75	5	4.5	\$150,000 to \$400,000	ST	Menlo Park
Implement the initial steps toward developing a vehicle Speed Enforcement Program for Bayfront Expwy., including: <ul style="list-style-type: none"> Preparation of a Comprehensive Plan, including goals, management approach and funding options. Outreach to law enforcement agencies and Identification of a Stakeholder Task Force. Completion of an Historical Risk, Speed and Crash Assessment. 	4	4.5	3.5	\$500,000 to \$1,000,000	ST	Menlo Park, adjacent jurisdictions, Caltrans
Close all sidewalk gaps on East Bayshore Road from Poplar Avenue to Euclid Avenue in response to pedestrian fatalities.	4.75	5	4.5	\$50,000 to \$75,000	ST	East Palo Alto
Perform safety audits and install intersection safety improvements such as signalization controls, pedestrian islands, flashing beacons, high-visibility crosswalks and/or physical traffic calming elements, at the following intersections: <ul style="list-style-type: none"> Bayfront Expwy. and Willow Rd. Bayfront Expwy. and Chilco St. Bayfront Expwy. and Chrysler Dr. Bayfront Expwy. and Marsh Rd. University Ave. and Runnymede St. Marsh Rd. and Bay Rd. Marsh Rd. and Middlefield Rd. Cooley Ave. and University Ave. Oakwood Dr. and East Bayshore Rd. Newbridge St. and Willow Rd. Willow Rd. and Ivy Dr. Willow Rd. and O’Brien Dr. Willow Rd. and Hamilton Rd. 	4	4.5	3.5	\$15,000 to \$50,000 per intersection	ST	East Palo Alto, Redwood City, Menlo Park, San Mateo County
Widen sidewalks, close all sidewalk gaps and install parking controls along West Bayshore Rd. between Cooley Ave. and Woodland Ave. in East Palo Alto.	4	4	4	\$75,000 to \$125,000	ST	East Palo Alto
Assess sidewalk deficiencies and implement feasible recommendations for new sidewalks on the west side of Pulgas Ave. from East Bayshore Rd. to University Avenue in East Palo Alto.	3.75	4.5	3	\$100,000 to \$200,000	MT	East Palo Alto
Install Rectangular Rapid-Flashing Beacons (RRFB) with curb extensions at on- and off-ramps on both sides of Highway 101 at the Whipple Ave. overcrossing in Redwood City.	3.75	3.5	4	\$150,000 to \$200,00	MT	Redwood City, Caltrans
Install a High-Intensity Activated Crosswalk (“HAWK”) and median improvements at intersection of SR 82 and Selby Lane in Atherton.	3.5	4.5	3	\$125,000 to \$150,000	ST	Atherton, San Mateo County, Caltrans

Table ES-3 Recommended Bicycle and Micromobility Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
Implement the North Fair Oaks bicycle boulevards network in the area between Middlefield Rd., 5th Ave., El Camino Real and the unincorporated County/ Redwood City limits, per the <i>North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study</i> .	4.25	4.5	4	\$3.5M to \$7M	MT	San Mateo County
Improve bike facilities on Seaport Blvd. by installing a Class I bike path from Broadway to East Bayshore Road, per the <i>2021 C/CAG San Mateo County Comprehensive Bicycle and Pedestrian Master Plan</i> , and from Veterans Boulevard Highway 101 per <i>RWC Moves</i> .	4	4.5	3.5	\$1M to \$1.25M	ST	San Mateo County, Redwood City
Install grade- separated pedestrian/bicycle crossing of Caltrain tracks in North Fair Oaks between 5th Avenue and Redwood City limits, labeled high-priority project in the <i>2021 Unincorporated San Mateo County Active Transportation Plan</i> .	4	4.5	3.5	\$10M-\$15M	LT	San Mateo County, Caltrain
Install Class IV cycle track on SR 82 (El Camino Real) between Finger Ave. and north of Berkshire Avenue per <i>RWC Walk Bike Thrive</i> .	4	5	3	\$2.5M to \$4M	MT	Redwood City
Install a Class IV bikeway on the segment of SR 82 (El Camino Real) that forms the border of North Fair Oaks, per the <i>Unincorporated San Mateo County Active Transportation Plan</i> .	4	5	3	\$750,000 to \$1.5M	MT	San Mateo County
Fill missing bikeways gap on Middlefield Rd. between 5th Ave. and Town of Atherton with a Class II bikeway, per the <i>Unincorporated San Mateo County Active Transportation Plan</i> .	4	5	3	\$500,000 to \$750,000	ST	San Mateo County
Install Class IV facility on Brewster Avenue from Main St. to King St. to connect Sequoia High School and Caltrain transit center, per <i>RWC Walk Bike Thrive</i> .	3.75	4	3.5	\$1M to \$1.5M	ST	Redwood City
Study upgrading the existing Class III bike route along Woodland Avenue in East Palo Alto to a Class IV or other separated bike facility and implement the most feasible option.	3.75	4	3.5	\$750,000 to \$2M	ST	East Palo Alto
Study bicycle and pedestrian network conditions and conflicts within ½ mile of Caltrain stations and major transit stops in the study area. Include recommendations for active transportation network improvements, infrastructure projects and micromobility programs designed to increase bike/ped safety and close “first-mile-last-mile” gaps.	3.5	4	3	\$275,000	ST	C/CAG, San Mateo County, Redwood City
Develop a micromobility implementation guidebook for local jurisdictions to support efficient roll-out of bikeshare, e-scooter and other micromobility programs. The guidebook should include a framework for: <ul style="list-style-type: none"> Engaging community members to get input on preferred micromobility programs. Identifying type(s) of micromobility program(s) for maximum community benefit. Locating micromobility vehicle access and parking areas. Designing safe and accessible micromobility routes that close “first-mile-last-mile” transit gaps. Contracting with third party vendors. 	3.5	3.5	3.5	\$325,000	ST	C/CAG
Upgrade the existing bike facility on Willow Road between Bayfront Expressway and Highway 101 to a Class IV separated bikeway, per the <i>City of Menlo Park Transportation Master Plan</i> .	3.5	3.5	3.5	\$1M to \$1.5 M	MT	Menlo Park
Implement <i>City of Menlo Park Transportation Master Plan</i> project #178 and Catrans District 4 Bike Plan Project Number SM-101-X14: Design and develop a bicycle/pedestrian bridge over Highway 101 north of Marsh Road, with connections to Bay Trail and Bedwell Bayfront Park.	3.5	4.5	3	\$30M to \$35M	LT	Caltrans, Menlo Park
Install Class II buffered bike lanes on Marsh Road from Bay Road to Scott Drive in the City of Menlo Park, per the <i>2020 San Mateo Transportation Master Plan</i> .	3.5	3.5	3.5	\$1.5M to \$2M	MT	Menlo Park
Improve access to electronic bikes via equity programs for both shared e-bikes and individually owned e-bikes.	3.5	3.5	3.5	\$50,000 to \$500,000	MT	C/CAG, San Mateo County, Redwood City, East Palo Alto, Menlo Park, Peninsula Clean Energy
Install buffered bike lanes on Alameda de las Pulgas, from Brewster Avenue to De Anza Avenue in Redwood City, as considered in <i>RWC Walk Bike Thrive</i> .	3.5	3.5	3.5	\$500,000 to \$1M	MT	Redwood City
Install Class IV bikeways on Bay Rd. and Marsh Rd. in North Fair Oaks per the <i>2021 Unincorporated San Mateo County Active Transportation Plan</i> .	3.25	4.5	2	\$1.5M to \$2M	MT	San Mateo County

Table ES-4 Recommended Transit and Paratransit Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
Broaden awareness campaign of Clipper START program to include multi-lingual information at transit stops, stations and high-activity destinations in SESM Equity Priority Communities.	4.25	4	4.5	\$15,000 to \$30,000	ST	MTC
Implement a multi-lingual awareness campaign of SamTrans’ new East Palo Alto On-Demand Zone. Potential riders should made aware of: <ul style="list-style-type: none"> • How to download and use the program App • How to use the service • The difference between the On-Demand program and traditional bus service • The On-Demand zone service area limits 	4.25	3.5	5	\$15,000 to \$30,000	ST	SamTrans
Implement transit-only lanes or transit signal priority infrastructure on Newbridge St., Bay Rd. and University Avenue from Menlo Park to the Palo Alto Transit Station to improve Caltrain access by Menlo Park and East Palo Alto residents.	4	5	3	\$10M to \$20M	LT	SamTrans, East Palo Alto, Menlo Park, Palo Alto, Caltrain, San Mateo County
Implement a 2022 San Mateo County Paratransit Rider’s Guide “How-to Tour.” Introduce participants at senior centers, medical facilities and social service organizations to the basics of paratransit eligibility, sign-up, routing and ride process.	4	4	4	\$10,000 to \$20,000	ST	SamTrans
Audit ground and curb conditions at bus stops and paratransit boarding areas at the following facilities to identify uneven sidewalks, lack of red paint and other parking/vehicle deterrents and missing or ADA noncompliant bus shelters: <ul style="list-style-type: none"> • East Palo Alto Senior Center • Ravenswood Health Clinic • Kaiser Permanente Medical Center, Redwood City • Fair Oaks Health Center • Menlo Park VA Medical Center 	3.75	3	4.5	\$20,000 to \$40,000	ST	SamTrans
Develop implementation strategies for equity mobility programs that encourage mode shift, such as the 2021 101 Express Lanes Community Benefits Program.	3.75	4	3	\$20,000 to \$35,000	MT	C/CAG, San Mateo County, Redwood City, East Palo Alto, Menlo Park
Add shelters to SamTrans route 296 stops at Middlefield Road and Fifth Avenue to improve shopping experience for those at Chavez Supermarket at 3282 Middlefield Rd.	3.75	3	4.5	\$20,000 to \$30,000 per stop	ST	SamTrans, San Mateo County
Survey physically and sensory-impaired visitors to hospitals, senior centers and social service facilities in SamTrans’ SESM Equity Priority Area to identify drop-off-to-destination (and reverse) wayfinding and access challenges and solutions.	3.5	3.5	3.5	\$7,500 to \$10,000	MT	SamTrans
Add shelters to SamTrans route 270 stops at Bay Road and Fifth Avenue to improve shopping experience for those at Mi Tienda Market, 812 Fifth Avenue, Redwood City	3.5	3	4	\$20,000 to \$30,000 per stop	ST	SamTrans, City of Redwood City
Decrease current 1+ hour headways of City of Menlo Park Belle Haven Shuttle by 25 percent.	3	3.5	2.5	\$500,000 to \$1M annually	LT	Menlo Park
Program an east-west running SamTrans route along 5th Avenue through North Fair Oaks to provide better connections from Middlefield Rd to SamTrans Routes 296 and ECR.	3	4.5	1.5	\$1.5M to \$3M start-up	LT	SamTrans

Table ES-5 SESM CBTP Safety Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
<p>Assess queuing impacts to public streets during peak drop-off/pick-up hours at:</p> <ul style="list-style-type: none"> • Belle Haven Elementary School • Garfield Community School • North Star Academy/McKinley • Aspire East Palo Alto Charter School • TIDE Academy 	4.25	4	4.5	\$10,000 to \$15,000 per school	ST	Ravenswood City School District, Redwood City School District, Aspire Public Schools, Sequoia Union High School District, East Palo Alto, Menlo Park, Redwood City
<p>Complete an assessment of pedestrian safety in North Fair Oaks North, including audits and recommendations for:</p> <ul style="list-style-type: none"> • Areas of dumping and/or blight • Lighting “deserts” • Poor sidewalk conditions 	3.75	4	3.5	\$25,000 to \$50,000	MT	San Mateo County
<p>Implement Safe Routes to School infrastructure, including traffic calming techniques such as lane narrowing, speed humps, bulb-outs, and rapid flashing beacons at:</p> <ul style="list-style-type: none"> • Belle Haven Elementary School • Garfield Community School • North Star Academy/McKinley • Aspire East Palo Alto Charter School • TIDE Academy • Sequoia High School • KIPP Esperanza High School • Sequoia District Adult School 	3.75	4	3.5	\$300,000 to \$500,000	MT	Ravenswood City School District, Redwood City School District, Aspire Public Schools, Sequoia Union High School District, KIPP Public Schools, East Palo Alto, Menlo Park, Redwood City
<p>Support the completion of Objective 4, Data Gathering, and Objective 5, Engineering Routes to School, of the <i>East Palo Alto Safe Routes to School 5 Year Work Plan</i>.</p>	3.75	4	3.5	\$40,000 to \$80,000	ST	East Palo Alto
<p>Increase safety for students of Menlo-Atherton High School who live in East Palo Alto and Belle Haven, via improved bike/ped infrastructure on Coleman Ave. and Ringwood Ave. in unincorporated Menlo Oaks and Menlo Park, per 2023 <i>Coleman/Ringwood Transportation Study</i>.</p>	3.25	3.5	3	\$3M TO \$6M	ST	San Mateo County

1. Introduction

1.1 Metropolitan Transportation Commission Lifeline Transportation Program

In 2001, the Metropolitan Transportation Commission (MTC) published two reports identifying gaps in the provision of transportation services in low-income Bay Area neighborhoods and initiated two programs to allocate funding for transportation improvement projects based on outreach to low-income communities. The Lifeline Transportation Program (LTP) allocates state and federal funds to provide grants for projects that meet mobility and accessibility needs in low-income communities. The Community-Based Transportation Planning (CBTP) Program is an outreach-based program to improve travel needs in specific low-income Equity Priority Communities (EPC) throughout the Bay Area. Each CBTP is a collaborative effort between community members, transit operators, and congestion management agencies to identify local mobility challenges and community-oriented solutions.

The projects identified in CBTPs then become eligible for funding through the LTP. The goal of the LTP is to fund projects that result in improved mobility and accessibility for low-income residents of the San Francisco Bay Area. Eligible projects must:

- Be developed through an inclusive planning process that engages a broad range of stakeholders;
- Improve a range of transportation choices by adding new or expanded services;
- Address transportation gaps and/or barriers identified in CBTPs.

Both operating projects and capital projects are eligible for funding under the LTP. LTP Cycle 6, which covers Fiscal Year 2018–2019 through Fiscal Year 2019–2020 was funded by the Federal Transit Administration (FTA) Section 5307 Urbanized Area Formula Funds.

MTC distributes a portion of State Transit Assistance (STA) population-based funds STA to CMAs, each of which is tasked with establishing policies to distribute STA Block Grant funds within its jurisdiction. San Mateo County has proposed to allocate 40 percent of funds to SamTrans' paratransit program and 60 percent to C/CAG for the county-led Lifeline Program.



1.2 CBTP Guidelines

MTC has established guidelines to ensure that CBTP mobility recommendations are the result of community input. Per the 2018 MTC guidelines:

- All CBTP recommendations must be based on a Community Engagement Plan that includes at least three best practices for outreach to low-income residents.
- Community outreach must be coordinated with community stakeholders, such as Community Based Organizations (CBO) and non-profits working with the underserved.
- Each CBTP must convene a Steering Committee composed of social service, CBO, agency, and/or non-profit leadership to review outreach strategies, recommendation selection criteria, and milestones.
- Each CBTP must identify funding sources for “high-priority” projects.

1.2.1 Equity Priority Communities

As noted in Section 1.1, CBTP study areas are composed of MTC-identified EPCs. These are census tract-based geographies that exhibit either:¹

1. A low-income population (<200-percent federal poverty level) that exceeds 30 percent and a minority population that exceeds 70 percent; or
2. A low-income population that exceeds 30 percent and a population that surpasses MTC thresholds for at least three of the following:
 - Limited English Proficiency (12 percent threshold)
 - Seniors 75 Years and Over (15 percent threshold)
 - Zero-Vehicle Households (15 percent threshold)
 - Single Parent Families (18 percent threshold)
 - People with a Disability (12 percent threshold)
 - Rent-Burdened Households (14 percent threshold)

¹ Metropolitan Transportation Commission, 2021 (modified May 14), “Equity Priority Communities,” [mtc.ca.gov](https://mtc.ca.gov/planning/transportation/access-equity-mobility/equity-priority-communities). <https://mtc.ca.gov/planning/transportation/access-equity-mobility/equity-priority-communities>.

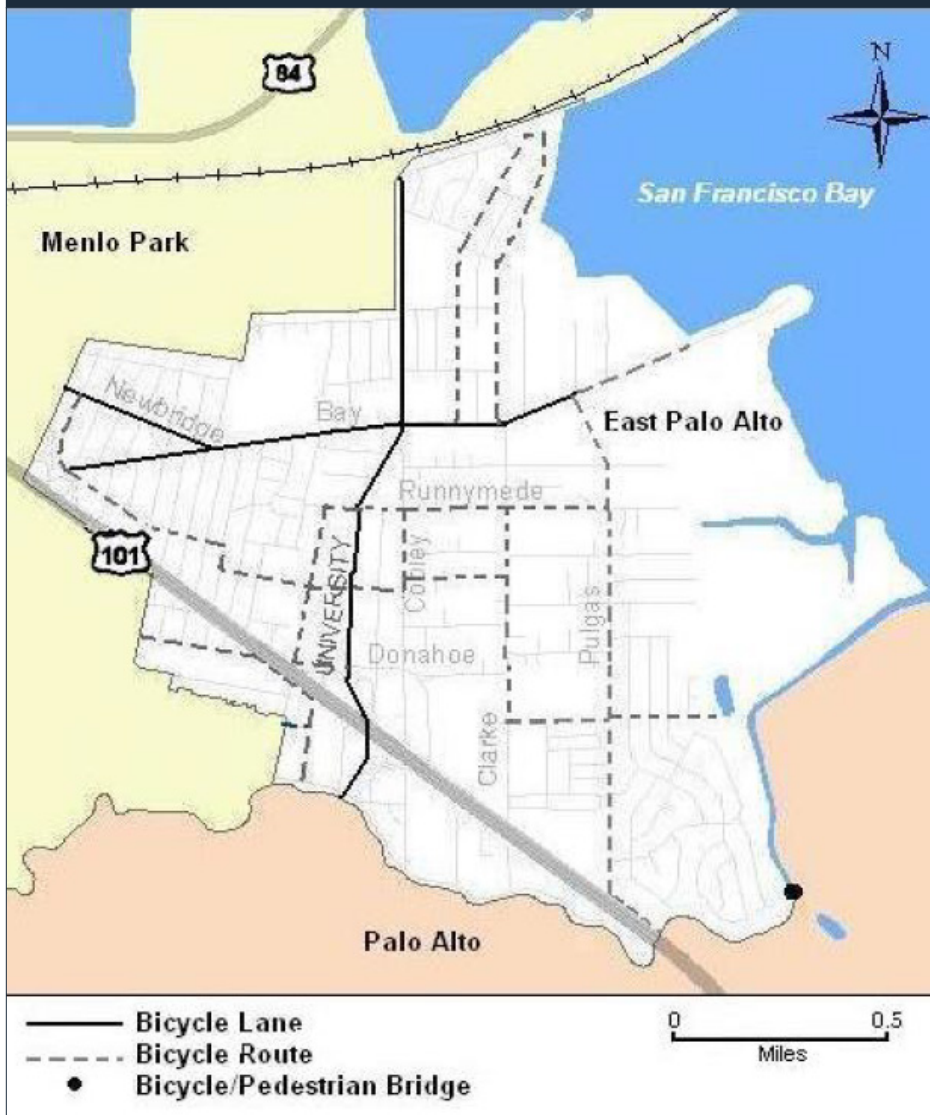


1.3 2005 East Palo Alto CBTP

The most recent CBTP for southeast San Mateo County was adopted in 2005. The 2005 East Palo Alto CBTP included a study area comprised of the entire city of East Palo Alto, approximately 2.5 square miles of land between Highway 101 and the San Francisco Bay with the Dumbarton Bridge as the northeastern boundary and Palo Alto to the south (see Figure 1-1).

The 2005 East Palo Alto CBTP recommended a series of operations-based and capital programs for improved mobility in the study area. As shown in Table 1-1, about half of the 13 recommendations from the Plan were implemented as of 2020. Three were partially implemented and the remaining four not implemented. Significant changes in demographics, land use and transit options have occurred in the last 14 years throughout the greater southeast San Mateo County area, prompting initiation of the current Southeast San Mateo County CBTP and revised study area.

Figure 1-1 2005 East Palo Alto CBTP Study Area



1.4 Current Southeast San Mateo County CBTP Study Area

1.4.1 Study Area Location

The current Southeast San Mateo County CBTP study area (study area) is determined primarily by the location of 12 contiguous census tracts spanning three cities and unincorporated San Mateo County. As shown in Figure 1-2, the east-west running study area includes EPCs south of Highway 101 in Redwood City; south of Middlefield Road and north of Florence Street in North Fair Oaks, north of Highway 101 in Menlo Park; and throughout most of East Palo Alto. This study area includes the Redwood City Caltrain Station. The study area boundary does not entirely conform to these EPCs boundaries. This is because the community focus, reliance on outreach, and potential transit solutions, programs and projects that result from the CBTP will not be limited to the census tract level.

1.4.2 CBTP Advisory Group

Per MTC's CBTP Guidelines, C/CAG convened two Advisory Groups (AG), and one to guide the Southeast San Mateo County CBTP and one to guide the concurrent Daly City CBTP. The AGs consisted of representatives from CBOs, non-profits, local jurisdictions, transit agencies, and MTC. The role of the AGs was to ensure transparency and inclusivity throughout the process, review project milestones, and assist in program evaluation. The AGs provided input on reaching specific members of the community, prioritized outreach opportunities, and evaluated the list of policy and project recommendations for the study area.

Due to challenges of coordinating two AGs at the beginning of the COVID-19 pandemic, shared COVID-19 mobility challenges and the need to adapt all outreach strategies pandemic conditions, the CBTP team decided to combine the Daly City and Southeast San Mateo AGs into a single AG. The AG met four times throughout the outreach process (one in-person, three virtual) to provide practical guidance on local input, review deliverables, and provide input on project review criteria and CBTP draft recommendations. See Chapter 4 for a complete list of all AG members. AG members also and participated in review of final CBTP recommendations.

Table 1-1 Status of 2005 East Palo Alto CBTP Recommendations

Recommended Project/Plan/Program	Level of Implementation			Notes
	Fully Implemented	Partially Implemented	Not Implemented	
Short-Term				
Improve the Scheduling and Connectivity of Transit Service	X			Transit Study completed.
Subsidize Monthly Transit Passes for Low Income Residents	X			Transit Fare Assistance program (CalWORKS) in County Welfare to Work Transportation Plan.
Provide Demand Response Transit Service		X		Hindered by low ridership, redundancy with SamTrans routes
Provide More Bus Pass Vendor Outlets	X			New Clipper vendor outlets installed at regional drug stores
Provide a City Transportation Systems Management Coordinator		X		Hindered by city budget constraints and human resource challenges.
Enhance Transit Information in Spanish		X		Printed materials now obsolete with online translation resources and smartphone availability
Implement a Transit Oriented Development Program	X			TOD Program adopted as part of Ravenswood/ 4 Corners TOD Specific Plan
Relocate School Bus Stops			X	Facilities Master Plan focused on bus stops at school campuses, not routes
Provide Community Shuttle Services at Night			X	Hindered by low ridership and redundancy with SamTrans routes
Mid-Term				
Provide Enhanced Transit Transfer Sites			X	Hindered by limiting site conditions, permit and power requirements, lack of responsible agency accountability
Increase Frequency of Transit Service	X			SamTrans increased frequency of Route 281 and Route 296
Extend SamTrans Routes 297/397 into Neighborhoods or Extend Hours of Route 296	X			SamTrans implemented
Long-Term				
Provide a Transit Center in East Palo Alto			X	Dumbarton Rail project has overshadowed this project and highlighted a potential redundancy with an independent transit station



Figure 1-2 Southeast San Mateo County CBTP Study Area

1.5 COVID-19 and CBTP Development

The COVID-19 pandemic and resulting shelter-in-place mandate of March 2020 occurred just after the CBTP Community Needs Assessment background report and Community Outreach Strategy were completed. As such, outreach implementation was temporarily halted and revisited. On August 24, 2020 the AG and MTC approved a new strategy for distanced community outreach and agreed that input related to emerging COVID-19 mobility challenges was relevant to the CBTP and resulting recommendations.

COVID-19 cases peaked from November 2020 to February 2021, again in August 2021, and a third time in January 2022. Each peak required delaying or adapting outreach and working with new partners, a process described fully in Chapter 4. As a result, some of the community feedback that influences recommendations in this CBTP is directly tied into the mobility context, habits, priorities, and challenges influenced by COVID-19.

The City/County Association of Governments of San Mateo County (C/CAG), with MTC, determined that it is in the interest of communities in the CBTP study area to adopt this plan in the current context, rather than re-initiate the existing conditions, community outreach, and recommendations processes.

2. Study Area Profile

The current Community-Based Transportation Plan (CBTP) study area is large and diverse. It includes four separate jurisdictions and is composed of a range of land uses, all of which contributes to a diverse profile.

A full CBTP Study Area Community Needs Assessment report is provided in Appendix A.

2.1 Demographic Analysis

The demographic profile presented in this report is based on census tract data from the 2010 U.S. Census. Data from the American Community Survey (ACS) five-year estimates (2006–2010 and 2013–2017) are compared to show trends since the last CBTP. In addition, future projections are provided on key demographic variables from the 2017 Regional Transportation Plan (RTP), which MTC published in July 2017. Also known as Plan Bay Area (PBA) 2040, this RTP contains forecasts for population, housing, and employment for the horizon year of 2040. For purposes of this analysis, data shown for the study area is limited to the census tracts that make up the EPCs shown in Figure 1-1.

2.1.1 Population and Housing

The population of the study area in 2017 was approximately 78,495, an increase of eight percent from the 2010 Census. The population in the study area has seen approximately the same growth rate as the countywide population over the past seven years, the latter of which grew nine percent from 704,327 residents in 2010 to 767,450 in 2017. Population growth within the CBTP study area is forecasted to accelerate in the future, with an expected growth rate of 28 percent from 2017 to 2040 to 98,851 residents. This growth rate will be twice of the county’s long-term growth rate, which is expected to grow by only 19 percent (less than one percent per year) from 2017 to 2040 to a population of 916,590.

Household size in the study area is about 19 percent larger than households in San Mateo County and is expected to decrease. Households in the study area increased from 3.40 people in 2010 to 3.55 people in 2017, a growth rate of four percent.

Households countywide have increased five percent from 2.72 people to 2.88 people. By 2040, household size in the study area is expected to decrease to 3.20 people, which will still be 11 percent higher than the rest of the county.

2.1.2 Race and Ethnicity

The study area contains higher percentages of Latinx, Black, and Native Hawaiian/Pacific Islander residents than San Mateo County. The study area has approximately one quarter of the percentage of Asian residents and a less than half of the percentage of White residents compared to the county (Table 2-1).

Fifteen percent of EPC residents are White, compared to about 40 percent countywide. The Black population is approximately seven percent in the study area, compared to two percent countywide. Finally, the Latinx community makes up over 64 percent of the population of the study area.

Race Category	2017 ACS % of Population	
	Study Area	San Mateo County
White	15%	40%
Black or African American	7%	2%
American Indian or Alaska Native	<1%	<1%
Asian	6%	27%
Native Hawaiian or Other Pacific Islander	5%	1%
Other	<1%	<1%
Two or More Races	2%	4%
Hispanic or Latinx	64%	25%
Total	100%	100%

Source: US Census 2013-2017 American Community Survey (ACS) 5-year estimates.

2.1.3 Age Distribution

Figure 2-1 shows the percentage of seniors in the study area by census tract. The senior population is smaller in the study area than that of San Mateo County, at seven percent and 15 percent, respectively. The percentage of seniors is highest in the northern half of Redwood City's EPCs and lowest in the southern half of Redwood City's EPCs and in East Palo Alto south of Highway 101.

Approximately 27 percent of the study area's total population is under 18 years of age, or around 20,800 people. This youth rate is higher than that of San Mateo County. Figure 2-2 shows the percentage of persons under the age of 18 in the study area by census tract. The dominant pattern of youth population in the CBTP study area is the relatively low rate of young people in the northwest portion, immediately southwest of Highway 101.

2.1.4 Disability

The rate of the disabled population is one of seven tract-level variables that may factor into the establishment of an EPC. The U.S. Census separates disability type into sensory (hearing- and sight-impaired) and physical disabilities. Both are considered significant barriers to mobility.

As shown in Figure 2-3, Redwood City and northern North Fair Oaks have the highest incidences of residents with sensory disabilities in the CBTP study area, at a peak of six percent of the total population in some places. Populations with high rates of physical disabilities (Figure 2-4) are concentrated in Redwood City, Menlo Park, and northeast Palo Alto.

2.1.5 Language and English Proficiency

In the Southeast San Mateo County CBTP study area, approximately 4,100 households are designated as "Limited English-Speaking Households." These are households in which all members 14 years and over speak a non-English language and have varying degrees of English fluency. This rate is considerably higher than the countywide rate of nine percent.

2.1.6 Poverty Status

The U.S. Census Bureau uses a set of income thresholds that vary by family size and composition to determine the population living in poverty. To reflect high living costs in the Bay Area, the poverty threshold used in the CBTP analysis is 200 percent of the federal poverty threshold. The resulting local thresholds range from \$31,754 for a family of two to \$101,362 for families of nine or more. According to 2013–2017 ACS five-year estimates, approximately 42 percent of residents in the study area were living in poverty. This figure is significant when compared to 19 percent in San Mateo County as a whole.

As shown in Figure 2-5, North Fair Oaks and East Palo Alto south of Highway 101 have the highest rate of households within 200 percent of the federal poverty threshold. Menlo Park has the lowest incidence of households within 200 percent of the federal poverty threshold, comprising between 31 to 35 percent of each census tract population.

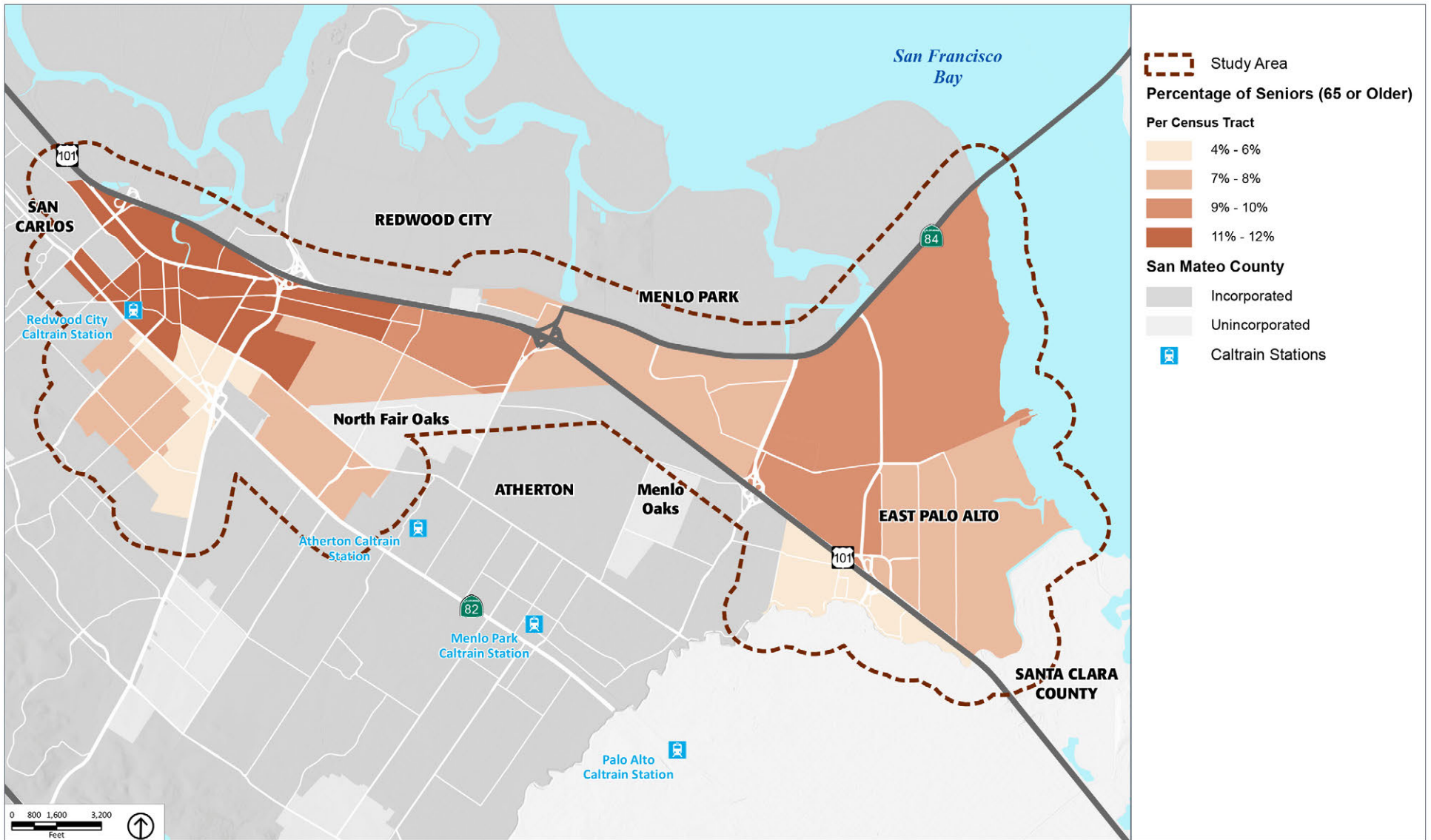
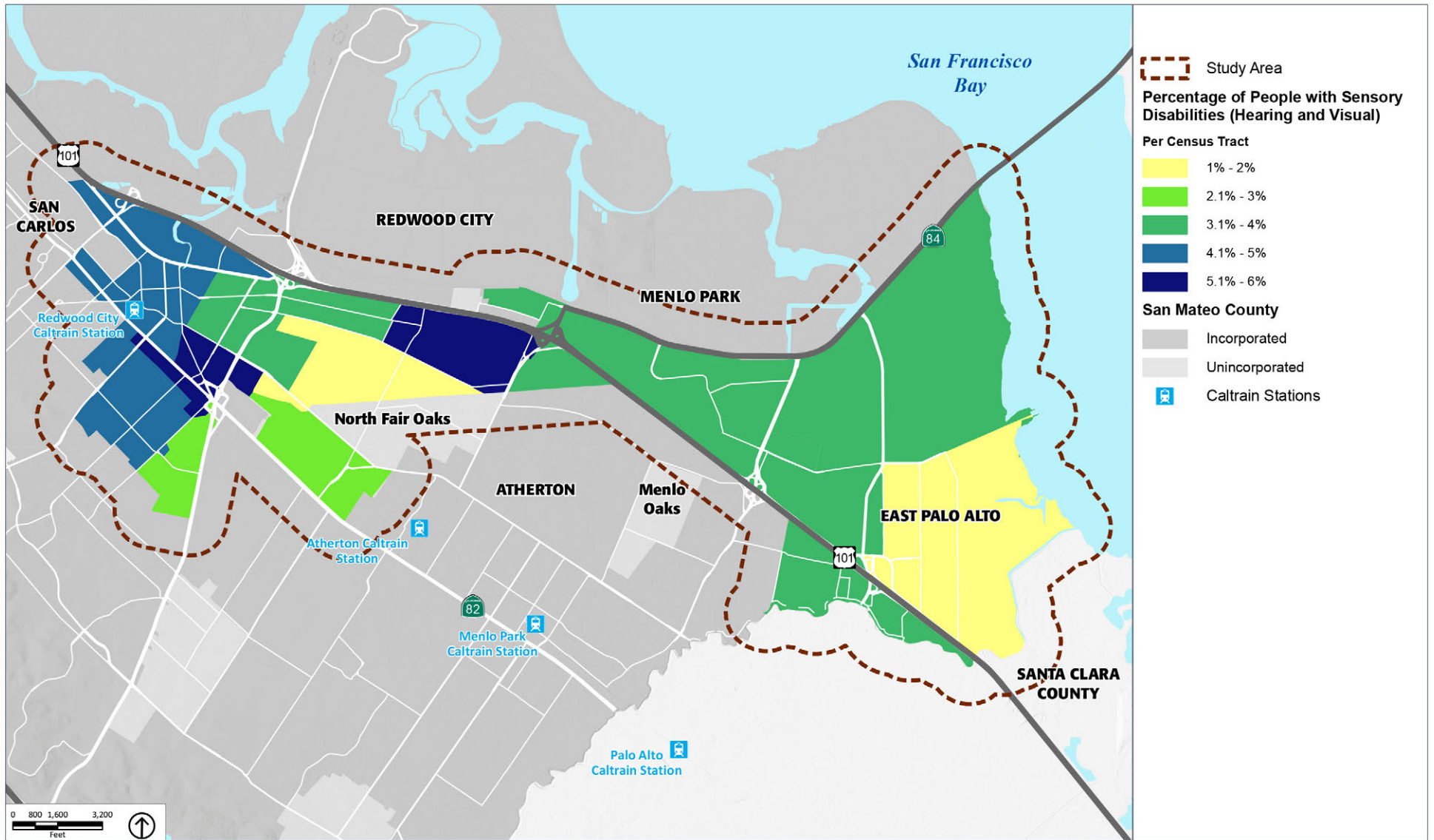


Figure 2-1 Population Age 65 and Over



Figure 2-2 Population Age 18 Years and Younger



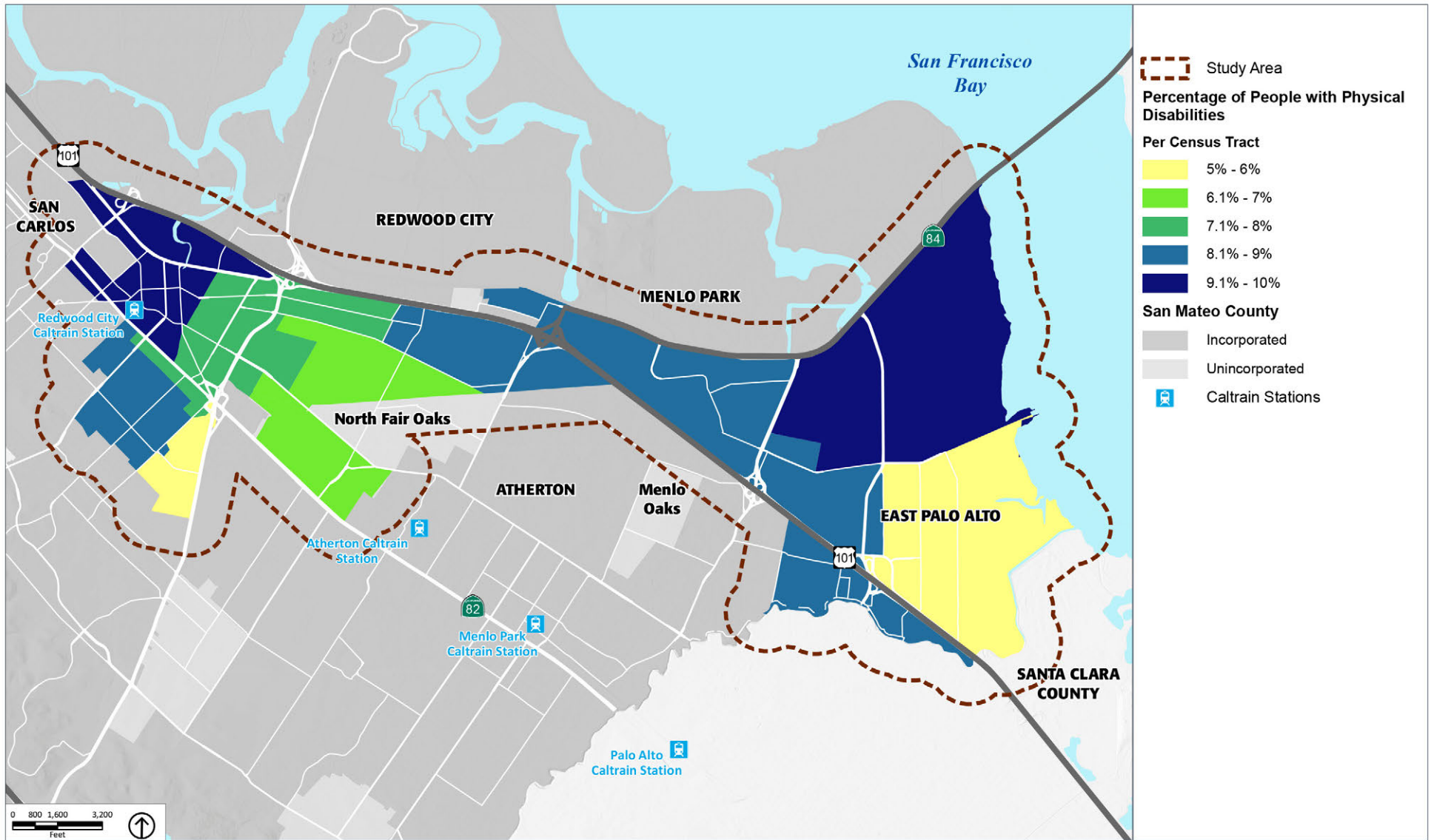


Figure 2-4 Percent of Population with Physical Disability

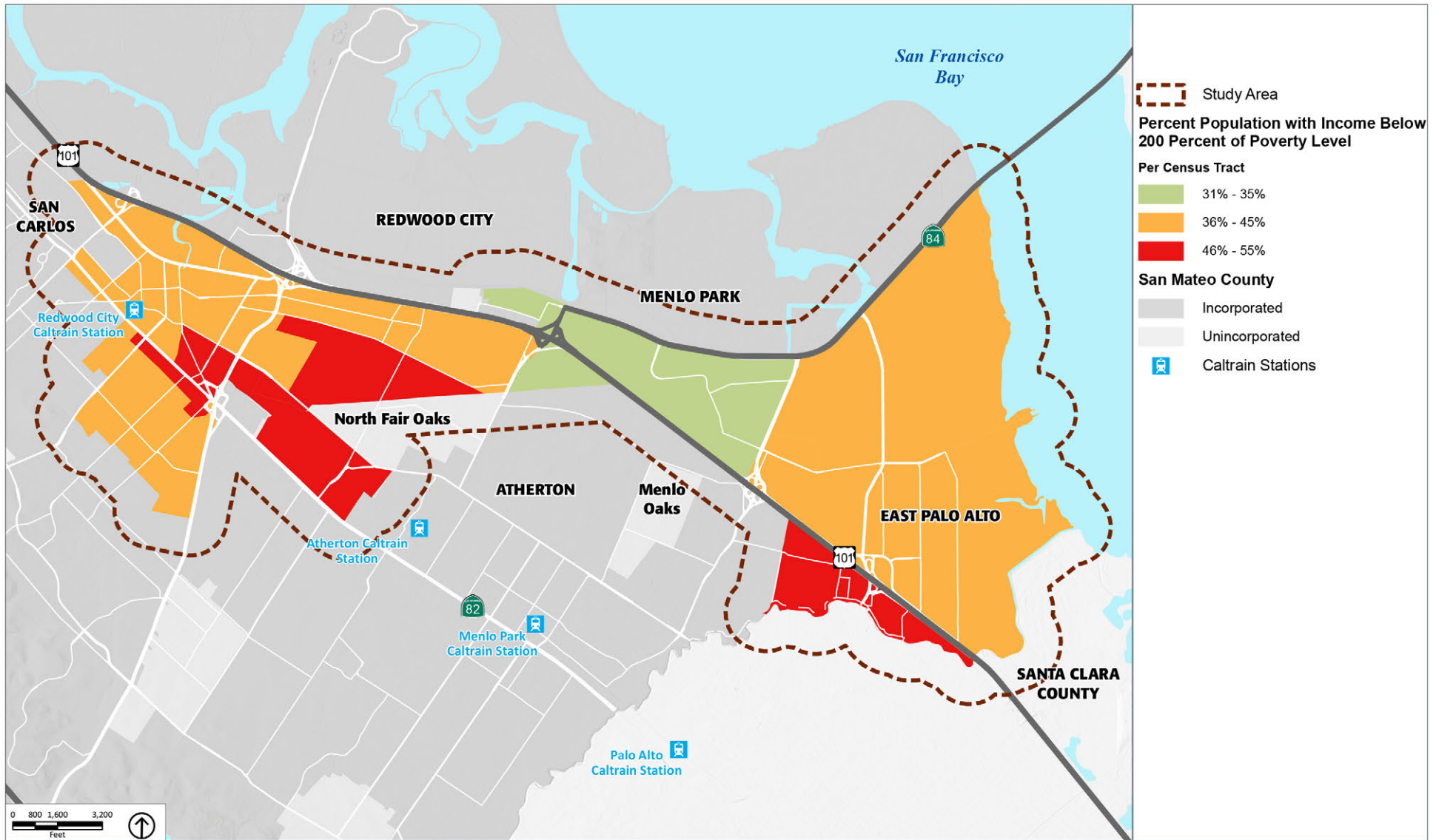


Figure 2-5 Population In Poverty (200% of Federal Poverty Level)

2.2 Transportation Patterns

The following sections describe current transportation and commute patterns in the CBTP study area and countywide.

2.2.1 Vehicle Availability

The rate of household vehicle ownership is lower in the study area than countywide. As shown in Figures 2-6 and 2-7, four percent of households in the study area do not have a private vehicle, as compared to three percent countywide. Similarly, 21 percent of households in the study area have one vehicle, compared to 18 percent countywide.

Figure 2-8 illustrates that the highest concentrations of households without vehicles are in the western part of the Southeast San Mateo and in the southern portions of North Fair Oaks.

2.2.2 Journey to Work

Out of about 40,000 workers aged 16 years and over in the study area, approximately 81 percent travel to work by car, truck, or van. Approximately 67 percent of these workers drive alone (Table 2-2). Using a vehicle as the primary means of transportation to work is more prevalent in the study area than countywide, where 79 percent of commuters use a personal vehicle.

The use of public transportation in the study area is 30 percent less than countywide. In addition, the combined rates of walking and bicycling to work in the study area is double that of countywide rates.

Figure 2-6 Household Vehicle Availability in Study Area

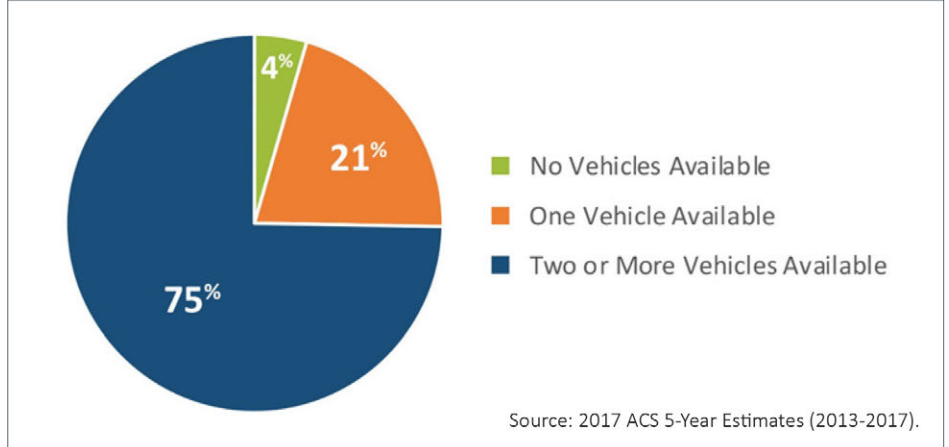
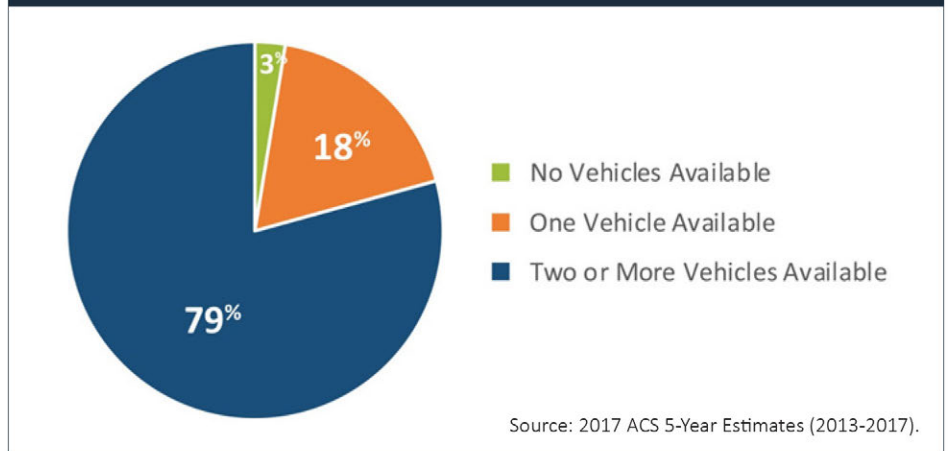


Figure 2-7 Household Vehicle Availability Countywide



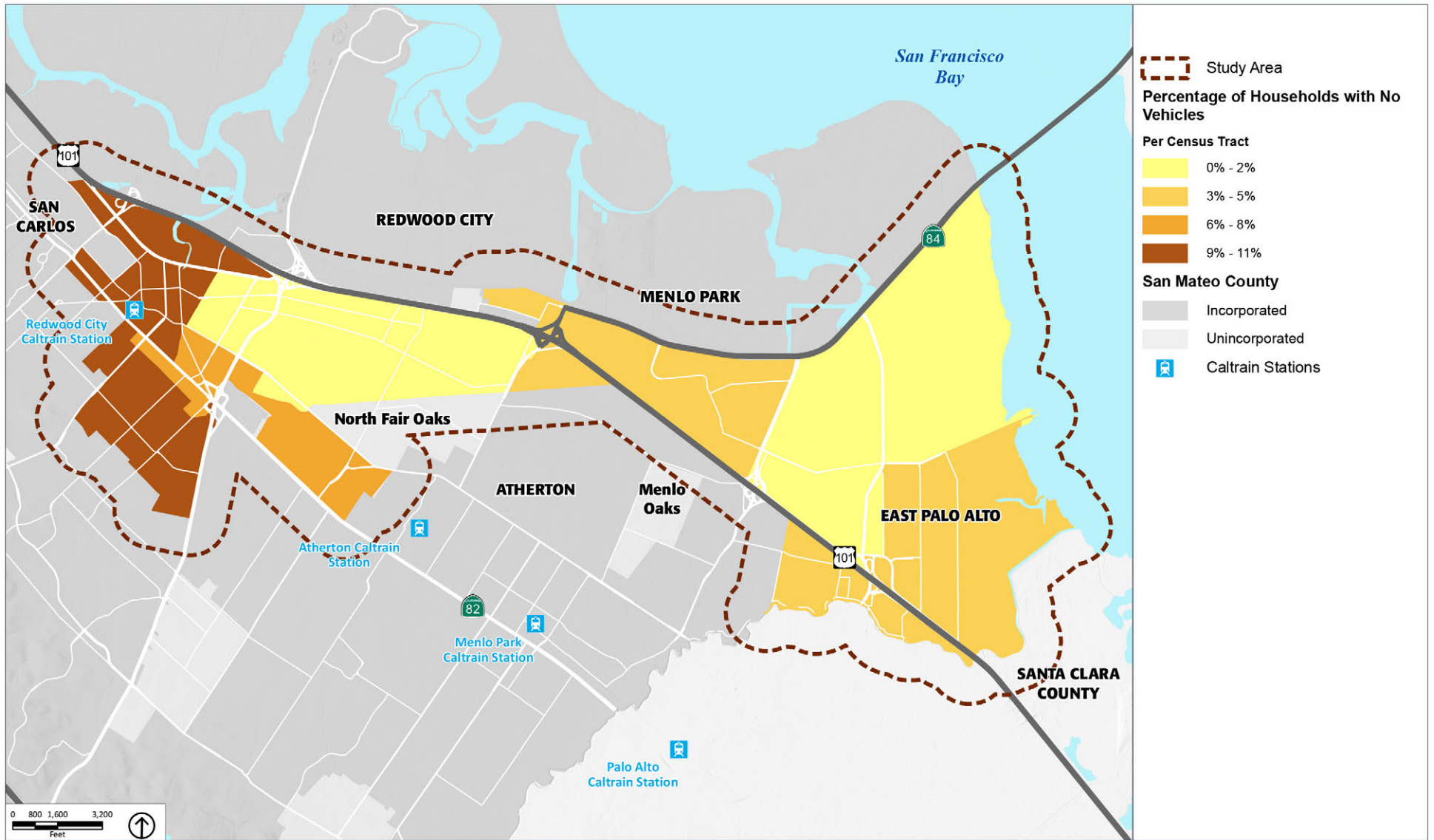


Figure 2-8 Percent of Households with No Vehicles

Table 2-2 Means of Travel to Work

Means of Transportation to Work	2017 ACS (% of Total)	
	Study Area	San Mateo County
Car, Truck or Van	81%	79%
<ul style="list-style-type: none"> • Drove Alone 	67%	69%
<ul style="list-style-type: none"> • Carpooled 	14%	10%
Public Transportation	6%	10%
Bicycle	3%	1%
Walk	5%	3%
Other	3%	1%
Worked at Home	2%	5%
Total Workers 16 and Over	100%	100%

Source: 2013-2017 American Community Survey (ACS) 5year estimates.

2.2.3 Long Distance Commute

As evident in Figure 2-9, EPCs in Redwood City generally experience the longest commutes—28 to 32 minutes—in the study area. North Fair Oaks residents have the lowest average commute time, ranging from 22 to 24 minutes. This is probably because neighborhoods in Redwood City have lower vehicle ownership rates and are better served by transit.

2.3 Transportation Network

The following sections describe existing transit service and infrastructure in the study area.

2.3.1 Transit Network

There are multiple transit options in the Southeast San Mateo County study area. The area is served by bus and rail systems managed by several agencies. The existing transportation network is shown in Figure 2-10.

Rail

Commuter rail service is provided by Caltrain. The system connects Downtown San Francisco, through San Mateo and Santa Clara Counties to the City of Gilroy in southern Santa Clara County. Caltrain is routed through Redwood City in the western portion of the CBTP study area, including a Caltrain Station in Downtown Redwood City.

Bus

Local and intercity bus transit is provided primarily by San Mateo County Transit District (SamTrans) in the study area. Alameda County Transit District (AC Transit) Transbay also services a single line. Santa Clara Valley Transportation Authority (VTA) provides indirect service to the study area via bus routes to the Palo Alto Caltrain Station, where transfers to SamTrans routes are available

North Fair Oaks and Menlo Park have fewer bus stops and routes, which primarily traverse diagonally across the communities and leave pockets of underserved areas. EPCs in Redwood City and East Palo Alto are served by multiple bus lines and stops. As evident in Figure 2-10, there is comparatively less bus service in the northern half of East Palo Alto, which is primarily single-family housing, industrial uses, and offices.

Figure 2-10 includes recent SamTrans routing changes resulting from the operational analysis known as Reimagine SamTrans, recommendations from which were adopted in June 2022 (see Chapter 3). As described further in Chapter 3, these recommendations include changes to multiple bus routes serving the study area. As stated by SamTrans staff, full operation of Reimagine SamTrans routing may be restricted by driver shortages.

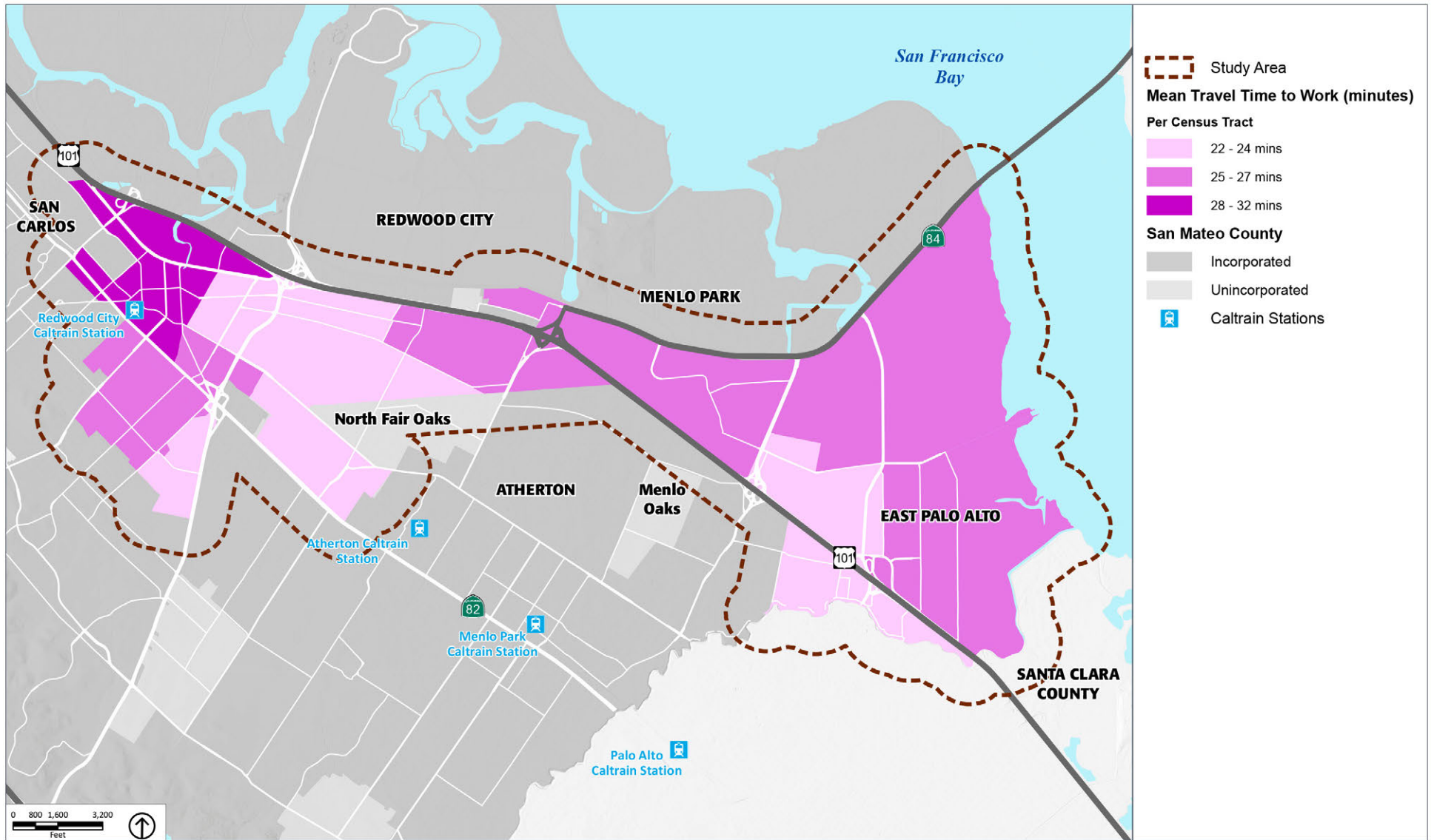


Figure 2-9 Mean Travel Time to Work

Shuttle

The Stanford University Marguerite Shuttle is an additional transit resource for residents of East Palo Alto and the larger CBTP study area. Although privately operated and routed outside the CBTP study area, shuttle service is free and open to riders without Stanford University identification. The Marguerite Shuttle provides connections to Palo Alto Transit Center and Fremont BART Station and thus is commonly used by EPC residents for access to regional transit.

2.3.2 Paratransit

The entire study area is served by SamTrans' Redi-Wheels paratransit service. The service is for those with disabilities who are unable to use regular, accessible fixed-route transit service. SamTrans conducts in-person evaluations to determine full Redi-Wheels eligibility and issues a Redi-Wheels identification card to those deemed eligible.

Redi-Wheels rides are typically scheduled between one and seven days in advance, or by appointment times at medical and other facilities. Redi-Wheels riders may schedule transfers to other transit agency routes for travel outside San Mateo County. Paratransit customers may also ride all regularly scheduled SamTrans fixed-route buses for free using their Redi-Wheels identification card.

Redi-Wheels riders who receive Supplemental Security Income, General Assistance, or MediCal may also be eligible for Redi-Wheels Lifeline, the service's reduced fare program.

2.3.3 Bicycle Network

Figure 2-11 illustrates regional bicycle facilities across the CBTP area as of 2019. It does not show all local bike infrastructure or new and recently proposed bike facilities within each jurisdiction. The figure shows that as of 2019, bikeways in the study area were primarily Class II or Class III routes, with the exception of the Bay Trail alignment, a Class I route that runs along the northern and eastern edge of the study area.

As noted above, jurisdictions within the CBTP study area contain evolving, local bikeways networks that are not depicted in Figure 2-11. As examined further in Chapter 3, multiple jurisdictions have adopted local bicycle and pedestrian plans that propose new and more extensive bicycle infrastructure in the CBTP study area. The following are summaries of local-level existing and future bike infrastructure.

Redwood City

Redwood City supports an extensive local bike network composed of Class III bike routes and a Class III bike boulevard in the central area of the city. Multiple Class II bike lanes are located in the western hills and eastern waterfront areas. A single Class IV cycle track is located along Middlefield Rd. from State Route 84 to Cassia St. In addition, the recently adopted Redwood City Walk Bike Thrive Plan proposes an extensive expansion of bikeways, in the form of Class I shared-use pathways along the bayfront and adjacent to Stulsaft Park; Class IV cycle tracks on State Route 84, State Route 82, Brewster Ave., Main St. and other major rights-of-way; and numerous Class II/Class III bikeways in the center of the city.

East Palo Alto

In addition to the bikeways shown in Figure 2-11, East Palo Alto recently completed the 2022 Annual Street Resurfacing Project, which includes bikeways restriping on:

- West Bayshore Rd., Manhattan Ave. and Woodland Ave.
- Clarke Ave. from Bay Rd. to Tinsley St.
- Cooley Ave. from University Ave. to Donohoe St.
- Capitol Ave., West Bayshore Rd., and Newell Rd.
- Euclid Ave. from Runnymede St. to Donohoe St.
- Donohoe St. from East Bayshore Rd. to Clarke Ave.
- Pulgas Ave. from Runnymede St. to O'Connor St.
- East Bayshore Rd. from Bay Rd. to Euclid Ave.

The project also includes new Class II bike lanes on Fordham St. between Bay Rd. and Michigan Ave.

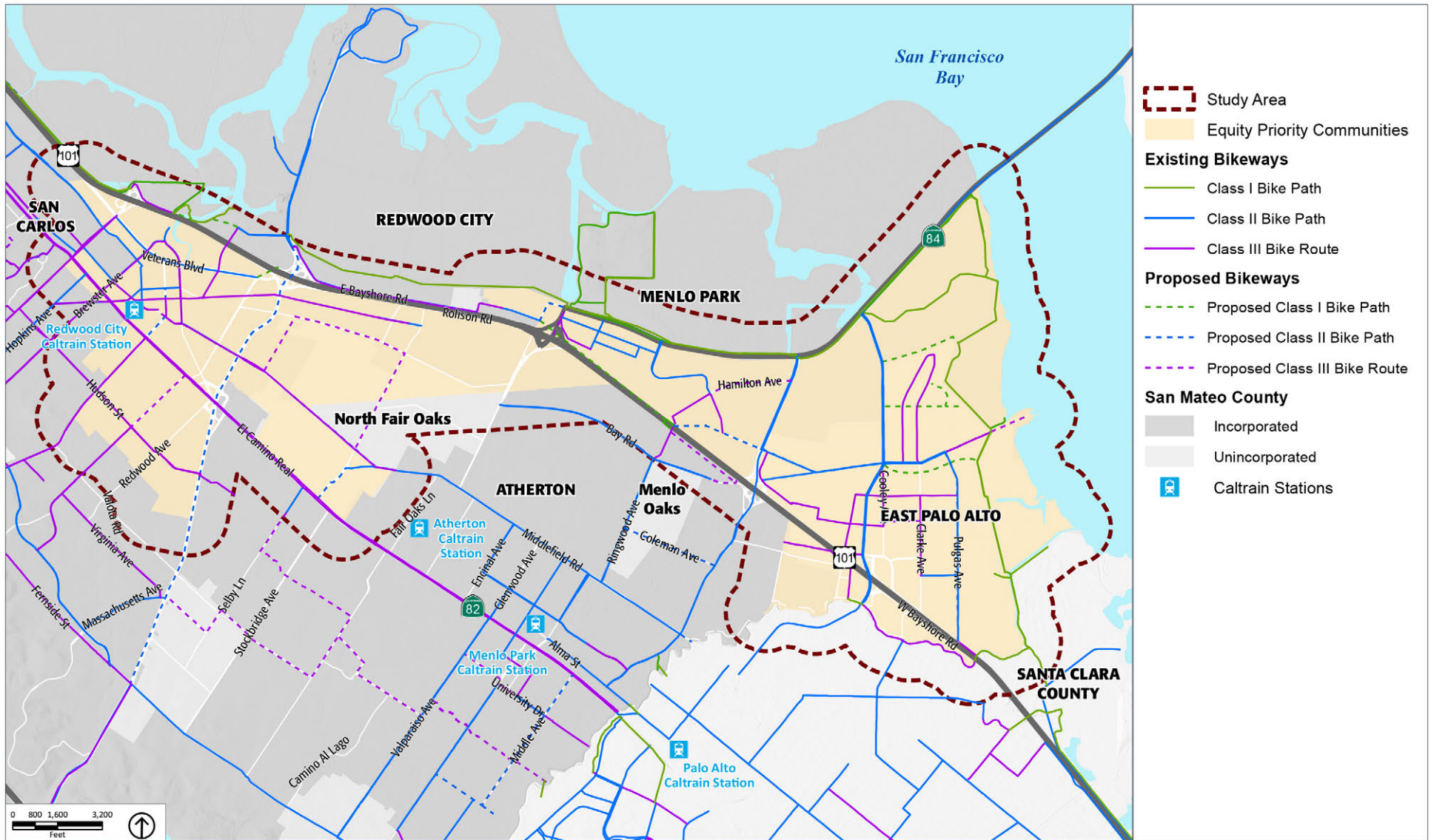


Figure 2-11 Existing and Proposed Bicycle Facilities

3. Previous and Current Studies

Agencies with jurisdiction in the CBTP study area have adopted studies that expose mobility gaps in the study area and establish projects, plans, and policies to fill those gaps. This section provides a review of these previous studies and the transportation gaps they highlight.

The results of these studies are valuable to understanding and assessing the community input and recommendations outlined in Chapter 5 of this plan.

3.1 General Plans

3.1.1 San Mateo County General Plan

The San Mateo County General Plan provides information on existing natural and man-made conditions of the physical environment. It identifies key plans, regulations and agencies that affect planning decisions and makes recommendations for improving coordination between them. The plan indicates the type of development that the County desires, where it should be located and how it should be regulated.

Chapter 12 of the General Plan contains Transportation Policies that establish the county's transportation-related goals. These include the safe movement of people and goods; the creation of complete streets that serve all modes; increasing the use of transit and ridesharing; and minimizing adverse environmental impacts resulting from transportation system improvements, among others.

San Mateo County has also adopted a series of area, neighborhood and community plans that are considered part of the General Plan. These local documents guide decisions about physical development and circulation within a given community or district. They allow for local application of the broader policies contained in the General Plan.

3.1.2 Redwood City General Plan

Redwood City addresses transit needs in the Circulation Element of the Redwood City General Plan. Improvements to the bicycle and pedestrian network are recommended within the study area along Middlefield Road, at intersections with Chestnut Street, Woodside Road, Willow Street and Douglas Avenue. In addition, the Circulation Element considers a potential streetcar network along Middlefield Road and Broadway Avenue.

3.1.3 Menlo Park General Plan

The Circulation Element in the 2016 Menlo Park General Plan identifies focus areas for transportation change, some of which lie within the CBTP study area. Future paseos, multi-use pedestrian and bicycle pathways, Class III bikeways, and mixed-use collector streets are proposed to enhance the street network. The Circulation Element also maps shuttle routes and bus routes and the proposed Dumbarton Line through the Menlo Park EPCs.

3.1.4 East Palo Alto General Plan

The Transportation Element of the 2015 East Palo Alto General Plan discusses transportation network gaps and improvements throughout the city. The element proposes the Dumbarton Rail project, which would run through the northern edge of the East Palo Alto EPCs.

The Transportation Element describes a modest bicycle network impeded by Highway 101 and proposes bicycle connections across the highway and along Pulgas Avenue. It identifies numerous streets with sidewalk conditions that impede pedestrian mobility and recommends connecting existing sidewalk segments throughout the city to increase pedestrian safety and access.

3.2 Local Transportation and Land Use Plans

3.2.1 East Palo Alto Bicycle Transportation Master Plan

The 2017 East Palo Alto Bicycle Transportation Master Plan establishes a citywide bicycle policy framework, a bike facilities network and outlines an implementation plan. The proposed bike network includes multiple and diverse bike facilities that serve the entire city, including:

- A series of new Class I bike paths, most of which provide connections to the Bay Trail.
- New Class II bike lanes on O'Connor Street, Bay Road, New Bridge Street and Pulgas Avenue.
- Multiple Class III bike paths on, among other rights-of-way, East and West Bayshore Road, Runnymede Street, Donohoe Street and Euclid Avenue

3.2.2 Ravenswood/ 4 Corners TOD Specific Plan

The City of East Palo Alto's 2013 Ravenswood/ 4 Corners TOD Specific Plan includes provisions for pedestrian and bicycle circulation, vehicle circulation, and transit. The Plan aims to improve the pedestrian network and pedestrian safety and proposes bicycle facilities along key corridors. It recommends new or enhanced connections between Ravenswood and University Avenue, along Bay Road, on Fordham Street, and along Illinois Avenue.

Due to the uncertainty of the future Dumbarton Rail Corridor at the time this plan was drafted, transit improvements are recommended to provide flexible multimodal transportation options, pedestrian friendly environments, and mixed-use development. Alternative station sites for the Dumbarton Rail, as well as bus rapid transit (BRT) options, are provided to increase transit connections for individuals in the Specific Plan Area. Since 2013, the second alternative has been selected to locate the rail in Menlo Park. This alternative requires bus transit, private shuttle, and bicycle connections from the Specific Plan Area of East Palo Alto to the station.

3.2.3 Menlo Park Transportation Master Plan

In 2020, The City of Menlo Park developed its first Transportation Master Plan to provide a vision for mobility, establish metrics for network performance, and outline an implementation strategy for local and regional network improvements. Projects are prioritized via nine Prioritization Criteria, one of which is "Sensitive Populations" such as residents of EPCs. Projects in the Master Plan that fulfill the "Sensitive Populations" criterion include:

- Reactivation of the Dumbarton Corridor Project.
- Marsh Road Bicycle Network Improvement Project.
- Willow Road Corridor Improvement Project, including pedestrian, bicycle and safety improvements.
- Downtown Mobility Improvements, including conversion of existing crosswalks to high-visibility crosswalks.
- Middle Avenue Mobility Improvements, including new Class II Bicycle Lanes and new sidewalks on both sides of Middle Avenue.
- West Menlo Mobility Improvements, including Class II Bicycle Lanes on Avy Avenue from Santa Cruz Avenue to Monte Rosa Drive.
- An additional priority project is the Bayfront Expressway Multimodal Corridor Project along Haven Avenue in the study area.

3.2.4 Redwood City Moves: Citywide Transportation Plan 2018

Redwood City Moves is a guide for future Redwood City transportation investment. It outlines a series of programs divided into seven categories: 1) Active transportation corridors; 2) Complete Street corridors and placemaking; 3) Transit accessibility and service enhancements; 4) Roadway congestion and delay improvements 5) Network gap closure; connectivity and safety; 6) Transportation technologies and innovations; and 7) Transportation Demand Management. There are multiple projects across all categories that would impact the Redwood City and North Fair Oaks EPCs. These include the Vera Avenue Bicycle Boulevard project and the Redwood City Transit Center Improvements project.

3.2.5 2022 RWC Walk Bike Thrive

Redwood City adopted the RWC Walk Bike Thrive plan in June 2022. The plan establishes a citywide bikeway network, pedestrian projects and associated policy framework. The proposed bike network includes, among other projects:

- A Class I bike trail running east of Highway 101 along the Baylands.
- A series of Class IV cycle tracks running east-west along SR 84 and north-south along El Camino Real and on other segments.
- Multiple Class II and III bike facilities and “gap fillers” throughout the City.

Proposed pedestrian projects include, but are not limited to:

- Traffic calming and/or complete streets improvements along Jefferson Avenue west of El Camino Real.
- Safe Routes to School improvement plans at Hoover Elementary School, Taft Elementary School, McKinley Institute of Technology/North Star Academy and other schools.
- Multiple intersection enhancements in the CBTP study area.

RWC Walk Bike Thrive also includes “Vision Zero” safety projects to work towards the goal of eliminating traffic fatalities and serious injuries for all road users. Relevant projects are located on segments of Whipple Avenue, Broadway and Woodside Road, as well as at numerous crossings.

3.2.6 Redwood City Safe Routes to School

This plan identifies potential infrastructure projects and education and encouragement programs to improve student safety and support walking and biking to school. In addition, it identifies and promotes walking and biking routes for students and parents to and from school at Hawes Community School, located in the Redwood City portion of the CBTP study area.



3.2.7 2021 Unincorporated San Mateo County Active Transportation Plan

The County of San Mateo Office of Sustainability completed a framework to improve conditions for pedestrian and cyclists throughout unincorporated communities in 2021. Working towards the five major objectives of Access, Safety, Equity, Mode Share and Flexibility, the Plan establishes project and programmatic recommendations in 33 unincorporated areas. These were developed to connect 11 priority destinations for a safe and connected on-street active transportation network. The Plan includes:

- Twenty-four pedestrian focus areas.
- Fifty-two miles of protected bikeways and trails.
- Twenty-nine programs and policies.

Bicycle recommendation, including proposed facilities, wayfinding resources and parking, were developed to benefit cyclists of all comfort levels. Similarly, proposed



pedestrian projects respond to both existing safety data and community-identified gaps, with groups of recommendations developed to benefit rural, urban and suburban locations.

3.2.8 North Fair Oaks Community Plan

Chapter 3 of the 2011 North Fair Oaks (NFO) Community Plan evaluates circulation in NFO, the unincorporated community in the CBTP the study area. The Plan identifies the following gaps in the transportation network:

- Infrequent crossing locations along existing railroad lines that create barriers to pedestrian, bicycle, and transit circulation and neighborhood connectivity.
- Narrow or missing sidewalks, inadequate curb ramps, and poor stormwater drainage.
- Lack of designated bicycle facilities within the community.
- Transit routes that are difficult to access from some areas of the community.

- Lack of train stations within practical walking distance, despite two rail corridors through the community.

3.3 Countywide Plans and Studies

3.3.1 San Mateo County Transportation Plan for 2040

The San Mateo Countywide Transportation Plan for 2040 (SMCTP 2040) is a long-range, comprehensive transportation planning document that promotes consistency and compatibility among all transportation plans and programs within the county. SMCTP 2040 outlines transportation issues associated with countywide growth and establishes overall strategies and programs to overcome the challenges.

SMCTP 2040 includes a list of Proposed Regional Transportation Plan (RTP) Projects comprised of longer-term improvements encouraged by the MTC's twenty-year RTP. Some are located, or indicate potential transportation gaps, in the current study area. These include:

- **Extend Blomquist Street over Redwood Creek to East Bayshore and Bair Island Road:** Project open date 2023.
- **U.S. 101/Woodside Road Interchange Improvement:** Estimated project open date 2025.
- **Middlefield Road Streetscape:** Completed February 2022.
- **US 101/University Avenue Interchange Improvements:** Projected completion date November 2023.
- **University Avenue Complete Streets Pilot Project:** In planning stage as part of citywide complete streets policy framework.
- **U.S. 101/Willow Road Interchange Reconstruction:** Construction began in May 2017 and was completed in 2019.
- **Improve access to and from the west side of Dumbarton Bridge on Route 84 connecting to U.S. 101:** In planning stage; opening date 2040.

3.3.2 San Mateo County Transportation Plan Follow Up: Final Action Plan

The SMCTP 2040 Follow-Up Plan (Final Action Plan) was developed by a multi-agency Working Group to ensure that goals, projects and programs in SMCTP 2040 would be implemented appropriately. The Final Action Plan:

- Establishes regional and local roles & responsibilities;
- Assesses the effectiveness of performance measures in SMCTP 2040 and identifies accountability measures to ensure the Action Plan is reviewed and updated as needed;
- Includes recommendations for effective community outreach and equitable planning; and
- Summarizes existing and potential funding sources at the local, state and federal levels.

The Final Action Plan prioritizes funding decisions that consider equity, and stresses that the results of County CBTPs should be used to inform the development of the next SMCTP update.

3.3.3 2021 San Mateo US 101 Express Lanes Equity Study

This study, completed by the San Mateo County Express Lanes Joint Powers Authority (SMCEL-JPA), addresses longstanding racial inequities and community fracturing associated with the US 101 corridor in San Mateo County. The study establishes a Pilot Equity Program by which toll revenue from the new San Mateo US 101 Express Lanes will be invested to fund transportation benefits for historically underserved communities.

Following a series of technical analyses and a comprehensive community outreach process, The SMCEL-JPA developed a Recommended Equity Program designed to support underserved communities and encourage mode shift from single-occupancy vehicle to transit and other modes. It consists of the following four recommendations:



- 1. Pre-Loaded Toll Tags.** Provide eligible recipients with a new FasTrak Flex toll tag that has been pre-loaded with \$100 cash value.
- 2. Cash on Clipper.** Provide eligible recipients with \$50 cash value on a new or existing Clipper Card.
- 3. Clipper START and FasTrak START Enrollment.** Enroll qualifying individuals in these regional programs that provide significant benefits to low-income travelers.
 - Clipper START. This regional transit fare discount program provides low-income individuals with up to a 50% discount on participating transit services.
 - FasTrak START. This program is currently under development by MTC. It proposes to provide discounted tolls on Express Lanes to qualifying low-income individuals.
- 4. Support for Local Organizations.** Provide local service providers and community-based organizations with resources to extend awareness, reach and impact of the Pilot Equity Program.

3.3.4 Dumbarton Forward

Dumbarton Forward is a series of near-term, multi-modal strategies developed by Metropolitan Transportation Commission (MTC) to limit traffic congestion during peak periods in the State Route 84-Dumbarton Bridge-Bayfront Expressway corridor, between Interstate 880 in Fremont and Marsh Road in Menlo Park. Strategies include:

- Part-Time Bus-Only Lane. This pilot would allow authorized bus operators to bypass peak period congestion for improved transit reliability.
- Toll Plaza Operational Improvements. These changes would accommodate bus and carpool travel without stopping at the Dumbarton Bridge toll plaza, as well as activate metering lights, to better manage traffic downstream of the toll plaza.
- Traffic Signal Improvements. These include transit signal priority, dedicated bus signals and an adaptive traffic signal system at the Bayfront Expressway intersection.
- Off-Ramp Improvements. This strategy involves reconfiguring the Eastbound SR-84/Thornton Avenue off-ramp to accommodate an additional left-turn lane for added capacity.
- Transit Improvements. In this strategy, improved service on AC Transit, Stanford and Union City Transit transbay routes would accommodate multi-modal bridge travel.
- Bike Access Improvements. These improvements focus on completing critical gaps in existing bicycle networks along the corridor.

3.3.5 2021 C/CAG San Mateo County Comprehensive Bicycle and Pedestrian Plan

The Comprehensive Bicycle and Pedestrian Plan (CBPP) presents the network and policy recommendations for improving walking and biking in San Mateo County. The plan provides recommendations to develop the Countywide Backbone Bicycling Network and Pedestrian Focus Areas, including a gap analysis identifying where new projects are needed, and provides a project list and map, and proposed programs. Pedestrian Focus Areas are regionally significant areas within the county that are likely to have the highest walking activity. Candidate projects include transit access and Complete Street corridor improvements. Multiple Pedestrian Focus Areas are in

the CBTP study area. Pedestrian Focus Areas are prioritized for funding through the CBPP, and the CBPP recommends relevant project and design.

The countywide bike network, called the Backbone Network, links regionally significant destinations across local jurisdictions with the goal of addressing gaps between city boundaries and providing continuous, low-stress bikeways across the county.

Public input received during the outreach process revealed strong support for improved connectivity, mode shift opportunities and safety, including:

- A more continuous sidewalk network and safe crossings.
- A more continuous regional bikeway network.
- A countywide micromobility program.
- Improve pedestrian and bicycle safety and comfort along arterials and highway crossings.
- More separated bike lanes and facilities that create a stronger sense of safety and more protection from motor vehicles.

3.3.6 Reimagine SamTrans

The San Mateo County Transit District (SamTrans) Board of Directors adopted the recommendations of a comprehensive operational analysis known as *Reimagine SamTrans* in 2022. The analysis was based on extensive public outreach and internal evaluation of the transit system to identify improvements for design, connections, routing, timing and other components. The following community priorities came out of the outreach process:

- More frequent service
- Faster routes with fewer stops
- Better real-time arrival information
- Better connections to BART, Caltrain and other rail systems

Reimagine SamTrans is designed to achieve goals of equity, efficiency and connectivity. The analysis found gaps related to route duplication, rail access and bus headways in the CBTP study area. As a result, it includes changes such as:

- A new door-to-door “on-demand zone” in East Palo Alto, in which riders call or use a mobile app to request picks up and drop off anywhere in the designated zone.
- Increased weekday frequency of Route 278 to every 30 minutes during peak times, with hourly service starting on Sundays.
- Change in Route 296 so that it only enters the VA Hospital on northbound trips heading toward Redwood City, to reduce travel time and reliability.

3.3.7 San Mateo County Senior Mobility Guide

The Senior Mobility Guide provides information about a wide range of programs and services to help San Mateo County residents remain mobile, active, and connected to their community as they age. The following programs identified in the guide are as follows:

- **East Palo Alto Caltrain Shuttle:** The shuttle goes from Woodland-Bayshore neighborhood locations in East Palo Alto, such as the Ravenswood Health Clinic, to the Palo Alto Caltrain Station every day, with some late-night service.
- **Menlo Park Shoppers’ Shuttle:** This ride-request service operates starting at 9:15 am and can take people to south San Mateo County destinations (times and days are variable).
- **Redwood City-Midpoint Caltrain Shuttle:** This shuttle is available to all and runs on weekdays between Redwood City Caltrain and the Midpoint Technology Park on Broadway.
- **East Palo Alto Senior Shuttle:** The Senior Center offers \$0.50 weekday roundtrip rides for participants in the Senior Nutrition Lunch Program.
- **Menlo Park Senior Center:** The Senior Center offers donation-based rides in Menlo Park and parts of East Palo Alto to Senior Center members over 60 years old. Vehicles are wheelchair accessible.
- **American Cancer Society – Road to Recovery:** A program staffed by volunteer drivers who pick up cancer patients at their homes and take them to treatment related activities, including doctor’s appointments, radiation treatments, and chemotherapy.

- **Get Up & Go (PJCC):** A door-to-door, wheelchair-accessible bus and car service for older adults who do not drive.
- **Kaiser Permanente Medical Center – Redwood City:** This hospital offers limited transportation for patients to nearby areas in southern San Mateo County.
- **Go-Go Grandparent:** This nationwide service offers rides 24 hours a day, 7 days a week to all. Vehicles can transport folding wheelchairs and passengers who are transferable, and fares are quoted based on distance traveled and time traveled.
- **Serra Yellow Cab:** This program offers dispatch service to/from Daly City, Colma, Brisbane, Pacifica, Broadmoor, Millbrae, Burlingame, Hillsborough, Foster City, Belmont, San Carlos, Redwood City and SFO.
- **SilverRide:** This TNC service is specifically designed to meet the transportation needs of older adults and people with ambulatory or other limitations.
- **SamTrans Redi-Wheels:** This paratransit service is available for people whose disabilities or health conditions prevent them from using the bus.

3.3.8 San Mateo County Transportation Plan for Low-Income Populations

The objective of the Countywide Transportation Plan for Low-Income Populations is to fulfill transportation needs of disadvantaged residents in the county. This Plan outlines the following barriers to project implementation based on analyses of previous planning efforts, including the 2008 Bayshore CBTP:

- Lack of appropriate sustainable and stable funding sources.
- The absence of a process to promote implementation of projects.
- Projects that require unusual, complex, or difficult partnerships.
- Projects that require a degree of administrative resources beyond that of sponsoring agencies.

A series of transportation improvement projects were developed based on a community outreach process. The following impact the study area directly:

- **By-request bus service (East Palo Alto).** As described above, Reimagine SamTrans includes a special “door to door” on-demand zone in East Palo Alto that, as proposed, would operate from 6:00 am to 10:00 pm, seven days a week. This service would augment the current late-night and early morning service provided to East Palo Alto via Routes 397 and 2960.
- **Construct a bus shelter at Woodside Rd & El Camino Real (Redwood City) and at the Newbridge bus station (East Palo Alto).** These have not been implemented. As of June 2022, SamTrans is embarking on a system-wide Bus Stop Improvement Plan (BSIP) that will assess the condition of all shelters.
- **Construct speed humps/tables, bulbouts, nose islands and speed feedback signs at Belle Haven Elementary School (Menlo Park).** On April 16, 2019, the Menlo Park City Council and residents reviewed the Belle Haven Neighborhood Traffic Management Plan. A “Belle Haven Elementary Suggested Walk and Roll Map” was released in September 2019.
- **Add more pedestrian crosswalks at Broadway Street (Redwood City).** Partially implemented, with new Caltrain grade crossing at Broadway in 2018. Intersection safety and traffic calming along Broadway adopted as part of the 2022 RWC Walk Bike Thrive plan.
- **Improve pedestrian safety and amenities: Improve landscaping, longer crosswalk time, widen sidewalks, and slow traffic on El Camino Real.** The Redwood City El Camino Real Corridor Plan was adopted in 2017, and the Bike and Ped Safety Improvement Study: El Camino Real between Maple & Charter Streets, was completed in February 2019. Per C/CAG, the El Camino Real Road Diet project has an opening date of 2025.¹
- **Add bicycle lanes on El Camino Real.** The Redwood City El Camino Real Corridor Plan was adopted in 2017, and Bike and Ped Safety Improvement Study: El Camino Real between Maple & Charter Streets, was completed in February 2019. As previously noted, a Class IV cycle track running north-south along this segment of El Camino Real is a component of the bikeway network adopted under Redwood City’s 2022 RWC Walk Bike Thrive Plan.

¹ City/County Association Of Governments of San Mateo, UPDATED- Draft List of Regionally Significant Projects, <https://ccag.ca.gov/wp-content/uploads/2019/04/Updated-Draft-PBA-2050-Project-List-CMEQ.pdf>, accessed July 22, 2022.

4. Outreach and Engagement Summary

All CBTP recommendations for the Southeast San Mateo County (SESM) CBTP are based on a community outreach campaign consistent with Metropolitan Transportation Commission (MTC) Guidelines. The project and plans recommended in this CBTP are the result of outreach to communities in geographic and demographic cross-sections of the study area.

Outreach and engagement included the following:

1. Oversight by an Advisory Group (AG)
2. Development of a C/CAG- and MTC-approved Outreach Strategy
3. Creation and distribution of awareness materials
4. Coordination with various jurisdictional and community leadership bodies
5. Distribution of an online transportation survey
6. Interactive “Pop-Up” events at various events in the study area

All materials and raw results of the outreach and engagement process are included in Appendix B to this Plan.

4.1 CBTP Advisory Group

As stated in Chapter 1, a combined AG was convened for C/CAG’s SESM and Daly City CBTPs. This was to coordinate an inclusive outreach process during COVID-19, provide direction on reaching specific groups in the community, review milestone materials, prioritize outreach opportunities and inform and prioritize final recommendations. Members of the AG who attended at least one of the meetings include:

- Susy Kalkin, Transportation Systems Coordinator, C/CAG San Mateo County
- Malahat Owrang, Senior Transportation Planner, City of Redwood City
- Raleigh McCoy, Regional Planning Program, Metropolitan Transportation Commission
- Vikrant Sood, Social Equity Principal Planner, Metropolitan Transportation Commission

- Kevin Chen, Senior Transportation Engineer, City of Menlo Park
- Gwen Buckley, Senior Planner, SamTrans
- Chanda Singh, Senior Transportation Planner, County of San Mateo
- Elena Lee, Planning Division Manager, City of East Palo Alto
- Michelle Daher, Management Analyst, City of East Palo Alto
- Batool Zaro, Assistant Engineer, City of East Palo Alto
- Jean Higaki, Program Director, C/CAG San Mateo County
- Sandhya Laddha, Policy Director, Silicon Valley Biking Coalition
- David Pape, Senior Planner, SamTrans
- Susan Houston, Vice President of Older Services, Peninsula Family Services
- Will Gibson, Planner III, San Mateo County Planning & Building
- Julia Malmo-Layock, Active Transportation Planner, County of San Mateo
- John Ford, Executive Director, Commute.org
- Rebecca Roberts, Employer Programs Representative, Commute.org
- Joe LaClair, Planning Services Manager, San Mateo County
- Eduardo Gonzalez, Program Manager, Youth Leadership Institute
- Joel Slavit, Active/Transportation/Senior Sustainability Specialist, Livable Communities, County of San Mateo
- Michael Van Lonkhuysen, Planning Manager, City of Daly City
- Lenelle Suliguin, Senior Management Analyst, City of Daly City

The AG met four times, including one traditional in-house meeting and three virtual meetings. The AG also completed online reviews of draft recommendations and reports. Meeting topics and dates are detailed in the following sections.

4.2 Outreach Process

The COVID-19 pandemic started immediately following C/CAG approval of the original CBTP Outreach Strategy. As such, the CBTP team and AG later adapted the components, timing and sequence of the Strategy to the health restrictions beginning in February 2020. In order to illustrate the relationship of COVID-19 and the community engagement process, the following outreach summary is organized chronologically.

4.2.1 August 2019 to February 2020: Initial Outreach Strategy

The initial outreach strategy phase of the CBTP was from August 2019 to December 2020. During this time, the CBTP team coordinated with the AG to develop and review the Community Needs Assessment report (Appendix A of this study) and discuss early outreach strategies.

AG Meeting #1: Introduction and Outreach Planning

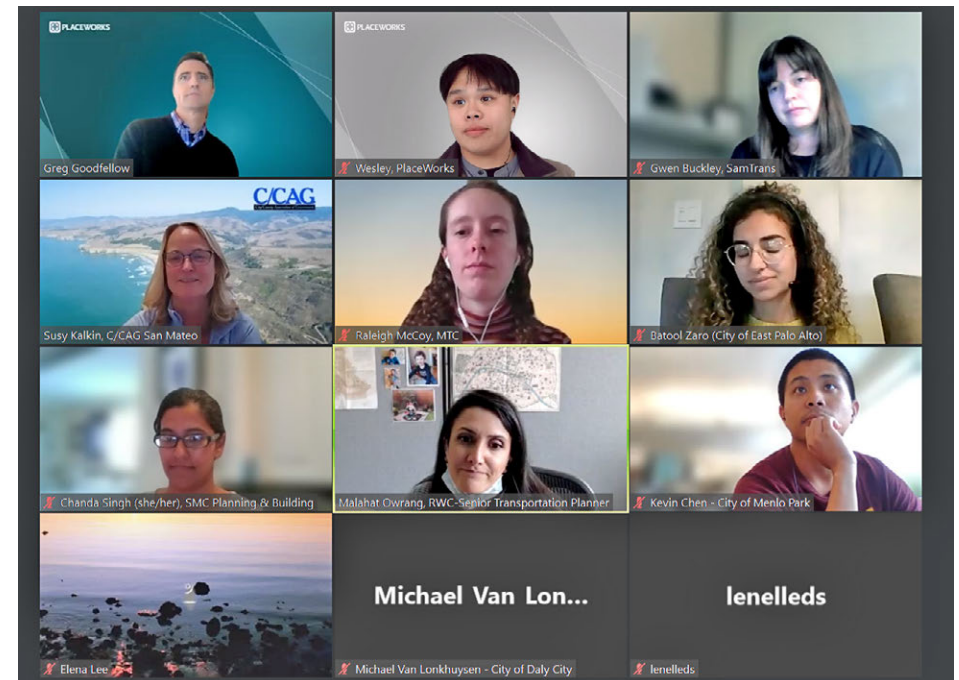
The first AG meeting was convened on August 20, 2019. The CBTP team introduced the CBTP process and Daly City study area, as well as key elements of Community Needs Assessment. The AG discussed challenges of to the engagement process such as the breadth of the study area, language barriers, and individual barriers to mobility in separate jurisdictions. Engagement resources and partnerships suggested by AG members include, but were not limited to:

- North Fair Oaks ATP meetings
- El Concilio non-profit
- Fair Oaks Adult Activity Center
- Second Harvest Food Bank
- Shopping plazas in the study area
- City of Menlo Park Pop-Up events

AG Meeting #2: Outreach Strategy Review

Using information and insight from Meeting #1, the CBTP Team completed the initial CBTP Outreach Strategy in October 2019. The foundation of this Strategy was a process of developing partnerships with community-based organizations (CBOs), completing face-to-face interviews and facilitating traditional community engagement events. The COVID-19 pandemic started during the early phase of strategy implementation.

The second AG meeting was held on February 14, 2020. The full impact of the pandemic, including shelter-in-place mandates, were not yet clear. AG members assisted the CBTP team in identifying potential outreach partners, including community stakeholders, community-based organizations (CBOs), and community events. The CBTP team began engaging with these potential partners in this phase, establishing contacts and additional resources.



4.2.2 March-November 2020: COVID-19 and Digital Outreach

The impacts of COVID-19 on community health priorities and the need to rethink traditional engagement began in March 2020. At this time, the CBTP team reassessed traditional outreach strategies and the availability of community partnerships. In order to facilitate involvement by residents of SESM EPCs in this early period of shelter-in-place mandates, the CBTP developed a series of adaptable digital resources.

Project Webpage

The CBTP team developed a project webpage on the C/CAG website containing background information and to act as a clearing house for deliverables, outreach resources and associated external links. The webpage was initially populated with introductory text and the SESM Community Needs Assessment report. Links to the outreach survey (see below) and AG meeting presentations were added as they become available.

Outreach Flier

Working with the AG and C/CAG staff, the CBTP team developed a graphics-rich Outreach Awareness Flier to provide notice of future outreach opportunities. The flier was developed in English and Spanish (see Figures 4-1 and 4-2) to illustrate the CBTP study area and summarize the project intent. The flier was later uploaded to the C/CAG webpage on websites of agencies and stakeholders involved in the project. The flier was also adapted for hard-copy distribution at live outreach events that were facilitated later in the CBTP process.

Transportation Survey

In November 2020, the CBTP team completed a bilingual on-line survey of mobility barriers (see Appendix B) designed to assess rates of active transportation and transit use, identify barriers to those options, and highlight community resources (hospitals, supermarkets, etc.) that are difficult to access. Working with MTC, the CBTP team ultimately added questions about mobility challenges associated with shelter-in-place restrictions and changing work conditions due to COVID-19. The digital survey was made available on the C/CAG project webpage and that of various jurisdictions. It was also noticed via the outreach flier described above.

AG Meeting #3: COVID-19 Assessment and Approach

The CBTP team presented to the AG at a third meeting on August 24, 2020. The topic of the meeting was new impacts to community participation resulting from COVID-19. The AG discussed the challenges of social distancing recommendations, health concerns for participants and facilitators, and changing priorities for potential CBOs partners such as employment, childcare and medical assistance. The AG also agreed that EPC residents, whose input must shape CBTP recommendations, represented some of the populations most impacted by COVID-19.

Representatives from MTC attended the meeting. It was agreed that an entirely digital/online engagement strategy was not an adequate substitute for traditional community outreach, and that the next step would be a transitional approach of engaging community leadership groups to solicit ideas and input regarding current challenges of EPCs residents and ideas for soliciting meaningful feedback regarding mobility.

4.2.3 Early 2021: Virtual Outreach to Local Leaders

Implementation of an equitable and effective outreach plan remained challenging in the first half of 2021 due to COVID-19 surges and restrictions. Members of the AG and community leaders expressed concern that many residents of EPCs would not be adequately represented in the CBTP engagement process due to lack of digital resources and required focus on the daily challenges of living with the pandemic.

As a result of these challenges, the CBTP team coordinated directly with community leadership. The intent of the following virtual efforts was to:

1. Introduce the CBTP process and SESM study area community leaders.
2. Review the current outreach effort.
3. Summarize COVID-19-related mobility challenges and new barriers to meaningful outreach to EPCs.
4. Solicit input on new outreach approaches, timing and components.

The meetings were focused on equity issues associated with the “digital divide” and lack of broadband access; new commute challenges, economic and health challenges; and the impact of the pandemic on Community-Based Organizations (CBO). The CBTP team facilitated the following meetings on the following dates:

HELP IMPROVE TRANSPORTATION OPTIONS IN SOUTHEAST SAN MATEO COUNTY



PARTICIPATE IN THE SOUTHEAST SAN MATEO COUNTY COMMUNITY-BASED TRANSPORTATION PLAN

The CBTP will:

- Evaluate transportation gaps and barriers identified by the community
- Develop solutions & projects to address these challenges
- Identify possible funding sources to pay for these solutions & projects



HOW TO PARTICIPATE

Community Feedback Events:

We will be hosting a series of project "Pop-Ups" at community events throughout Southeast San Mateo County. Please stop by and tell us about your transportation challenges and ideas.

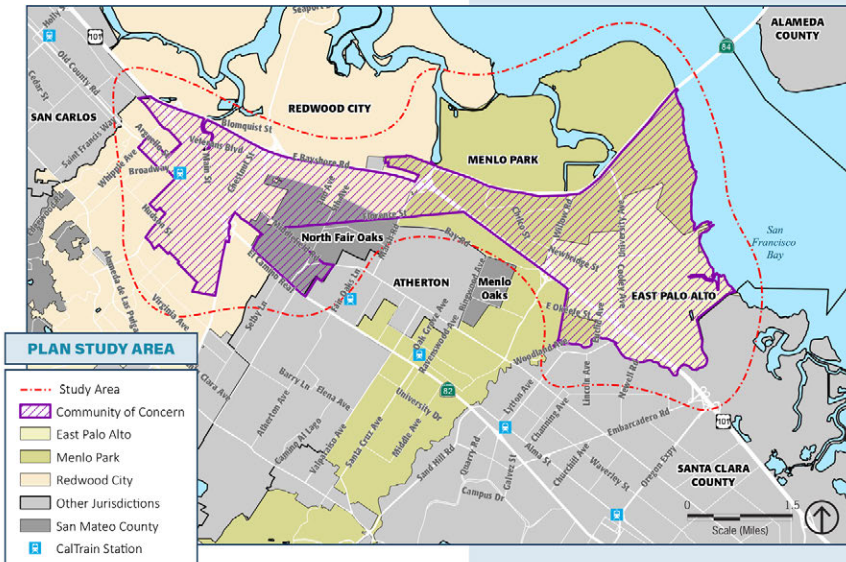


Figure 4-1 Outreach Awareness Flier

AYUDA A MEJORAR LAS OPCIONES DE TRANSPORTE EN SUR ESTE SAN MATEO COUNTY



PARTICIPE EN EL PLAN CONDADO SOUTHEAST SAN MATEO PLAN DE TRANSPORTE BASADO EN LA COMUNIDAD

El CBTP hará:

- Evaluar las brechas de transporte y las barreras identificadas por la comunidad
- Desarrollar soluciones y proyectos para solucionar estos desafíos
- Identificar posibles fuentes de financiación para pagar esas soluciones y proyectos



CÓMO PARTICIPAR

Eventos de Comentarios Para la Comunidad:

Vamos a organizar una serie de proyectos "Pop-Ups" en eventos comunitarios a lo largo de Daly City. Por favor, pasa a uno de los eventos y cuéтанos sobre tus desafíos e ideas de transporte.

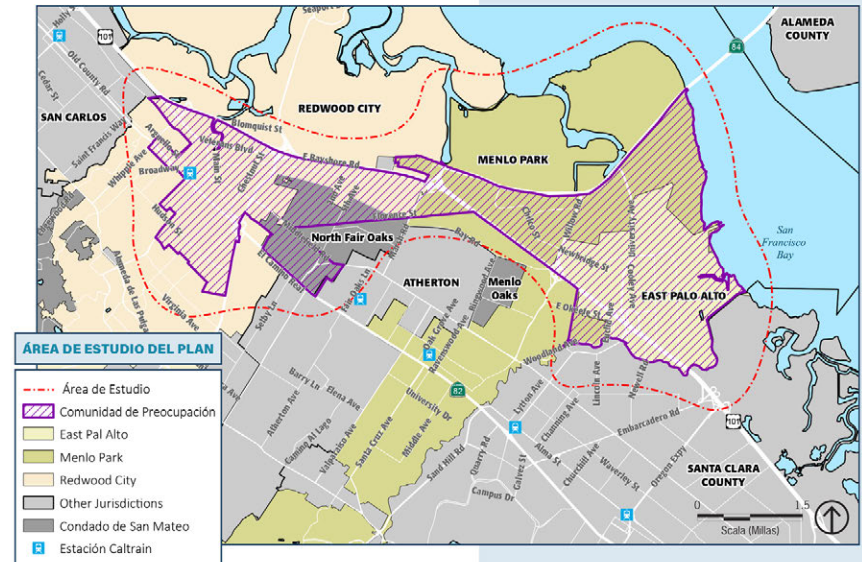


Figure 4-2 Outreach Awareness Flier (Spanish Version)

- **North Fair Oaks Community Council.** The CBTP team made a virtual presentation to the Council on February 25, 2021.

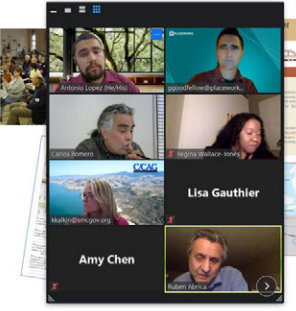

A video stream of the meeting is archived on the North Fair Oaks Community Council website: <https://www.smcgov.org/ceo/north-fair-oaks-community-council>



- **East Palo Alto City Council.** The CBTP team made a virtual presentation to the Council on March 2, 2021.
- A video stream of the meeting is archived on the East Palo Alto City Council website: http://eastpaloalto.igam2.com/Citizens/Default.aspx?field_microsite_tid_1=27

MTC Requirements

- » **CBTP Advisory Board**
 - Jurisdiction staff
 - samTrans
 - Commute.org
- » **Stakeholder Involvement**
 - CBOs
 - Non-profits
- » **Diverse Community Engagement Plan**

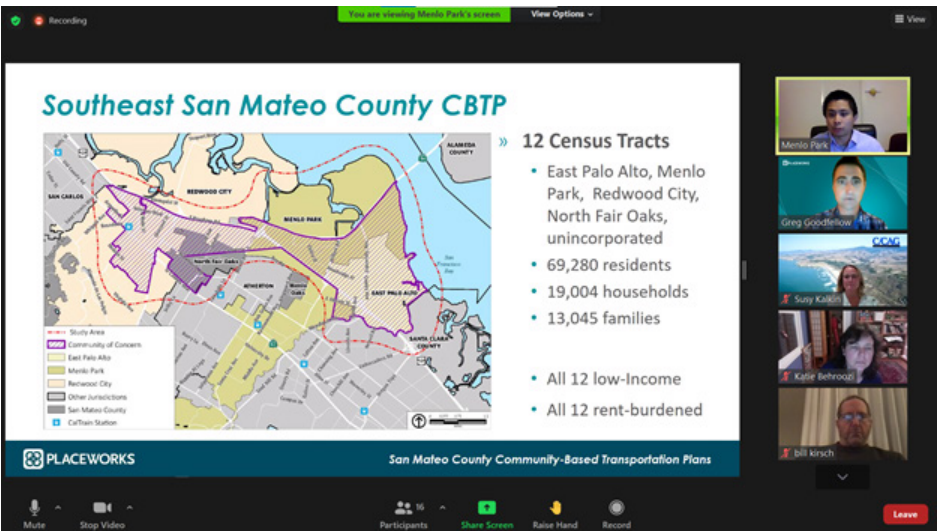
» Diverse Community Engagement Plan

PLACEWORKS San Mateo County Community-Based Transportation Plans

- **Redwood City Transportation Advisory Committee (TAC).** The CBTP team made a virtual presentation to the TAC on March 9, 2021.

- **Menlo Park Complete Streets Commission.** The CBTP team made a virtual presentation to the Commission on March 10, 2021.

- A video stream of the meeting is archived on the Menlo Park Complete Streets Commission website: <https://menlopark.gov/Agendas-and-minutes#section-3>



Southeast San Mateo County CBTP

» 12 Census Tracts

- East Palo Alto, Menlo Park, Redwood City, North Fair Oaks, unincorporated
- 69,280 residents
- 19,004 households
- 13,045 families
- All 12 low-income
- All 12 rent-burdened

PLACEWORKS San Mateo County Community-Based Transportation Plans

Input from Local Leadership

Committee members provided input on COVID-19 conditions, CBTP outreach strategies, and existing mobility gaps. Prevalent themes included:

- Concerns that COVID-19 would impede meaningful participation.
 - “Zoom” outreach will not be sufficient to reach EPC residents due to broadband limitations and digital fluency.
 - Whether the CBTP process could be delayed for 6-8 months pending COVID-19 restrictions.
 - Limitations of such a large study area, and difficulty of knitting diverse communities together in one CBTP.

- Value of recent community-driven plans such as:
 - Redwood City Walk Bike Thrive
 - 2021 San Mateo US 101 Express Lanes Equity Study
 - City of Menlo Park Transportation Master Plan
 - East Palo Alto Bicycle Transportation Master Plan
- Outreach strategies and resources to consider:
 - Social media and community-oriented websites such as Facebook and Next-Door.com to locate gatherings and distribute information/surveys.
 - Survey distribution at local vaccine clinics such as the facility at Ravenswood Health Clinic
 - Coordination with local and ethnic grocery stores
 - Outreach at senior centers and health clinics
 - Facebook Farmers market and other markets
 - Survey in food distribution meal box deliveries
- Mobility conditions, challenges and gaps:
 - Multi-jurisdictional nature of the study area.
 - Caltrans-owned segment of Willow Road (SR 114) is dangerous and inhospitable to pedestrians, cyclist and surrounding students.
 - Stretch of Willow Road that Caltrans controls is very inhospitable.
 - Need for bike/ped improvements along Middlefield Road in Redwood City

4.2.4 Late 2021-2022: In-Person Outreach

Late 2021 saw increasing COVID-19 vaccination rates and relaxation of shelter-in-place mandates. At this time, the CBTP team utilized previous input from AG members, City leaders and community surveys to schedule a series of “Pop-Up” outreach sessions at pre-scheduled events in and near SESM EPCs.

The goals of these events were to collect detailed feedback about transportation challenges directly from EPC residents and record personal narratives describing how these challenges impact daily life. CBTP project staff set up information and feedback tables at each event, with the following visual elements to prompt discussion:

- Project information and awareness flier

- Poster-sized study area map boards
- Hard copies of the transportation survey
- Poster-sized existing transportation network boards
- Existing and proposed bicycle and pedestrian network maps

CBTP members facilitated the following exercises with attendees to achieve the goals of the pop-up events. Raw results of these exercises are provided in Appendix B.

- **Map and Dot Exercises.** CBTP team members used study area boards to allow participants to illustrate transportation gaps and challenges. Participants highlighted mobility challenges and recommendations with color-coded dot stickers and used markers to illustrate travel routes, gaps, and potential solutions.
 - **Open Comment Cards.** CBTP team members used comment cards to allow participants to expand on map comments or record specific narratives about challenges and ideas for improvement.
 - **Survey Distribution.** Facilitators passed out the transportation survey, as well as fliers with links to the digital survey, to event participants.

The CBTP team categorized feedback from these sessions into the following four groups of mobility challenges:

1. **Pedestrian Mobility Challenges:** These are challenges related to gaps in, and conditions of, pedestrian facilities and infrastructure. This category also includes physical barriers to pedestrian mobility, such as dangerous railroad and highway intersections.
2. **Bicycle Mobility Challenges:** These are challenges related to gaps in, and conditions of, bikeways. This category also includes physical barriers to bicycling, such as dangerous highway intersections.
3. **Transit Challenges:** Challenges related to transit access, bus stops, and shelters, fixed-route planning and service, paratransit service, and transit costs.
4. **Safety and Other Challenges:** These are challenges to safe and secure mobility, disabled access, and student access and safety.

The location of all outreach events described above are illustrated on Figure 4-3 (virtual events are shown as located at City Hall).

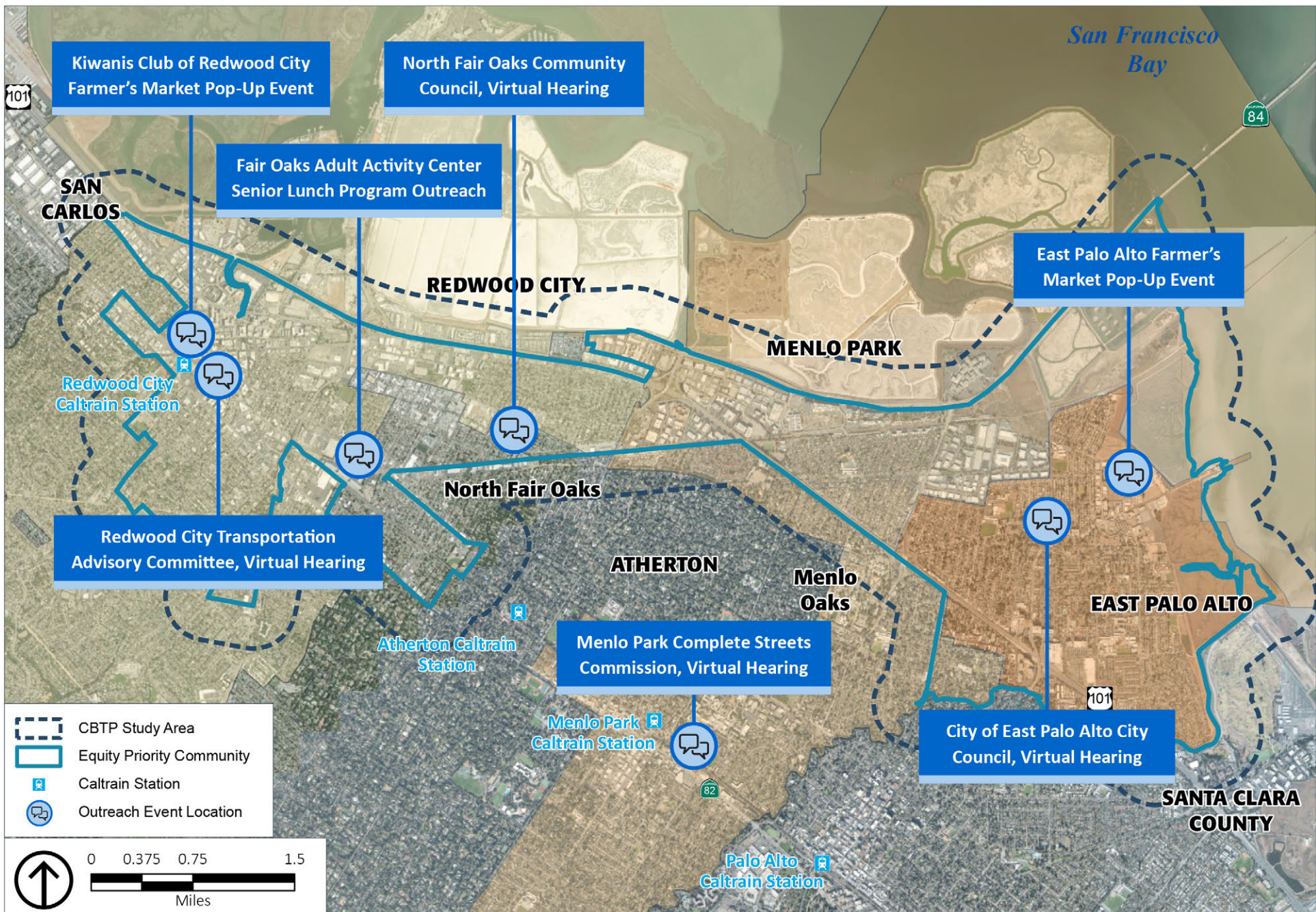


Figure 4-3 Location of CBTP Outreach Events

The following event summaries include examples of comments recorded during the event. They have been clarified for readability and/or transferred from markings on maps. However, they include original insight and ideas, and have not been ground-truthed against current conditions and/or ongoing plans and projects. The latter process occurred during the evaluation and prioritization of CBTP recommendations presented in Chapter 5 of this study.

November 9, 2021: East Palo Alto Community Farmer’s Market

The East Palo Alto Community Farmer’s Market is popular event held every Wednesday from 9:00 AM to 1:00 PM at 555 Pulgas Avenue in the Ravenswood neighborhood of East Palo Alto.

Participation

CBTP team members facilitated map exercises and/or discussions with just over 40 individuals and collected 20 comment cards. One hard copy transportation survey was also submitted at the Pop-Up. Participation is shown in Figure 4-4.

Summary of Results

Pop-up attendees described barriers to active transportation, transit use and safety. However, Figure 4-5 shows that nearly 90 percent of the comments were split evenly between pedestrian and safety challenges, with far fewer bicycle and transit comments.

Responses were generally focused on safety and pedestrian barriers on major streets surrounding the Farmer’s Market, such as Pulgas Avenue, O’Connor Street and Clarke Avenue. Major thoroughfares such as University Avenue were also represented. Comments about transit barriers were more general in nature, for example the need for a new BART tunnel and the desire to see all transit frequencies returned to pre-COVID conditions.

“Los carros en la University corren recio y no respetan los semaforos y no le dan el pase a la persones en cualquier calle qi sea. (Vehicles on University Avenue drive very fast and don’t respect or follow traffic signals and don’t give pedestrians the right of way. This also applies to other streets.)”



Figure 4-4 East Palo Alto Community Farmer’s Market Response Tally

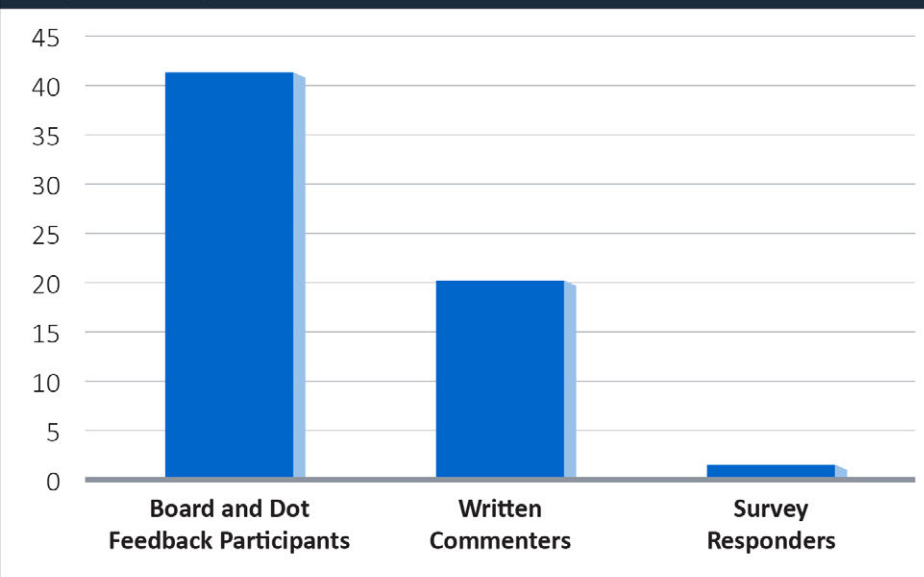
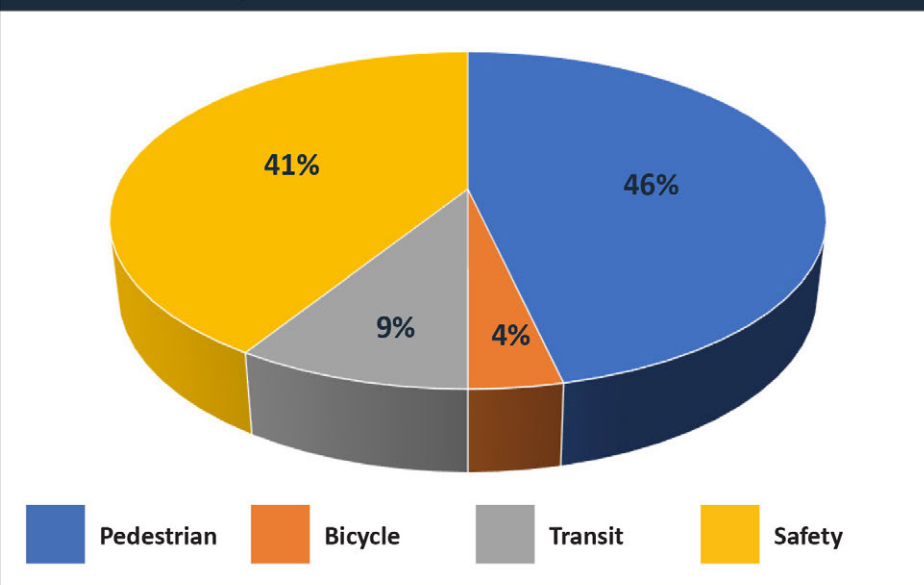


Figure 4-5 East Palo Alto Community Farmer’s Market Results Summary



“Sidewalks along West Bayshore Rd between Cooley Avenue and Woodland Avenue are too narrow and incomplete in many locations. Cars are speeding and often park on the sidewalk/pedestrian ROW, forcing pedestrians into the streets.”

Participant Input

The following comments are examples of mobility concerns and barriers recorded during the event.

Bicycle Challenges

Public comments include:

- Belief that bikes should not be on the same roads as cars. All bike routes should be isolated.
- The sidewalk is too narrow on University Avenue across 101. A cyclist and a person with a stroller cannot pass each other.
- Woodland Avenue is perilous on a bike—until you get to Menlo Park.
- Need to prioritize Garden Street for walk/bike to school improvements.
- There should be a bike/ped lane along Pulgas Avenue.

Pedestrian Challenges

Public comments include:

- Need for traffic calming and active transportation improvements along O’Connor Street.
- Need for more pedestrian paths that are parallel to separate from main driving routes.
- The sidewalk is too narrow on University Avenue across 101 for a bike and a person with a stroller.
- Need for new signalization or a pedestrian overcrossing at Cooley Avenue and University Avenue.
- The non-signalized multi-lane crosswalk at University Avenue and Weeks Street, in front of El Concilio, is dangerous.

- Need for a signalized crosswalk at Clarke Avenue and Beech Street.
- Need for better lighting and wider sidewalks along the bridge on Newell Road at Woodland Avenue. The existing trees add to the blind crosswalk and cars don't see people trying to cross.
- The 5-way stop at Newbridge Street, Ralmar Avenue, and Bay Road is confusing for drivers and dangerous for pedestrians.
- Pulgas Avenue is unsafe to walk on for the entire length in both directions. Sidewalks are incomplete and narrow, and cars always speed.
- People park in the pedestrian ROW on both sides of Pulgas Avenue.
- Intersection at Michigan Avenue and University Avenue needs a signalized crosswalk.
- Need better Sidewalks along many parts of West Bayshore Road.

Transit Challenges

Public comments include:

- Need to restore pre-COVID bus frequencies.
- Need for a 2nd BART tube for the South Bay.
- Restore the shuttle that went from the train station at University Avenue around East Palo Alto.
- Cars speed around bus pull-outs and could hit pedestrians crossing intersections.

Safety Challenges

Public comments include:

- Traffic speeds are too high on:
 - Woodland Avenue in both directions. There are also many semi-trucks here.
 - Euclid Avenue between Woodland Avenue and Okeefe Street.
 - Lincoln Street and on Bell Street turning off and on to Lincoln Street.
 - University Avenue.
- Police do not come when called and do not take calls seriously.
- There have been various accidents on University Avenue in front of City Hall that have almost resulted in pedestrians getting ran over.

- The school located at the end of Garden Street [KIPP Esperanza High School] has very dangerous traffic at the school's exit. It is dangerous for both students and parents during pick-up and drop-off.
- There should be more lighting on East Bayshore Road starting at Clark Avenue towards Embarcadero Road.
- Accessing the Charter school at Runnymede Street is unsafe—there is no way to access this school by walking or biking. This concern was reiterated by members of the East Palo Alto Transportation Commission during its review of this CBTP. Commissioners stressed the need for improved multimodal access to East Palo Alto Charter School, including the need to coordinate with MTC, the Bay Trail Project and other partners to unlock the gate to the Bay Trail at the end of Tulane Avenue/Rutgers Street. This would provide direct access to a bike-friendly portion of the Bay Trail, allowing students who live north of the school to access Runnymede Street without riding on University Avenue.

November 27, 2021: Redwood City Kiwanis Farmer's Market

The Redwood City Kiwanis Farmer's Market is held every Saturday from 8:00 AM to 12:00 PM. It is located on the 500 block of Arguello Street, in Downtown Redwood City near the Sequoia Train Station.

Participation

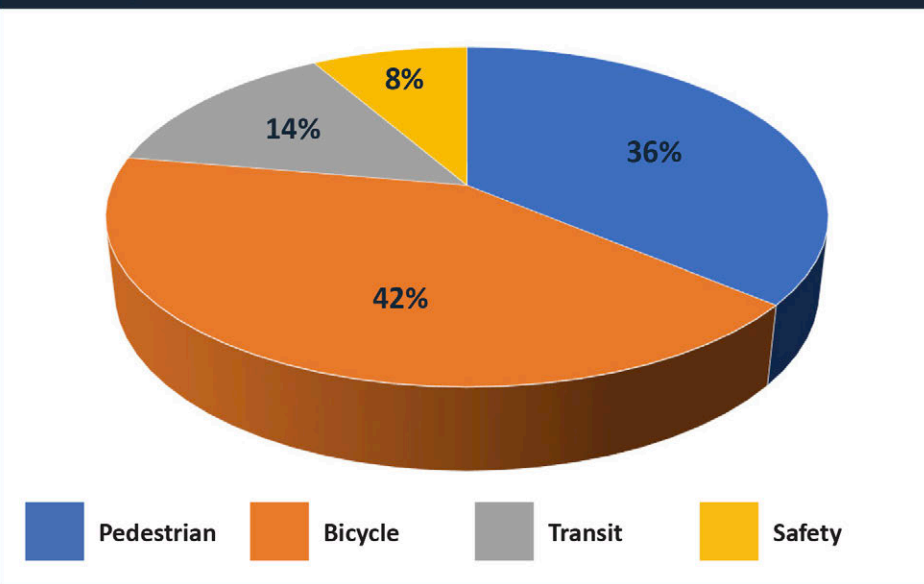
CBTP team members facilitated map exercises and sticker comments with 49 individuals.

Summary of Results

Comments received at this event were heavily-weighted toward active transportation, with 42 percent targeting bike barriers and 36 percent targeting pedestrian barriers. Commenters as a whole were familiar with bikeways in the area, and many identified the difficulty of crossing major thoroughfares such as El Camino Real, Woodside Road and Highway 101 on a bicycle. Participants also identified a series of major intersections as requiring pedestrian crossing and safety improvements. Others used project maps to highlight poor sidewalk conditions on specific street segments.

As shown in Figure 4-6, just under 15 percent of comments were about transit barriers. Most were focused on SamTrans routes servicing downtown Redwood City and the Redwood City Transit Center, such as Routes 274 and 278.

Figure 4-6 Redwood City Kiwanis Farmer’s Market Results Summary



Participant Input

The following comments are examples of mobility concerns and barriers recorded during the event.

Bicycle Challenges

Public comments include:

- Highway 101 is an ongoing bike barrier:
 - Visibility of the center bike lane on Whipple Avenue over Highway 101 is reduced visibility by roadway vegetation.
 - Need for a bike lane crossing 101 (either bridge or underpass) that connects south of 101 to the Bay Trail and Marsh Rd/Bay Front Park.
- The difficulty of cycling through downtown Redwood City due to wide roadways and lack of shade. This makes it unattractive and unsafe to cross most intersections.
- El Camino Real as an ongoing bike barrier:
 - It feels unsafe to cross any intersection on El Camino Real, but especially those between James Avenue and Redwood Avenue.
 - Crossing El Camino Real via Oakwood Drive on a bike is dangerous. Also, the train tracks force cyclists trying to get to Middlefield from El Camino Real to use Fifth Avenue.
 - There needs to be more safe crossings over Middlefield Road between Charter Street and 9th Avenue. Fifth Avenue is the only crossing around this area.
 - Woodside Avenue and El Camino Real are the biggest barriers to biking. Both are difficult to cross. El Camino could have bike lanes on it but not Woodside.
 - Drivers often run red lights at the intersection of El Camino and Broadway.
 - We need for a bike path that runs parallel to the train tracks instead of on El Camino Real.

Southeast San Mateo County CBTP Study Area: Redwood City



“We need more bike racks downtown. They don’t have to be cute or bike-shaped, just more of them!”

“The fact is, there is no good public transit around North Fair Oaks.”

- The mobile home parks on East Bayshore Avenue between Woodside Avenue and Haven Avenue are impossible to access by biking or walking. Access anything from that area is also difficult.
- Sharrows on Harding Avenue and Jefferson Avenue are scary because there is parking on both sides of the street and people open car doors suddenly.
- Need for a bike lane on the segment of Marsh Road between Middlefield and Bay Road.
- Need for more bike racks in downtown Redwood City.
- The bike lane on Whipple Avenue is terrifying.
- Crossing Woodside Road is scary for cyclists coming from the Caltrain station and riding along Broadway. There should be a complete bike lane between the Caltrain station and Woodside Road.
- Need for a bike lane on segment of Broadway Street between Woodside Road and Charter Street.

Pedestrian Challenges

Public comments include:

- Need for pedestrian crossing improvements at the following intersections:
 - Whipple Avenue across Highway 101 northbound on-ramp
 - Jefferson Avenue and Alameda de las Pulgas.
 - All crosswalks along Jefferson Avenue
 - El Camino Real and Edgewood Road
 - Broadway and 2nd Avenue.
 - Broadway and Bay Road crossing
 - Marsh Road and Bay Road
 - Marsh Road and Middlefield Road
- Unsafe or uneven sidewalks on:
 - Bloomquist Street between Maple Street and Seaport Boulevard.
 - The north side of Hopkins Avenue between Grand Street and Hudson Street
 - The perimeter of Dingee Circle park, at Broadway and Hopkins.
 - Maple Street from Marshall Street to Hilltop Street
 - Brittan Avenue underpass intersecting El Camino Real

Transit Challenges

Public comments include:

- The need for a bus line between Downtown Redwood City and Edgewood Park.
- The need to reinstate SamTrans Route 274: It used to take 6 minutes to get between the Caltrain station and Alameda and Jefferson. Now it takes much longer to get between these two points since this bus was canceled.
- Use the freight train ROW to connect future ferry terminal to Redwood City Caltrain.
- Lack of good public transit around North Fair Oaks. Not enough frequency or routes.
- Need for a bus line connecting Middlefield Road to the ECR route along Fifth Avenue.
- Need for bus route along Jefferson Avenue after lines 274 and 278 stopped running there.

Safety Challenges

Public comments include:

- Number of informal encampments along El Camino and Redwood Avenue (near interchange with Woodside Rd and El Camino Real) that can make pedestrians feel unsafe.
- Need for improved safety and intersections around Redwood High School.
- There is a lot of trash along Industrial Road.
- Danger related to high auto speeds on Samson Street between Arguello Street and Allerton Street
- Needs for traffic calming on segment of Whipple Avenue between East Bayshore Road and El Camino Real.

February 17, 2022: Fair Oaks Adult Activity Center Senior Lunch Program

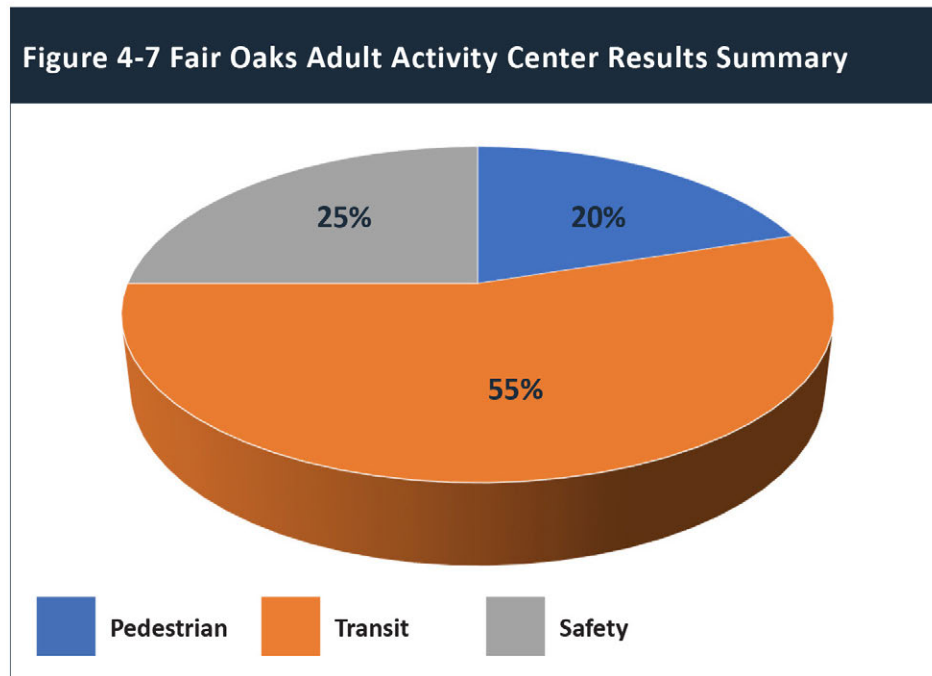
The CBTP team members introduced the Plan and facilitated a feedback session during the Senior Lunch Program at the Fair Oaks Adult Activity Center, at 2600 Middlefield Road in Redwood City.

Participation

CBTP team members recorded feedback from approximately 10 senior citizens during the lunch service program.

Summary of Results

Public feedback was consistent with the demographic of small group of seniors that participated in this event. Half of the comments were related to the challenges of using and accessing public transit and paratransit. Other comments were split evenly between pedestrian/sidewalk conditions and safety. As shown in Figure 4-7, there were no comments regarding bicycle mobility or barriers.



“A lot of visitors to this place [Fair Oaks Adult Activity Center] and others need alternative transportation but can’t figure out who qualifies.”

Participant Input

The following comments are examples of mobility concerns and barriers recorded during the event.

Pedestrian Challenges

Public comments include:

- The need for better traffic controls at many Middlefield Road intersections , especially from about Woodside Road to Fifth Avenue.
- The sidewalk quality in North Fair Oaks is only inconsistent; there are areas that need to be improved for the safety of all users.

Transit Challenges

Public comments include:

- The need for additional, alternative transportation to the Fair Oaks Adult Activity Center and other senior centers for clients and visitors with health and mobility challenges.
- The fact that some clients to the Fair Oaks Adult Activity Center are either not well enough to take public transit or don’t know how to ride paratransit, because program eligibility and access are confusing.
- The fact that Fair Oaks Adult Activity Center staff are undertaking a process of identifying who qualifies for various paratransit services and informing clients and visitors of their likely eligibility status.
- The lack of efficient transit access to Daly City, particularly that the combined SamTrans Routes ECR/ 296 itinerary to Daly City takes two hours.
- The expense and difficulty of getting to San Mateo Medical Center and SamTrans Route ECR isn’t direct enough.
- Confusion as to what paratransit service provides access to what medical centers.



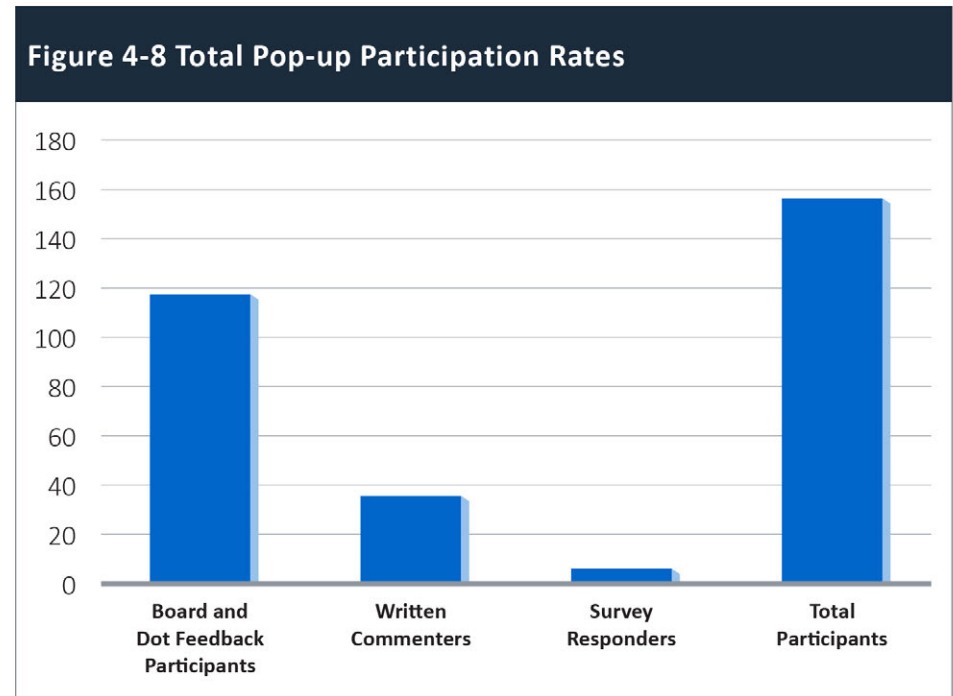
Safety Challenges

Public comments include:

- The increasing amount of vehicle drop-offs and pick-ups and idling on streets in the residential area southwest of the intersection of Middlefield Road and Charter Street, such as Douglas Avenue.
- Decrease safety on Middlefield Road due to ongoing construction.
- The fact that Middlefield Road is very busy and intimidating to walk on.

4.2.5 In-Person Feedback Summary

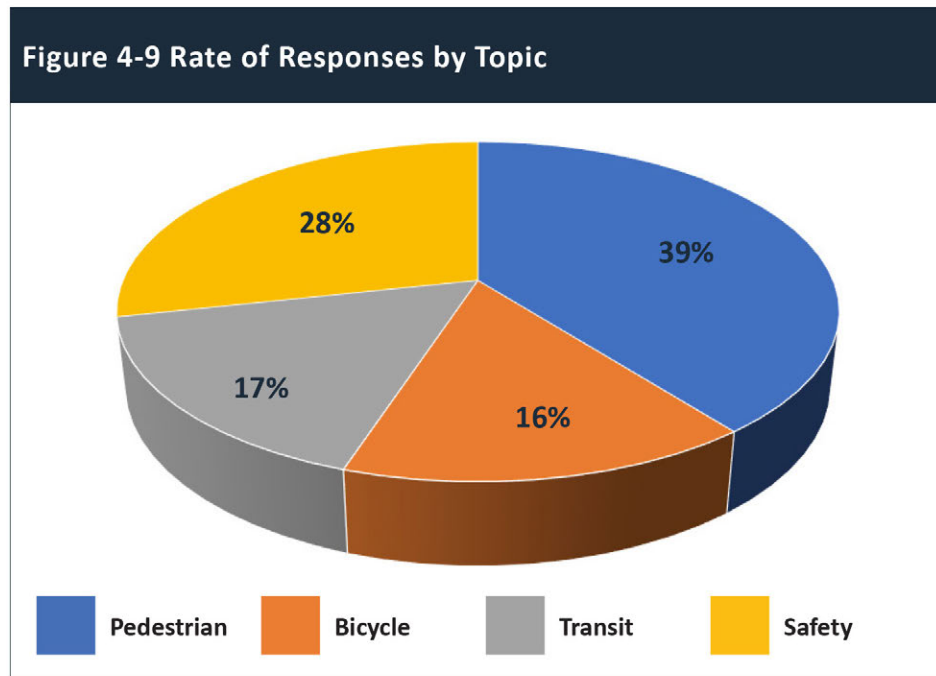
As shown in Figure 4-8, almost 160 individual comments were collected from EPC community members during the in-person CBTP outreach process. This does not include on-line transportation survey responders (see Section 4.3).



As shown in Figure 4-9, pedestrian mobility and associated barriers were cited most frequently, at well over a third of all comments. Safety-related concerns followed at about 30 percent of the total, while transit and bicycle concerns shared the remaining third.

This may be partially attributed to the characteristics of the study area and the location of the pop-up events. For example:

- As indicated by the results of the 2005 East Oalo Alto CBTP and other existing plans, the study area is intersected by a number of major thoroughfares that function as barriers to pedestrian mobility.
- Many participants of both farmer’s markets were family members. These individuals are directly impacted by roadway and pedestrian safety, as well safe access to schools.
- The pattern of feedback at the Fair Oaks Adult Activity Center leaned heavily toward walking and safety concerns, a function of the target participant.

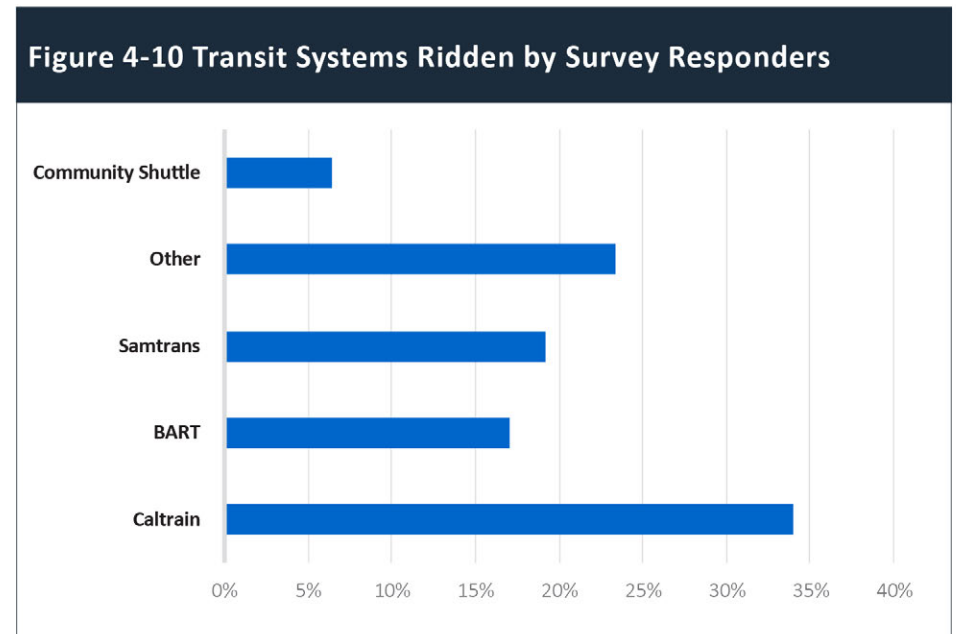


4.3 Digital Survey Results

Over 60 percent of online survey responders were from the 94063 (Redwood City) and 94025 (Menlo Park) area codes. The rest were split evenly between other zip codes in the study area. Nearly half of all responders were above the age of 60, and about one-third in 30–44-year age range. About 16 percent of responders were aged 45-59, with a similar percentage in the 19-29 age group. Those younger than 19 are not represented in the survey results.

As shown in Figure 4-10, Caltrain was the most frequently cited transit system ridden by responders, at a rate of 35 percent. This was followed by “Other,” which was typically identified as “car” or “bike” in survey responses, and therefore is not a full reflection of transit system ridership habits. Senior ride programs were the most common “Other” transit resources cited.

Responders identified “Route design/location,” “Hours of operation” and “Delays/unpredictability” as the main barriers to effective transit mobility (see Figure 4-11).



Examples of specific transit barriers or needed improvements suggested by responders include:

- Every Samtrans bus needs to be at each stop at the schedule time, not after and not before [unless they stay at the stop through the minute on the schedule]. That probably means lengthening the time between stops during the busy times of the day so the buses can spend more time at each stop and have a margin of error for dealing with the inevitable delays that occur during commute times.
- More frequent and reliable buses and last mile connections. Better bus stops to protect from weather (heat, rain).
- *Los buses deben parar cerca de la acera para las personas de la segunda y tercera edad y agacharse cuando el conductor ve a una persona mayor o alquin con baston, o que camina con dificultad.*
 - Buses should stop close to the sidewalk for folks of the second and third age [45-59 and 60+] and the bus driver should tilt the bus when they see an older person or someone with a cane or if they're having difficulties walking.

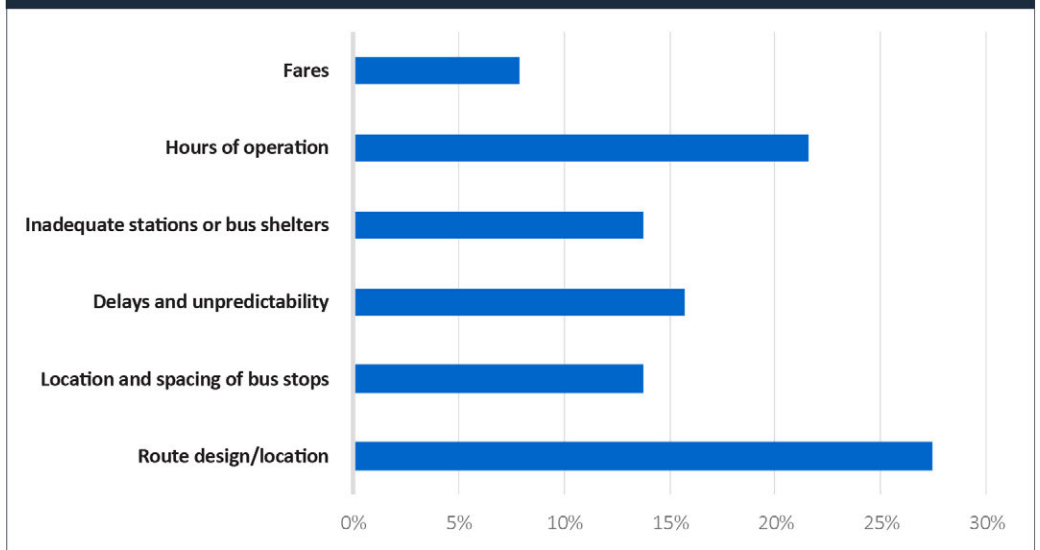
A small percentage of responders answered that they rode paratransit and cited “Restricted Hours” and “Wait times” as the main impediment to paratransit mobility. According to one responder:

- Unpredictable delays and lengthy travel times make Paratransit unusable for medical and dental appointments. Finding the driver can be challenging for a blind individual leaving a large medical center or business.

Survey responders were a generally bicycle familiar group, including 65 percent who ride a bike either “On Occasion” or “Daily.” These responders named “Dangerous streets or intersections” and “Lack of bike lanes” as the main deterrents to bike mobility (see Figure 4-12). Responders described inadequate bike facilities on major thoroughfares such as Middlefield Road, Marsh Road El Camino Real, and in North Fair Oaks, as specific barriers:

- There should be bike lanes on all popular roads, especially those leading to schools, parks, and public buildings

Figure 4-11 Problems that Make it Hard to Get Around on Transit



- There are very few continuous bike routes that cross jurisdictions in any way that makes sense. For instance, biking from Redwood City to Palo Alto would be mostly OK on Middlefield, except that the road is terrifying through North Fair Oaks.
- Improved Bike Lanes would be nice. North Fair Oaks is a pretty crummy area to ride in. Lots of broken glass. Middlefield Road is a slum, definitely needs improvement. Add some bike lanes, those green bike only ones that screw up traffic in SF.
- Bike lanes on ECR, Middlefield in North Fair Oaks [are needed].
- A clear, safe bike route from the Bay Trail/Ravenswood Business District, to University Ave in EPA, to downtown EPA, to Stanford [is needed].

Walking is also a common mode of transportation for survey responders. Over 80 percent of responders selected “Daily” or “On occasion” as how often they walk. As shown on Figure 4-13, responders selected “Poor sidewalk conditions,” “Poor lighting and safety” and “Difficult intersections” as problems that impede pedestrian mobility at approximately even rates.

Examples of specific pedestrian improvements suggested by responders include:

- Sight-impaired individual: Adequate time to cross the intersection [needed]. Crosswalks that are straight or are easily discernible when using a white cane. This means that the surface of the crosswalk needs to be distinguishable from the surface of the road outside the crosswalk. Alternatively, the boundaries of the crosswalk need to be easily discernible. Bushes and other plant growth need to be clear of the sidewalk. Tables, chairs, and stands should be kept clear of the sidewalk. Tree branches, umbrellas, and banners should be more than 7 feet above the sidewalk.
- Lights are either not on or dim when turned on in North Fair Oaks area.
- EPA [East Palo Alto] sidewalks are a work in progress. They are currently uneven and poorly lit. Some of the pedestrian bridges over 101 have had issues with crime.
- ADA accessible sidewalks and more lighting [are needed].

According to survey responders, supermarkets and transit stations are the most difficult types of places to get to each day. Examples of specific barriers to these locations inputted by responders include:

- Grocery store at Sharon Heights Shopping Center - Street lighting along Sand Hill Road to at least illuminate the rough paving on the sidewalk - Menlo Park Caltrain station - There is very little functional/reliable public transit there from west Menlo Park, but biking is fine.
- For the clinics, there are NO shuttle services between Menlo Park and North Fair Oaks and Ravenswood Health Clinic.

Figure 4-12 Problems that Make it Hard to Get Around on Bikes

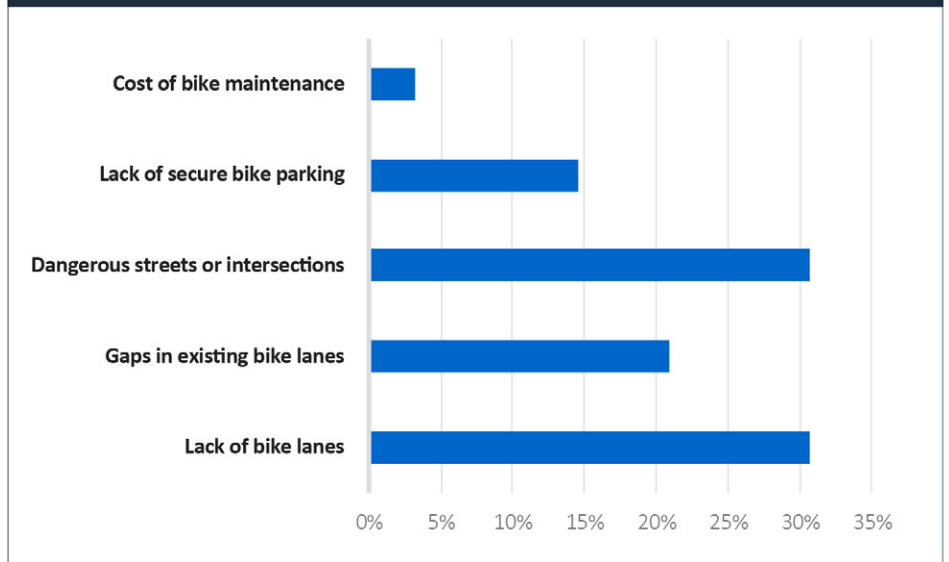
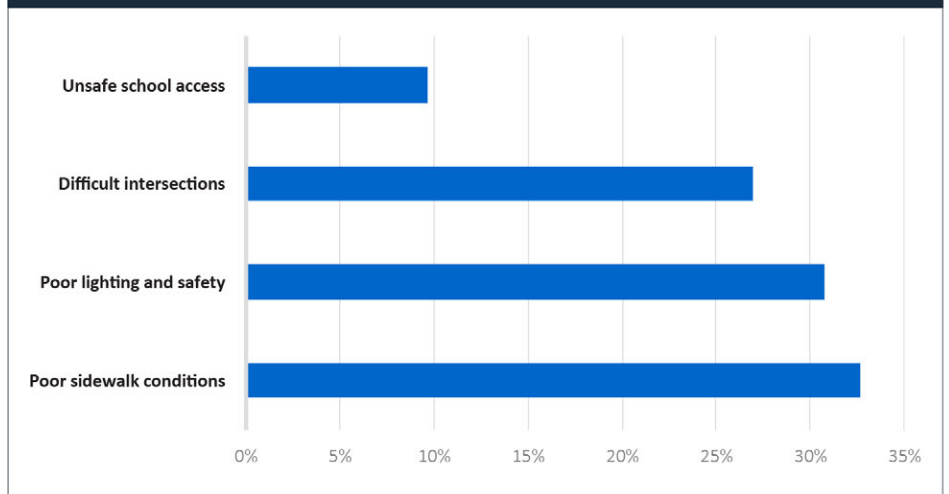


Figure 4-13 Problems that Make it Hard to Get Around on Foot



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5. Methodology and Recommendations

This chapter identifies all recommended projects and plans for the Southeast San Mateo County CBTP. It outlines the evaluation criteria, evaluation methodology, and scoring approach used to identify and rank those recommendations. Potential funding sources, a key consideration in the evaluation process, are summarized.

5.1 Evaluation Criteria

The CBTP project team worked with the Advisory Group (AG) on April 14, 2022, to review four evaluation criteria deemed appropriate to rank projects by their ability to improve mobility. Criteria such as community benefit, degree of transportation improvement, current relevance, future technological challenges, usability and access, available funding, potential for cross-jurisdictional challenges, and ability to resolve mobility barriers were discussed.

Ultimately, the following four criteria were selected to score projects and plans:

1. Reflects Community Priorities
2. Increases Access
3. Is Financially Feasible
4. Ease of Implementation

5.1.1 Reflects Community priorities

This criterion is the degree to which a project or plan is consistent with the priorities and needs of residents, community stakeholders, and leaders in Equity Priority Communities (EPC). Projects were ranked highly under this criterion if they:

- Reflect a theme in the community feedback collected during the CBTP outreach process described in Chapter 4;
- Are consistent with community mobility challenges identified in past plans and studies and the existing conditions analysis prepared for this CBTP;
- Support transportation goals established in current plans and studies; and

- Are consistent with projects prioritized in the 2005 East Palo Alto CBTP, but are not yet implemented.

5.1.2 Increases Access

This criterion is the potential of a project to improve access to key facilities and locations across the study area. As noted in Chapter 1, the current CBTP study area is based on a large, contiguous EPC that spans four jurisdictions. Given the geographic scale and diversity of mobility gaps across the study area, projects with one of two benefits score highly under this criterion: those that would improve connectivity between systems and those that would facilitate mobility for groups challenged by limited options.

5.1.3 Is Financially Feasible

Cost and feasibility are important considerations for evaluating projects. This criterion considers more than the anticipated budget of a project, as one project may be more expensive than another but it may be eligible for a range of different funding sources, while the other project may be less expensive but does not fit into readily available funding categories.

MTC's CBTP guidelines are developed to ensure that mobility recommendations are the result of community input. Assessing the financial feasibility of projects is a tool to identify projects that are likely to find further support and move quickly to implementation. Projects were ranked under this criterion by estimates of hard costs, analyzing the potential for funding based on project type, and reviewing historical financial challenges.

One of the most significant considerations in this criterion was revenue loss to transit providers resulting from COVID-19, which have impacted the current flexibility of providers to fund new projects. Many transit recommendations in this plan are outside committed funding sources, while project outreach and research indicate high transit needs within the community. This increases the feasibility of projects that are aligned with existing plans and studies. This Plan assumes that future conditions will

reposition the financial feasibility of transit projects and funding strategies for transit should continue to be developed.

Ranking projects under this criterion included reviewing potential funding sources for local and countywide mobility projects. These include:

- **Senate Bill 375.** California Senate Bill (SB) 375, passed in 2008, directs the California Air Resources Board (CARB) to set up regional targets for reducing greenhouse gas (GHG) emissions with regional Metropolitan Planning Organizations (MPOs). The GHG targets are implemented through the MPO's regional Sustainable Communities Strategies (SCS). Below are a list of funding and grants offered by MTC as part of their SCS in fulfillment of SB 375.
 - **Lifeline Transportation Program.** Funds offered by MTC for projects that are identified through a collaborative, inclusive, community-driven process, and that address transportation gaps and barriers identified in Community Based Transportation Plans or other local planning efforts in low-income neighborhoods.
 - **One Bay Area Grant Program (OBAG).** These grants are awarded to transit-oriented development projects located in Priority Development Areas—areas targeted for compact growth identified in Plan Bay Area (MTC's SCS). Priority is given to cities and counties that have been proactive in creating more housing and who have accepted a proportionally higher allocation of housing units through the Regional Housing Needs Assessment (RHNA) process.
 - **Caltrans Active Transportation, Complete Streets, and Safe Routes to School Programs.** Active Transportation grants fund transportation improvements that foster healthy activity, namely walking and biking. Complete Streets grants improve sidewalks and curbs that connect to important destinations. Safe Routes to School grants fund projects that provide safe walking and biking routes between neighborhoods and local schools.
 - **Bay Area Air Quality Management District (BAAQMD) Grants.** BAAQMD offers a variety of funding sources for projects that reduce air pollution in the Bay Area, like their Carl Moyer Program, which provides grants to replace or upgrade heavy-duty diesel vehicles.

- **Caltrans Highway Safety Improvement Program (HSIP).** HSIP offers grants for local roadway infrastructure projects with demonstrated crash reduction potential, located in areas with high crash rates or high risk for crashes.
- **FHWA Accelerating Safety Activities Program (ASAP).** Funds demonstration projects less than \$20,000 in FHWA Safety Focus states (CA is a bicycle and pedestrian focus state).
- **MTC Transportation Development Act Article 3 (TDA3) Local Transportation Fund.** Fifty-percent match for planning and education projects only: Bicycle and pedestrian design and construction; bicycle and pedestrian education programs; comprehensive bicycle and pedestrian plans.
- **Transportation for Livable Communities (TLC).** These funds are intended to support local efforts to achieve more compact, mixed-use development, and development that is pedestrian-friendly or linked into the overall transit system.
- **California Air Resources Board (CARB) Sustainable Transportation Equity Project (STEP).** This program launched in 2020 that funds transportation and planning projects that reduce GHG emissions in California.
- **Federal Transit Administration (FTA) Section 5310 - Enhanced Mobility of Seniors and People with Disabilities Program.** Funds projects that improve mobility for seniors and people with disabilities by identifying and removing barriers and improving transportation services like paratransit. This project is part of the FAST Act of 2015.
- **Highway Safety Improvement Program (HSIP) Grants.** Federal Highway Administration grants to fund projects that are meant to significantly reduce traffic fatalities on public roads. The HSIP program is a part of the 2015 FAST Act.
- **Regional Surface Transportation Block Grant.** Grants provided by the FTA to states and localities for different transportation projects, including highway improvements, bridge or tunnel projects on public roads, pedestrian and bicycle infrastructure, and transit capital projects.
- **Measure A Pedestrian and Bicycle Program.** San Mateo County Transportation Authority (SMCTA)-administered grants for new capital infrastructure based on readiness and need, effectiveness, policy consistency, sustainability, and funding leverage.

- **Measure W Pedestrian and Bicycle Program.** 2019 SMCTA-administered grants to fund local street repair, grade separations for Caltrain tracks that intersect local streets, expanded bicycle and pedestrian facilities, and improved transit connections.

5.1.4 Ease of Implementation

Numerous factors influence the ease or difficulty of initiating, completing, and putting a project into action. While a recommended project or program may align with community priorities, likely benefit many and appear a candidate for funding, assessing the challenges of implementation remains critical. Determining that the challenges of implementation of a single project are significant, facilitates the identification of other, more implementable projects that achieve the same benefits.

Factors used to assess the ease of implementation of recommendations include:

- Required cross-agency coordination
- Cross-jurisdictional physical footprint
- Engineering complexity
- Lack of technological “future proofing;” i.e., the potential that a project will become obsolete due to new technologies

5.2 Evaluation Process

As noted, the evaluation criteria outlined in Section 5.2 were developed in consultation with the AG and MTC and then applied to candidate projects. This was part of a larger evaluation process that included:

1. Developing lists of potential projects and plans directly from community members during the outreach process. Not all qualitative community feedback collected during the outreach process, including comment responses, map-based inputs, and written survey responses (see Appendix B), translated directly into the lists of recommended projects and plans in this CBTP.
2. Working with the AG to develop the evaluation criteria outlined in Section 5.2.

3. Applying the four criteria to potential projects and plans, including:
 - Assessing candidate projects against existing mobility plans to identify those supportive of relevant mobility goals or redundant with implemented projects.
 - Assessing the feasibility of candidate projects in terms of required agency coordination, funding potential, and historic implementation challenges.
4. Distributing an initial version of the ranked recommended projects to the AG for review and revision.
5. Revising and finalizing priority projects and plans based on comments of the AG.

5.2.1 Criteria Scoring Categories

Recommendations were scored one through five for each evaluation criterion. A score of one reflects the lowest potential for fulfillment of that category; five the highest. For all project and plans, the following score averages were calculated:

- **Average Score:** The average score of Criteria 1 through 4.
- **Area Need Score:** The average score of Criterion 1 (Reflects Community Priorities) and Criterion 2 (Increases Access)
- **Project Potential Score:** The average score of Criterion 3 (Financial Feasibility) and Criterion 4 (Ease of Implementation)

The four criteria were organized into the above two scores to improve the implementability of the CBTP as a whole. Identifying those recommendations with the highest and/or most immediate potential to get funded and built will support the grant selection, timing and planning processes. It will facilitate improved, more informed decision-making, and/or awareness of potential challenges in the future.

5.2.2 Implementation TimeFrame

Each of the following recommendations is assigned one the following three implementation timeframes based on community priority:

Short Term (ST). These recommendations are assumed to be implemented in one to three years.

Medium Term (MT). These recommendations are assumed to be implemented in three to eight years.

Long Term (LT). These recommendations are assumed to be implemented in eight or more years.

5.2.3 Project Types

Recommendations fall within the following four types of projects and plans:

- 1. Active Transportation.** These projects are generally new and improved bicycle and pedestrian facilities and micromobility programs. Examples include separated bike paths and cycle tracks; intersection signalization improvements; sidewalk audit and repair programs; and bike storage at important destinations like job centers and transit hubs. Micromobility refers to the use of individual, lightweight vehicles, such as bikeshares and e-scooters, typically over short distances and on a per-ride basis.
- 2. Transit and Paratransit.** These projects may include new routes, expanding operating hours of certain lines, increasing transit line frequency, or improving transit stops with lighting, shelter, and seating.
- 3. Safety.** Safety projects decrease danger and potential for harm for all residents EPCs. Examples of safety projects include improvements to school access and student safety, traffic calming on streets with high rates of pedestrians, neighborhood lighting improvements and poorly-secured transit facilities.

5.3 Multi-Jurisdictional Coordination

The benefits of mobility and transit improvements often extend beyond the jurisdiction in which they are located. In many cases, communities adjacent to the EPCs that define the CBTP study area would also benefit from increased access associated with pedestrian, bicycle, transit and other recommendations. Removing mobility barriers and filling mobility gaps, especially along cross-jurisdictional thoroughfares, would benefit multiple communities.

Members of the North Fair Oaks Community Council and other community leaders highlighted the value of coordinating with adjacent communities that would benefit from the implementation of CBTP recommendations. Consultation with potential advocates such as Atherton to the south and San Carlos to the west should be considered during project initiation, and input and support from those communities sought.

5.4 Recommended Projects and Plans

According to a CBTP program evaluation performed by MTC in 2022, overly-general CBTP recommendations developed without input from cities face implementation challenges.¹ The following section includes tables of recommended projects and plans across the three project categories. The recommendations generally reflect location-, route- or resource- specific barriers rather systemwide or topical improvements.

In each table, the average score, area need score and project potential score are shown for recommendations. Tables also include cost estimates, implementation timeframe and responsible agency or agencies. All recommendations are considered viable options that reflect community priorities.

¹ Metropolitan Transportation Commission and the Association of Bay Area Governments, Community-Based Transportation. Planning (CBTP) Program Evaluation, April 8, 2022.

Table 5-1 Recommended Pedestrian Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
Complete the following to improve pedestrian safety near and on the Ringwood Avenue Pedestrian Bridge: <ul style="list-style-type: none"> Implement an interior and exterior bridge lighting plan consistent with Caltrans’ standards for luminaire type, light level and pole and fixture mounting standards. Perform walk audits along Pierce Road at the Newbridge Street/Market Place intersection and along Van Buren Road at Ringwood Avenue to identify needed pedestrian access and safety improvements on both sides of the bridge. 	4.75	5	4.5	\$300,000 to \$700,000	PT	Menlo Park
Reset the timing of all traffic signals at Chilco St. and Bayfront Expwy. to allow for adequate pedestrian crossing times.	4.75	5	4.5	\$150,000 to \$400,000	ST	Menlo Park
Implement the initial steps toward developing a vehicle Speed Enforcement Program for Bayfront Expwy., including: <ul style="list-style-type: none"> Preparation of a Comprehensive Plan, including goals, management approach and funding options. Outreach to law enforcement agencies and Identification of a Stakeholder Task Force. Completion of an Historical Risk, Speed and Crash Assessment. 	4	4.5	3.5	\$500,000 to \$1,000,000	ST	Menlo Park, adjacent jurisdictions, Caltrans
Close all sidewalk gaps on East Bayshore Road from Poplar Avenue to Euclid Avenue in response to pedestrian fatalities.	4.75	5	4.5	\$50,000 to \$75,000	ST	East Palo Alto
Perform safety audits and install intersection safety improvements such as signalization controls, pedestrian islands, flashing beacons, high-visibility crosswalks and/or physical traffic calming elements, at the following intersections: <ul style="list-style-type: none"> Bayfront Expwy. and Willow Rd. Bayfront Expwy. and Chilco St. Bayfront Expwy. and Chrysler Dr. Bayfront Expwy. and Marsh Rd. University Ave. and Runnymede St. Marsh Rd. and Bay Rd. Marsh Rd. and Middlefield Rd. Cooley Ave. and University Ave. Oakwood Dr. and East Bayshore Rd. Newbridge St. and Willow Rd. Willow Rd. and Ivy Dr. Willow Rd. and O’Brien Dr. Willow Rd. and Hamilton Rd. 	4	4.5	3.5	\$15,000 to \$50,000 per intersection	ST	East Palo Alto, Redwood City, Menlo Park, San Mateo County
Widen sidewalks, close all sidewalk gaps and install parking controls along West Bayshore Rd. between Cooley Ave. and Woodland Ave. in East Palo Alto.	4	4	4	\$75,000 to \$125,000	ST	East Palo Alto
Assess sidewalk deficiencies and implement feasible recommendations for new sidewalks on the west side of Pulgas Ave. from East Bayshore Rd. to University Avenue in East Palo Alto.	3.75	4.5	3	\$100,000 to \$200,000	MT	East Palo Alto
Install Rectangular Rapid-Flashing Beacons (RRFB) with curb extensions at on- and off-ramps on both sides of Highway 101 at the Whipple Ave. overcrossing in Redwood City.	3.75	3.5	4	\$150,000 to \$200,00	MT	Redwood City, Caltrans
Install a High-Intensity Activated Crosswalk (“HAWK”) and median improvements at intersection of SR 82 and Selby Lane in Atherton.	3.5	4.5	3	\$125,000 to \$150,000	ST	Atherton, San Mateo County, Caltrans

Table 5-2 Recommended Bicycle and Micromobility Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
Implement the North Fair Oaks bicycle boulevards network in the area between Middlefield Rd., 5th Ave., El Camino Real and the unincorporated County/ Redwood City limits, per the <i>North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study</i> .	4.25	4.5	4	\$3.5M to \$7M	MT	San Mateo County
Improve bike facilities on Seaport Blvd. by installing a Class I bike path from Broadway to East Bayshore Road, per the <i>2021 C/CAG San Mateo County Comprehensive Bicycle and Pedestrian Master Plan</i> , and from Veterans Boulevard Highway 101 per <i>RWC Moves</i> .	4	4.5	3.5	\$1M to \$1.25M	ST	San Mateo County, Redwood City
Install grade- separated pedestrian/bicycle crossing of Caltrain tracks in North Fair Oaks between 5th Avenue and Redwood City limits, labeled high-priority project in the <i>2021 Unincorporated San Mateo County Active Transportation Plan</i> .	4	4.5	3.5	\$10M-\$15M	LT	San Mateo County, Caltrain
Install Class IV cycle track on SR 82 (El Camino Real) between Finger Ave. and north of Berkshire Avenue per <i>RWC Walk Bike Thrive</i> .	4	5	3	\$2.5M to \$4M	MT	Redwood City
Install a Class IV bikeway on the segment of SR 82 (El Camino Real) that forms the border of North Fair Oaks, per the <i>Unincorporated San Mateo County Active Transportation Plan</i> .	4	5	3	\$750,000 to \$1.5M	MT	San Mateo County
Fill missing bikeways gap on Middlefield Rd. between 5th Ave. and Town of Atherton with a Class II bikeway, per the <i>Unincorporated San Mateo County Active Transportation Plan</i> .	4	5	3	\$500,000 to \$750,000	ST	San Mateo County
Install Class IV facility on Brewster Avenue from Main St. to King St. to connect Sequoia High School and Caltrain transit center, per <i>RWC Walk Bike Thrive</i> .	3.75	4	3.5	\$1M to \$1.5M	ST	Redwood City
Study upgrading the existing Class III bike route along Woodland Avenue in East Palo Alto to a Class IV or other separated bike facility and implement the most feasible option.	3.75	4	3.5	\$750,000 to \$2M	ST	East Palo Alto
Study bicycle and pedestrian network conditions and conflicts within ½ mile of Caltrain stations and major transit stops in the study area. Include recommendations for active transportation network improvements, infrastructure projects and micromobility programs designed to increase bike/ped safety and close “first-mile-last-mile” gaps.	3.5	4	3	\$275,000	ST	C/CAG, San Mateo County, Redwood City
Develop a micromobility implementation guidebook for local jurisdictions to support efficient roll-out of bikeshare, e-scooter and other micromobility programs. The guidebook should include a framework for: <ul style="list-style-type: none"> Engaging community members to get input on preferred micromobility programs. Identifying type(s) of micromobility program(s) for maximum community benefit. Locating micromobility vehicle access and parking areas. Designing safe and accessible micromobility routes that close “first-mile-last-mile” transit gaps. Contracting with third party vendors. 	3.5	3.5	3.5	\$325,000	ST	C/CAG

Table 5-2 Recommended Bicycle and Micromobility Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
Upgrade the existing bike facility on Willow Road between Bayfront Expressway and Highway 101 to a Class IV separated bikeway, per the <i>City of Menlo Park Transportation Master Plan</i> .	3.5	3.5	3.5	\$1M to \$1.5 M	MT	Menlo Park
Implement <i>City of Menlo Park Transportation Master Plan</i> project #178 and Catrans District 4 Bike Plan Project Number SM-101-X14: Design and develop a bicycle/pedestrian bridge over Highway 101 north of Marsh Road, with connections to Bay Trail and Bedwell Bayfront Park.	3.5	4.5	3	\$30M to \$35M	LT	Caltrans, Menlo Park
Install Class II buffered bike lanes on Marsh Road from Bay Road to Scott Drive in the City of Menlo Park, per the <i>2020 San Mateo Transportation Master Plan</i> .	3.5	3.5	3.5	\$1.5M to \$2M	MT	Menlo Park
Improve access to electronic bikes via equity programs for both shared e-bikes and individually owned e-bikes.	3.5	3.5	3.5	\$50,000 to \$500,000	MT	C/CAG, San Mateo County, Redwood City, East Palo Alto, Menlo Park, Peninsula Clean Energy
Install buffered bike lanes on Alameda de las Pulgas, from Brewster Avenue to De Anza Avenue in Redwood City, as considered in <i>RWC Walk Bike Thrive</i> .	3.5	3.5	3.5	\$500,000 to \$1M	MT	Redwood City
Install Class IV bikeways on Bay Rd. and Marsh Rd. in North Fair Oaks per the <i>2021 Unincorporated San Mateo County Active Transportation Plan</i> .	3.25	4.5	2	\$1.5M to \$2M	MT	San Mateo County

5.4.2 Transit and Paratransit Projects and Plans

The overall potential for new transit projects decreased with declines in systemwide revenues from COVID-19. However, SamTrans adopted major improvement plans in 2022, including adoption of final new *Reimagine SamTrans* projects by the SamTrans' Board of Directors. The *Reimagine SamTrans* Final Network includes changes consistent with community feedback collected during this CBTP process, including increased service on weekends and on weekends of Route 296, and the post-COVID return of Route 276 with increased frequency.

The following 10 projects and plans in Table 5-3 are shown in descending order of average score. The recommendations indicate community preference for increased cross-town and San Francisco-based bus routes, the desire for a more robust program of transit options in Bayshore, and improved bus shelters on near popular shopping and resources. The projects were identified by the community, in current studies and during AG review and coordination. In addition, funding for transit and multi-modal safety remains available in the wake of COVID-19 mobility changes.

5.4.3 Safety Projects

The following projects and plans in Table 5-4 are shown in descending order of average score. These projects do not include non-schools related pedestrian or bicycle safety improvements, which are categorized as Active Transportation projects.

5.5 Evaluation and Monitoring

This CBTP update contains a diverse list of recommended projects, including capital improvements, programmatic studies, and informational campaigns. Each of these is associated with a unique set of funding challenges and opportunities. The manner in which the projects are integrated into local programming also differs, whether via inclusion in a Capital Improvement Program (CIP) or adoption as local policy. Limited staff resources and multijurisdictional coordination are historic challenges to CBTP progress across the project spectrum.

Implementation of this Plan will require ongoing commitment by the local jurisdictions included in the CBTP study area and partner agencies to move recommendations forward. Success will also depend on the ability of C/CAG to regularly

monitor CBTP progress, maintain a record of project milestones, and offer support to responsible agencies.

In order to facilitate monitoring by C/CAG, this CBTP contains an Annual CBTP Tracking Checklist (Appendix A) to be completed by each CBTP study area jurisdiction each year (beginning with adoption date of the CBTP) and submitted to C/CAG. The Checklist will help:

- Facilitate communication between CBTP jurisdictions and C/CAG.
- Document individual project progress.
- Tally all “In Progress” CBTP projects.
- Evaluate overall CBTP implementation.

As shown in Appendix A, the Checklist begins with a summary of total recommendations in the CBTP. It allows staff to list all CBTP projects for which one or more milestones have been reached, “check” the category of each milestone, and briefly describe and date the milestone. The three categories of milestones are:

- 1. Funding.** Examples of these milestones include grant submissions, receipt or allocation of funds, completion of detailed expenditure plans and others.
- 2. Local Adoption/Programming.** Examples of these milestones include the addition of project(s) into a Capital Improvement Plan (CIP) or budgetary document, formalization of a project as policy or action in a local planning document and others.
- 3. Implementation.** These are milestones representative of upcoming or ongoing official use of project funds, such as RFP release; execution of outside contracts; and project kick-off, internal milestones and completion.

The Checklist closes with a tally of the total number of projects tracked for the year.

Table 5-3 Recommended Transit and Paratransit Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
Broaden awareness campaign of Clipper START program to include multi-lingual information at transit stops, stations and high-activity destinations in SESM Equity Priority Communities.	4.25	4	4.5	\$15,000 to \$30,000	ST	MTC
Implement a multi-lingual awareness campaign of SamTrans’ new East Palo Alto On-Demand Zone. Potential riders should made aware of: <ul style="list-style-type: none"> • How to download and use the program App • How to use the service • The difference between the On-Demand program and traditional bus service • The On-Demand zone service area limits 	4.25	3.5	5	\$15,000 to \$30,000	ST	SamTrans
Implement transit-only lanes or transit signal priority infrastructure on Newbridge St., Bay Rd. and University Avenue from Menlo Park to the Palo Alto Transit Station to improve Caltrain access by Menlo Park and East Palo Alto residents.	4	5	3	\$10M to \$20M	LT	SamTrans, East Palo Alto, Menlo Park, Palo Alto, Caltrain, San Mateo County
Implement a 2022 San Mateo County Paratransit Rider’s Guide “How-to Tour.” Introduce participants at senior centers, medical facilities and social service organizations to the basics of paratransit eligibility, sign-up, routing and ride process.	4	4	4	\$10,000 to \$20,000	ST	SamTrans
Audit ground and curb conditions at bus stops and paratransit boarding areas at the following facilities to identify uneven sidewalks, lack of red paint and other parking/vehicle deterrents and missing or ADA noncompliant bus shelters: <ul style="list-style-type: none"> • East Palo Alto Senior Center • Ravenswood Health Clinic • Kaiser Permanente Medical Center, Redwood City • Fair Oaks Health Center • Menlo Park VA Medical Center 	3.75	3	4.5	\$20,000 to \$40,000	ST	SamTrans
Develop implementation strategies for equity mobility programs that encourage mode shift, such as the 2021 101 Express Lanes Community Benefits Program.	3.75	4	3	\$20,000 to \$35,000	MT	C/CAG, San Mateo County, Redwood City, East Palo Alto, Menlo Park
Add shelters to SamTrans route 296 stops at Middlefield Road and Fifth Avenue to improve shopping experience for those at Chavez Supermarket at 3282 Middlefield Rd.	3.75	3	4.5	\$20,000 to \$30,000 per stop	ST	SamTrans, San Mateo County
Survey physically and sensory-impaired visitors to hospitals, senior centers and social service facilities in SamTrans’ SESM Equity Priority Area to identify drop-off-to-destination (and reverse) wayfinding and access challenges and solutions.	3.5	3.5	3.5	\$7,500 to \$10,000	MT	SamTrans
Add shelters to SamTrans route 270 stops at Bay Road and Fifth Avenue to improve shopping experience for those at Mi Tienda Market, 812 Fifth Avenue, Redwood City	3.5	3	4	\$20,000 to \$30,000 per stop	ST	SamTrans, City of Redwood City
Decrease current 1+ hour headways of City of Menlo Park Belle Haven Shuttle by 25 percent.	3	3.5	2.5	\$500,000 to \$1M annually	LT	Menlo Park
Program an east-west running SamTrans route along 5th Avenue through North Fair Oaks to provide better connections from Middlefield Rd to SamTrans Routes 296 and ECR.	3	4.5	1.5	\$1.5M to \$3M start-up	LT	SamTrans

Table 5-4 Recommended Safety Projects and Plans

Recommendation	Average Score	Area Need Score	Project Potential Score	Estimated Cost	Implementation Timeframe	Responsible Agency
<p>Assess queuing impacts to public streets during peak drop-off/pick-up hours at:</p> <ul style="list-style-type: none"> ● Belle Haven Elementary School ● Garfield Community School ● North Star Academy/McKinley ● Aspire East Palo Alto Charter School ● TIDE Academy 	4.25	4	4.5	\$10,000 to \$15,000 per school	ST	Ravenswood City School District, Redwood City School District, Aspire Public Schools, Sequoia Union High School District, East Palo Alto, Menlo Park, Redwood City
<p>Complete an assessment of pedestrian safety in North Fair Oaks North, including audits and recommendations for:</p> <ul style="list-style-type: none"> ● Areas of dumping and/or blight ● Lighting “deserts” ● Poor sidewalk conditions 	3.75	4	3.5	\$25,000 to \$50,000	MT	San Mateo County
<p>Implement Safe Routes to School infrastructure, including traffic calming techniques such as lane narrowing, speed humps, bulb-outs, and rapid flashing beacons at:</p> <ul style="list-style-type: none"> ● Belle Haven Elementary School ● Garfield Community School ● North Star Academy/McKinley ● Aspire East Palo Alto Charter School ● TIDE Academy ● Sequoia High School ● KIPP Esperanza High School ● Sequoia District Adult School 	3.75	4	3.5	\$300,000 to \$500,000	MT	Ravenswood City School District, Redwood City School District, Aspire Public Schools, Sequoia Union High School District, KIPP Public Schools, East Palo Alto, Menlo Park, Redwood City
<p>Support the completion of Objective 4, Data Gathering, and Objective 5, Engineering Routes to School, of the <i>East Palo Alto Safe Routes to School 5 Year Work Plan</i>.</p>	3.75	4	3.5	\$40,000 to \$80,000	ST	East Palo Alto
<p>Increase safety for students of Menlo-Atherton High School who live in East Palo Alto and Belle Haven, via improved bike/ped infrastructure on Coleman Ave. and Ringwood Ave. in unincorporated Menlo Oaks and Menlo Park, per 2023 <i>Coleman/Ringwood Transportation Study</i>.</p>	3.25	3.5	3	\$3M TO \$6M	ST	San Mateo County

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