

477 9th Avenue TDM Plan



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Introduction

A Transportation Demand Management (TDM) Plan is a long-term management strategy for an organization or site that seeks to deliver sustainable transportation objectives. It is articulated in a document that is regularly reviewed by the implementing organization. It identifies an appropriate package of measures aimed at promoting sustainable travel, with an emphasis on reducing reliance on single occupancy vehicle (SOV) trips and vehicle miles traveled (VMT). It can also assist in meeting other objectives, such as increasing and reducing congestion, greenhouse gases, and noise.

This TDM Plan was produced on behalf of the City of San Mateo (City) for the 477 9th Avenue project site, which is a proposed mixed-use building owned and being developed by The Martin Group (referred to as ‘the developer’ throughout this document).

Project Description

The project site is bounded by a two-story office building to the north, 9th Avenue on the south, S. Claremont Street on the east and the Caltrain railway on the west. The proposed 5-story mixed use project includes:

28,100 square feet of office space and parking facilities on floors one and two
120 residential units^{1,2}, on floors three through five. The residential unit mix is as follows:

- 24 studio units
- 64 one-bedroom units
- 32 two-bedroom units

A total of 150 vehicle parking spaces consisting of:

- an above-grade parking garage, providing 29 office parking stalls on the first floor and 112 residential parking stalls on the first and second floors
- a small surface parking lot consisting of an additional 9 office parking spaces

A total of 144 bicycle stalls consisting of:

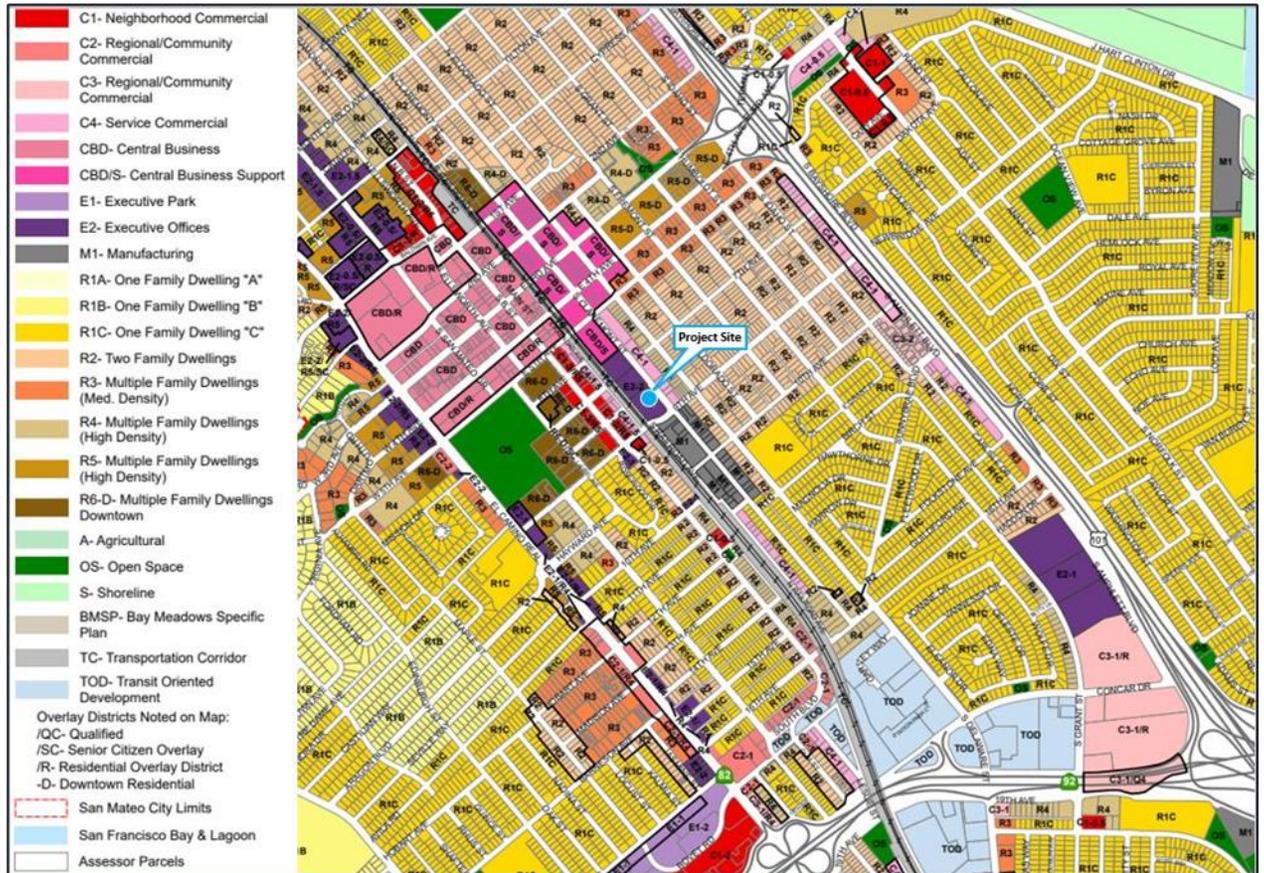
- 132 long-term bicycle stalls
- 12 short-term bicycle stalls

¹ 80 of the proposed total units are allowed by zoning and 40 “bonus” units are authorized by the Density Bonus Law

² 12 of the residential units are proposed to be designated as affordable at the Very Low income category.

The site is zoned E2-2 (Executive Office). As shown in Figure 1, the surrounding properties are generally zoned for M-1 Manufacturing uses, C4 Service Commercial, R-2 Two Family Dwelling Units, CBD Central Business and CBD/S Central Business Support.

Figure 1. City of San Mateo Zoning Map (source: City of San Mateo Planning Division, 2019)



The City's E2 zoning district, Executive Offices, permits residential units on parcels without a residential overlay, subject to the approval of a SUP and compliance with the R4 zoning district's residential density development standards.

The project site is limited to a floor-area ratio (FAR) of 2.0, based on its E2-2 zoning designation. The project's proposal to designate 12 residential units to the Very Low income category affords the project up to three concessions and waivers from development standards. As such, the developer is requesting to increase the FAR maximum to 3.0. The project proposes 150 vehicle parking spaces and 144 bicycle parking stalls, as summarized in Table 1.

Table 1. Proposed Project Parking Provision (source: 477 9th Avenue Project Plans, dated June 30, 2022)

	Required	Proposed
Vehicle Parking	N/A	Office: 38 spaces
	N/A	Residential: 112 spaces
Bicycle Parking	140 stalls (9 short term, 131 long term)	144 stalls (12 short term, 132 long term)

Demography and Travel Trends

The project site is located within census tract 6063, which has a population of 4,173 people. Census Tracts are used to analyze population dynamics and demography on a neighborhood scale.

Demographic Snapshot

About nineteen percent (18.7%) of the population in the census tract is under the age of 18, with the median age and average household size being 40.1 and 2.2, respectively. The median household income in this census tract is \$96,250. Over half, fifty-one percent (51%), of the households in the census tract live in rental housing units.

Travel Trends

According to Census Reporter data from 2021, the majority (59%) of residents that live within the census tract drive alone to work. It is also reported that 26% of the population use sustainable modes of transportation to commute to work, such as public transit, carpooling, and walking, while another 13% of the population work from home. Of those that commute to work, the mean travel time is 23.4 minutes. However, it is worth noting that commuting patterns have been impacted by the Covid-19 pandemic, and longer-term post-pandemic scenarios might also produce new commuting patterns as more organizations implement hybrid and flexible working habits.

As shown in Table 2, a notable share of commuters (15%) from this census tract commute to work within the City of San Mateo. San Francisco also receives a significant portion (11.8%) of commuters from this Census Tract. Notably, residents in Census Tract 6063 commute to a variety of locations, with the majority (50.5%) commuting to locations outside of the top ten identified in Table c.2.

Table 2. Job Locations (source: Census 2019 OnTheMap Analysis)

Job Locations	Count	Share
San Mateo, CA	1,227	15%
San Francisco, CA	972	11.8%
San Jose, CA	407	5.0%
Redwood City, CA	282	3.4%
Daly City, CA	238	2.9%
South San Francisco, CA	225	2.7%
Hayward, CA	193	2.4%
Burlingame, CA	191	2.3%
San Bruno, CA	171	2.1%
Foster City, CA	153	1.9%
All other locations	4,145	50.5%
All Places (Cities, CDPs, etc.)	8,204	100%

Inflow/Outflow analysis of the census tract, as shown in Figure 2, depicts that 1,862 individuals commute out of the area and 8,091 people commute into the area for work on a daily basis. A total of 113 individuals both live and work inside the census tract.

Figure 2. Inflow and Outflow Patterns (source: Census 2019 OnTheMap Analysis)



Site Assessment

A site assessment was conducted as part of the TDM Plan development process. The site assessment included a description of the site’s geography and road network, pedestrian and bicycle infrastructure, transit services, nearby attractions, and existing TDM services. For the complete assessment, please refer to Appendix B. Key findings from the site assessment are provided below.

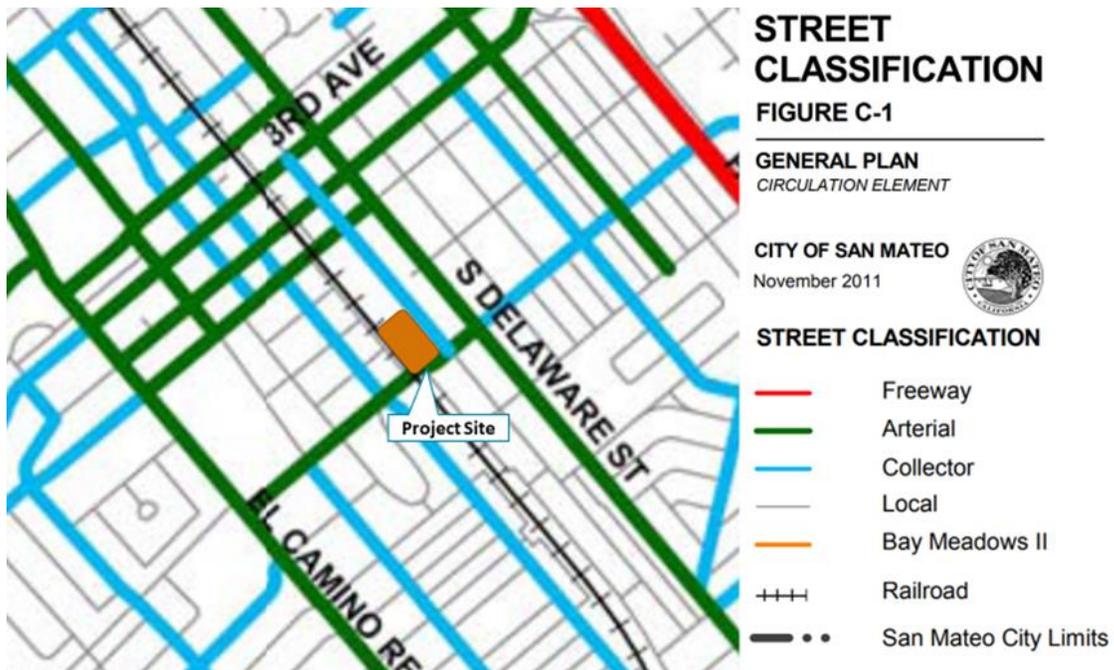
Existing Infrastructure

Road Network

The project site is located approximately 0.5 miles south of the Downtown San Mateo Caltrain Station and is adjacent to the Caltrain railroad tracks. The site is surrounded by the following road network (see Figure 3):

- West of the project site, 9th Avenue is classified as an Arterial.
- East of the project site, 9th Avenue is classified as a Collector.
- Along the project site, S. Claremont Street is classified as a Collector.
- 9th Avenue offers connections to El Camino Real/Highway 82 and U.S. Highway 101.

Figure 3. Surrounding Street Network (source: City of San Mateo Public Works)



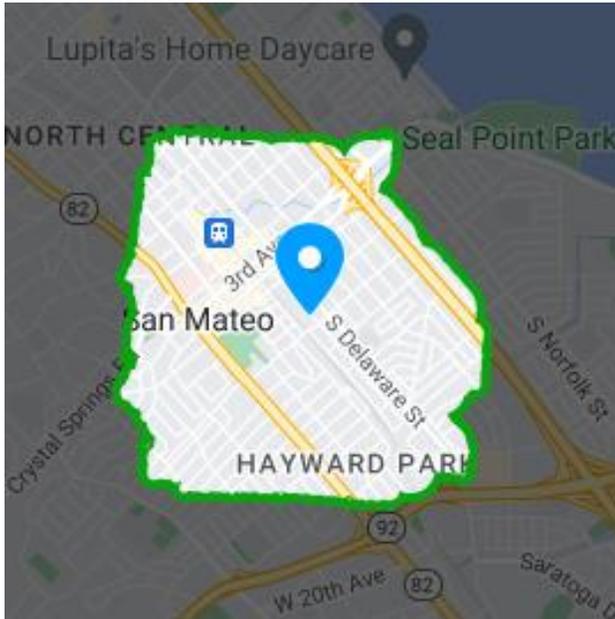
9th Avenue offers connections to U.S. Highway 101 on the east, and to the west lies Highway 82/El Camino Real. Both highways connect north to San Francisco and south to San Jose. 9th Avenue also connects to S. Delaware Street, which is an arterial road. S. Delaware Street connects to U.S. Highway 92 which leads to East Bay communities and to Half Moon Bay in the westbound direction.

Pedestrian and Bicycle Infrastructure

Pedestrian Conditions

The site's topography to the east, north, and south make this an area that is conducive to walking and cycling. The project site is in a flat part of San Mateo and its location gives it access to several relatively low-traffic streets that are more comfortable for cycling and walking. The walkability website Walkscore.com gives the project location a 95/100 score for walking, which they classify as "Walker's Paradise – Daily errands do not require a car."³ The walkshed for the project area is seen in Figure 4.

Figure 4. 20-minute Walkshed for 477 9th Avenue (source: WalkScore.com)



³ WalkScore. (n.d.). 477 9th Avenue. Retrieved from <https://www.walkscore.com/score/477-9th-ave-san-mateo-ca-94402>

Current Bicycle Conditions

In terms of existing bicycle infrastructure, the project site is immediately adjacent to two bicycle facilities (see Figure 5).

- 9th Avenue has a Class II bicycle facility which extends from Amphlett Boulevard to S. B Street
- S. Claremont Street has a Class III bicycle facility that extends along S. Claremont Street from 9th Avenue to State Street.⁴ It connects to the San Mateo Caltrain station and to the bike lane network that encompasses S. Delaware Street, creating multiple access opportunities for cyclists. Improvements to Claremont Street are proposed in the San Mateo Bike Master Plan as a high priority bikeway project

Figure 5. Existing Bicycle Network (source: San Mateo Bicycle Master Plan)



Existing Bicycle Network

Bicycle Facilities	Transit	Other
<i>Existing</i>	Caltrain Stations	Parks
Shared Use Path	Rail Lines	Schools
Buffered Bike Lane		Water
Bike Lane		
Bike Route		

Recent bicycle infrastructure improvements within 0.5 miles of the project site include the following, which were completed in October 2022.

- S. Humboldt Street Bike Lane – 5th to 9th Avenues
- 5th Avenue Bicycle Boulevard – Delaware Street to Amphlett Boulevard

⁴ City of San Mateo. (2020). Bicycle Master Plan. Retrieved from <https://www.cityofsanmateo.org/3944/Bicycle-Master-Plan-2020>

Planned Bicycle Facilities

The 2020 Bicycle Master Plan was adopted by City Council on April 6, 2020 and serves as a blueprint for expanding and improving the San Mateo bicycle and mobility network in the coming years. As part of the proposed network, there are several bicycle facilities that have been completed and others that are currently in progress. Adjacent to the project site, the existing bicycle route on S. Claremont Street between State Street and 9th Avenue is currently planned for an upgrade to a Bicycle Boulevard. Table 3 lists planned bicycle facility improvements that are within a mile of the project site and are currently in progress (as of November 2022⁵).

Table 3. Planned Bicycle Facility Improvements (source: City of San Mateo)

Bicycle Facility	Distance to Project Site
Delaware Street Class IV Separated Bike Lane and Bike Boulevard – 19 th Avenue to Pacific Boulevard	1 mile
Sunnybrae Boulevard Bicycle Boulevard – S. Delaware Street to S. Amphlett Boulevard	0.6 miles

Transit Services

The project site is approximately 0.5 miles from the San Mateo Caltrain Station. Caltrain provides rail service from San Francisco to Gilroy. Table 4 provides a summary of the station and transit connections available.

Table 4. Caltrain Service

Category	Downtown Station
Frequency	<ul style="list-style-type: none"> Up to four trains per hour (104 trains per weekday); times vary
Travel Distance from Site	<ul style="list-style-type: none"> 4 minutes by car 4 minutes by bike 11 minutes walking 11 minutes by SamTrans bus (routes #53 San Mateo or #292 San Francisco)
Amenities	<ul style="list-style-type: none"> Accessibility: <ul style="list-style-type: none"> Wheelchair Accessible Two wheeled devices and service animals permitted Bike racks Bike repair station San Mateo BikeLink lockers Park and Ride
Cost	Depending on travel distance within and across zones, fares include: <ul style="list-style-type: none"> One Way (Ticket Machine): \$3.75 - \$15.00 One Way (Clipper Card): \$3.20 - \$14.45 Day Pass (Ticket Machine): \$7.50- \$30.00

⁵ City of San Mateo. (2020). Bicycle Master Plan. Retrieved from <https://www.cityofsanmateo.org/3944/Bicycle-Master-Plan-2020>

The project site is also within a 5-minute walk of two San Mateo County Transit District (SamTrans) bus stops, serving seven bus routes (see Table 5). Table 6 breaks down the fares for local and express SamTrans routes.

Table 5. SamTrans Bus Service

SamTrans Route Number	Hours of Operation	Frequency	Closest Stop	Distance to Stop	Route Details
53	School-Day Service	1 morning bus, 2 afternoon buses	S Delaware St & 10 th Ave	0.2 miles	<i>Eastbound:</i> Peninsula/Humboldt <i>Westbound:</i> Borel Middle School
53P	Weekdays at 7:15AM	Single morning departure	S Delaware St & 10 th Ave	0.2 miles	<i>Eastbound:</i> Peninsula/Humboldt <i>Westbound:</i> Borel Middle School via Poplar
292*	Weekday Service: 3:55AM -2:42AM	Every 30 minutes	S Delaware St & 10 th Ave	0.2 miles	<i>Northbound:</i> San Francisco <i>Southbound:</i> Hillsdale Mall
397	Weekday & Weekends: 6:37AM – 12:46AM	Varies between 8-15 minutes	El Camino Real & 9 th Ave	0.4 miles	<i>Northbound:</i> San Francisco <i>Southbound:</i> Palo Alto Transit Center
ECR	Weekday Service: 4:06AM – 1:35AM Weekend Service: 4:47AM – 2:23AM	Weekdays: every 20 minutes Weekends: every 30 minutes	El Camino Real & 9 th Ave	0.4 miles	<i>Northbound:</i> Daly City BART <i>Southbound:</i> Palo Alto Transit Center
295	Weekday Service: 6:20AM-6:12PM	Every 30 minutes	San Mateo Caltrain	0.5 miles	<i>Northbound:</i> San Mateo Caltrain <i>Southbound:</i> Redwood City Transit Centre
250	Weekday Service: 5:40AM-10:40PM	Every 30 minutes	San Mateo Caltrain	0.5 miles	<i>Eastbound:</i> San Mateo Station <i>Westbound:</i> College of San Mateo
*Express route					

Table 6. SamTrans Fares

	Local Fare				Express Fare		
	Cash or Mobile	Clipper	Day Pass	Clipper Monthly Pass	Cash or Mobile	Clipper	Clipper Monthly Pass
Adult (Age 19 through 64)	\$2.25	\$2.05	\$4.50	\$65.60	\$4.50	\$4.00	\$130.00
Youth or Eligible Discount (Senior/ Disabled/ Medicare cardholder)	\$1.10	\$1.00	\$2.00	\$27.00	\$2.25	\$2.00	N/A

Nearby Destinations

Key destinations near the project site include:

- Nine shopping centers and a walkable downtown center within two miles of the project site that offer access to retail shops, restaurants, grocery stores, banks, pharmacies, and gyms
- Thirteen childcare facilities within two miles of the project site
- Ten elementary and middle schools within one mile of the project site
- Six parks within one mile walking distance of the project site

Available TDM Services

Commute.org Services

Commute.org is San Mateo County’s Transportation Demand Management Agency. Their resources are available to all residents and employees in the County. As such, the residents and employees of the project site will be able to take advantage of TDM resources curated for those commuting within the County and in the surrounding areas. The Commute.org website serves as a regional clearinghouse for all transportation and commuting-related information. They also provide the following services:

- **Try Transit Incentives:** Commute.org provides a free ‘try transit’ program that allows individuals to request free tickets for the transit option that works best for them.
- **Carpool Incentives:** Commuters who use Waze Carpool or Scoop are eligible to earn gift cards worth up to \$100.
- **Vanpool Incentives:** Drivers of a new vanpool can earn a \$500 reward, and vanpool riders can be reimbursed \$100/month of their costs for up to three months.
- **Bike Education:** Free bike safety workshops and bike marketing materials are available to residents and commuters. These are scheduled upon request and are available to employers and other sites, including residential properties, within San Mateo County. They can be 60, 75, or 90 minutes in length depending on what is ideal for the requesting party and include time for Q&A.

- **Bike Incentives:** Commute.org currently provides commuters who live or work in San Mateo County with incentives worth between \$25 to \$100 for biking to work. To participate in the program, bike commuters must track their work commutes using the Strava app. The rides are then recorded in the STAR platform, Commute.org's incentive delivery platform, where commuters can access their incentives.

Project TDM Measures

The TDM strategies in this section are effective and appropriate TDM measures based on the project's size, location, and land use. This chapter provides guidance on implementation, cost estimates, expected timelines, and indicates the anticipated responsible party for each TDM measure. It is understood that the property management team will be the 'responsible party' for most TDM measures outlined below.

A City of San Mateo guideline based on the Sustainable Streets Final Plan (SSP) (accepted by City Council in February 2015), recommends that all new developments within the Downtown core submit a TDM plan with a trip reduction target of 25 percent. However, the SSP has not been formally adopted and is therefore a guideline, not a formal requirement. This section aims to estimate the percentage of trips that each strategy can reduce for the property based on an estimated 700 average daily trips generated by the property. It is worth noting that many of the TDM strategies in this section are scalable and can easily be expanded by increasing the amount of resources allocated.

C/CAG TDM Policy & Project TDM Measures

As of January 1, 2022, the C/CAG TDM Policy requires that local jurisdictions in San Mateo County notify C/CAG of any new development within their purview that is estimated to generate at least 100 average daily trips (ADT). Applicants are required to submit a TDM Checklist alongside their development application acknowledging that their projects will achieve a target trip reduction.

Per the C/CAG TDM Policy Implementation Guide, mixed use projects should defer to the land use type that generates the majority of ADT to determine the TDM checklist that should be utilized.⁶ Per the project's Trip Generation analysis, the residential component generates the majority of the ADT. Based on the C/CAG guidelines, the 477 9th Avenue project is required to demonstrate a 25% trip reduction through TDM measures utilizing C/CAG's worksheet calculations. Appendix A includes the C/CAG checklist for this project. Table 7 summarizes the measures the project is utilizing to meet its 25% C/CAG trip reduction requirement.

⁶ City/County Association of Governments of San Mateo County. (2022). Transportation Demand Management Policy Implementation Guide. Retrieved from https://ccagtdm.org/wp-content/uploads/2022/04/CCAG_TDM-Policy-Update_Implementation-Guide_FINAL_4-19-2022_v11_CLEAN.pdf

Table 7. Summary of Project TDM Measures

Measure	Included In:	Required / Optional
Orientation, Education, Promotional Programs and/or Materials	TDM Plan	Required
TDM Coordinator/Contact Person	TDM Plan	Required
Actively Participate in Commute.org or TMA Equivalent	TDM Plan	Required
Transit or Ridesharing Passes/Subsidies	TDM Plan	Required
Reduced Parking	TDM Plan	Required
Secure Bicycle Storage	Site Plan - Secure bicycle storage is required per City of San Mateo Zoning code section 27.64.262 and is included in the applicant's Project Plans. As such, it is not factored into the TDM ROI calculations for this TDM Plan. However, per the C/CAG TDM checklist, this amenity obtains a 1% trip reduction, per the C/CAG worksheet.	Required
Design Streets to Encourage Bike/Ped Access	Site Plan - Supporting active transportation improvements is required by San Mateo General Plan Policies: C 4.5 (Pedestrian Enhancements with New Development), C 4.9 (Pedestrian and Bicycle Connections), UD 2.9 (Pedestrian Oriented Design), and is address through the applicant's Site Plan. As such, it is not factored into the TDM ROI calculations for this TDM Plan. However, per the C/CAG TDM checklist, this amenity obtains a 1% trip reduction, per the C/CAG worksheet.	Required
Institutionalizing TDM	TDM Plan	Optional
TDM Communications	TDM Plan	Optional
Carpool or Vanpool Program	TDM Plan	Optional
Carshare On-Site ⁷	TDM Plan	Optional
Bike/Scooter Share On-Site	TDM Plan	Optional
Active Transportation Subsidies	TDM Plan	Optional
Bike Repair Station ⁸	TDM Plan	Optional
Unbundled Parking	TDM Plan	Optional
Multi-modal Wayfinding Signage	TDM Plan	Optional
Bike Education / Workshops	TDM Plan	Optional
E-bike Subsidy	TDM Plan	Optional

The full suite of TDM Measures laid out in this Plan will allow the Applicant to achieve the required 25% reduction as calculated by the C/CAG checklist (see Appendix A).

⁷ Included in this TDM Plan as 'Car Share with Credits'

⁸ Included in this TDM Plan as 'Bike Support & Repair Facilities'

Required TDM Measures

The following sections describe the measures included in the TDM Plan for 477 9th Avenue. For each measure, the Plan provides implementation guidance as well as the estimated daily VMT reduction and vehicle trip reduction, per calculations utilizing the TDM Return on Investment (ROI) Calculator. The TDM ROI Calculator is a tool established by Mobility Labs, designed to estimate the impact of TDM measures based on geographic location data and expected delivery methods. Of note, these estimates often differ from the projected trip reduction estimates from the C/CAG checklist. The combination of strategies designated as “required” below satisfy the C/CAG requirements *and* achieve above a 25% trip reduction through the TDM ROI Calculator projections.

TDM Coordinator/Contact Person

An on-site TDM coordinator would act as a liaison between the developer, City, and the residents to develop, implement, and report on the site’s TDM programming. This person would be responsible for coordinating and marketing the selected TDM strategies.

Implementation Guidelines:

Assign the role of TDM Coordinator to an individual on the apartment management team to plan and implement the TDM program. Allocate approximately 5 hours per month for the TDM Coordinator to spend on the following activities:

- **Annual Monitoring:** Survey the residents and compile a monitoring report for submission to the City of San Mateo once a year.
- **Commute Assistance:** Provide route planning and transit itineraries for employees and residents who wish to explore their transportation options.
- **TDM Program Coordination and Outreach:** Organize and promote sustainable travel options through building communications such as emails, newsletters, and social media.

Required to meet C/CAG requirement	Yes
Estimated timeframe	Ongoing
Estimated cost	\$2,000 per year
Responsible party	Property Management team
Estimated daily VMT reduced	49 to 98
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	Spending approximately 5 hours per month organizing TDM program will lead to a 0.43% to 0.86% decrease in vehicle trips (can be reduced further with an increased commitment in time and TDM strategies)

Actively Participate in Commute.org

C/CAG requires that the 477 9th Avenue project actively participate in Commute.org or a Transportation Management Association (TMA) equivalent.

Commute.org's Certified Development Program provides developers with projects in San Mateo County with a formal certification of their active participation in Commute.org programs and services. The goal of the program is to give developers access to a set of TDM programs and services that can be integrated into other TDM strategies at their new developments in San Mateo County.

In the event that a TMA is developed in the Downtown San Mateo area, it is recommended that the site participate as a member.

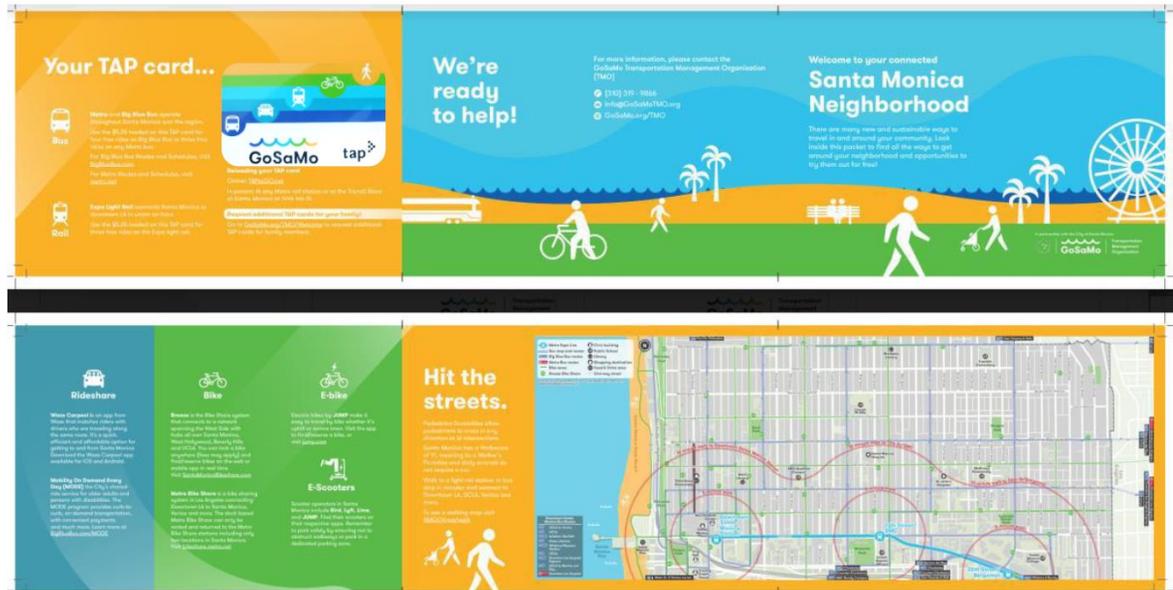
Required to meet C/CAG requirement	Yes
Estimated timeframe	Annual
Estimated cost	\$0
Responsible party	Property Management
Estimated daily VMT reduced	12 to 51
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	0.14% to 0.57%

Orientation, Education, Promotional Programs and/or Materials

Individuals are most likely to make a change in their transportation behavior alongside other key life changes. This suggests that providing new residents and employees with a packet that offers them information about all their transportation options can increase the likelihood for them to choose alternatives to driving alone.

New residents and employees would be provided with welcome packets that may include a transit pass with stored value, customized transportation information about nearby transit routes, bus stops, bike map, and routes, and other TDM initiatives undertaken by the property. The welcome packets should also include the contact information of the property’s TDM Coordinator/ Contact Person. Figure 6 displays an example of a welcome packet distributed to new residents in Santa Monica, CA.

Figure 6. New Resident Packet distributed in Santa Monica



Implementation Guidelines:

Design a new resident and employee welcome packet for the property that provides information on all transportation options available, as well as services that may make choosing sustainable travel easy and convenient. The TDM Coordinator can work directly with Commute.org, who can assist the property through provision of supportive materials, commuter incentives, and advice. The welcome packet should include:

- A map depicting a 10- and 20-minute walk and bicycle radius
- Information about the transit options available (SamTrans, Caltrain, and BART) and how to connect to them
- Information about all the transportation-related amenities offered by the property (e.g., bike storage facilities)
- Information about Commute.org services and resources
- Information about Guaranteed Ride Home and how to register

Required to meet C/CAG requirement	Yes
Estimated timeframe	Pre-occupancy and ongoing
Estimated cost	\$3,000 to develop packet, then up to \$3 per packet to print and distribute
Responsible party	Property Management
Estimated daily VMT reduced	161 to 179
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	1.14% to 1.29%

Transit Passes/Subsidies

Providing subsidized transit passes can help reduce single occupancy trips and increase transit ridership. It also provides increased flexibility for those who might still opt to drive occasionally.

Implementation Guidelines

Partner with Caltrain and SamTrans to provide free or discounted transit options to residents and employees through the following strategies.

Employees

- Partner with Caltrain to provide free annual pass Caltrain GO Pass to all employees
- Partner with SamTrans to provide a free annual pass Way2Go Pass to all employees

Residents

- Provide \$300 in annual subsidies for the purchase of Caltrain passes to each interested resident
- Provide \$79 in annual subsidies for the purchase of SamTrans passes to each interested resident

Required to meet C/CAG requirement	Yes
Estimated timeframe	Pre-occupancy (during the drafting of lease agreements), and ongoing.
Estimated cost	GO Pass: Approximately \$342 per employee Way2GO Pass: \$75 per employee Based on an estimate of 112 employees, the employee cost estimate is \$46,704 annually. Based on an estimate of 73 participating commuting residents, the resident cost estimate is \$27,667 in subsidies annually. Total cost estimate: \$74,371 annually
Responsible party	Property Management
Estimated daily VMT reduced	689 to 766
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	14.29% to 15.86%

Reduced Parking

Providing off-street private parking below local zoning code required minimums can promote greater use of alternative transportation modes, particularly in combination with other TDM measures.

The locally required minimum number of parking spaces for this project site is 254 (74 office spaces and 180 residential spaces). The project would provide 141 vehicle parking spaces in an off-street parking garage and 9 surface parking spaces, for a total of 150 vehicle parking spaces. This is 40.94% below locally required minimums which meets the requirement in the C/CAG TDM Checklist for this strategy of providing at least 10% below locally required minimums.

Implementation Guidelines

Design and develop project parking according to Project Plans.

Required to meet C/CAG requirement	Yes
Estimated timeframe	Pre-occupancy (included in Project Plans)
Estimated cost	\$0
Responsible party	Property Management
Estimated daily VMT reduced	248 to 550
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	2.57% to 5.71%

Optional TDM Measures

The following sections describe the optional TDM measures for 477 9th Avenue. For each measure, the Plan provides implementation guidance as well as the estimated daily VMT reduction and vehicle trip reduction, per calculations utilizing the TDM Return on Investment (ROI) Calculator.

Institutionalizing TDM

It is important that the TDM program be implemented as the site becomes occupied and be updated if needs change when office and apartment units turn over, or transportation and technology options evolve. Therefore, the TDM program should become institutionalized as part of the property’s organizational structure to ensure it remains in place and new residents and tenants are aware of its existence. Institutionalizing TDM does not have a direct impact on the reduction of trip and VMT. It is, however, an essential supporting action to ensure that the TDM strategies implemented at the property are successful.

Implementation Guidelines:

Institutionalize the TDM Program through the apartment and office leases by ensuring they outline the TDM infrastructure, amenities, and programs available and how they will be made available to the residents and tenants.

Required to meet C/CAG requirement	No
Estimated timeframe	During the drafting of lease language and ongoing
Estimated cost	\$0 – it is likely that this cost will already be undertaken by the property management in order to establish the details of the lease agreements, so including TDM in this effort will likely come at no additional cost
Responsible party	Property Management
Estimated daily VMT reduced	-
Percent of daily vehicle trips reduced	-

TDM Communications

To encourage individuals to choose sustainable travel options, it is essential to provide them with the information needed to do so. Having a communications plan that outlines what information to share and how to do so would set clear expectations for the TDM Coordinator.

Communicating Transportation Information:

- **Website** – Having all transportation-related information and resources available in one virtual location makes it easy and convenient for residents and employees to learn about their various travel options. The webpage could be integrated as part of the apartment and employee portals and should provide information about nearby transit routes and schedules, bike and pedestrian paths, services offered by Commute.org and other amenities. This is especially helpful for residents new to the neighborhood or employees commuting from outside of the City who are unaware of the transportation options available to them.
- **Resident and Employee Bulletin Boards** – Include TDM messaging on resident bulletin boards or other visible locations, such as elevator screens, on a regular basis to inform and update residents, visitors, and employees of sustainable travel options, upcoming events, and activities. Commute.org sends out regularly scheduled newsletters that provide up-to-date transportation information to utilize on boards or screens.
- **Newsletter and Social Media Posts** – Promote transportation options and updates via the apartment website and social media channels such as Facebook, Instagram, and Nextdoor, and include transportation information in newsletters or other communication distributed to residents and office tenants.
- **Real-time Transit Information** – Provide transportation screens that display real-time transit departures and arrivals proximate to the property.

Transportation Options to Promote:

- **All TDM incentives and services** offered by the property to residents and employees
- **Resources for trip planning** including Transit app, Google Maps or Citymapper offer excellent smartphone-based trip planning options
- **Commute.org information** about the resources available to residents and employees, especially information regarding the mode-specific resources and subsidies offered
- Information about the **Guaranteed Ride Home (GRH) or Emergency Ride Home (ERH)** programs offered by the surrounding counties (e.g., Commute.org’s GRH program for commuters who work in San Mateo County)
- Information about **Safe Routes to School programs**
- Locally accessible **transit information** including Information about bikes on board Caltrain, secure bike parking, and Park and Ride lots at the Downtown San Mateo Station and Hayward Park Station
- Information about **biking**, including links to local bike maps and cycling resources

Implementation Guidelines:

Create a webpage that lives on or is linked to the property’s resident/tenant-facing website and includes all the above listed information, at a minimum. Additionally, property management may

wish to create a social media presence. Commute.org offers a comprehensive transportation resources website free of charge that provides much of the above information.

Develop a regular schedule for newsletters and social media posts and promote relevant transportation information regularly through employee and resident bulletin boards.

Required to meet C/CAG requirement	No
Estimated timeframe	Pre-occupancy and ongoing
Estimated cost	\$2,000
Responsible party	Property Management
Estimated daily VMT reduced	28 to 55
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	0.29% to 0.43%

Bicycle Support & Repair Facilities

Some commuters are interested in walking or cycling to work because of the exercise it provides but are discouraged by the idea of arriving to a worksite without a place to refresh, particularly in hot weather. Provision of showers and lockers allows them to do so in a clean and comfortable environment before they start their workdays. Further, the presence of on-site repair amenities can encourage residents to cycle by making it an easier and safer experience.

Implementation Guidelines:

The applicant has provided plans for long-term bike parking, on the ground floor of the 477 9th Avenue development. Lockers/cubbies for personal items (such as helmets and other gear) should be installed in the bike rooms. If showers cannot be installed on the main floor, provision of and access to the shower facilities within the gym area may be an alternative option for employees of office tenants who commute by bike. Repair tools for cyclists to use when needed may be stored in the bike rooms as well. Property management should ensure locker rooms and shower facilities are kept clean and usable.

Required to meet C/CAG requirement	No
Estimated timeframe	Amenity construction at development phase, maintenance ongoing
Estimated cost	\$0 as already included in applicant plan
Responsible party	Applicant & Property Management
Estimated daily VMT reduced	3 to 6
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	0.14%

Carshare with Credits

The developer could partner with an existing carshare company such as Zipcar to provide those who do not own a vehicle the ability to use a car when needed. Providing occasional access to a vehicle, coupled with incentives to reduce parking needs, can encourage households and employees to forgo vehicle ownership (studies show increased car ownership decreases use of other modes such as transit⁹).

Implementation Guidelines:

Partner with a shared vehicle provider to provide residents and employees access to a car when needed. The carshare benefit can be made available to other external users. However, each participating household and employee at 477 9th Avenue can be provided with annual credits or subscription discounts.

Required to meet C/CAG requirement	No
Estimated timeframe	Ongoing
Estimated cost	\$4,000 to \$8,000 per year depending on number of participants
Responsible party	Property Management
Estimated daily VMT reduced	439 to 504
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	3.29% to 4.00%

Bikeshare On-Site

Providing shared bikes to residents is an excellent way to further encourage bike ridership for short trips. Use of e-bikes can increase the bike-shed for longer trips, up to approximately seven miles.

Implementation Guidelines:

Offer San Mateo bikeshare memberships to residents if/when a vendor becomes available. Alternatively, if a public bike share is not available, purchase four or more bicycles to create a property bikeshare. If considering a property-based bike share program, the following factors should be considered at the outset to ensure the program meets resident needs and is widely used:

- Choose at least one e-bike as part of the fleet
- Choose at least one cargo bike or trailer for the fleet so that residents can transport children or make grocery store trips

⁹ Jordan, S. (May 2019). Ridership Study Revisited UCLA ITS Scholars 2018 Report on Falling Transit Ridership Gets a Second Look. Retrieved from <https://caltransit.org/news-publications/publications/transit-california/transit-california-archives/2019-editions/may/ridership-study-revisited/>

- Choose bikes with easily adjustable seat height and wide seat height range to allow use by riders of different sizes
- Keep the bikes well-maintained and clean by partnering with local bike shops to do on-site maintenance or tune-ups twice a year
- Place the bikes in a visible easy to access location so that using the bikes is convenient for the residents

Required to meet C/CAG requirement	No
Estimated timeframe	Ongoing
Estimated cost	\$10,000 to \$15,000 depending on cost and number of bikes, ongoing maintenance. Administrative costs will vary based on program structure
Responsible party	Property Management to coordinate
Estimated daily VMT reduced	1 to 7
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	0% to 0.29%

Active Transportation Subsidies

Incentives for active transportation choices can be used as a strategy to provide awareness about transportation options available to employees, residents, and visitors. This can be administered in the form of short-term or long-term commute challenges and events that encourage the use of walking/cycling and reward those who chose active modes to get to work.

Implementation Guidelines

Promote monthly or quarterly commute challenges that encourage individuals to try new modes of sustainable transportation other than transit (i.e., cycling and walking), promotion can be done via the TDM communication’s webpage, information boards and TDM coordinator. As incentives, include prizes in the form of gift cards to local bike shops for cyclists, or a simple cash/gift card distribution or product raffle.

Required to meet C/CAG requirement	No
Estimated timeframe	Monthly/Quarterly
Estimated cost	Variable, subsidies can be distributed for each sustainable trip or create a logging system to reward sustained change
Responsible party	Property Management
Estimated daily VMT reduced	398 to 442
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	3.00% to 3.29%

Carpool and Vanpool Program

Carpooling and vanpooling are types of ridesharing whereby a vehicle carries additional passengers when making a trip, with minimal additional mileage. Typically, carpooling uses participants’ own vehicles, whereas vanpool typically uses rented vans (which can be supplied by employers, non-profit organizations, or government agencies).

Implementation Guidelines

Commute.org offers a Vanpool Rewards Program to encourage drive-alone commuters to start or join a vanpool for their commute trips. Commuters that live or work in San Mateo County are eligible to receive up to \$100 per year in e-gift card rewards when they log their carpool/vanpool trips.

Coordinate with Commute.org to provide material and information on their subsidy program and sign residents and employees up for their carpool matching system. Coordinate with vanpool vendors to identify commuters who might be able to join existing vanpools or create new ones.

In addition, designate on-site parking spaces for employees who carpool and vanpool to their worksites. The spaces should be located close to an entrance and should be demarcated with signage and/or paint (in line with other signage within the parking facility).

Required to meet C/CAG requirement	No
Estimated timeframe	Ongoing
Estimated cost	\$1,000 for sign fabrication; promotion of the program to be incorporated into cost of TDM Communications
Responsible party	Property Management
Estimated daily VMT reduced	963 to 1070
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	3.57% to 3.86%

Unbundled Parking

Access to free parking often dramatically reduces the cost of car ownership. Providing unbundled parking means charges for using on-site parking spaces are separate from the unit price or monthly rent. By unbundling the cost of renting an apartment from the cost of the parking spot, the property will encourage and reward sustainable travel.

Implementation guidelines:

Provide on-site parking spaces at a cost (market rate) and include as a separate line-item from the unit price or monthly rent.

Required to meet C/CAG requirement	No
Estimated timeframe	Pre-occupancy (during the drafting of lease agreements), and ongoing
Estimated cost	\$0
Responsible party	Property Management
Estimated daily VMT reduced	248 to 550
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	2.57% to 5.71%

Multimodal Wayfinding Signage

The developer may want to provide multimodal wayfinding signage at entry and exit points of the property. Wayfinding can help people visualize the time to nearby amenities using sustainable travel options. Examples of wayfinding window decals used in the City of Tulsa, Oklahoma are shown in Figure 7.

Implementation Guidelines:

Using consistent and legible design guidelines, create and post a network of pedestrian-scale signage at key entry and exit points of the property. The signs should point users to relevant destinations and give them estimates for how far away they are by walking and/or biking. For example:

- 8-minute walk to San Mateo Central Park
- 2-minute bike ride to Downtown San Mateo Shopping Area

Figure 7. Multimodal Wayfinding Signage Example



It will be important to evaluate the signage regularly to take into consideration any infrastructure or service changes that may impact options.

Required to meet C/CAG requirement	No
Estimated timeframe	Pre-occupancy
Estimated cost	\$500 - \$2,500 depending on technology
Responsible party	Property Management
Estimated daily VMT reduced	1 to 3
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	0%

Bike Education / Workshops

The property could partner with local bike advocacy groups, bike shops, or Commute.org to host bike safety workshops, educate residents and employees on the basics of biking, and share educational resources such as maps of nearby bike amenities like BikeLink lockers at train stations.

Implementation Guidelines:

Partner with Commute.org or a local bike advocacy organization to organize a bicycle safety training webinar or workshop annually. Commute.org offers free bike training workshops to employers and residential properties within San Mateo County.

Promote the workshop or webinar along with additional resources on the property's dedicated website, resident or employee newsletter/bulletin board, and social media. Some additional resources to share with residents and employees include:

- Bike Safety and Rules of the Road
- Family Biking - How to Bike Safely with Adults and Kids of Any Age
- Biking maps and trails

Required to meet C/CAG requirement	No
Estimated timeframe	75% occupancy, annually
Estimated cost	\$500 per year
Responsible party	Property Management
Estimated daily VMT reduced	5 to 12
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	0.14% to 0.43%

E-Bike Subsidy

E-bikes offer individuals the opportunity to travel significantly farther, faster, and across more challenging topography than a regular bicycle. There is increasing research indicating that e-bikes are successful at replacing car trips.¹⁰ However, the cost of e-bikes is one of the strongest barriers to increased adoption.

Implementation Guidelines:

Provide financial incentives to residents to help with adoption. Provide recipients with supporting resources such as bike route maps and safe bicycling guides. It will also be important to ensure that sufficient space for larger e-bikes is allocated in the secure bike storage rooms within the building.

Required to meet C/CAG requirement	No
Estimated timeframe	Ongoing
Estimated cost	\$4,600 per year Based on an estimated 23 participating residents, qualifying for a \$200 subsidy each
Responsible party	Property Management
Estimated daily VMT reduced	161 to 178
Percent of daily vehicle trips reduced (ROI Calculator Estimates)	1.14% to 1.29%

¹⁰ Curry, M. (April 2019). Study: Electric Pedal-Assist Bikes Can Get People Out of Their Cars. Retrieved from <https://cal.streetsblog.org/2019/04/17/study-electric-pedal-assist-bikes-can-get-people-out-of-their-cars/>

Impact of TDM Measures

If implemented correctly and consistently, the TDM program outlined in Chapters 4 and 5 (Required TDM Measures and Optional TDM Measures) is forecasted to result in a daily reduction of between 3,406 and 4,471 vehicle miles travelled (VMT), which would lead to a reduction of approximately 1,164 to 1,529 kilograms of carbon dioxide every day. The proposed TDM program also complies with the C/CAG's TDM requirements by incorporating each of the measures required and, according to the worksheet provided by C/CAG, achieving the trip reduction target of 25% (see Appendix A).

Beyond the C/CAG checklist, which provides flat percentage reduction estimates for each strategy, this TDM Plan utilizes the TDM Return on Investment (ROI) Calculator, a tool owned by Mobility Lab and developed by university and governmental partners. The TDM ROI Calculator helps practitioners and policy makers understand the benefits of their investment in TDM strategies and programs by calculating estimated vehicle trips, VMT, hours of congestion delay, and emissions reduced, with more specific consideration given to number of expected users, daily trips taken, and average trip distances for each strategy. Based on the ROI calculator, the package of TDM measures will reduce daily vehicle trips by an estimated 32.71% to 43.71%. More information about the TDM ROI Calculator and assumptions made to calculate estimated impacts are included in Appendix B.

Program Impacts

Table 8 outlines the total estimated VMT and congestion hours reduced with the recommended TDM program for the project site.

Table 8. Cumulative TDM Strategies

477 9 th Avenue	Annual VMT Reduced		Annual Vehicle Trips Reduced		% of Annual Trips Reduced		Annual Congestion Reduced (hours of delay)		Carbon Dioxide Reduced (kg)	
	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.
Required TDM Measures	286,273	406,068	32,110	41,990	18.57%	24.29%	29,640	36,062	98,059	138,814
Optional TDM Measures	555,009	698,269	24,453	33,592	14.14%	19.43%	70,395	79,287	189,449	238,849
Required TDM Measures and Optional TDM Measures	841,282	1,104,337	56,563	75,582	32.71%	43.71%	100,035	115,349	287,508	377,663

Table 9 summarizes the daily VMT, vehicle trips, and congestion reduction for each of the TDM strategies. The rows in gray indicate the optional TDM strategies.

Table 9. Individual TDM Strategies

Strategy	Daily VMT Reduced		Daily Vehicle Trips Reduced		% of Daily Trips Reduced		Daily Congestion Reduced (hours of delay)		Daily Carbon Dioxide Reduced (kg)	
	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.	Low Est.	High Est.
TDM Coordinator/Contact Person	49	98	3	6	0.43%	0.86%	8	16	17	33
Actively Participate in Commute.org	12	51	1	4	0.14%	0.57%	1	7	4	18
Orientation, Education, Promotional Programs and/or Materials	161	179	8	9	1.14%	1.29%	21	23	55	61
Transit Passes/ Subsidies	689	766	100	111	14.29%	15.86%	90	100	236	262
Reduced Parking	248	550	18	40	2.57%	5.71%	0	0	85	188
Institutionalizing TDM	<i>Institutionalizing TDM does not have a direct impact on the reduction of trip and VMT.</i>									
TDM Communications	28	55	2	3	0.29%	0.43%	3	7	9	19
Bike Support & Repair Facilities	3	6	1	1	0.14%	0.14%	0	0	1	2
Carshare with Credits	439	504	23	28	3.29%	4.00%	55	62	150	173
Bikeshare On-site	1	7	0	2	0.00%	0.29%	0	0	0	2
Active Transportation Subsidies	398	442	21	23	3.00%	3.29%	52	58	136	151
Carpool and Vanpool Program	963	1,070	25	27	3.57%	3.86%	154	171	329	366
Unbundled Parking	248	550	18	40	2.57%	5.71%	0	0	85	188
Multimodal Wayfinding Signage	1	3	0	0	0.00%	0.00%	0	0	0	1
Bike Education / Workshops	5	12	1	3	0.14%	0.43%	0	0	2	4
E-bike Subsidy	161	178	8	9	1.14%	1.29%	21	23	55	61

Monitoring

The City of San Mateo will require the site to perform annual monitoring and reporting. Ongoing monitoring will help the property track the impact of its TDM programs, as well as provide a regular schedule for evaluating programming and identifying gaps and opportunities. The results will help the property management team adjust programs to better meet the needs of their residents and employees.

The City of San Mateo's general conditions for approval stipulate that all new developments must submit a Trip Reduction and Parking Management Plan and submit an annual monitoring report.

Annual Survey

The City of San Mateo requires an annual letter to the Public Works Director or designee that outlines the TDM measures implemented and information from a mode split survey.

To comply with both City and C/CAG requirements, the TDM Coordinator should register with Commute.org. Commute.org will administer the complimentary biennial surveys that are required to comply with the C/CAG policy through the OneCommute Platform. On the 'off' years, the developer may contract directly with Commute.org to undertake an additional survey, or may administer the survey themselves. If they select the latter option, it is recommended that the questions and survey language mirror the survey provided by Commute.org so the site and City are able to collect comprehensive and consistent data.

The survey results allow the property to not only track program progress but also identify ways to approach and/or adjust the program and further shift travel behavior towards more sustainable modes (transit, bike, walk, and carpool) over time. The TDM Coordinator could use the data to understand which amenities are popular and should remain, which are not effective and should be adjusted, and identify additional measures to implement in their place.

Appendices

A C/CAG TDM Checklist

TDM Checklist

C/CAG TDM Checklist
San Mateo County

ccagtdm.org

Residential (Multi-Family) Land Use: Large Project

500+ ADT; ~50+ Units

Page 1 of 2

About this Form

Any new development project anticipated to generate at least 100 average daily trips is subject to the C/CAG TDM Policy and must complete a TDM Checklist and implement associated measures to mitigate traffic impacts. [Read more at ccagtdm.org](http://ccagtdm.org)

? Questions?
support@ccagtdm.org

A Applicant Information

Project Address 477 9th Avenue		Contact First and Last Name
Parcel Number	Application Date [][] / [][] / [][][][]	Contact Phone Address
Project Jurisdiction San Mateo, CA		Contact Email Address

B Trip Reduction Target

Select one option based on your project's distance to high quality transit

[Read more about high quality transit at ccagtdm.org/high-quality-transit](http://ccagtdm.org/high-quality-transit)

Identify your project type

<input checked="" type="radio"/> TOD Less than 1/2-mile from high quality transit service 25% Trip Reduction Required	<input type="radio"/> Transit Proximate 1/2 to 3 miles from high quality transit service 35% Trip Reduction Required	<input type="radio"/> Non-Transit Proximate More than 3 miles from high quality transit service 35% Trip Reduction Required
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C Required Measures

You must select all measures that apply for your project type

[Click on each measure's title for more information](#)

Measure	Project Types	Percentage	Yes
1 M2 - Orientation, Education, Promotional Programs and/or Materials Offer new residents an orientation or education program or materials.	ALL	1%	<input checked="" type="checkbox"/>
2 M3 - TDM Coordinator/Contact Person Provide TDM coordinator/liaison for tenants. May be contracted through 3rd party provider, such as Commute.org.	ALL	0.5%	<input checked="" type="checkbox"/>
3 M4 - Actively Participate in Commute.org or Transportation Management Association (TMA) Equivalent Obtain certification of registration from Commute.org or equivalent TMA incorporation documents. Select only one based on Project Type	TOD & Non-transit Proximate	5%	<input checked="" type="checkbox"/>
	Transit Proximate	15%	<input type="checkbox"/>
4 M6 - Transit or Ridesharing Passes/Subsidies Offer tenants passes or subsidies for monthly public transit or ridesharing costs incurred, equivalent to 30% of value or \$50 - whichever is lower.	ALL	10%	<input checked="" type="checkbox"/>
5 M8 - Secure Bicycle Storage Comply with CalGREEN minimum bicycle parking requirements.	ALL	1%	<input checked="" type="checkbox"/>
6 M9 - Design Streets to Encourage Bike/Ped Access Design adjacent streets or roadways to facilitate multimodal travel.	ALL	1%	<input checked="" type="checkbox"/>
7	Total from Required Measures Sum percentages from each selected measure from rows 1-6		18.5%

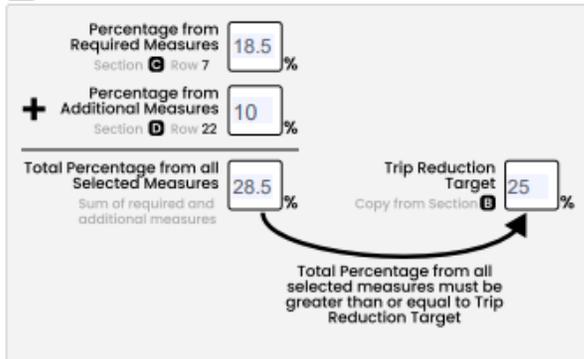
Form Continues on Page 2 →



D Additional Recommended Select enough to meet the trip reduction target from section B Click on each measure's title for more information

Measure	Project Types	Percentage	Yes
8 M5 - Carpool or Vanpool Program Establish carpool/vanpool program for tenants and register program with Commute.org.	ALL	2%	<input type="checkbox"/>
9 M10 - Delivery Amenities Offer delivery amenities, including dedicated receipt and storage areas, to reduce need for multiple trips to conduct similar business.	ALL	1%	<input type="checkbox"/>
10 M11 - Family-supportive Amenities On-site secure storage of personal car seats, strollers, cargo bicycles, or other large bicycles. Property owners can also provide shared building equipment, such as shopping carts or cargo bicycles for check out by residents.	ALL	3%	<input type="checkbox"/>
11 M14 - Paid Parking at Market Rate Offer hourly/daily parking rates proportional to monthly rate or equivalent to cost of transit fare.	ALL	25%	<input type="checkbox"/>
12 M15 - Reduced Parking Provide off-street parking at least 10% below locally-required minimums, or else below the locally-permitted parking maximums. Consideration may be required of potential spillover parking into surrounding areas.	ALL	10%	<input checked="" type="checkbox"/>
13 M17 - Developer TDM Fee/TDM Fund Voluntary impact fee payment on a per unit or square footage basis, to fund the implementation of TDM programs.	ALL	4%	<input type="checkbox"/>
14 M18 - Car Share On-Site Provide on-site car share or vehicle fleets.	ALL	1%	<input type="checkbox"/>
15 M19 - Land Dedication or Capital Improvements for Transit Contribute space on, or adjacent to, the project site for transit improvements. Select one or more	Bus Pullout Space <input type="checkbox"/> 1% ALL <input type="checkbox"/> Bus Shelter <input type="checkbox"/> 1% Visual/Electrical Improvements (i.e., Lighting, Signage) <input type="checkbox"/> 1% Other (i.e., Micromobility Parking Zone, TNC Loading Zone) <input type="checkbox"/> 1%	<input type="text" value=""/> % Total percentages selected	<input type="checkbox"/>
16 M20 - Shuttle Program/Shuttle Consortium/Fund Transit Service Establish a shuttle service to regional transit hubs or commercial centers. Shuttle service should be provided free of charge to employees and guests.	Non-transit Proximate	10%	<input type="checkbox"/>
17 M21 - Bike/Scooter Share On-Site Allocate space for bike/scooter share parking.	All	1%	<input type="checkbox"/>
18 M22 - Active Transportation Subsidies Offer biking/walking incentives to tenants, such as gift card/product raffles.	All	2%	<input type="checkbox"/>
19 M23 - Gap Closure Construct or enhance quality of biking and walking facilities to/from site to existing trails, bikeways, and/or adjacent streets.	All	7%	<input type="checkbox"/>
20 M24 - Bike Repair Station Offer on-site bike repair space/tools in visible, secure area.	All	0.5%	<input type="checkbox"/>
21 M26 - Pedestrian Oriented Uses & Amenities on Ground Floor Provide on-site, visible amenities to tenants and guests, such as cafes, gyms, childcare, retail.	All	3%	<input type="checkbox"/>
22	Total from Additional Measures Sum percentages from each selected measure from rows 8 - 21		<input type="text" value="10"/> %

E Project Totals



F Submit Checklist

➔ See ccagtdm.org/submission for how to submit this form.

Questions?

Email Us support@ccagtdm.org

Visit Our Website ccagtdm.org

B TDM ROI Calculator

The Transportation Demand Management (TDM) Return on Investment-(ROI) Calculator is a tool owned by Mobility Lab, an Arlington County, Virginia, funded transportation behavior and policy research center. It was developed in partnership with university and governmental partners, with funding from the Federal Highway Administration, to provide TDM program staff, transportation planners, and others involved in implementing TDM services a quantifiable way to estimate the ROI for TDM services.

According to the TDM ROI Calculator User Manual, the model calculates impacts for individual TDM services then combines the individual impacts, with discounts to account for overlap between services, to determine the cumulative impact of all services.¹¹

The calculator performs the following functions:

- Estimates TDM travel impacts, defined as reductions in commute vehicle trips and vehicle miles travelled (VMT), from a user-defined package of TDM services
- Converts vehicle trip and VMT reductions into societal benefits, such as reduction in hours of travel time delay and gallons of gasoline saved
- Calculates the societal cost savings from each benefit and the overall cost saving from all benefits combined
- Compares the societal cost saving to the TDM program "investment" cost to estimate ROI

As most TDM programs do not have detailed VMT and trip reduction data, the ROI Calculator instead asks for user participation numbers and program costs as the inputs for its calculations. The model then uses four calculation factors derived from TDM service user surveys along with pre-set regional inputs and national environmental data to estimate the number of participants who will shift behavior and the number of daily vehicle trips, VMT, and hours of congestion that their behavior shift will reduce. If more detailed regional and national data are known, they can be input to override the pre-set data used for calculation.

The inputs used for calculating the VMT and vehicle trip reductions for the 477 9th Avenue Plan are outlined on the following pages so that the results can be duplicated with ease.

¹¹ Mobility Lab.(2019).TDM ROI Calculator User Manual Retrieved from <https://mobilitylab.org/calculators/>

Regional Inputs

At the outset in Section A (Your Region, Service Area Type and Transit Availability), the TDM ROI Calculator asks users to make a series of selections to determine geographic and transit characteristics of the area being examined. The options selected for the 477 9th Avenue Plan are displayed in Table B.1 as follows:

Table B.1. Selections made for region, service area type and transit availability

Question in the ROI Calculator	Option Selected for the TDM Plan
Metropolitan Region	San Francisco-Oakland-Hayward, CA
Primary land use density and development pattern	Moderate density, urban or small city/town
Primary focus of TDM Program outreach	Balanced mix of outreach to commuters at worksites and residential areas
Percentage of commuters within ½ mile of bus/train stop in service area	76% to 100% of commuters are within 1/2 mile of a bus or train stop
Average public transit frequency in the service area in the morning peak period (select ONLY ONE option)	Moderate-Average rush hour frequency for most routes is 16-30 minutes

With the above inputs selected, the model determines the classifications for the project site as follows in Table B.2.

Table B.2. Project site TDM service area and transit availability classifications

Your TDM Service Area classification is:	Suburban/small city
Your Transit Availability classification is	High transit

Regional Travel, Environmental and Cost Benefit Factors

The final section of the ROI Calculator (Section F - Additional Regional/Service Area Data Environmental Inputs) shows the default numbers used for regional travel, environmental and cost benefit factors. Users have the option to override these defaults by inputting values into the “User Defined” cells if specific local factors are known. Table A.3 shows the defaults assumed by the model and indicates if the defaults were overridden, and which values were used. The inputs defined in Table B.3 remained the same for all calculations for the 477 9th Avenue TDM Plan.

Table B.3. Travel, vehicle pollutant emission, and benefit cost factor default and user defined values

Regional Travel Factors	Regional Default	User Defined
-------------------------	------------------	--------------

Average home-to-work commute miles for the region (one-way distance)	9.6	13.9 ¹²
Percentage of regional commuters who drive alone to work OR percentage of weekly commute trips made by driving alone	63.2%	59% ¹³
Percentage of regional commuters who ride public transit to work OR percentage of weekly commute trips made by transit	17.6%	9.1% ¹⁴
Regional Vehicle Pollutant Emission Factors	National Default	User Defined
Oxides of Nitrogen (NOx) emission rate in grams per mile of travel	0.445	0.171
Volatile Organic Compounds (VOC) emission rate in grams per mile of travel	0.075	0.035 ¹⁵
Greenhouse gas (Carbon Dioxide Equivalent) emission rate in grams per mile of travel	387.460	342.000 ¹⁶
Regional Benefit Cost Factors	Regional Default	User Defined
Median average wage rate for commuters in the service area or metropolitan region	\$24.90	\$49.71 ¹⁷
Estimated average annualized cost to build/maintain one lane-mile of major roadway (combination of Interstate and limited access roadway)	\$165,000	-
Average pump price per gallon for regular unleaded gasoline	\$3.36	\$4.57 ¹⁸

Assumptions

Resident Characteristics Assumptions

To estimate potential participation numbers, some assumptions about the number of individuals living at the property at 100% occupancy were made. These assumptions begin with the

¹² San Mateo Economic Development Association (2012). Labor Supply and Commute Patterns in San Mateo County Report. Retrieved from http://www.bayareaeconomy.org/files/pdf/BACEI_Labor_Mobility_110612.pdf

¹³ U.S. Census Bureau (2021). American Community Survey 5-year estimates. Retrieved from Census Reporter Profile page for Census Tract 6063, San Mateo, CA <http://censusreporter.org/profiles/14000US06081606300-census-tract-6063-san-mateo-ca/>

¹⁴ Ibid.

¹⁵ California Air Resources Board Emissions Factors (EMFAC) database

¹⁶ Ibid.

¹⁷ San Mateo Economic Development Association (2012). Labor Supply and Commute Patterns in San Mateo County Report. Retrieved from http://www.bayareaeconomy.org/files/pdf/BACEI_Labor_Mobility_110612.pdf

¹⁸ AAA. (2022). AAA Gas Prices. Retrieved from <https://gasprices.aaa.com/?state=CA>

knowledge that there will be 120 units for rent. The assumptions and the basis for each are outlined in Table B.4.

Table B.4. 477 9th Avenue resident and employee characteristics assumptions

Category	Assumption and Basis	Number
Total number of people residing at the property at full occupancy	2021 ACS data indicates that there are 2.23 persons per household in the census tract 6063 and there will be 24 studios, 64 one-bedroom, 29 two-bedroom, and 3 three-bedroom units on site.	268
Children under 18	2021 ACS data shows that 18.7% of the census tract's population is children	50
Adults	Subtracting children from the total population	218
Number of people not in labor force	2021 ACS data shows that 33.3% of people residing in the census tract are not in the labor force	73
Number of residential commuters	Subtracting people not in labor force from adult population	145

ROI Calculator Participation and Calculation Factors Assumptions

In order to use the ROI calculator to calculate estimated impacts for the 477 9th Avenue project, assumptions were made to estimate the participation rate for each strategy. Additionally, if a strategy was not outlined as a direct input in the model, assumptions were made to estimate the calculation factors associated with it. Table B.5 outlines those assumptions.

Table B.5. Summary of Assumptions for each Strategy

Strategy	ROI Calc Input	Participation Assumption (per year)	Basis for Participation Assumption	Placement rate (%) Assumption	Vehicle Trip Reduction Factor Assumption	One-Way Commute Distance Assumption (miles)	Drive-Along Access % Assumption
TDM Coordinator/ Contact Person	Comprehensive Commute Assistance	52	Assist 20% of residents and employees with questions about transportation including one-on-one assistance when asked and promoting sustainable transportation options (5 hours/month)	45% Pre-set in model	0.6 Pre-set in model	20.9 Pre-set in model	70% Pre-set in model
Actively Participate in Commute.org	Employer Services	112	The resources available through the Commute.org will be available to all employees at the worksite	12% Pre-set in model	0.8 Pre-set in model	13.9 Pre-set in model	40% Pre-set in model
Orientation, Education, Promotional Programs and/or Materials	Alternative mode “try it” incentive	36	Each household and new employee on the property would receive a packet. At a minimum, the transit users (9%) would take advantage of the information and an additional 5% will try a new mode based on the information provided	40% Pre-set in model	0.8 Pre-set in model	20.9 Pre-set in model	50% Pre-set in model
Transit Passes/Subsidies	Ongoing transit incentive	185	All employees + 50% of commuting residents	50% Pre-set in model	1.2 Pre-set in model	10.4 Pre-set in model	70% Pre-set in model
Reduced Parking	Custom	33	It would be used by residents who do not have access to parking	75%	2	13.9	0%
Institutionalizing TDM	-	258	All residents and employees at the property would be subjected to the lease conditions	-	-	-	-

TDM Communications	Commute Program Website	90	10% of adults would access webpage for transportation info and incentives and approximately 25% would see the newsletter and social media communications, especially if they are included with communications regarding other property updates	50%	0.5 Pre-set in model	20.9 Pre-set in model	70% Pre-set in model
Bicycle Support & Repair Facilities	Bike Commute Program	23	The walk and bike users (4.1%) + an additional 5% with the improvement bike support infrastructure (employees and residents)	15% Pre-set in model	1.0 Pre-set in model	4.5 Pre-set in model	0% Pre-set in model
Carshare with Credits	Carshare	94	It would be used by residents and employees who do not have access to parking	15% Pre-set in model	0.3 Pre-set in model	10.4 Pre-set in model	0% Pre-set in model
Bikeshare	Bikeshare	23	At a minimum, the walk and bike users (4.1%) would take advantage of the program and an additional 5% will “try it” based on interest	40% Pre-set in model	0.2 Pre-set in model	4.5 Pre-set in model	0% Pre-set in model
Sustainable Transportation Incentives	Ongoing multi-modal incentive	57	Sustainable transportation users other than public transit users (17.3%) will take advantage of promotional programs, and an additional 5% of residents and employees will “try it” based on incentives	50% Pre-set in model	0.8 Pre-set in model	20.9 Pre-set in model	50% Pre-set in model
Vanpool and Carpool Program	Vanpool Formation	49	All carpool/vanpool participants will be a part of the program. An additional 5% (if census tract carpool mode share is less than 10%) and 10% (if carpool mode share is more than 10%) might be incentivized.	100% Pre-set in model	1.4 Pre-set in model	41.7 Pre-set in model	90% Pre-set in model

Unbundled Parking	Custom	33	It would be used by residents who do not have access to parking	75%	2	13.9	0%
Multimodal Wayfinding Signage	General Marketing	258	The decals would be visible to all residents, employees and visitors	2%	0.5 Pre-set in model	20.9 Pre-set in model	70% Pre-set in model
Bike Education/ Workshops	Custom	23	At a minimum, the walk and bike users (4.1%) would take advantage of the program and an additional 5% will “try it” based on interest	25%	1.2	4.5	10%
E-bike Subsidy	Ongoing multi-modal incentive	23	At a minimum, the walk and bike users (4.1%) would take advantage of the subsidies and an additional 5% will “try it” based on interest	50% Pre-set in model	0.8 Pre-set in model	20.9 Pre-set in model	50% Pre-set in model

C Background Assessment

477 9th Avenue Project Background Assessment Memorandum

Introduction

The City of San Mateo has commissioned Steer to develop a Transportation Demand Management (TDM) Plan for the 477 9th Avenue project site to reduce the ceiling of potential congestion and trips generated by the project. The project is a proposed redevelopment by the Martin Group of an existing one-story office building (Twin Oaks Office Plaza) and surface parking lot into a new five-story mixed-use building. The proposed building will consist of 28,100 square feet of office uses (first and second floors). The third through fifth floors consist of a total of 120 residential rental units (via a State Density Bonus Request). The proposed project will require a Special Use Permit (SUP) to allow residential uses in the E2 (Executive Office) zoning district.

The TDM Plan development begins with a thorough assessment of the site, including existing and planned conditions. A combination of desktop-based research and analysis, review of available site plans and renderings, and study of planned developments are utilized in establishing our understanding of the site conditions. Insight from the City and developer team has also been incorporated into this document.

The document details the following aspects of the site and project:

- Project Description
- Existing Infrastructure
- Nearby Attractions
- Available TDM Services
- Travel Trends
- Next Steps

Project Description



The project site is bounded by a two-story office building to the north, 9th Avenue on the south, S. Claremont Street on the east and the Caltrain railway on the west. The proposed 5-story mixed use project includes:

- 28,100 square feet of office space and parking facilities on floors one and two
- 120 residential units^{19,20}, on floors three through five. The residential unit mix is as follows:
 - 24 studio units
 - 64 one-bedroom units
 - 32 two-bedroom units
- A total of 166 vehicle parking spaces consisting of:
 - an above-grade parking garage, providing 32 office parking stalls on the ground level and 120 residential parking stalls on the first and second floors
 - a small surface parking lot consisting of an additional 14 office parking spaces
- A total of 142 bicycle stalls consisting of:
 - 132 long-term bicycle stalls
 - 10 short-term bicycle stalls

Table C.1 provides a comparative summary between the current and proposed site development.

¹⁹ 80 of the proposed total units are allowed by zoning and 40 “bonus” units are authorized by the Density Bonus Law

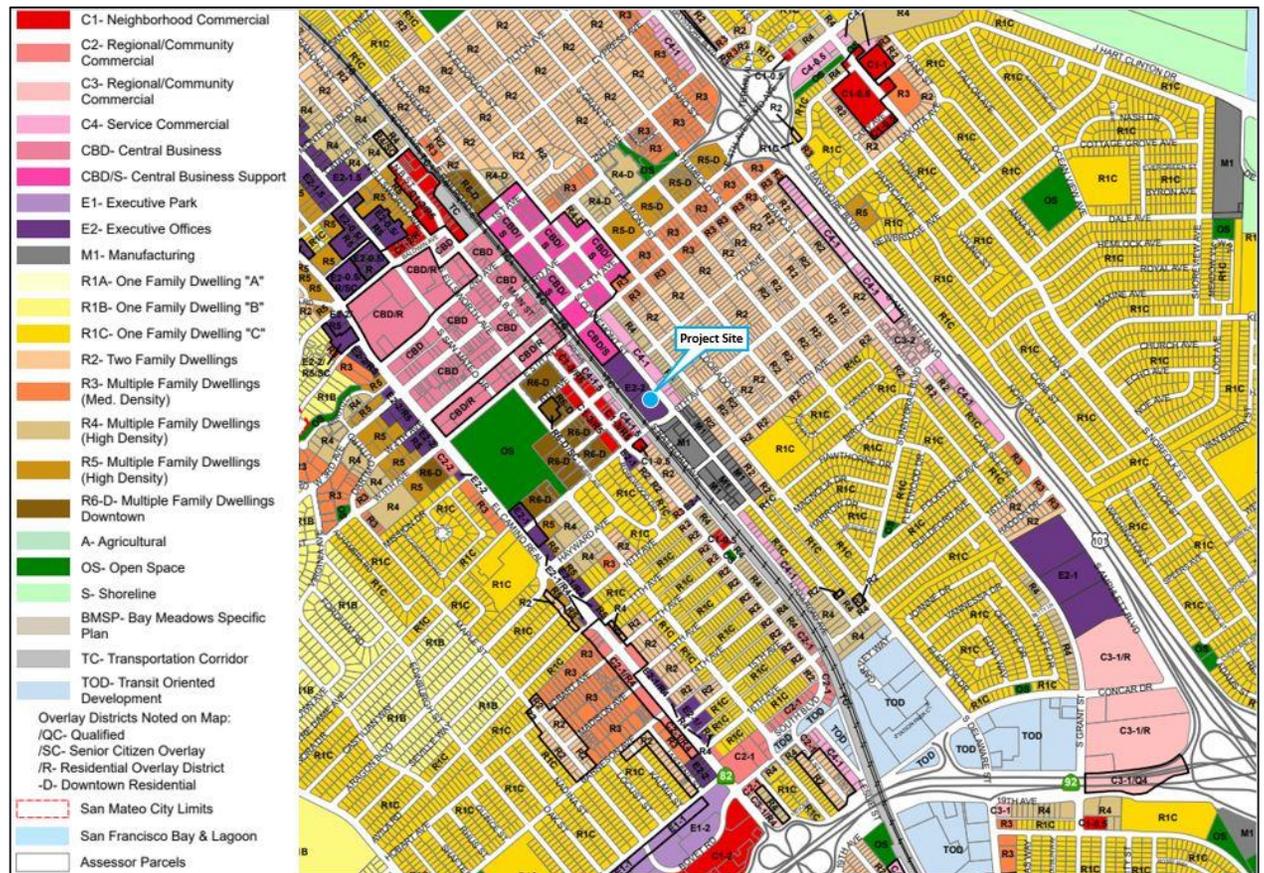
²⁰ 12 of the residential units are proposed to be designated as affordable at the Very Low income category.

Table C.10. Proposed Project Attributes (source: 477 9th Avenue Project Plans, dated June 30, 2022)

	Existing	Proposed
Description	One single story office building	One five story mixed use (office/residential) building
Square Footage	21,600	209,204
Zoning Designation	E2-2	E2-2

The site is zoned E2-2 (Executive Office). As shown in Figure C.1, the surrounding properties are generally zoned for M-1 Manufacturing uses, C4 Service Commercial, R-2 Two Family Dwelling Units, CBD Central Business and CBD/S Central Business Support.

Figure C.1. City of San Mateo Zoning Map (source: City of San Mateo Planning Division, 2019)



The City’s E2 zoning district, Executive Offices, permits residential units on parcels without a residential overlay, subject to the approval of a SUP and compliance with the R4 zoning district’s residential density development standards.

The project site is limited to a floor-area ratio (FAR) of 2.0, based on its E2-2 zoning designation. The project’s proposal to designate 12 residential units to the Very Low income category affords the project up to three concessions and waivers from development standards. As such, the developer is requesting to increase the FAR maximum to 3.0. The project proposes 166 vehicle parking spaces and 142 bicycle parking stalls, as summarized in Table C.2.

Table C.2. Proposed Project Parking Provision (source: 477 9th Avenue Project Plans, dated June 30, 2022)

	Required	Proposed
Vehicle Parking	N/A	Office: 44 spaces
	N/A	Residential: 120 spaces
Bicycle Parking	140 stalls (9 short term, 131 long term)	142 stalls (10 short term, 132 long term)

Existing Infrastructure

Road Network

The project site is located approximately 0.5 miles south of the Downtown San Mateo Caltrain Station and is adjacent to the railroad tracks. The site is surrounded by the following road network (see Figure C.2):

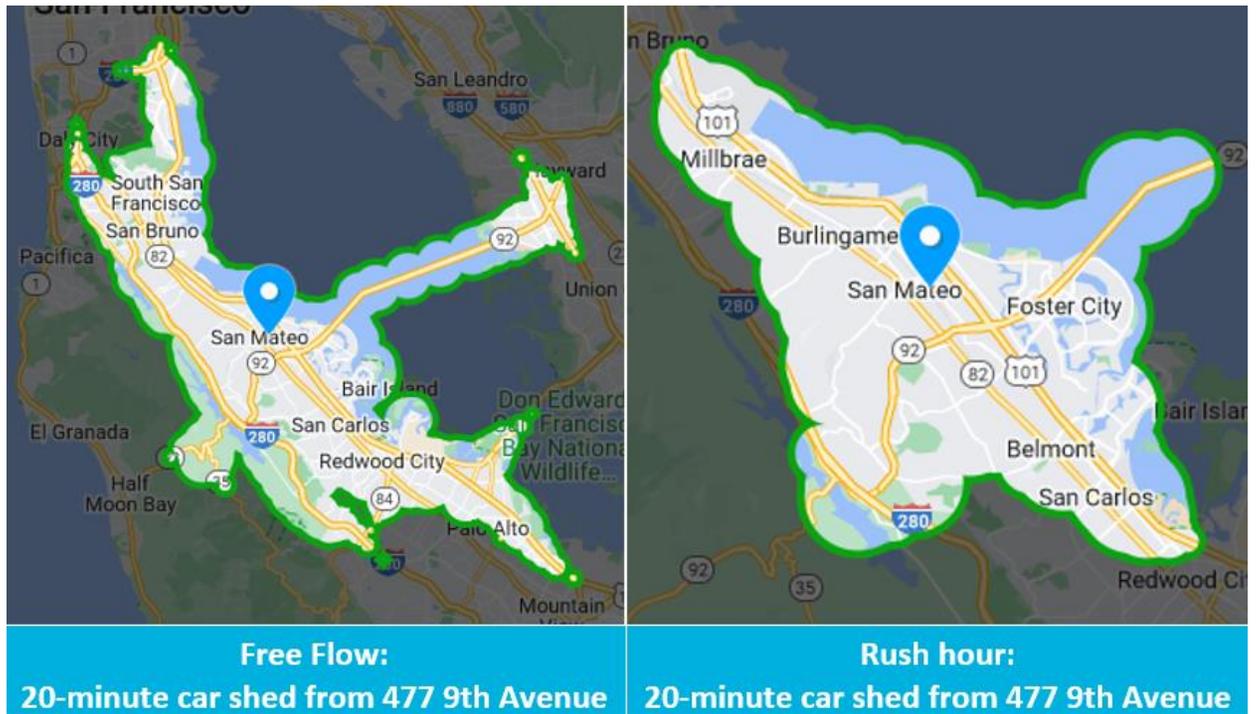
- West of the project site, 9th Avenue is classified as an Arterial.
- East of the project site, 9th Avenue is classified as a Collector.
- Along the project site, S. Claremont Street is classified as a Collector.
- 9th Avenue offers connections to El Camino Real and U.S. Highway 101.

Figure C.2. Surrounding Street Network (source: City of San Mateo Public Works)



9th Avenue offers connections to U.S. Highway 101 on the east, and to the west lies Highway 82. Both highways connect north to San Francisco and south to San Jose. 9th Avenue also connects to S. Delaware Street, which is an arterial road. S. Delaware Street connects to U.S. Highway 92 which leads to East Bay communities and to Half Moon Bay in the westbound direction. Figure C.3 displays the 20-minute drive shed from the project site during free flow conditions (left) and during rush hour (right).

Figure C.3. 20-Minute Car Shed for 477 9th Avenue (source: Walkscore.com)



The intersection at 9th Avenue and S. Delaware Street was included in the San Mateo Existing Conditions Circulation Report.²¹ It maintains a level of service (LOS) “A” in the AM and PM hours (see Table C.3).

Table C.3. Level of Service for 9th Avenue and S. Delaware Street (source: City of San Mateo Existing Conditions Report, 2018)

	Signalized Intersection Peak-Hour Levels of Service			
	Year 2018 Conditions			
	AM Peak Hour		PM Peak Hour	
9 th Avenue and S. Delaware Street	Delay (seconds)	LOS	Delay (seconds)	LOS
	7.3	A	7.9	A

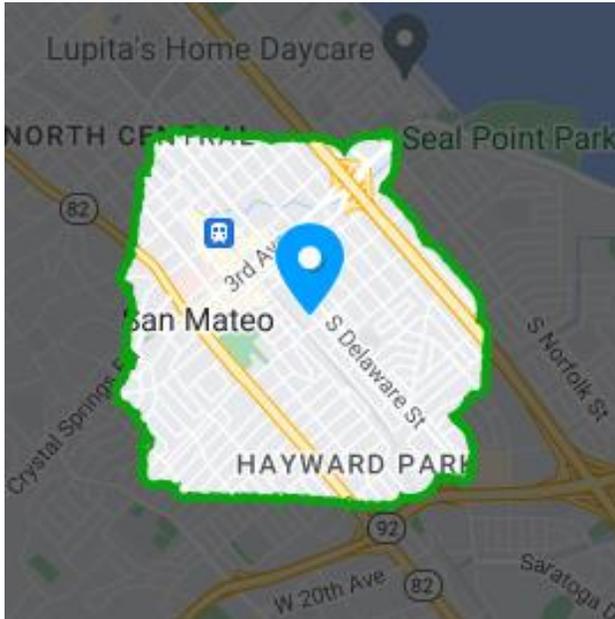
²¹ City of San Mateo. (2018). *Existing Conditions Report – Circulation*. Retrieved from https://strivesanmateo.org/wp-content/uploads/2019/03/Att4a_Circulation_PublicReview2_FINAL_web.pdf

Pedestrian and Bicycle Infrastructure

Pedestrian Conditions

The site's topography to the east, north, and south make this an area that is conducive to walking and cycling. The project site is in a flat part of San Mateo and its location gives it access to several relatively low-traffic streets that are more comfortable for cycling and walking. The walkability website Walkscore.com gives the project location a 95/100 score for walking, which they classify as "Walker's Paradise – Daily errands do not require a car."²² The walkshed for the project area is seen in Figure C.4.

Figure C.4. 20-minute Walkshed for 477 9th Avenue (source: WalkScore.com)



Current Bicycle Conditions

In terms of existing bicycle infrastructure, the project site is immediately adjacent to two bicycle facilities (see Figure C.5).

- 9th Avenue has a Class II bicycle facility which extends from Amphlett Boulevard to S. B Street
- S. Claremont Street has a Class III bicycle facility that extends along S. Claremont Street from 9th Avenue to State Street.²³ It connects to the San Mateo Caltrain station and to the bike lane network that encompasses S. Delaware Street, creating multiple access opportunities for

²² WalkScore. (n.d.). 477 9th Avenue. Retrieved from <https://www.walkscore.com/score/477-9th-ave-san-mateo-ca-94402>

²³ City of San Mateo (2020). *Bicycle Master Plan*. Retrieved from <https://www.cityofsanmateo.org/3944/Bicycle-Master-Plan-2020>

cyclists. Improvements to Claremont Street are proposed in the San Mateo Bike Master Plan as a high priority bikeway project.

Recent bicycle infrastructure improvements within 0.5 miles of the project site include the following, which were completed in October 2022.

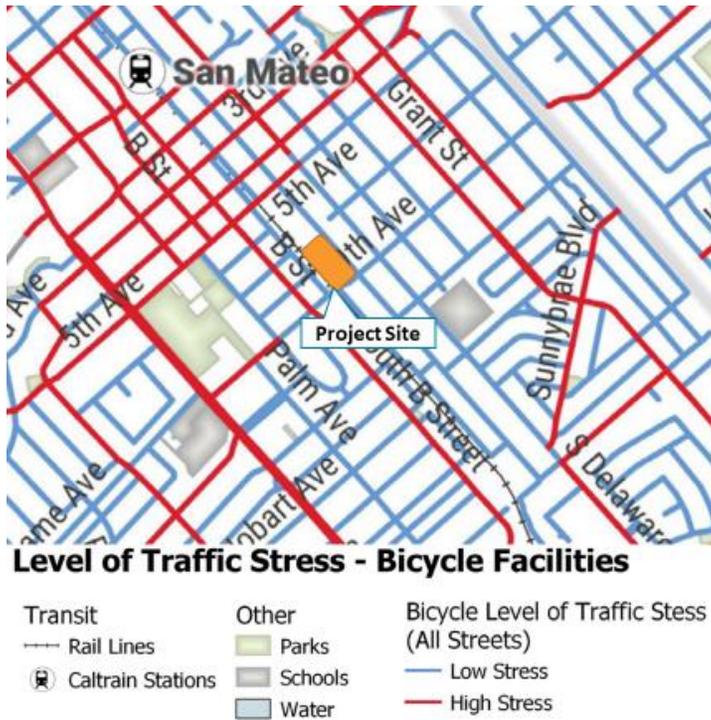
- South Humboldt Street Bike Lane – 5th to 9th Avenues
- 5th Avenue Bicycle Boulevard – Delaware Street to Amphlett Boulevard

Figure C.5. Existing Bicycle Network (source: San Mateo Bicycle Master Plan)



9th Avenue and S. Claremont Street are currently classified as low stress streets by the San Mateo Bicycle Master Plan (see Figure C.6). The streets offer connections to other low stress bicycle streets, making it an area that is conducive to cycling.

Figure C.6. Cycling Level of Stress (source: San Mateo Bicycle Master Plan)



In terms of nearby bicycle amenities, BikeLink operates multiple on-demand bike lockers located at nearby Caltrain Stations. BikeLink allows bicyclists to securely store their bikes in lockers using a Clipper Card or stored-value card that can be purchased online or at nearby vendors. There are sixteen lockers with capacity for twenty-four bikes at the Downtown San Mateo Caltrain Station. Additionally, two free-to-use public bike repair stations are located within two miles of the project site. These stations are located at the San Mateo Main Library and the Downtown San Mateo Caltrain Station.

Planned Bicycle Facilities

The 2020 Bicycle Master Plan was adopted by City Council on April 6, 2020 and serves as a blueprint for expanding and improving the San Mateo bicycle and mobility network in the coming years. As part of the proposed network, there are several bicycle facilities that have been completed and others that are currently in progress. Adjacent to the project site, the existing bicycle route on S. Claremont Street between State Street and 9th Avenue is currently planned for an upgrade to a Bicycle Boulevard. Table C.4 lists planned bicycle facility improvements that are within a mile of the project site and are currently in progress (as of November 2022²⁴).

²⁴ City of San Mateo (2020). Bicycle Master Plan. Retrieved from <https://www.cityofsanmateo.org/3944/Bicycle-Master-Plan-2020>

Table C.4. Planned Bicycle Facility Improvements (source: City of San Mateo)

Bicycle Facility	Distance to Project Site
Delaware Street Class IV Separated Bike Lane and Bike Boulevard – 19 th Avenue to Pacific Boulevard	1 mile
Sunnybrae Boulevard Bicycle Boulevard – S. Delaware Street to S. Amphlett Boulevard	0.6 miles

Transit Services

The project site is approximately 0.5 miles from the San Mateo Caltrain Station. The project site is also within a 5-minute walk of two San Mateo County Transit District (SamTrans) bus stops, serving seven bus routes.

Caltrain

Caltrain provides rail service from San Francisco to Gilroy. The San Mateo Station falls within Zone 2 of the Caltrain service. Table C.5 shows the frequency, distance, amenities, and cost of the Caltrain service as it relates to the San Mateo Station.

Table C.5. Caltrain Service

Category	Downtown Station
Frequency	<ul style="list-style-type: none"> Up to four trains per hour (104 trains per weekday); times vary
Travel Distance from Site	<ul style="list-style-type: none"> 4 minutes by car 4 minutes by bike 11 minutes walking 11 minutes by SamTrans bus (routes #53 San Mateo or #292 San Francisco)
Amenities	<ul style="list-style-type: none"> Accessibility: <ul style="list-style-type: none"> Wheelchair Accessible Two wheeled devices and service animals permitted Bike racks San Mateo BikeLink lockers Park and Ride
Cost	<p>Depending on travel distance within and across zones, fares include:</p> <ul style="list-style-type: none"> One Way (Ticket Machine): \$3.75 - \$15.00 One Way (Clipper Card): \$3.20 - \$14.45 Day Pass (Ticket Machine): \$7.50- \$30.00

SamTrans

The project site area is also near a few SamTrans bus routes (see Table C.). Each SamTrans bus is equipped with bike racks that hold up to three bikes. Regular fare trips cost \$2.25 in cash or via mobile app, or \$2.05 if a Clipper card is being used. This service also offers youth and eligible disabled and senior discount prices.

Table C.6 provides information on the SamTrans routes in the project site area.

Table C.6. SamTrans Bus Service

SamTrans Route Number	Hours of Operation	Frequency	Closest Stop	Distance to Stop	Route Details
53	School-Day Service	1 morning bus, 2 afternoon buses	S Delaware St & 10 th Ave	0.2 miles	<i>Eastbound:</i> Peninsula/Humboldt <i>Westbound:</i> Borel Middle School
53P	Weekdays at 7:15AM	Single morning departure	S Delaware St & 10 th Ave	0.2 miles	<i>Eastbound:</i> Peninsula/Humboldt <i>Westbound:</i> Borel Middle School via Poplar
292	Weekday Service: 3:55AM -2:42AM	Every 30 minutes	S Delaware St & 10 th Ave	0.2 miles	<i>Northbound:</i> San Francisco <i>Southbound:</i> Hillsdale Mall
397	Weekday & Weekends: 6:37AM – 12:46AM	Varies between 8-15 minutes	El Camino Real & 9 th Ave	0.4 miles	<i>Northbound:</i> San Francisco <i>Southbound:</i> Palo Alto Transit Center
ECR	Weekday Service: 4:06AM – 1:35AM Weekend Service: 4:47AM – 2:23AM	Weekdays: every 20 minutes Weekends: every 30 minutes	El Camino Real & 9 th Ave	0.4 miles	<i>Northbound:</i> Daly City BART <i>Southbound:</i> Palo Alto Transit Center
295	Weekday Service: 6:20AM-6:12PM	Every 30 minutes	San Mateo Caltrain	0.5 miles	<i>Northbound:</i> San Mateo Caltrain <i>Southbound:</i> Redwood City Transit Centre
250	Weekday Service: 5:40AM-10:40PM	Every 30 minutes	San Mateo Caltrain	0.5 miles	<i>Eastbound:</i> San Mateo Station <i>Westbound:</i> College of San Mateo

Nearby Attractions

Shopping

The project site is located in Downtown close to a variety of retail and shopping options. There are nine shopping centers located within two miles of the project site, with access to reliable

transportation options and a host of other shopping options close to the project site (see Table C.7).

- **Downtown San Mateo Shopping Area** is an approximate 8-minute walk from the project site. It has a variety of food and financial establishments, grocery stores, and smaller boutique stores.
- **Monaco Plaza** is located at 1200 S El Camino Real and is approximately 0.6 miles from the project site (a 13-minute walk). The Plaza contains a couple of restaurants, one barber shop, a hair salon, spa and piano store. It is easily accessed by walking and public transit (SamTrans ECR bus).
- **Safeway** is located under a mile away from the project site. It is easily accessed by walking, cycling, and public transit (SamTrans ECR bus).
- **Borel Square Shopping Center** is a 23-minute walk (1.1 miles) from the project site. It has a pharmacy, gym, and additional fast-casual food options. There are also several fast-casual dining and stand-alone shopping options along El Camino Real and 20th Avenue. It is easily accessed by walking and public transit (SamTrans ECR bus).
- **Shoreview Shopping Center** located on S. Norfolk Street and 1.2 miles from the project site has eating and dining options, and can be easily accessed by walking and public transit (SamTrans bus 59 and 250).
- **Hayward Park Shopping Area** is 1.2 miles from the project site and is located on Concar Drive. It contains a number of retail establishments, a convenience store, and a grocery store. It is easily accessed by public transit (SamTrans bus routes 53, 53P, and 292,).
- **Fiesta Gardens Shopping Center**, 1.3 miles from the project site, is located on the corner of Grant/Ginnever Street and Bermuda Drive. It houses a bakery and nail and hair salons, and other small shops. It is easily accessed by public transit (SamTrans bus routes 53, 53P, 251, and 292).
- **Woodlake Shopping Center** is located on N. Delaware Street (1.6 miles from the project site) and contains a supermarket, pharmacy, pet store, and casual eateries. It can be easily accessed by public transit (SamTrans bus 292 offers the most direct access).
- **Parkside Plaza** is located on S. Norfolk Street 2.0 miles from the project site. It has a variety of shopping options including a supermarket, pharmacy, and casual dining options. It can be accessed using SamTrans buses 59 and 250.

Table C.7. Shopping Attractions Within 2 miles of Project

Shopping Centre	Distance	Walk	Bike	Transit	Drive
Downtown San Mateo Shopping Area	0.4 miles	8 minutes	2 minutes	-	3 minutes
Monaco Plaza	0.6 miles	13 minutes	4 minutes	10 minutes	2 minutes
Safeway	0.9 miles	17 minutes	4 minutes	14 minutes	4 minutes
Borel Square Shopping Centre	1.1 miles	23 minutes	6 minutes	14 minutes	5 minutes
Shoreview Shopping Centre	1.2 miles	24 minutes	8 minutes	14 minutes	5 minutes
Hayward Park Shopping Area	1.2 miles	23 minutes	6 minutes	13 minutes	4 minutes
Fiesta Gardens Shopping Centre	1.3 miles	26 minutes	8 minutes	16 minutes	5 minutes
Woodlake Shopping Centre	1.6 miles	32 minutes	9 minutes	13 mins	8 mins
Parkside Plaza	2.0 miles	40 minutes	13 minutes	20 mins	7 mins

Schools and Childcare

About twenty percent (20%) of the population located in the census tract (residential area) are under the age of 18, with the median age and average household size of 39.2 and 2.2, respectively, according to the American Communities Survey (ACS) 2020. This suggests that the project site area is populated with families that may add school or childcare trips into their daily schedule.²⁵ Since school drop-offs and pickups can lead to significant traffic and congestion twice daily, the TDM Plan will explore synergies with existing Safe Routes to School (SRTS) programs and related trip reduction strategies.

Childcare

There are thirteen childcare centers located within the two miles of the project location. Table C.8 lists the childcare centers located close to the project site.

²⁵ The percent of population under 18 across the state (22%) is similar to what is reported for this Census Tract; however, the median age across the state is lower, at 37.6. Caretakers for individuals comprising the under 18 population group may choose to drive for childcare or school trips which could impact daily VMT for the Census Tract.

Table C.8. Childcare Centers within 2 Miles of Project

Childcare	Distance	Walk	Bike	Transit	Drive
Buddie's World Childcare	0.3 miles	7 minutes	2 minutes	-	2 minutes
Lucy's Learn and Play Daycare	0.6 miles	12 minutes	4 minutes	10 minutes	3 minutes
Papillon Preschool	0.7 miles	13 minutes	4 minutes	-	3 minutes
Joyce Kids Care	0.7 miles	14 minutes	4 minutes	-	3 minutes
Baby Steps	0.8 miles	17 minutes	5 minutes	11 minutes	5 minutes
Little Scientists Nursery School	1.5 miles	32 minutes	10 minutes	22 minutes	6 minutes
Little Bloom Child Development Centre	1.5 miles	30 minutes	8 minutes	17 minutes	6 minutes
Turnbull Children's Center	1.4 miles	27 minutes	7 minutes	17 minutes	7 minutes
Manitas Childcare	1.4 miles	27 minutes	9 minutes	15 minutes	7 minutes
Masterminds Child Care and Preschool	1.3 miles	27 minutes	8 minutes	15 minutes	5 minutes
San Mateo Parent's Nursery School	1.8 miles	35 minutes	11 minutes	29 minutes	7 minutes
Sunshine Day Care	1.5 miles	29 minutes	9 minutes	18 minutes	6 minutes
Happy Hearts Childcare and Preschool	1.9 miles	38 minutes	11 minutes	17 minutes	9 minutes

Nearby Schools

There are ten schools within one mile’s travel of the project site. A comprehensive list of schools located near the project site is provided in Table C.9.

Table C.9. Schools Within 1 mile of Project

Schools	Distance	Walk	Bike	Transit	Drive
Martha Williams School	0.2 miles	8 minutes	2 minutes	8 minutes	2 minutes
Sunnybrae Elementary School*	0.3 miles	6 minutes	2 minutes	5 minutes	2 minutes
Centennial Montessori School	0.3 miles	8 minutes	2 minutes	8 minutes	2 minutes
St. Matthew Catholic School	0.4 miles	9 minutes	3 minutes	8 minutes	2 minutes
Episcopal Day School of St. Matthew	0.6 miles	16 minutes	5 minutes	15 minutes	4 minutes
North Shoreview Montessori Elementary	0.8 miles	28 minutes	9 minutes	28 minutes	5 minutes
La Escuelita Christian Academy	0.9 miles	23 minutes	7 minutes	13 minutes	5 minutes
St. Timothy School	0.9 miles	23 minutes	8 minutes	23 minutes	4 minutes
Borel Middle School	0.9 miles	23 minutes	6 minutes	22 minutes	4 minutes
Lead Elementary	1 mile	35 minutes	10 minutes	19 minutes	6 minutes

* Assigned school to the Project Site per San Mateo-Foster City School District

San Mateo Safe Routes to School

San Mateo County Safe Routes to School (SRTS) is a program of San Mateo County that encourages and enables school age children to walk and bike to school. SRTS is intended to reduce

school-travel related congestion and emissions around schools, as well as improve health and wellness through physical activity. The program is led and implemented by volunteers, often parents and Parent-Teacher Association (PTA) members.

The project site is within the San Mateo-Foster City School district and is within walking and biking distance of several schools with completed Safe Route to School maps. Borel Middle School is the only school that currently offers an SRTS route to the project site.

Other Educational Institutions

There are two higher-education institutions within a 2-mile driving radius from the project site:

- **Draper University** (0.6 miles) on 3rd Avenue is a private, for-profit school that offers boot camp-style educational programming in collaboration with Arizona State University.
- **Samuel Merritt University** (1.2 miles) on S. Amphlett Boulevard is the San Francisco Peninsula campus of the Oakland-based Samuel Merritt private university, focused on health sciences.

Parks

There are six parks located within one mile walking or bicycling distance of the project site.

- **San Mateo Central Park** (0.4 miles) is a 16.5-acre park, bounded by 9th Avenue on the south, E. 5th Avenue on the north, N. El Camino Real on the west, and Laurel Avenue on the east. The park offers numerous sports and recreational facilities and botanical gardens. Central Park is one of the most popular parks and attractions in San Mateo.
- **Hayward Square** (0.4 miles) is a small, half block size, community park with picnic benches and chess boards.
- **Sunnybrae Park** (0.7 miles) is located on Folkstone Avenue and is a small, neighborhood park with a playground and is a 13-minute walk from the site (4 minutes by bike).
- **Bay Tree Park** (0.7 miles) is a small neighborhood park located on Dartmouth Road. It is a 16-minute walk or 5-minute bike ride from the project site.
- **De Anza Historical Park** (0.8 miles) is located along Arroyo Court. It is one of the historical parks along the 1,200-mile Juan Bautista de Anza National Historic Trail that commemorates the route traveled by Anza and the colonists from Nogales, Arizona, to San Francisco. The Park has a historic camp-site marker from 1775. The Park is can easily be accessed from the project site by walking (17 minutes) or by bike (5 minutes).
- **Gateway Park** (0.7 miles) can be easily accessed by foot (14 minutes) or bike (5 minutes). It contains a small creek and walking path.

Available TDM Services

Commute.org Services

Commute.org is San Mateo County's Transportation Demand Management Agency. Their resources are available to all residents and employees in the County. As such, the residents and employees of the project site will be able to take advantage of TDM resources curated for those

commuting within the County and in the surrounding areas. The Commute.org website serves as a regional clearinghouse for all transportation and commuting-related information. They also provide the following services:

- **Try Transit Incentives:** Commute.org provides a free ‘try transit’ program that allows individuals to request free tickets for the transit option that works best for them.
- **Carpool Incentives:** Commuters who use Waze Carpool or Scoop are eligible to earn gift cards worth up to \$100.
- **Vanpool Incentives:** Drivers of a new vanpool can earn a \$500 reward, and vanpool riders can be reimbursed \$100/month of their costs for up to three months.
- **Bike Education:** Free bike safety workshops and bike marketing materials are available to residents and commuters. These are scheduled upon request and are available to employers and other sites, including residential properties, within San Mateo County. They can be 60, 75, or 90 minutes in length depending on what is ideal for the requesting party and include time for Q&A.
- **Bike Incentives:** Commute.org currently provides commuters who live or work in San Mateo County with incentives worth between \$25 to \$100 for biking to work. To participate in the program, bike commuters must track their work commutes using the Strava app. The rides are then recorded in the STAR platform, iCommute.org’s incentive delivery platform, where commuters can access their incentives.

Travel Trends

The travel trends described in this section are based on information from the Census Bureau for the project’s census tract (6063). Census Tracts are used to analyze population dynamics and demography on a neighborhood scale.

Demographics

The project site is located within Census Tract 6063 and has a population of 3,928 people. The demographic information presented in Table C.10 and Figure C.7 were collected from the 2020 American Communities Survey (ACS) and Census Reporter.²⁶ The data provides information about the residents’ demographics and behaviors.

²⁶ U.S. Census Bureau (2020). *American Community Survey 5-year estimates*. Retrieved from Census Reporter Profile page for Census Tract 6063, San Mateo, CA <http://censusreporter.org/profiles/14000US06081606300-census-tract-6063-san-mateo-ca/>

Table C.10. Census Tract 6063 Demographic Characteristics (source: Census Reporter)

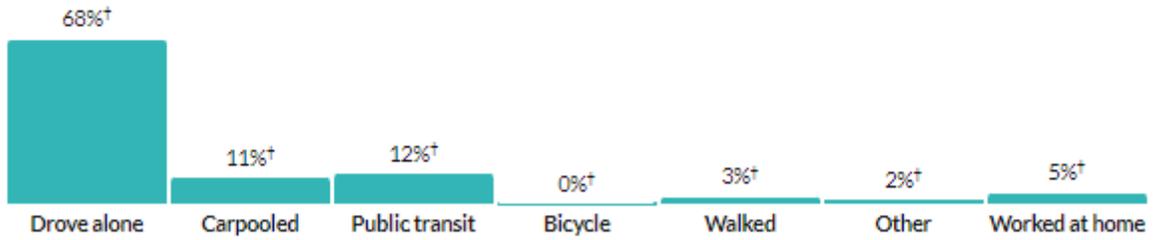
Category	Characteristics	Amount
Age	Under 18	20%
	18 to 64	53%
	Over 65	28%
Education	Bachelor's degree or higher	55.9%
Households	Renter-occupied housing units	49%
	Number of households	1,772
	Median household income	\$101,500
Race	White alone	42%
	Asian alone	22%
	Hispanic or Latino	25%
	Black or African American	3%
	Native	0%
	Islander	0%
	Mixed	7%
	Other	0%
Languages Spoken	Speaks English only	43%
	Speaks a language other than English: Spanish	42%
	Speaks a language other than English: Indo-European Languages	8%
	Speaks a language other than English: Asian and Pacific Island Languages	7%

Commute Outlook

Census Reporter data from 2020 indicates that the majority (68%) of people that live within Census Tract 6063 drive alone to work. The data also reports that 26% of the population use sustainable modes of transportation such as public transit, carpooling, and walking to commute to work, while 5% of the population work from home (see Figure C.7). Of those that commute to work, the mean travel time is 25.5 minutes. Commuting patterns have been impacted by the pandemic, however, and may be in flux for some time as businesses define their “new normal.” Post-pandemic scenarios might produce new commuting patterns as more organizations implement hybrid and flexible working habits.

Figure C.7. Commute Mode Split (source: ACS 2020 5-year, Census.gov)

Means of transportation to work



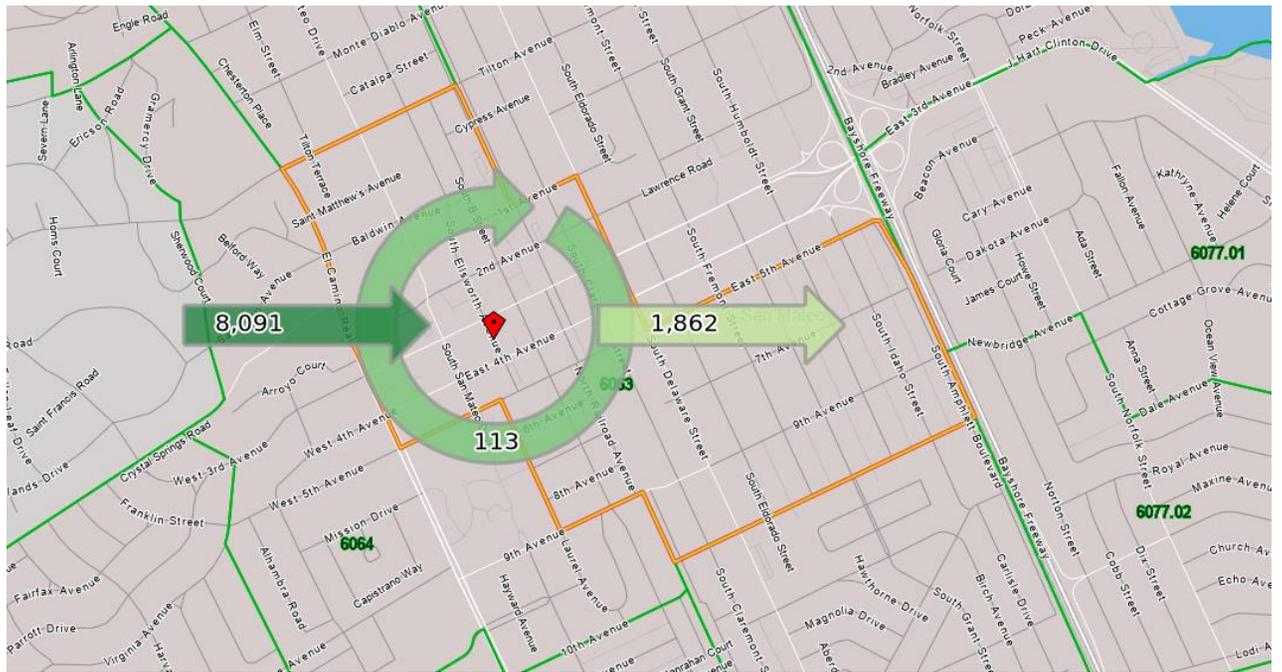
As shown in Table C.11, a notable share of commuters (15%) from this census tract commute to work locations within the City of San Mateo. San Francisco also receives a significant portion (11.8%) of commuters from this Census Tract. Notably, residents in Census Tract 6063 commute to a variety of locations, with the majority (50.5%) commuting to locations outside of the top ten identified in Table c.11.

Table C.11. Job Locations (source: Census 2019 OnTheMap Analysis)

Job Locations	Count	Share
San Mateo, CA	1,227	15%
San Francisco, CA	972	11.8%
San Jose, CA	407	5.0%
Redwood City, CA	282	3.4%
Daly City, CA	238	2.9%
South San Francisco, CA	225	2.7%
Hayward, CA	193	2.4%
Burlingame, CA	191	2.3%
San Bruno, CA	171	2.1%
Foster City, CA	153	1.9%
All other locations	4,145	50.5%
All Places (Cities, CDPs, etc.)	8,204	100%

Inflow/Outflow analysis of the census tract, as shown in Figure C.8, depicts that 1,862 individuals commute out of the area and 8,091 people commute into the area for work on a daily basis. A total of 113 individuals both live and work inside the census tract.

Figure C.8. Inflow and Outflow Patterns (source: Census 2019 OnTheMap Analysis)



Next Steps

Based on the information gleaned from this Background Assessment, our team will develop a Draft TDM Plan. The TDM Plan will include a list of recommended and optional TDM Strategies for the project site, and will touch on the following types of strategies:

- Site elements
- Education and incentives
- Service provision
- Monitoring and reporting

Based on comments from the City of San Mateo we will edit and submit a finalized TDM Plan and will work with the City to ensure it is approved.

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