

**CEQA CLASS 32 INFILL EXEMPTION
1669/1699 OLD BAYSHORE HIGHWAY AND
810/821 MALCOLM ROAD PROJECT**

VOLUME 2 Appendices A and B

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Appendix A-1
Transportation Demand Management Plan

October 10, 2022

Project# 26875

To: Peter Banzhaf
HELIOS Real Estate Partners

From: Amanda Leahy, AICP; Lilian Wu, PE; Marissa Tucker-Borquez – Kittelson & Associates, Inc.

RE: 1699 Bayshore (Nomar Life Science) Transportation Demand Management (TDM) Plan

INTRODUCTION

This memorandum seeks to recommend and evaluate the proposed transit demand management (TDM) plan and associated measures for the proposed project at 1699 and 1701 Bayshore Highway in Burlingame, CA as required by the City's 2030 Climate Action Plan (CAP) and consistent with the City/County Association of Governments of San Mateo (C/CAG) Draft TDM Policy Update Approach, September 1, 2021 (C/CAG TDM Policy)¹. The purpose of Burlingame's TDM requirement and C/CAG's TDM Policy is to reduce project-generated vehicle trips and encourage travel by other, more sustainable modes. The memorandum is organized as follows:

- Project Summary
- Proposed TDM Measures
- Vehicle Trip Reduction Analysis
- Monitoring and Reporting
- Conclusion

PROJECT SUMMARY

The TDM Plan describes the project as providing a total of 475,790 square feet across two parcels, including 375,934 square feet of research and development space (with 150,374 square feet of office space, 225,560 square feet of industrial lab space), and 6,390 square feet of ground floor café space with frontages on Old Bayshore Highway and Malcolm Road². The remaining square footage is comprised of utilities, mechanical, and other non-rentable space.

The project site is split into two parcels totaling approximately 4.5 acres fronting Old Bayshore Highway and separated by Malcolm Road. The north parcel will have one building with seven stories (six floors above grade floors plus a storage/mechanical penthouse) totaling 193,380 square feet (SF) and 38 surface vehicle parking spaces. The south parcel includes two buildings. One building is proposed to be eight stories (seven floors above grade plus a storage/mechanical penthouse) totaling 282,410 SF and the second building is a proposed parking structure that would be seven stories above grade parking with roof deck parking and provide space for 909 vehicles to park.

¹ https://ccag.ca.gov/wp-content/uploads/2021/09/6.3-A5-CCAG_TDM-Policy-Update-Approach-June-2021_Final-w-redlines.pdf

² 1699, 1701 Bayshore Highway Design Development, 7/15/2022. Planning Resubmission Package.

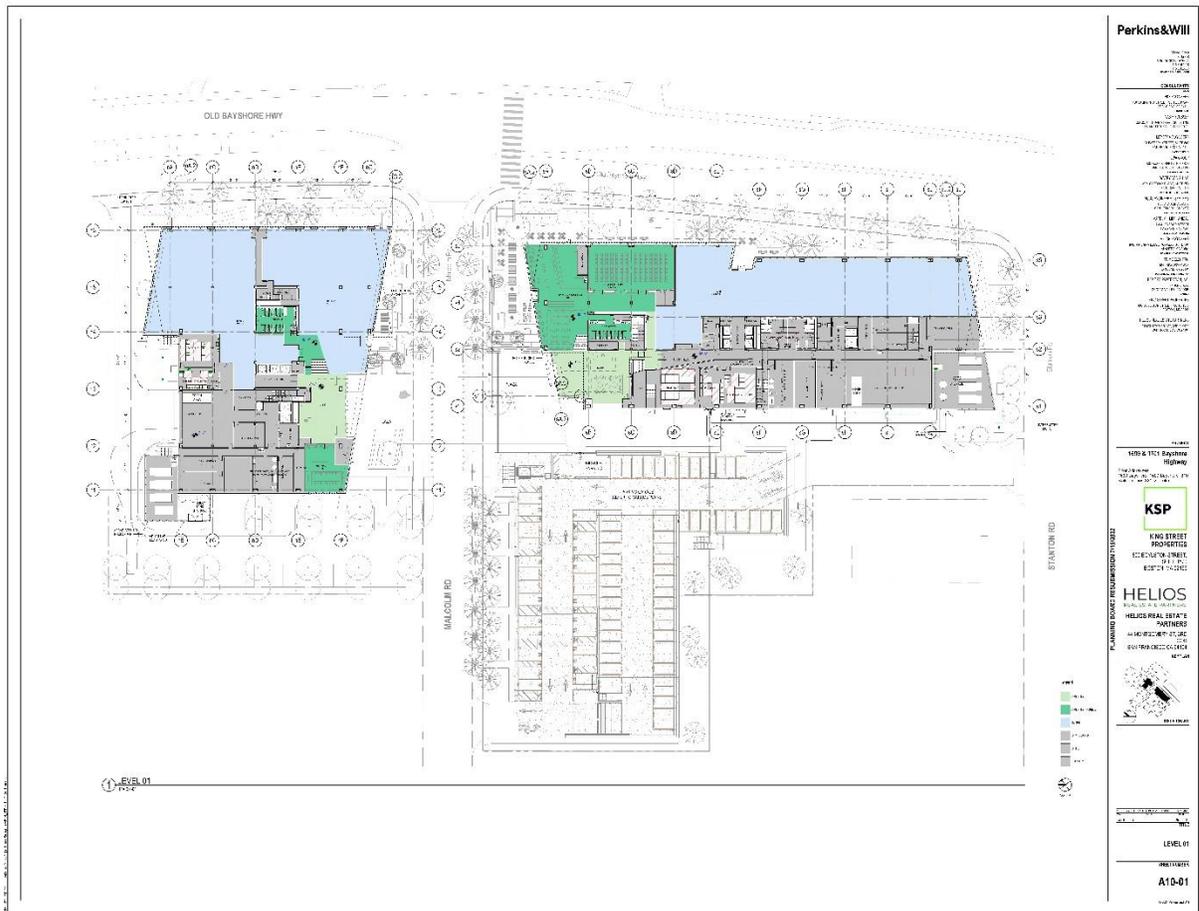


Figure 1: Project Site Plan

Transportation Improvements

The project proposes the following on- and off-site improvements to help reduce the number of single occupancy vehicle (SOV) trips to and from the site.

Pedestrian Amenities

The project would install special paving materials and elevate a portion of Malcolm Road to sidewalk level to create a pedestrian-oriented environment that would generally discourage vehicle traffic and encourage slower speeds. Pedestrian plazas would be provided near the pedestrian entrances to the buildings and new sidewalks would be constructed along the project frontages. The new ground-floor café will encourage employees to walk and use on-site facilities rather than traveling off-site by car to get food and drinks. The project is also proposing a crosswalk at Old Bayshore Road and Malcolm Road to help facilitate pedestrian and cycling access to the San Francisco (SF) Bay Trail.

Bicycle Access and Amenities

The SF Bay Trail is a bicycle and pedestrian trail that runs along the San Francisco Bay and connects Burlingame to the adjacent communities of Millbrae and San Mateo. The proposed project is approximately one tenth of a mile walk from the trail using the most direct route requiring crossing at the intersection of Old Bayshore Road and Malcolm Road. Currently, this is an unsignalized intersection which does not provide dedicated time for people to walk or bike across the street. Working with the City, the applicant is prepared to install new treatments at the intersection to increase the comfort and safety of

people walking and biking across Old Bayshore Highway and close the network gap between the SF Bay Trail and the proposed project. Such treatments may include high-visibility crosswalks, ADA-compliant curb ramps, signage, bulb-outs, painted safety zones, rectangular rapid flashing beacons (RRFB), or others.

On site, the project will provide 52 long-term bicycle parking spaces in secured bike storage rooms and 8 short-term bicycle parking spaces in racks outdoors to exceed City requirements of 2 short-term and 45 long-term bicycle parking spaces. Additionally, to support the end-of-trip needs of cyclists, the project will include lockers and showers.

Transit Access

Currently there are several transit options and connections near the site. The SamTrans 292 bus service operates every 20 - 30 minutes and stops near the intersection of Old Bayshore Highway and Stanton Road, just over one eighth of a mile walk from the project site³. In addition, the Burlingame Bayside Shuttle, which connects riders to the Millbrae BART and Caltrain Station, operates at 20 - 25 minute headways. The nearest shuttle stop is just under one quarter mile walk from the project site, near the intersection of Old Bayshore Highway and Mitten Road⁴. The Millbrae BART and Caltrain Station is a critical regional connector and is just over a one mile walk from the project site. Transit service from this station connects riders to Downtown San Francisco every 15 minutes or less on weekdays⁵. Due to the importance of connecting the project to the Millbrae BART and Caltrain station, the applicant is committed to exploring a partnership with Burlingame Bayside Shuttle to identify modifications and service enhancements to improve this transit service as a first mile/last mile option for future tenants.

Vehicle Trip Generation

The proposed project would generate 490 net new vehicle trips (344 inbound, 146 outbound) during the weekday a.m. peak hour and 366 net new vehicle trips (83 inbound, 283 outbound) during the p.m. peak hour⁶. These net new vehicle trips represent the increase in vehicle traffic associated with the proposed project compared to existing baseline volumes and includes a vehicle trip reduction factor for the implementation of the proposed TDM measures included in this plan. This TDM plan would exceed the 20 percent vehicle trip reduction required by the City and the 35 percent vehicle trip reduction target under C/CAGs TDM Policy.

PROPOSED TDM MEASURES

C/CAG TDM Policy recommends a mix of required and optional TDM measures and vehicle reduction targets based upon a project's land use, size, and proximity to transit⁷. C/CAG TDM Policy defines project land uses in the following broad groups:

- Non-residential (Office, R&D, Industrial, and Institutional)
- Non-residential (Medical & Lodging)
- Non-residential (Retail & Restaurant)
- Residential (Multi-family)

³ https://www.samtrans.com/schedulesandmaps/timetables/292/Route_292_-_Effective_1_16_22.html

⁴ <https://commute.org/route/burlingame-bayside/>

⁵ <https://www.bart.gov/stations/mlbr>

⁶ 1699 Bayshore (Nomar Life Science) Traffic Impact Analysis Memorandum. Consistent with standard engineering practice and City guidelines, the vehicle trip generation estimates are calculated using the occupied square footage of 375,934 square feet of R&D space and 6,390 square feet of café space.

⁷ https://ccag.ca.gov/wp-content/uploads/2021/09/6.3-A5-CCAG-TDM-Policy-Update-Approach-June-2021_Final-w-redlines.pdf

Since most of the square footage for the proposed project is dedicated to office and R&D use and only 6,390 square feet of ground floor café space, the proposed project is defined as Non-residential (office, R&D, industrial, and institutional).

Further, C/CAG TDM Policy classifies projects based on the total square footage and the expected average daily trips (ADT) as shown in Table 1. The proposed project's combined peak a.m. and p.m. expected ADT exceeds the 500 or more ADT threshold to categorize the project as a "Large Project". The project is also greater than 50,000 square feet surpassing the square footage threshold and further qualifying the project as a "Large Project."

Project Size	Thresholds
Small Project	100 – 499 ADT 10,000 – 49,000 square feet
Large Project	500 or more ADT 50,000 or more square feet

Table 1: C/CAG TDM Policy Project Size thresholds for non-residential uses (office, R&D, industrial, and institutional)

Finally, C/CAG TDM Policy considers three different based project types depending on a project's proximity to "high quality" transit as shown in Table 2.

Project Categories	Thresholds
Transit-Oriented Development (TOD)	Project located within a half mile of "high quality" transit
Transit Proximate	Project located between a half to three miles of "high quality" transit
Non-Transit Proximate	Project located more than three miles away from "high quality" transit

Table 2: C/CAG TDM Policy project categories

1. C/CAG TDM Policy defines "high quality" transit as a rail station or transit stop featuring 15 minute service during weekday peak hours between 6 – 10 am and 3 – 7 pm

The proposed project is categorized as "Transit Proximate" as it is within 0.5 – 3 miles of "high quality" transit service. While the Burlingame Bayside Shuttle and SamTrans 929 bus are within one half mile of the project site, neither transit service meets the C/CAG TDM Policy threshold for "high quality" transit which requires a stop to be serviced by 15-minute headways during peak weekday hours. However, the project site is just over a one mile walk from the Millbrae BART and Caltrain station which meets the definition of "high quality" transit.

	Small Projects	Large Projects	Transit-Oriented Development (Large or Small)
Vehicle Trip Reduction Target	35%	35%	25%

Table 3: C/CAG TDM Policy vehicle trip reduction targets for non-residential uses (office, R&D, industrial, and institutional)

Since the proposed project is defined as a "Non-residential (office, R&D, industrial, and institution)", "Large Project" that is "Transit Proximate" the vehicle trip reduction target for the proposed project is 35 percent as per Table 3.

In C/CAG TDM Policy Appendix A provides a list of required and optional TDM measures which are identified based upon a projects' land use and size classification. For each TDM measure C/CAG provides an estimated vehicle trip reduction percentage if the measure is implemented. However, the amount of

vehicle trip reduction percentage varies depending on the project proximity to high quality transit (as defined in Table 2). To simplify this process, C/CAG has released a C/CAG TDM Checklist⁸ for projects based upon their size and land use type.

The C/CAG TDM Policy and the C/CAG TDM Checklist were used to identify the required, applicable, and appropriate TDM measures for the proposed project. The TDM plan presents a list and description of the recommended TDM measures and calculates their efficacy.

Required Measures

The following measures are required by C/CAG TDM Policy for Large, Non-residential (office, R&D, industrial, and institutional) projects.

Transit Demand Management and Administration

Free/Preferential Parking for Carpools - The intention of this measure is to provide a financial or visible incentive for ridesharing. Preferential parking spaces could entail reserved spaces that are exclusive for carpool or vanpools especially when located at premium or convenient locations such as near the entrance of the building. *The proposed project will define a set number of spaces that are either free or preferential to those who carpool.*

TDM Coordinator/Contact Person – A TDM Coordinator will provide information regarding alternative modes of transportation to employees and can either be an employee of the applicant or can be contracted through a 3rd party provider. The role of a coordinator is to be a single point of contact that manages the implementation of the TDM Plan and ensures monitoring and reporting requirements are met. *The proposed project will assign a Transportation Coordinator responsible for managing the implementation of the plan and the marketing program aimed at tenants and employees to promote alternative means of transportation.*

Actively Participate in Commute.org or Transportation Management Association (TMA) Equivalent - This is a multi-component requirement that must fulfill the following conditions:

- 1. Obtain Certification of participation with Commute.org, or equivalent program**

The project site must register with commute.org or an alternative Transportation Management Association that provides TDM service. A TDM service provider would coordinate transportation services such as those described in below in 2 – 5. *The applicant or Transportation Coordinator will register with Commute.org and receive a certification of participation.*

- 2. Provide commute assistance or ride-matching program**

Ride-matching services help employees find carpools or vanpools based on their commuting patterns. Many apps provide this service for individuals. *The applicant will provide information about carpool/vanpool matching services to all tenants as part of the welcome packets including the promotion of 511 Merge and Scoop services.*

⁸ <https://ccagtdm.org/wp-content/uploads/2022/02/CCAG-Large-Non-Residential-TDM-Checklist.pdf>

3. Provide (or fund) a dedicated shuttle program/consortium or equivalent transit service

There are several ways to meet this requirement: either by establishing a shuttle service from the project site to other nearby destinations such as transit hubs, commercial centers, or residential areas. Alternatively, the applicant could buy into a shuttle consortium with neighboring developments. Lastly, developers may fund enhanced existing transit services in collaboration with SamTrans. *The applicant is committed to exploring a partnership with Burlingame Bayside Shuttle to identify modifications and service enhancements, such as additional transit stops near or within the project site.*

4. Provide a Guaranteed Ride Home

A Guaranteed Ride Home is a program where employees can get home in case of emergency, family crisis, or unscheduled overtime who used an alternative form of transportation to get to work. Typically, and is the case with San Mateo County's program, employees are reimbursed for a ride home via taxi or ridesharing equivalent (such as Uber or Lyft). *The applicant will coordinate with Commute.org to determine the appropriate way to participate in San Mateo County's Guaranteed Ride Home program.*

5. Supply oriented, education, and promotional programs and/or materials for tenants

New employees should be offered an orientation, educational programs, or materials that explain alternative transportation mode options to getting to the site. Materials can include transit schedules, maps, trip planning, and the importance of trip reduction. *The applicant will offer an online kiosk with transportation information including a summary of SamTrans, Caltrain, BART, and nearby shuttle services, information about ride matching services and ridesharing services, local bikeway map and bicycling resources, and links to other resources in the Bay Area, such as bikeshare and carshare providers and locations. In addition, they will provide transportation information packets to new employees or provide information to tenants to supply to their employees.*

Shuttles, Transit and Ridesharing

Carpool and Vanpool Program – Both carpool and vanpooling can help reduce vehicle miles traveled by sharing a single vehicle amongst riders who take similar commutes or trips. Carpooling relies on personal vehicles while vanpools are usually leased vehicles provided by a company or development. Carpool and vanpool programs can include financial incentives from employers as well as ride matching services. *As part of both the online kiosk and the welcome packet to all tenants, the applicant will promote regional ride matching services (511.org) such as Merge, Scoop, and Casual Carpool to help facilitate ride-matching amongst employees who are interested in carpooling.*

Transit or Ridesharing Passes/Subsidies – Tenant-employers should be encouraged to offer their employees transit or carpool/vanpool subsidies to reduce the number of single-occupancy vehicle trips to the site. Transit passes or subsidies should be valid for all transportation options including BART, Caltrain, SamTrans, and other platform and vanpool alternatives. C/CAG recommends that transit pass or carpool/vanpool subsidies are equivalent to 30% of their monthly fair or up to \$50 monthly. *The applicant is committed to exploring a partnership with Burlingame Bayside Shuttle to identify modifications and service enhancements, such as additional transit stops near or within the project site. This shuttle service would be fully subsidized (free) to employees to use.*

Pre-tax Transportation Benefits – All Bay Area businesses with 50 or more employees and reside within the Bay Area Air Quality Management District (BAAQMD) must provide at least one of three commuter

benefits, one which can provide employees a pre-tax option⁹. This would allow employees to exclude costs incurred for transit passes or vanpool charges from their taxable wages. Currently, the federal limit for pre-tax commuter benefits per employee \$280 per month¹⁰. *The tenants of this project will have more than 50 employees and will be offering a pre-tax transportation benefit to their employees.*

Active Transportation

Secure Bicycle Storage – Bicycle storage should provide both short- and long-term bicycle parking. Long term parking should provide a safe and secure off-street location to store bikes. It should offer protection from the elements and be easily to access while walking a bike (does not require the use of stairs, pathway provides wide corridors). Short-term bicycle parking should be near pedestrian entrances and may be in the public right of way for easy and quick use. *The proposed project will provide 52 long-term bicycle parking spaces in secured bike storage rooms and 8 short-term bicycle parking spaces in racks outdoors to exceed City requirements for bicycle parking of 45 long-term and 2 short-term bicycle parking spaces.*

Showers, Lockers, and Changing Rooms for Cyclists – Commuting by bike can be a strenuous activity causing riders to perspire and choose athletic clothing that maybe inappropriate for their job. Showers, changing rooms, and lockers can help encourage cycling and benefit employees who exercise during breaks. *The proposed project will provide end-of-trip bicycle facilities including showers and lockers to store clothes to accommodate the needs of and encourage active modes.*

Design Streets to Encourage Bike and Pedestrian Access – Roadways designed to increase the safety and comfort for pedestrians and cyclists can make choosing these modes a realistic option for more employees. *The development will improve pedestrian access by installing sidewalks and planting trees along the project frontage. In addition, between the two buildings a portion of Malcolm Road will be elevated, and a special paving material will be used as a speed table to slow cars and prioritize the comfort of pedestrians. This will increase the safety and walkability between both buildings.*

By satisfying these required measures alone the project would meet the VMT reduction threshold and necessary measures to satisfy the C/CAG TDM Policy (see Table 4). In addition to these required measures, the proposed project includes additional TDM measures that help it further exceed the vehicle trip reduction requirements.

Additional Measures

Active Transportation

Gap Closure – Gap closures include treatments that help establish pedestrian and bicycle connections from the site to existing trails, bikeways, or adjacent streets. This measure may benefit all those in the local area and not just site employees. *The SF Bay Trail is a bicycle and pedestrian trail that runs along the San Francisco Bay and connects Burlingame to the surrounding communities of Millbrae and San Mateo. Currently the trail spans 350 miles but is planned to grow to 500 miles completely encircling the bay and connecting 47 cities. The most direct route for those using this trail to get to the project would be to cross at the intersection of Old Bayshore Road and Malcolm Road. Currently, this is an unsignalized intersection*

⁹[https://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Commuter%20Benefits%20Program/Proposed%20Rule%20Packet/Proposed%20Rule%20Reg%20141.ashx](https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Commuter%20Benefits%20Program/Proposed%20Rule%20Packet/Proposed%20Rule%20Reg%20141.ashx)

¹⁰ <https://www.irs.gov/publications/p15b>

which does not provide dedicated time for people to walk or bike across the street. Working with the City, the applicant is prepared to install new treatments at the intersection to increase the comfort and safety of people walking and biking across Old Bayshore Highway and close the network gap between the SF Bay Trail and the proposed project. Such treatments may high-visibility crosswalks, ADA-compliant curb ramps, signage, bulb-outs, painted safety zones, rectangular rapid flashing beacons (RRFB), or others.

Site-Design Incentives

Pedestrian Oriented Uses & Amenities on Ground Floor – Sites should include commercial uses on the ground floor that help create an active street frontage that creates a walkable and inviting area. *The proposed project will create new pedestrian plazas and open space where there was previously a surface parking lot. In addition, new active ground-floor uses including a café will encourage pedestrian activity and contribute to the walking environment.*

VEHICLE TRIP REDUCTION ANALYSIS

According to C/CAG TDM Policy, each of the TDM measures instituted in this TDM plan would result in an associated reduction in single occupancy vehicle trips. To ensure compliance of this plan a “Large”, Non-Residential”, and “Transit Proximate” project requires a trip reduction score at minimum of 35 percent. The following are the required and additional measures included in this plan and their associated vehicle trip reduction.

Required Measures			
Category	C/CAG Measure ID ¹¹	Measure	Vehicle Trip Reduction Score
TDM Management & Administration	M1	Free/Preferential Parking for Carpools	1%
	M3	TDM Coordinator / Contact Person	0.5%
	M4	Actively Participate in Commute.org or Transportation Management Association (TMA) Equivalent	16.5%
Shuttles, Transit, & Ridesharing	M5	Carpool or Vanpool Program	2%
	M6	Transit or Ridesharing Passes/Subsidies	10%
	M7	Pre-Tax Transportation Benefits	1%
Active Transportation	M8	Secure Bicycle Storage	1%
	M25	Showers, Lockers, and Changing Rooms for Cyclists	2%
Site Design Incentives	M9	Design Streets to Encourage Bike/Ped Access	1%
Required Measures Vehicle Trip Reduction			35%
Additional Measures			
Category	C/CAG Measure ID	Measure	Trip Reduction Score
Active Transportation	M23	Gap Closure	7%
Site Design Incentives	M26	Pedestrian Oriented Uses & Amenities on Ground Floor	3%
Additional Measures Vehicle Trip Reduction			10%
Total Vehicle Trip Reduction			45%

Table 4: Proposed TDM Measures and Vehicle Trip Reduction Analysis

With a total vehicle trip reduction score of 45 percent, with implementation of the proposed TDM plan, the proposed project would exceed the 35 percent minimum vehicle trip reduction threshold and meet C/CAG and City requirements.

¹¹ Measure ID were used from the <https://ccagtdm.org/wp-content/uploads/2022/02/CCAG-Large-Non-Residential-TDM-Checklist.pdf>

MONITORING AND REPORTING

After tenants begin occupying the site, Commute.org will solicit survey participation through the Transportation Coordinator. The Transportation Coordinator will distribute the survey to collect information from tenants regarding the completeness of the implementing TDM measures and information about employees travel behavior¹².

Two years after the initial survey, the property owner or responsible party will have to self-certify that the TDM measures are being implemented. C/CAG will provide the needed forms and timeframe for self-certification to the Transportation Coordinator. This same year, Commute.org will again coordinate with the Transportation Coordinator to conduct the employee travel behavior survey. Both self-certification and employee survey collection will continue biannually for the initial six years of occupancy. After six years of occupancy, self-certification and employee survey collection will occur every three years until 20 years after occupancy.

CONCLUSION

The City of Burlingame's 2030 Climate Action Plan requires a TDM plan that is in compliance with C/CAG TDM Policy. As stated in C/CAG TDM policy, new office projects greater than 50,000 square feet that are anticipated to generate at least 500 average daily trips must implement associated measures to achieve a 35 percent reduction in vehicle trips.

The proposed TDM plan is comprised of required and additional measures recommended by C/CAG TDM Policy:

Required Measures

- Free/Preferential Parking for Carpools
- TDM Coordinator and TDM Marketing
- Actively Participate in Commute.org
- Carpool or Vanpool Program
- Transit or Ridesharing Passes/Subsidies
- Pre-Tax Transportation Benefits
- Secure Bicycle Storage
- Showers, Lockers, and Changing Rooms for Cyclists
- Design Streets to Encourage Bike/Ped Access

Additional Measures

- Pedestrian and Cyclist Gap Closure
- Pedestrian Oriented Uses & Amenities on Ground Floor

With a total vehicle trip reduction score of 45 percent, the TDM measures identified for the project would far exceed the 35 percent vehicle trip reduction target set by C/CAG TDM Policy and the 20 percent vehicle trip reduction required by the City of Burlingame's 2030 Climate Action Plan⁵.

¹² https://ccagtdm.org/wp-content/uploads/2022/04/CCAG_TDM-Policy-Update_Implementation-Guide_FINAL_4-19-2022_v11_CLEAN.pdf

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		Contact First and Last Name
<input type="text"/>		<input type="text"/>
Parcel Number	Application Date	Contact Phone Address
<input type="text"/>	<input type="text"/>	<input type="text"/>
Project Jurisdiction		Contact Email Address
<input type="text"/>		<input type="text"/>

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

Identify your project type

<input type="checkbox"/> TOD Less than 1/2-mile from high quality transit service 25% Trip Reduction Required	<input type="checkbox"/> Transit Proximate 1/2 to 3 miles from high quality transit service 35% Trip Reduction Required	<input type="checkbox"/> 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 M1 - Free/Preferential Parking for Carpools Provide free or preferential parking, including reserved spaces or spaces near an entrance or other desirable location, to incentivize ridesharing.	ALL	1%	<input 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 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 Transit Proximate	6.5% 16.5%	<input type="checkbox"/> <input type="checkbox"/>
4 M5 - Carpool or Vanpool Program Establish carpool/vanpool program for tenants and register program with Commute.org.	ALL	2%	<input type="checkbox"/>
5 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 type="checkbox"/>
6 M7 - Pre-Tax Transportation Benefits Offer option for tenants to participate in a pre-tax transit program to encourage the use of sustainable transportation modes and leverage pre-tax income to pay for commute trip costs.	ALL	1%	<input type="checkbox"/>
7 M8 - Secure Bicycle Storage Comply with CalGREEN minimum bicycle parking requirements.	ALL	1%	<input type="checkbox"/>
8 M9 - Design Streets to Encourage Bike/Ped Access Design adjacent streets or roadways to facilitate multimodal travel.	ALL	1%	<input type="checkbox"/>
9 M25 - Showers, Lockers, and Changing Rooms for Cyclists These amenities serve as end of trip facilities for employees arriving by bike or other active transportation forms.	ALL	2%	<input type="checkbox"/>
10	Total from Required Measures Sum percentages from each selected measure from rows 1-9		<input type="text"/> %

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												
11 M12 - Flex Time, Compressed Work Week, Telecommute Flex time allows employees some flexibility in their daily work schedules. Compressed work week allows employees to work fewer but longer days. Telecommuting functions similarly, allowing employees to work from home rather than the office, reducing vehicle travel on the days they work remotely.	ALL	5%	<input type="checkbox"/>												
12 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"/>												
13 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 type="checkbox"/>												
14 M16 - Short-Term Daily Parking Offer daily or hourly parking rates that are proportional to the monthly rate or approximately the cost of a transit fare.	ALL	2%	<input type="checkbox"/>												
15 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"/>												
16 M18 - Car Share On-Site Provide on-site car share or vehicle fleets.	ALL	1%	<input type="checkbox"/>												
17 M19 - Land Dedication or Capital Improvements for Transit Contribute space on, or adjacent to, the project site for transit improvements. Select one or more	ALL	<table border="0"> <tr> <td>Bus Pullout Space</td> <td>1%</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Bus Shelter</td> <td>1%</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Visual/Electrical Improvements (i.e., Lighting, Signage)</td> <td>1%</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Other (i.e., Micromobility Parking Zone, TNC Loading Zone)</td> <td>1%</td> <td><input type="checkbox"/></td> </tr> </table>	Bus Pullout Space	1%	<input type="checkbox"/>	Bus Shelter	1%	<input type="checkbox"/>	Visual/Electrical Improvements (i.e., Lighting, Signage)	1%	<input type="checkbox"/>	Other (i.e., Micromobility Parking Zone, TNC Loading Zone)	1%	<input type="checkbox"/>	<input type="checkbox"/> % Total percentages selected
Bus Pullout Space	1%	<input type="checkbox"/>													
Bus Shelter	1%	<input type="checkbox"/>													
Visual/Electrical Improvements (i.e., Lighting, Signage)	1%	<input type="checkbox"/>													
Other (i.e., Micromobility Parking Zone, TNC Loading Zone)	1%	<input type="checkbox"/>													
18 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"/>												
19 M21 - Bike/Scooter Share On-Site Allocate space for bike/scooter share parking.	All	1%	<input type="checkbox"/>												
20 M22 - Active Transportation Subsidies Offer biking/walking incentives to tenants, such as gift card/product raffles.	All	2%	<input type="checkbox"/>												
21 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"/>												
22 M24 - Bike Repair Station Offer on-site bike repair space/tools in visible, secure area.	All	0.5%	<input type="checkbox"/>												
23 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"/>												
24	Total from Additional Measures Sum percentages from each selected measure from rows 11 - 23		<input type="text"/> %												

E Project Totals

Percentage from Required Measures %
Section C Row 10

+ Percentage from Additional Measures %
Section D Row 24

Total Percentage from all Selected Measures %
Sum of required and additional measures

Trip Reduction Target %
Copy from Section B

Total Percentage from all selected measures must be greater than or equal to Trip Reduction Target

F Submit Checklist

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

Questions?

 Email Us
support@ccagtdm.org

 Visit Our Website
ccagtdm.org

Appendix A-2
Transportation Impact Analysis

Technical Memorandum

October 20, 2022

Project# 26875

To: Peter Banzhaf – HELIOS Real Estate Partners
From: Amanda Leahy, AICP; Lilian Wu, PE; Mingmin Liu – Kittelson & Associates, Inc.
RE: 1699 Bayshore (Nomar Life Science) TIA

INTRODUCTION

This memorandum presents the results of the transportation impact analysis (TIA) conducted for the proposed project located at 1699 and 1701 Bayshore Highway in Burlingame, CA. This memorandum is organized as follows:

- Proposed Project
- Existing Conditions
- Project Travel Demand
- Intersection Operations Analysis
- VMT Analysis

PROPOSED PROJECT

The proposed project would provide 375,934 square feet of office and lab space and 6,390 square feet of ground floor café space with frontages on Old Bayshore Highway and Malcolm Road.

The project site is split into two parcels totaling approximately 4.5 acres fronting Old Bayshore Highway and separated by Malcolm Road. The north parcel will have one building with seven stories (six floors above grade floors plus a storage/mechanical penthouse) totaling 193,380 square feet (SF) and 38 surface vehicle parking spaces. The south parcel includes two buildings. One building is proposed to be eight stories (seven floors above grade plus a storage/mechanical penthouse) totaling 282,410 SF and the second building is a proposed parking structure that would be seven stories above grade parking with roof deck parking and provide space for 909 vehicles to park. In addition, the project would provide 8 short-term bike parking and 52 long-term bike parking, which meets the requirements in the California Green Building Standard Code 2016, Section 5.106.4.1 and Burlingame's regulations for bike parking.

Stanton Road would provide the primary vehicle access to the project with secondary access provided from Malcolm Road. The project would install special paving materials and elevate a portion of Malcolm Road to sidewalk level to create a pedestrian-oriented environment that would generally discourage vehicle traffic and encourage slower speeds. Pedestrian plazas would be provided near the pedestrian entrances to the buildings, and new sidewalks would be constructed along the project frontages.

The project site plan is shown in Figure 1.

Figure 1: Project Site Plan



Source: HELIOS, 10/5/2022

Transportation Demand Management

The project would implement a transportation demand management (TDM), as required by the City's 2030 Climate Action Plan (CAP) and consistent with the City/County Association of Governments of San Mateo (C/CAG) Draft Transportation Demand Management Policy Update Approach (September 1, 2021). The purpose of Burlingame's TDM requirement and C/CAG's TDM Policy is to reduce project-generated vehicle trips and encourage travel by other modes.

As stated in the City's CAP, the City shall require new commercial developments of 10,000 square feet or more to incorporate TDM strategies that reduce trip generation rates 20% below the standard rate published in the latest Institute of Transportation Engineer's (ITE) Trip Generation Manual, or other reputable source. Commercial projects of 100,000 square feet or more shall have a designated TDM coordinator and provide a report to city staff annually on the effectiveness of the TDM plan.

As stated in the City/County Association of Governments of San Mateo (C/CAG) Draft Transportation Demand Management Policy Update Approach (September 1, 2021)¹, new office projects greater than 50,000 square feet that are anticipated to generate at least 500 average daily trips would be subject to the TDM Policy and must implement associated measures to achieve a 35% reduction in vehicle trips.

Based on conversations with the applicant, the TDM plan for the proposed project would include the following measures:

- Commute Trip Reduction and Marketing Program
 - Assign a Transportation Coordinator to provide information regarding alternative modes of transportation to employees
 - Actively participate in Commute.org or equivalent Transportation Management Association
 - Establish an online kiosk with transportation information including a summary of SamTrans, Caltrain, BART, and nearby shuttle services, information about ride matching services and ridesharing services, local bikeway map and bicycling resources, and links to other resources in the Bay Area, such as bikeshare and carshare providers and locations.
 - Provide pre-tax transportation benefits
 - Provide transportation information packets to new employees or provide information to tenants to supply to their employees
- End of Trip Facilities and Pedestrian Amenities
 - Provide at least 45 long-term bicycle parking spaces in secured bike storage rooms and at least 4 short-term bicycle parking spaces in racks outdoors to meet City requirements for bicycle parking.²
 - Provide showers/lockers/changing room for bicyclists.
 - Add new sidewalks with street trees along the project frontages
 - Provide pedestrian plazas and open space
 - Install special paving materials and elevate a portion of Malcolm Road to sidewalk level
- Ridesharing Program
- Provide a carpool/vanpool matching application to all tenants as part of the welcome packets, preferential parking for carpool/vanpool,

¹ https://ccag.ca.gov/wp-content/uploads/2021/09/6.3-A5-CCAG_TDM-Policy-Update-Approach-June-2021_Final-w-redlines.pdf

² There is flexibility to provide additional long- and short-term bicycle parking on-site, if needed.

- Promote 511 RideMatch service and Scoop services
- Parking Pricing and Management
 - Price workplace parking at a rate of at least \$25 per month compared to the baseline cost of \$0 per month.
 - Implement parking cash out program with 100 percent of employees eligibility

In addition to the measures above, the applicant would provide on-site amenities including electric vehicle charging stations and high-bandwidth internet connections to facilitate telecommunications. The applicant is also committed to exploring a partnership with the Burlingame Bayside Shuttle to identify modifications and service enhancements, such as additional transit stops near or within the project site, to provide service to the proposed development and nearby destinations. Implementation of shuttle service would encourage use of non-auto modes and further reduce vehicle trips generated by the proposed project. However, because shuttle service enhancements are in early stages of planning and development, this TDM measure is not reflected in the TDM plan that would be implemented to meet the required VMT and vehicle trip reduction.

The TDM measures identified for the proposed project would exceed the required 20% reduction and would also be expected to meet C/CAG's 35% trip reduction target for large non-residential/commercial projects. The vehicle trip and vehicle miles traveled reductions estimated for each proposed TDM measure are analyzed and presented in the VMT Analysis section in Table 6.

EXISTING CONDITIONS

Kittelson conducted a field visit during 4:00 pm - 5:00 pm on 2/23/2022 to observe existing traffic patterns at the project site, including vehicle traffic, freight traffic, bicycles and pedestrians within approximately 0.25 mile of the project site with a particular focus on the project frontages and adjacent intersections. Observations are summarized in this section:

- Approximately 30 to 40 people were observed walking along Old Bayshore between 4:00 and 5:00 pm;
- Two people crossed Old Bayshore at Malcolm Road despite the lack of a marked crosswalk at this intersection;
- Around 5:00 pm, 6 people were observed waiting for SamTrans 292 southbound at the bus stop south of Stanton Road along Old Bayshore.
- Existing vehicle traffic volumes were observed to be relatively low with the roadways operating under capacity without significant delays or queueing.

In the proximity of the project site, there is one southbound bus stop south of Stanton Road and one northbound bus stop north of Stanton Road, for SamTrans 292. Both stops include a bench and shelter. Effective on 1/16/2022, Route 292 currently operates on 20-30 min headways³.

There are also far side bus stops on Old Bayshore at Mitten Road which serve the Samtrans 292 and Burlingame Bayside Shuttle Bus. The Bayside Shuttle service resumes on 4/4/2022 and operates on 20-25 min headways⁴.

Multimodal intersection turning movement counts at nine study intersections were collected during the weekday a.m. (7-9 am) and p.m. (4-6 pm) peak period on 2/23/2022 (Tuesday) when the sites didn't generate any existing trips. The raw counts were balanced to estimate the existing baseline volume.

1. Old Bayshore Highway and Mitten Road
2. Old Bayshore Highway and Malcolm Road
3. Old Bayshore Highway and Stanton Road
4. Old Bayshore/Broadway/Airport
5. Broadway and California Drive
6. Old Bayshore/US 101 NB Ramps
7. Broadway/US 101 SB Ramps
8. Broadway/Rollins
9. Broadway/Carolan

Figure 2 illustrates the locations of the nine study intersections. Based on the collected counts at all the nine intersections, peak hours were 8:00 – 9:00 am and 4:35 – 5:35 pm. The existing baseline volumes are summarized in Figure 3 and Figure 4 for the AM and PM peak hour, respectively. Raw counts sheets are included as Appendix A at the end of this memorandum. The raw counts were balanced for adjacent

³ https://www.samtrans.com/schedulesandmaps/timetables/292/Route_292_-_Effective_1_16_22.html

⁴ <https://commute.org/route/burlingame-bayside/>

intersections without a driveway in between to provide existing condition analysis. Appendix B includes the calculation for balancing.

Figure 2: Study Intersections

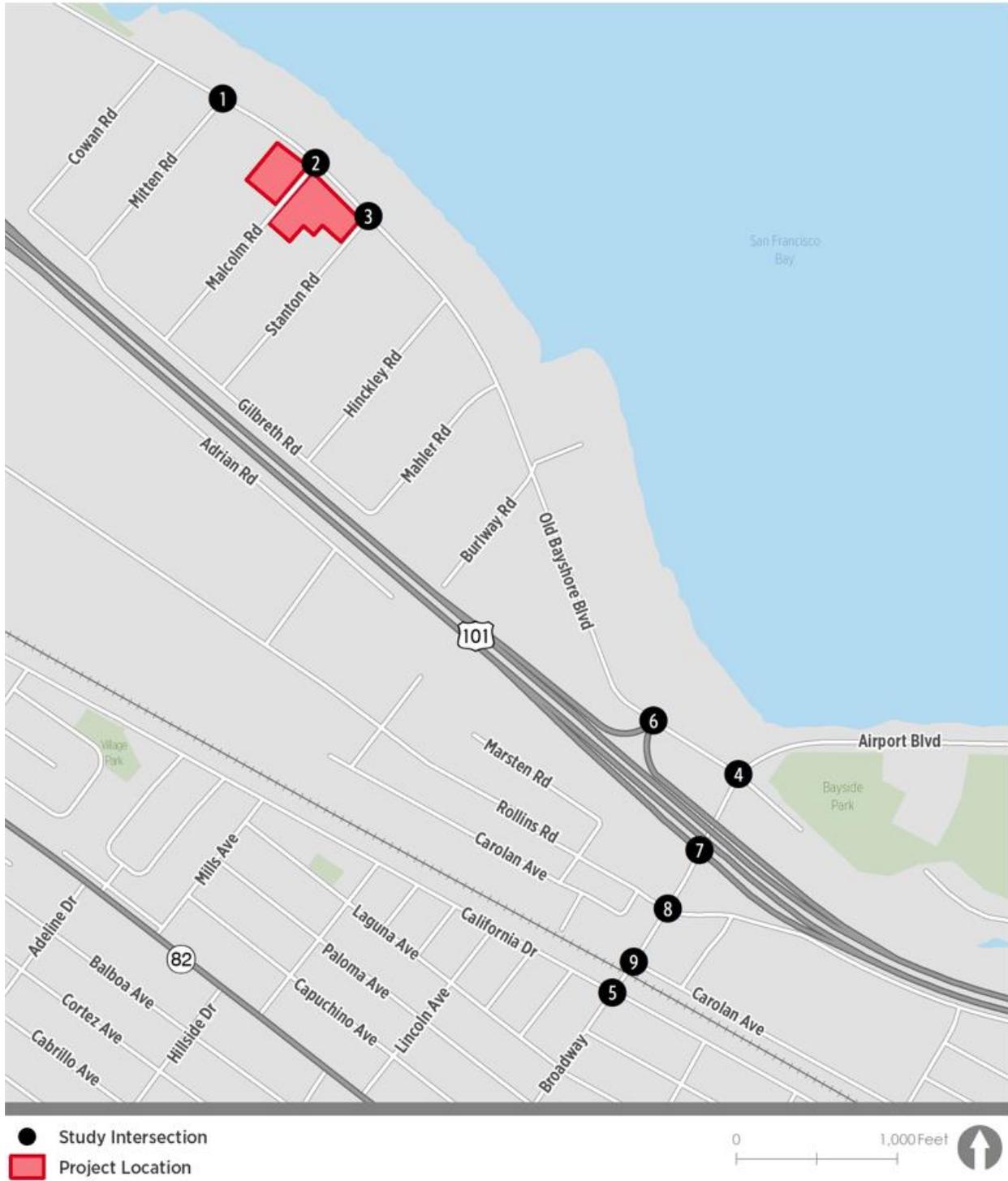


Figure 3: Existing Intersection Volumes (AM)

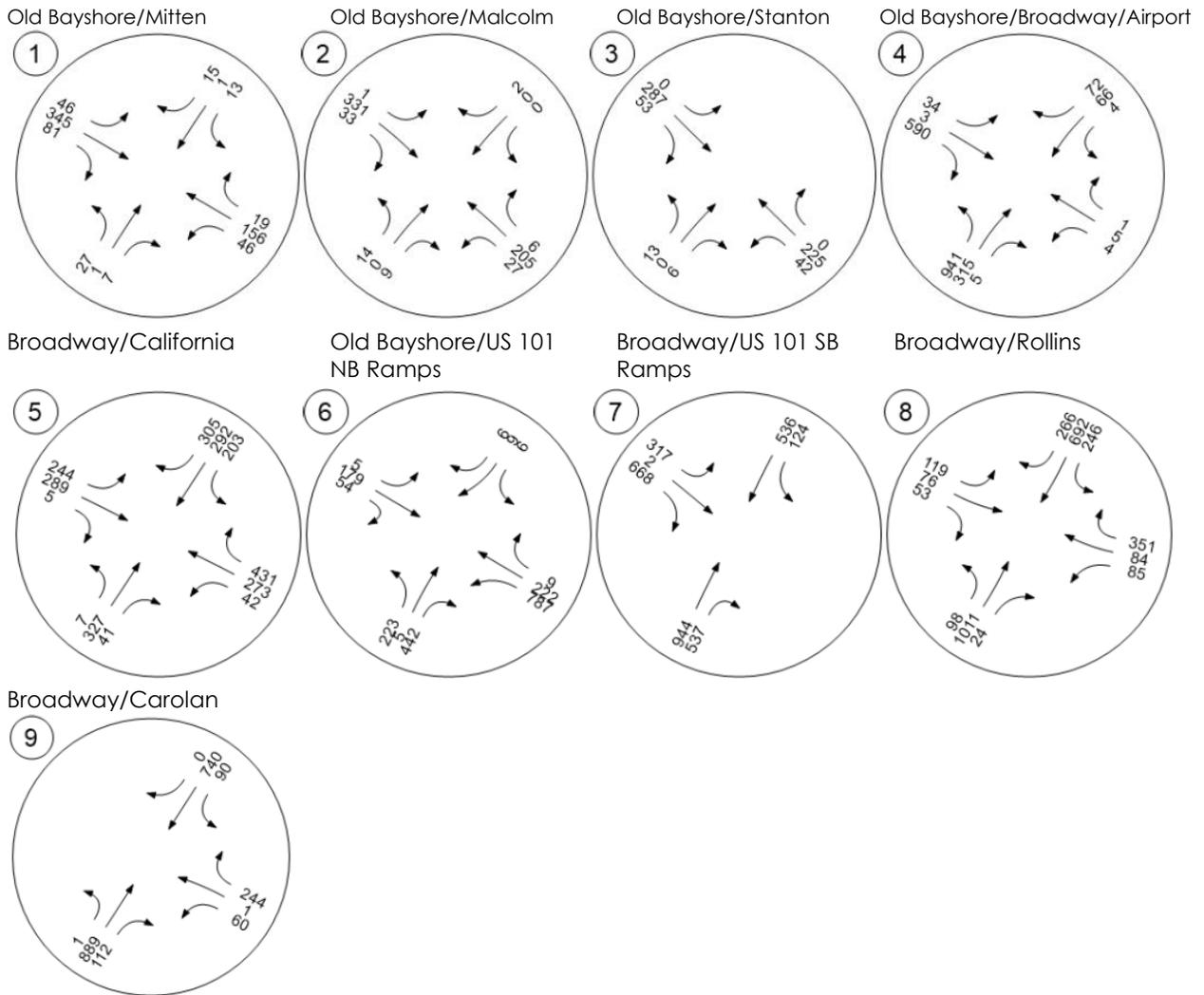
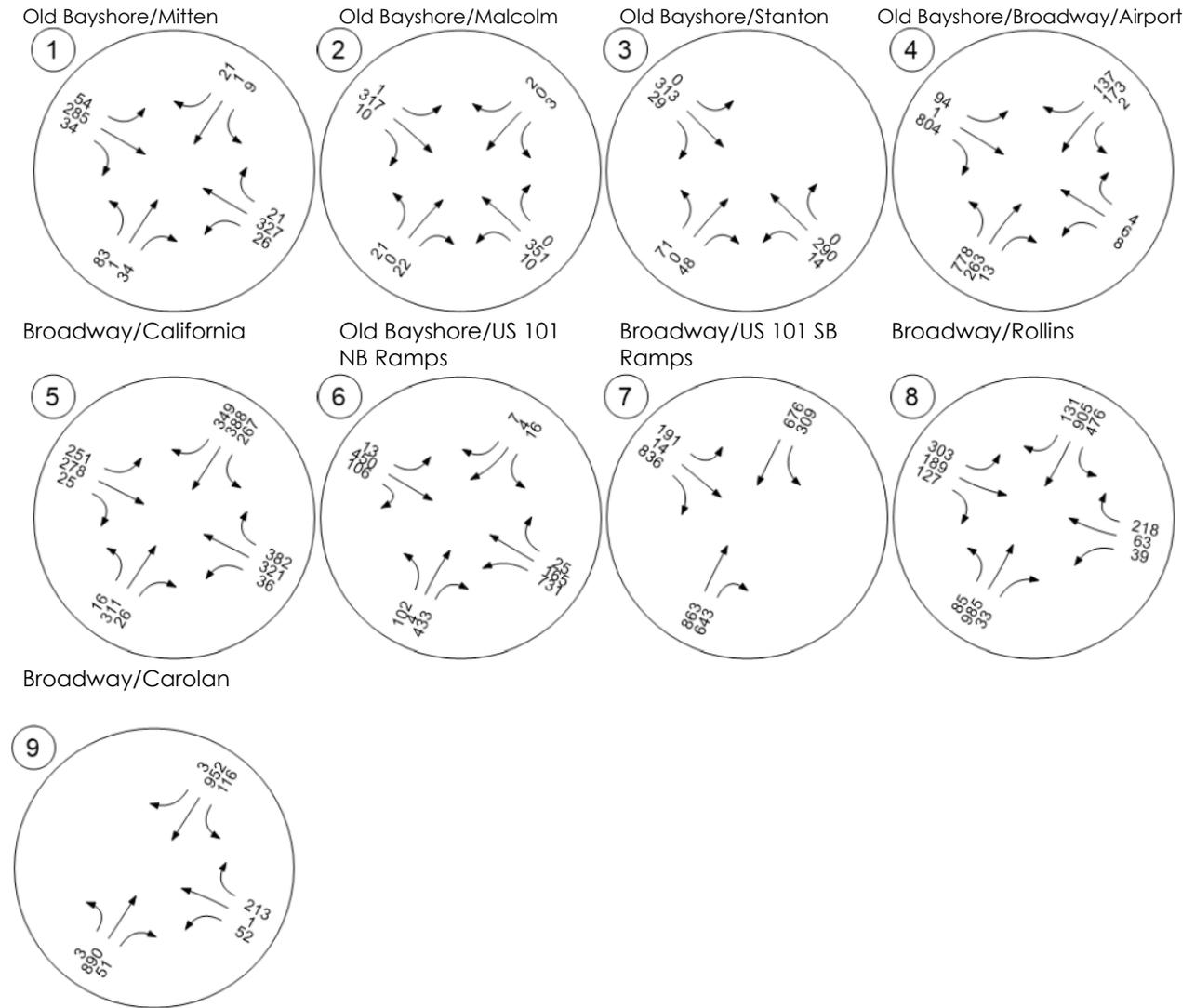


Figure 4: Existing Intersection Volumes (PM)



PROJECT TRAVEL DEMAND

Vehicle Trip Generation

The vehicle trip generation estimates were calculated using the trip generation rates from the most recent ITE Trip Generation Manual (11th Edition, 2021).⁵ The land use categories for Research and Development Center (ITE Code 760)⁶ and Coffee/Donut Shop without Drive-Through Window (ITE Code 936)⁷ were applied to the proposed uses for this analysis. At the time that this analysis was prepared, the specific tenants of the ground-floor commercial space was uncertain; therefore, in order to provide a conservative (i.e., maximum) estimate of the potential travel demand associated with this use, the ITE "Bread/Bagel Shop" category was used. A typical use that corresponds to this category would be a café that is open throughout the day.

Consistent with standard practice, vehicle trip reductions were taken to account for the internalized and pass-by/walk-in trips, and proposed transportation demand management measures.

Internalization and Pass-By Trips. The trip subtotal for the café space includes a 11-18 percent internalization reduction for the trips made onsite and not utilizing external streets, and a 43 percent pass-by/walk-in reduction to account for stops made at the café space, therefore not generating new trips.

TDM Plan. A vehicle trip reduction factor was applied to account for implementation of the proposed TDM plan, which would exceed the 20% reduction required by the City and the 35% reduction target under C/CAGs TDM Policy. Additional discussion of the effectiveness of the proposed TDM plan is provided in the VMT Analysis section.

Net New Vehicle Trips. As shown in Table 1, the proposed project would generate 490 net new vehicle trips (344 inbound, 146 outbound) during the weekday a.m. peak hour and 366 net new vehicle trips (83 inbound, 283 outbound) during the p.m. peak hour. These net new vehicle trips represent the increase in vehicle traffic associated with the proposed project compared to existing baseline volumes.

Vehicle Trip Distribution

The vehicle trip distribution assumptions are based on the existing counts and proximity to freeway interchanges. From the project site, directly accessed through Stanton Road and Malcom Road, vehicle traffic going to/from the north are assumed to get to/from the US 101 without making local turns. Vehicle traffic going to/from the south are distributed at each intersection according to the turning movement proportions consistent with existing counts. Project vehicle trip distribution percentages are illustrated in Figure 5 and Figure 6. Figure 7 and Figure 8 illustrate the existing plus project intersection volumes during the weekday AM and weekday PM peak hours, respectively.

⁵ Institute of Transportation Engineers. 2018. *Trip Generation Manual, 10th Edition*.

⁶ The Research and Development (ITE Land Use Code 760) rate was selected based on the description in the ITE Trip Generation Manual which states: "A research and development facility is a facility or group of facilities devoted almost exclusively to research and development activities." Furthermore, based on the proposed 40%/60% split of office and industrial space, the Research and Development ITE Land Use Code 760 was determined to be the best fit for the proposed use as it is reflective of a mixed office and lab environment with more square feet per employee than a General Office Building (ITE Land Use Code 710) and fewer square feet per employee than the Light Industrial (ITE Land Use Code 110).

⁷ Given the specific tenant of the ground floor café space is unknown at this time, ITE Land Use Code 936 was selected to provide a conservative (high) estimate of potential vehicle trips that would be generated by this use.

Table 1: Proposed Project Trip Generation

Trip Generation Rates							
Land Use	Rate	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
R&D Center (ITE Code 760) ¹	per 1,000 sf	82%	18%	1.03	16%	84%	0.98
Coffee/Donut Shop without drive through (ITE Code 936) ²	per 1,000 sf	51%	49%	93.08	50%	50%	32.29
Trip Generation Estimates							
Land Use	Size (sf)	AM Peak Hour Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
<u>Proposed Uses</u>							
R&D Center (ITE Code 760)	375,934	317	70	387	59	309	368
Café (ITE Code 936)	6,390	303	292	595	103	103	206
Internalization Reduction ³ - AM:18%, PM:11%	-	(55)	(52)	(107)	(12)	(11)	(23)
Pass-By/Walk-in Reduction ⁴ - 43%	-	(131)	(125)	(256)	(45)	(44)	(89)
Café Subtotal	-	117	115	232	46	48	94
PROPOSED USES SUBTOTAL		434	185	619	105	357	462
Required TDM Plan Reduction - 20.8%		(90)	(39)	(129)	(22)	(74)	(96)
PROPOSED USES NET NEW TRIPS TOTAL		344	146	490	83	283	366

Source: ITE Trip Generation Manual 11th Edition.
 sf – square feet

¹ – The Research and Development (ITE Land Use Code 760) rate was selected based on the description in the ITE Trip Generation Manual which states: "A research and development facility is a facility or group of facilities devoted almost exclusively to research and development activities." Furthermore, based on the proposed 40%/60% split of office and industrial space, the Research and Development ITE Land Use Code 760 was determined to be the best fit for the proposed use as it is reflective of a mixed office and lab environment with more square feet per employee than a General Office Building (ITE Land Use Code 710) and fewer square feet per employee than the Light Industrial (ITE Land Use Code 110).

² – Coffee/Donut Shop without Drive-Through Window (ITE Code 936) were applied to the proposed uses for this analysis. At the time that this analysis was prepared, the specific tenants of the ground-floor commercial space was uncertain; therefore, in order to provide a conservative (i.e., maximum) estimate of the potential travel demand associated with this use and the resulting effect on vehicle operations and intersection level of service, the ITE "Bread/Bagel Shop" category was used. A typical use that corresponds to this category would be a café that is open throughout the day.

³ – Based on the methodology in Chapter 6 of the 3rd Edition of Trip Generation Handbook (Source: NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments. Washington, DC: Transportation Research Board, 2011).

⁴ – Based on survey data for Land use 932 High-Turnover (Sit-Down) Restaurant during PM peak hour. It's assumed the same percentage can be applied for AM peak hour. No data is available for 930 Fast Casual Restaurant.

Figure 5: Project Vehicle Trip Distribution (AM)

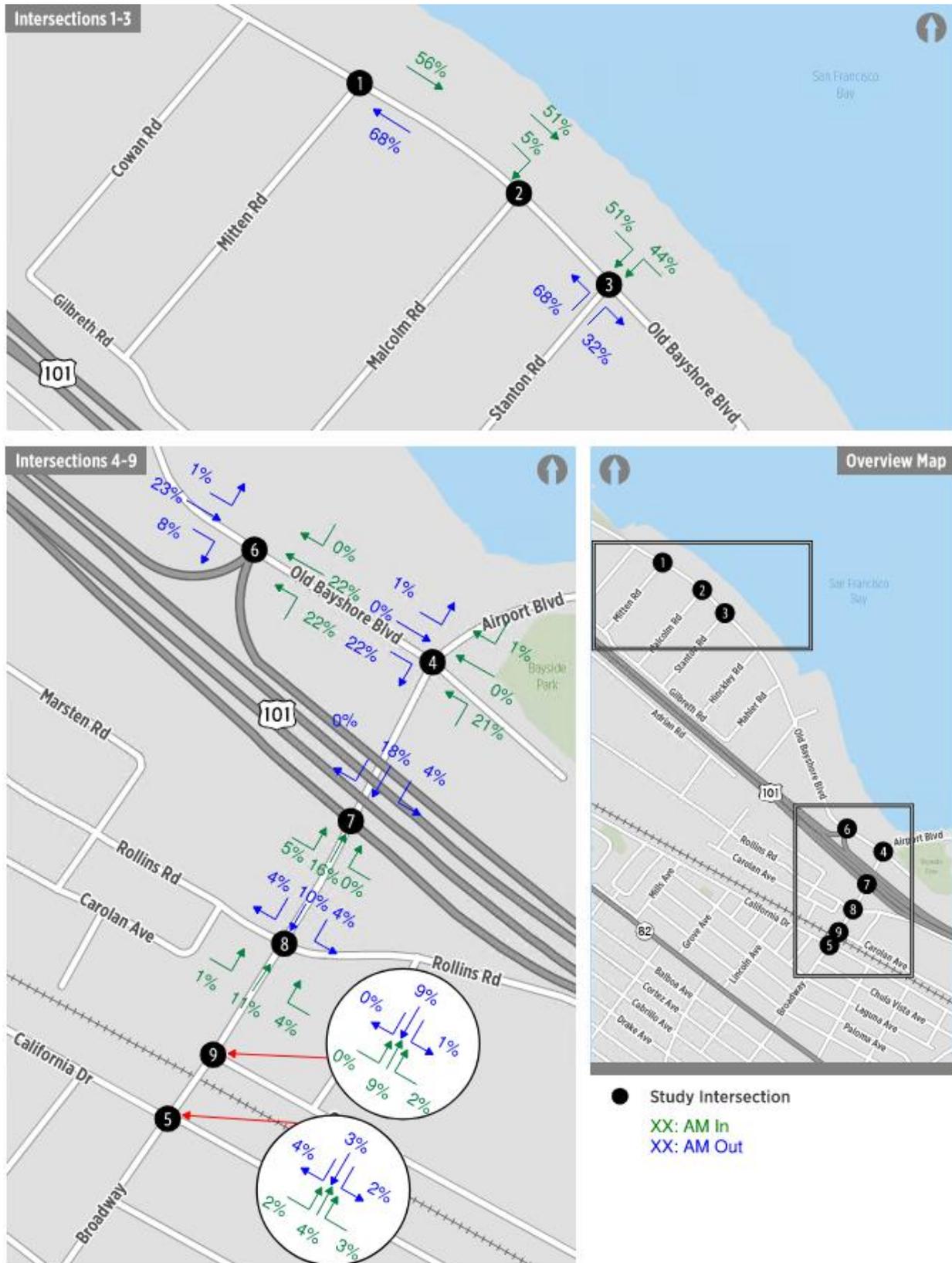


Figure 6: Project Vehicle Trip Distribution (PM)

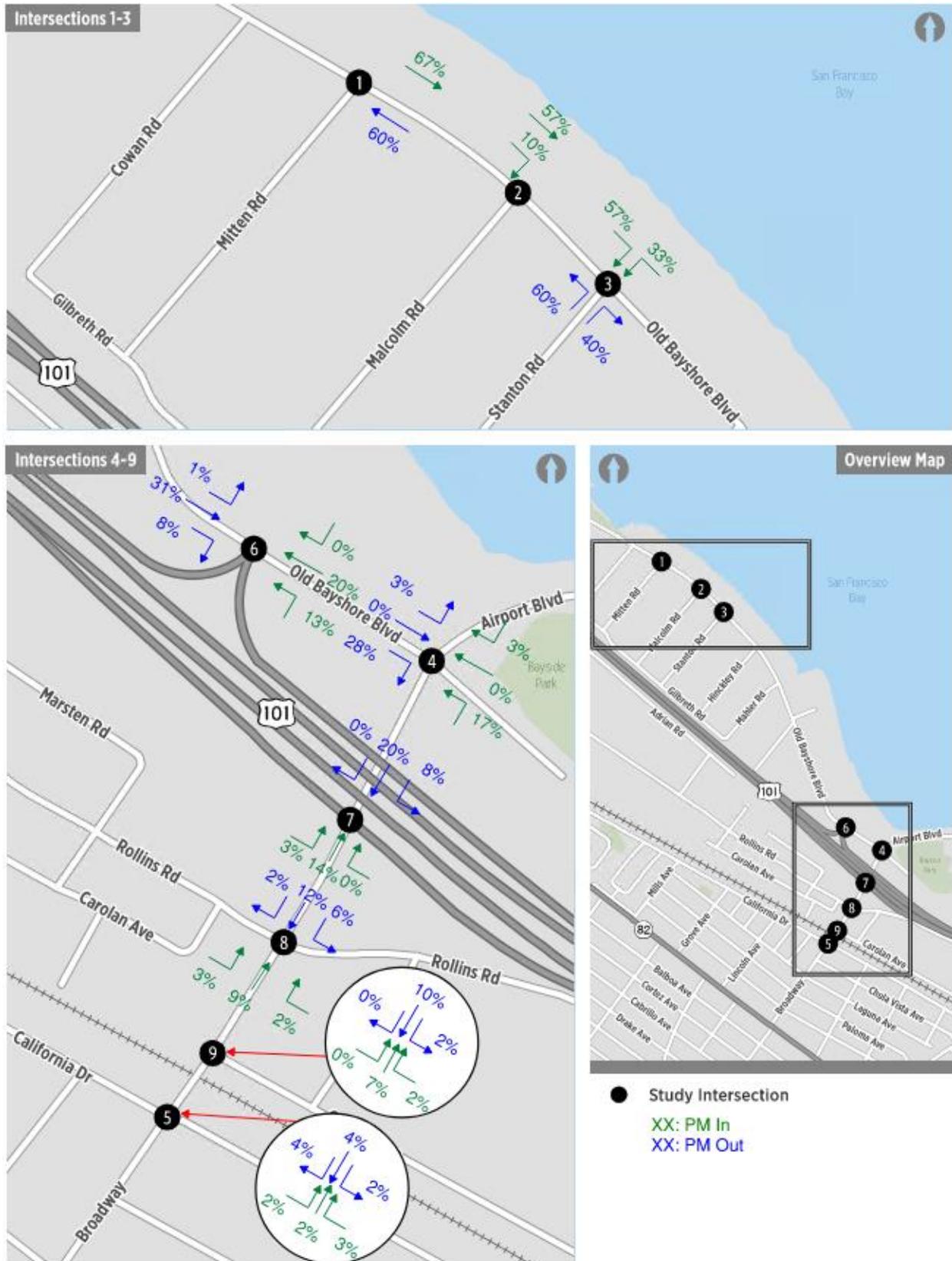


Figure 7: Existing plus Project Intersection Volumes (AM)

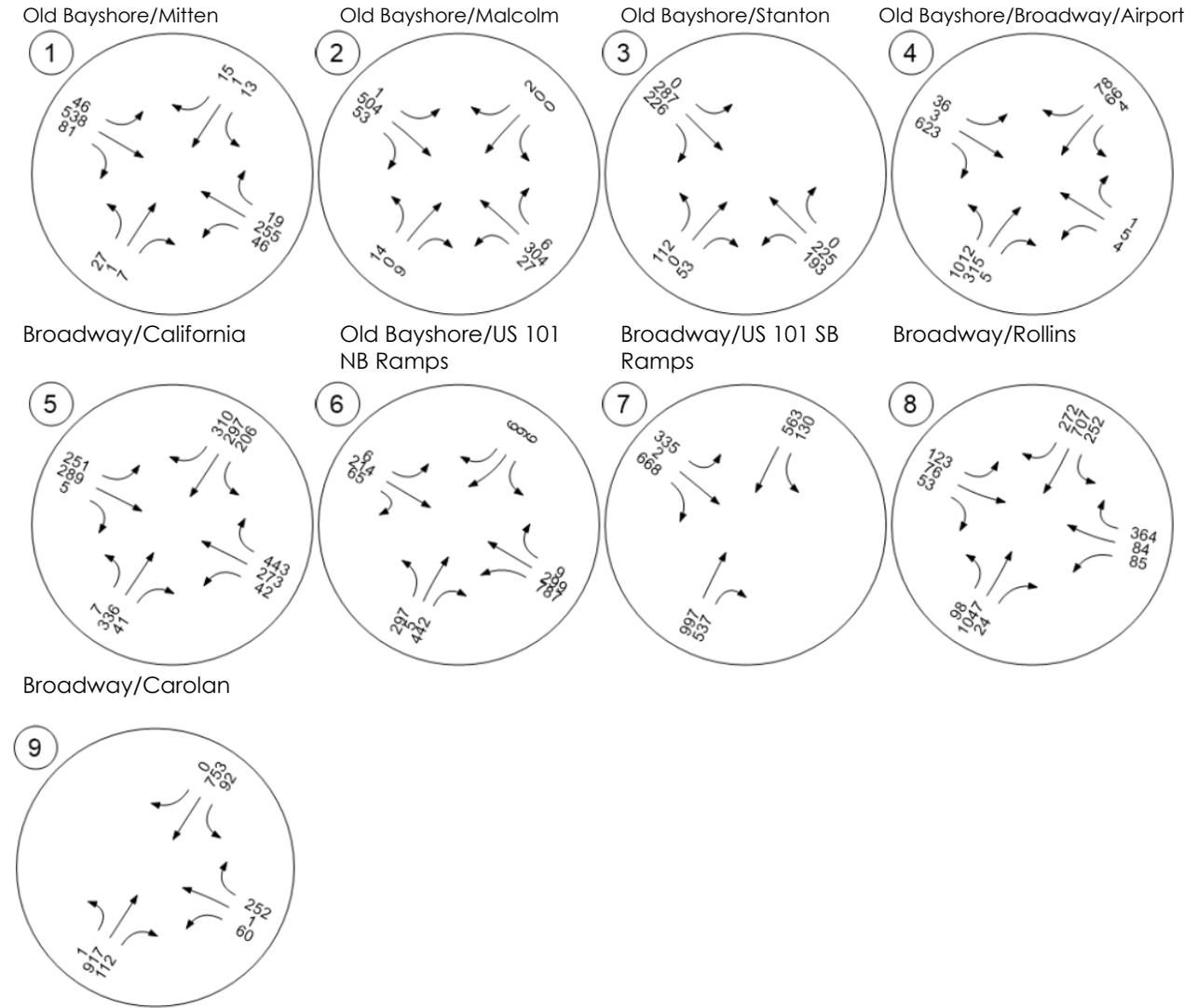
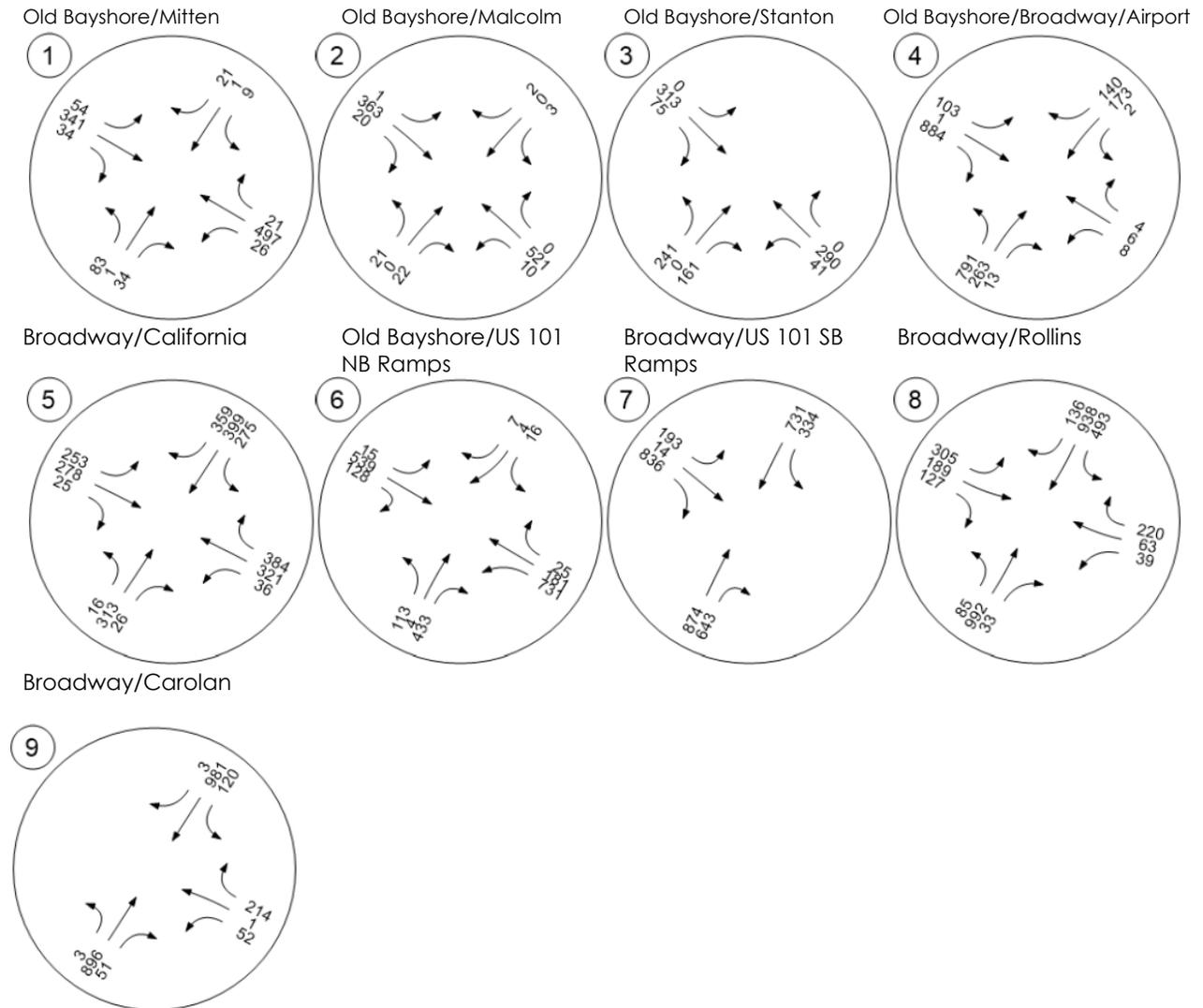


Figure 8: Existing plus Project Intersection Volumes (PM)



INTERSECTION OPERATIONS ANALYSIS

Traffic conditions at the study intersections were evaluated using level of service (LOS) based on the HCM 6th methodology using Vistro software. Level of Service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. LOS E represents “at-capacity” operations.

Input data include:

- Volume: Traffic volume data was collected at study intersections on 2/23/2022.
- Lane Configurations: Existing Lane configurations were determined using Google Earth as well as a field visit on 2/23/2022.
- Signal Timing: Signal timing information was obtained from Caltrans and the City of Burlingame.

The study intersections were evaluated for the following two scenarios:

- Existing Conditions – Level of Service (LOS) based on existing weekday am and pm peak hour vehicle counts, existing intersection geometry, and current signal timing and phasing.
- Existing Plus Project – Existing traffic volumes with the addition of vehicle trips generated by the proposed project, existing intersection geometry, and current signal timing and phasing.

Analysis Methodology

SIGNALIZED INTERSECTION

At signalized intersections, the level of service is determined by the weighted average delay for all vehicles entering the intersection and the calculated average total delay per vehicle and level of service for the intersection as a whole. Table 2 presents the average delay criteria used to determine the level of service at signalized intersections.

UNSIGNALIZED INTERSECTIONS

For all-way stop control intersections, the HCM procedures calculate an average control delay per vehicle for each approach and the intersection as a whole, and assign a LOS designation based upon the average intersection delay.

For unsignalized one or two-way stop-controlled intersections, the methodology calculates an average total delay per vehicle for each minor street movement and for the major street left-turn movements based on the availability of adequate gaps in through traffic on the main street. A level of service designation is assigned to individual movements or to combinations of movements in the case of shared lanes, based on delay. It is not unusual for some of the minor street movements to have LOS “D,” “E,” or “F” conditions while the major street movements have LOS “A,” “B,” or “C” conditions. In such a case, the minor street traffic experiences delay that can be substantial for individual minor street vehicles, but the majority of vehicles using the intersection have very little delay.

Table 3 presents the average delay criteria used to determine the level of service at unsignalized intersections.

Table 2: Level of Service Definition for Signalized Intersections

Level of Service (LOS)	Average Delay (seconds/vehicle)	Description
A	≤ 10	Very Low Delay: This level of service occurs when progression is extremely favorable, and most vehicles arrive during a green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10 and ≤ 20	Minimal Delays: This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	> 20 and ≤ 35	Acceptable Delay: Delay increases due to fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	> 35 and ≤ 55	Approaching Unstable Operation/Significant Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume / capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55 and ≤ 80	Unstable Operation/Substantial Delays: These high delay values generally indicate poor progression, long cycle lengths, and high volume / capacity ratios. Individual cycle failures are frequent occurrences.
F	> 80	Excessive Delays: This level, considered unacceptable to most drivers, often occurs with oversaturation (that is, when arrival traffic volumes exceed the capacity of the intersection). It may also occur at high volume / capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual 6th Edition (HCM 6)

Table 3: Level of Service Definition for Unsignalized Intersections

Level of Service (LOS)	Average Delay (seconds/vehicle)	Description
A	≤ 10	Very Low Delay
B	> 10 and ≤ 15	Minimal Delays
C	> 15 and ≤ 25	Acceptable Delay
D	> 25 and ≤ 35	Approaching Unstable Operation and/or Significant Delays
E	> 35 and ≤ 50	Unstable Operation and/or Substantial Delays
F	> 50	Excessive Delays

Source: Highway Capacity Manual 6th Edition (HCM 6)

Notes: At two-way stop-controlled intersections, LOS is determined for each minor street movement and major street left turn. At all-way stop-controlled intersections, LOS is determined for each individual approach and for the entire intersections based on average control delay.

SIGNIFICANT IMPACT CRITERIA

Based on the City of Burlingame's General Plan Draft EIR, Chapter 18, the project is determined to create a significant adverse impact on traffic conditions at a signalized or unsignalized intersection in the City if for any peak-hour:

- Degrades the peak hour from an acceptable LOS D (55 seconds/vehicle) or better under Existing or No Project Conditions to an unacceptable LOS E or worse under Project Conditions except when LOS E is determined by the City of Burlingame as acceptable due to costs of mitigation or when there would be other unacceptable impacts; or
- Degrades the AM or PM peak hour operating at LOS E or F under Existing or No Project Conditions by increasing the delay per vehicle by five (5) seconds or more.

Analysis Results

Intersection delay and level of service under existing and existing with project conditions results are presented in Table 4. All the study intersections operate at a LOS D or better under existing and existing plus project scenario. Therefore, the net new project trips are not expected to create a significant impact on existing traffic conditions. Appendix C includes the detailed analysis results output from VISTRO.

Table 4: Intersection Delay and Level of Service – Existing and Existing with Project

No.	Intersection	Traffic Control ¹	Peak Hour	Existing	Existing + Project LOS ² (Delay) ³
1	Old Bayshore Highway and Mitten Road	Signal	AM	B (11.7)	A (9.9)
			PM	C (31.8)	C (29.5)
2	Old Bayshore Highway and Malcolm Road	TWSC	AM	C (15.4)	C (21.8)
			PM	C (15.3)	C (20.0)
3	Old Bayshore Highway and Stanton Road	Signal	AM	A (6.3)	B (18.2)
			PM	A (9.8)	C (22.2)
4	Old Bayshore/Broadway/Airport	Signal	AM	B (11.7)	B (12.1)
			PM	B (18.6)	B (18.7)
5	Broadway and California Drive	Signal	AM	D (41.2)	D (41.8)
			PM	D (45.6)	D (46.0)
6	Old Bayshore Highway and US 101 NB Ramps	Signal	AM	C (32.7)	C (33.5)
			PM	D (36.9)	D (37.8)
7	Broadway/US 101 SB Ramps	Signal	AM	C (21.7)	C (22.1)
			PM	C (23.6)	C (24.0)
8	Broadway and Rollins Road	Signal	AM	C (29.8)	C (30.1)
			PM	C (33.3)	C (33.2)
9	Broadway and Carolan Ave	Signal	AM	A (6.6)	A (6.7)
			PM	B (11.5)	B (12.9)

Source: Kittelson & Associates, Inc. 2021.

Notes:

¹ Signal = Signalized Intersection, TWSC = Two- or One-Way Stop Control, AWSC = All-Way Stop Control

² LOS = Level of Service (for TWSC, on stop-controlled approach only)

³ Delay = Average vehicle delay reported in seconds per vehicle (for TWSC, on stop-controlled approach only)

VMT ANALYSIS

The City of Burlingame is currently working to update the City's transportation performance measures to use vehicle miles traveled (VMT) standards for transportation impact analyses instead of (or in addition to) level of service (LOS) standards and to comply with the Governor's Office of Planning and Research (OPR) requirements. Kittelson has prepared this VMT analysis pursuant to OPR guidelines as the City works to adopt revised transportation significance criteria in alignment with the Final Adopted Text for Revisions to the CEQA Guidelines, December 2019. Specifically, Section 15064.3, Determining the Significance of Transportation Impacts, which states that for land use projects where the "vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact."

Since the City of Burlingame has not yet adopted an applicable threshold of significance regarding VMT analysis, the recommended threshold of significance from the OPR Technical Advisory on Evaluating Transportation Impact in CEQA, November 2017 has been applied to this study. The recommended threshold states: "A proposed project exceeding a level of 15 percent below existing VMT per capita, or per employee, may indicate a significant transportation impact. Existing VMT per capita, or per employee, may be measured as regional VMT per capita or as city VMT per capita."

VMT per person (or per capita) is a measurement of the amount and distance that a resident, employee, or visitor drives, accounting for the number of passengers within a vehicle. Many interdependent factors affect the amount and distance a person might drive. In particular, the built environment affects how many places a person can access within a given distance, time, and cost, using different ways of travels (e.g., private vehicle, public transit, bicycling, walking, etc.). Typically, low-density development located at great distances from other land uses and in areas with few options for ways of travel provides less access than a location with high density, mix of land uses, and numerous ways of travel. Therefore, low-density development typically generates more VMT compared to a similarly sized development located in urban areas.

Office Use: Kittelson used the C/CAG Model to estimate average daily VMT per employee for office land uses. The existing average daily VMT per capita and per employee for the City, the County, and the transportation analysis zone (TAZ)⁸ in which the project site is located (i.e., TAZ 1948), is presented in Table 5.

⁸ Planners use these zones as part of transportation planning models for transportation analyses and other planning purposes. The zones vary in size from single city blocks in the downtown core to multiple blocks in outer neighborhoods.

Table 5: Average Daily Vehicle Miles Traveled per Employee, Office Use – Existing Conditions

Scenario	City of Burlingame	County of San Mateo	Project Transportation Analysis Zone (TAZ 1948)
Existing Conditions, C/CAG Model Outputs	18.5	19.4	19.0
OPR Recommended Threshold, 15% Below Average	15.7	16.5	
Project TAZ, Percent VMT Reduction Required to Meet Threshold	20.8%	15.3%	

Source: C/CAG Model, Kittelson 2021.

As shown in Table 5, the existing average daily VMT per employee within the project's TAZ is 19.0 which exceeds the level of 15 percent below the existing VMT per employee, which may indicate a significant impact. The VMT per employee within the project TAZ is approximately 15.3 percent higher than a threshold based on the County of San Mateo average VMT per employee and 20.8 percent higher than a threshold based on the City of Burlingame average VMT per employee. The VMT reported for the project site's TAZ does not account for the proposed TDM plan, which is required and included as part of the proposed project. The TDM plan would need to achieve a minimum 20.8 percent reduction in vehicle miles traveled to reduce the project's potential impacts to less than significant levels. This reduction is above the 20 percent reduction in vehicle trips required by the City.

The proposed project would implement the TDM plan described in the Transportation Demand Management section, that would support travel by sustainable modes and reduce the number of vehicle trips and vehicle miles traveled generated by the proposed project. The range of effectiveness for vehicle trip and vehicle miles traveled reductions for each proposed TDM measure is shown in Table 6, along with the applied vehicle trip and VMT reduction for measures within each subsector and for the program overall. Measures within the transportation sector are separated into six subsectors with maximum effectiveness levels established for each. For example, the Land Use subsector has a subsector maximum of 65 percent, the Trip Reduction Program subsector has maximum of 45 percent, and the Parking or Pricing/Management subsector has a maximum of 30 percent. Because the combination of measures and independence of measures are complex, the GHG Handbook recommends that non mutually exclusive measure reductions within a subsector be multiplied instead of additive and do not exceed the established subsector maximum. The combined effectiveness rate shown in the table reflects a conservative estimate based on the level of adoption and aggressiveness of implementation and accounts for implementation of other TDM elements so as not to overestimate vehicle trip reduction for the overall program.

Table 6: Estimated VMT Reduction with Implementation of Identified TDM Measures

Subsector / TDM Measure (GHG Handbook ID) ¹	Range of Vehicle Miles Traveled Reduction ²	Estimated Vehicle Miles Traveled Reduction Rate for Proposed Project ³	Combined Effectiveness – Applied Vehicle Miles Traveled Reduction Rate
Trip Reduction Program Subsector			
Implement Commute Trip Reduction Program (T-5) ⁴	Up to 26%	26%	30%
Implement Commute Trip Reduction Marketing (T-6) ⁵	Up to 4%	4%	
Provide Ridesharing Program (T-7) ⁶	Up to 8%	8%	
End-of-Trip Facilities (T-9) ¹⁰	Up to 4.4%	4.4%	
Parking and Pricing/Management Subsector			
Price Workplace Parking (T-11) ⁷	Up to 20%	20%	20%
Implement Employee Parking Cash Out (T-12) ⁸	Up to 12%	12%	
Land Use Subsector			
Increase Job Density (T-2) ⁹	Up to 30%	7.7%	7.7%
Total Estimated VMT and Vehicle Trip Reduction			57.7%

Source: GHG Handbook (2021).

Notes: "--" indicates value not applicable.

- ¹ Measures within the transportation sector are separated into six subsectors. Effectiveness levels for multiple measures within a subsector may be multiplied to determine a combined effectiveness level. Because the combination of measures and independence of measures are complex, the GHG Handbook recommends that non mutually exclusive measure reductions within a subsector be multiplied instead of additive and do not exceed the established subsector maximum. The GHG Handbook ID references the strategy as identified in the GHG Handbook.
- ² Range of vehicle miles traveled reduction obtained from the GHG Handbook. The Land Use subsector has a subsector maximum of 65 percent; the Trip Reduction Program subsector has maximum of 45 percent; the Parking or Pricing/Management subsector has a maximum of 30 percent.
- ³ Vehicle miles traveled reduction rate was determined based on the estimated level of adoption and aggressiveness of implementation of a given strategy and account for the implementation of other TDM program elements so as not to overestimate vehicle trip reduction for the overall program.
- ⁴ The vehicle miles traveled reduction rate selected is based on the anticipated effectiveness of the commute reduction strategies offered and the assumption that 100% of employees are eligible.
- ⁵ Commute trip reduction marketing elements include: on-site amenities, transit information, on-site transportation kiosk, and programs to support commute alternatives.
- ⁶ The vehicle miles traveled reduction rate selected is based on the anticipated effectiveness of the ridesharing program offered and the assumption that 100% of employees are eligible.
- ⁷ The vehicle miles traveled reduction rate is based on the anticipated monthly cost for a parking space of \$25 per month compared to the baseline cost of \$0 per month.
- ⁸ The vehicle miles traveled reduction rate assumes 100 percent of employees are eligible for the parking cash-out.
- ⁹ The vehicle miles traveled reduction rate was estimated using the equation provided in the GHG Handbook which assumes a typical job density of 145 jobs per acre and calculates the proposed project's job density as 305 jobs per acre based on a FAR of 3.0 and an average of 500 square feet per employee.
- ¹⁰ The vehicle miles traveled reduction rate was estimated using the equation provided in the GHG Handbook and bicycle and vehicle commute trip length and mode share data from FHWA 2017 and NHTS 2017 for the San Jose region.

As shown in Table 6, with a combined estimated reduction rate of 57.7%, implementation of identified measures would exceed the City's required 20% reduction and C/CAG's 35% reduction target for large non-residential/commercial projects. The proposed TDM plan would also achieve more than the 20.8% reduction required to reduce VMT per employee to below the regional threshold based on either the City or County average.^{9,10}

The applied VMT reduction rate for the proposed project is based on the anticipated level of adoption and aggressiveness of implementation of a given strategy. The estimated VMT reduction accounts for the mode shift and resulting trip lengths by mode. For example, provision of bike parking would shift short vehicle trips to bike trips and would achieve an estimated VMT reduction of around 4.4 percent while commute trip reduction program would shift a portion of vehicle trips of any length to carpool trips and would achieve an estimated VMT reduction of up to 26 percent. The range of effectiveness for VMT reductions identified for each measure is based on information included in the California Air Pollution Control Officers Association (CAPCOA), Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health Equity (GHG Handbook). The quantification methods provided in the CAPCOA report are based on an extensive literature review and are appropriate for use in this project-level analysis.

Retail Use: In addition to the proposed office use, the project proposes to provide a 6,390 square foot café, or local serving retail space. While the café space is included in the vehicle trip generation calculations for purposes of the level of service analysis, given that the retail space is anticipated to be used primarily by tenants and local community members, consistent with standard exemption criteria, the project's proposed retail uses would be exempt from VMT analysis. City guidelines typically identify specific land use types and sizes that would be exempted from VMT analysis, including local serving retail projects and other commercial projects where the total square footage is 10,000 square feet or less.

Induced Automobile Travel: The proposed project would not include features (e.g., additional roadway capacity) that would be considered to substantially induce automobile travel.

Finding: Based on the analysis presented in this section, implementation of measures identified in the proposed TDM plan would reduce VMT impacts to less-than-significant levels. The TDM plan would need to achieve a 20.8 percent reduction in VMT per employee, which exceeds the 20 percent reduction in VMT required by the City. Based on the TDM plan efficacy calculations presented in Table 6, the proposed project's TDM plan would achieve an estimated vehicle trip and VMT reduction of approximately 57.7 percent VMT per employee. Annual monitoring and reporting would be conducted, as required by the City, to ensure a minimum of a 20.8 percent reduction in VMT is achieved.

⁹ California Air Pollution Control Officers Association, Caltrans, Sacramento Metropolitan Air Quality Management District. 2021. Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Available online at: https://www.caleemod.com/documents/handbook/full_handbook.pdf. August.

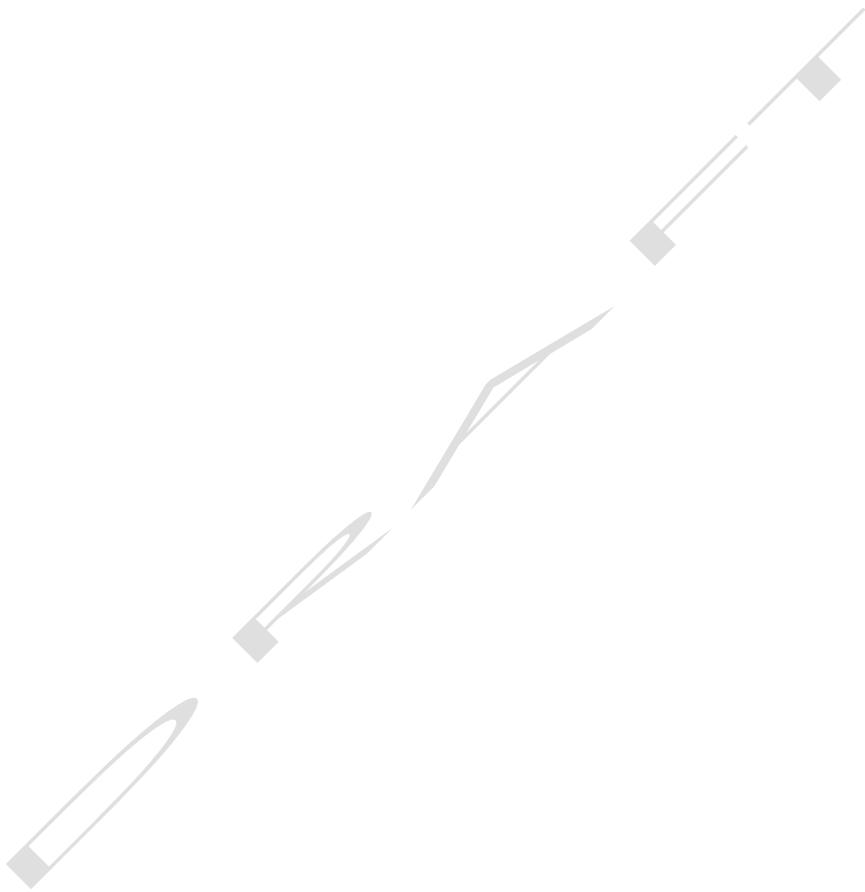
¹⁰ The effectiveness of the TDM plan was evaluated using the GHG Handbook. The quantification methods provided in the GHG Handbook are based on an extensive literature review and are appropriate for use in this project-level analysis. The estimated VMT reduction rate for the proposed project is based on the anticipated level of adoption and aggressiveness of implementation of a given strategy.

CONCLUSION

This study is to analyze the potential transportation impacts of the proposed project at 1699 and 1701 Old Bayshore Highway in the City of Burlingame, California. These impacts were evaluated in accordance with the level-of-service standards and impact criteria set forth by the City of Burlingame. The study included the evaluation of traffic operations at nine key intersections (i.e., eight signalized and one unsignalized intersections) during the weekday morning (AM) and afternoon (PM) peak hours under Existing, with and without the project.

The results of the intersection operations analysis showed that the project would not cause significant impacts at any of the study intersections under either of the scenarios.

This memorandum also documented the VMT analysis of the proposed projects and summarized the TDM measures identified to achieve the reduction required to reduce VMT per employee to below the regional threshold based on either the City or County average. The proposed TDM plan would exceed the City's required 20% reduction and the 35% reduction target identified for large non-residential/commercial projects in the C/CAG TDM Policy.



APPENDIX A: TRAFFIC COUNTS

APPENDIX B: EXISTING VOLUME BALANCED

APPENDIX C: INTERSECTION OPERATIONAL ANALYSIS REPORTS

Appendix B
Arborist Report



Preliminary Arborist Report

1699 & 1701 Old Bayshore Highway
Burlingame, CA 94010

PREPARED FOR:
Helios Real Estate Partners
44 Montgomery St 3rd Floor,
San Francisco, CA 94104

PREPARED BY:
HortScience | Bartlett Consulting
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July 28, 2021
REV July 25, 2022



Preliminary Arborist Report
1699 & 1701 Old Bayshore Highway
Burlingame, CA

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Exhibits

Tree Assessment Form

Tree Assessment Plan

Preliminary Arborist Report 1699 & 1701 Old Bayshore Highway Burlingame, CA

Introduction and Overview

Helios Real Estate Partners is planning to re-develop the sites located at 810 Malcolm Road, 821 Malcolm Road, 1669 Old Bayshore Highway, and 1699 Old Bayshore Highway. Current site use consists of four commercial buildings, associated parking, and landscaping. HortScience | Bartlett Consulting (HBC), Divisions of The F. A. Bartlett Tree Expert Co., was asked to prepare a Preliminary Arborist Report for the project.

This report provides the following information:

1. Preliminary assessment of the health and structural condition of the trees within the proposed project area based on a visual inspection from the ground.
2. Preliminary assessment of impacts to trees from the proposed project plans and identification of trees for preservation and removal.
3. Preliminary guidelines for tree preservation during the design, construction and maintenance phases of development.

Tree Assessment Methods

Trees were assessed on July 20th, 2021. The assessment included all trees 6” in diameter and greater. Trees located within the proposed project area and those on adjacent properties whose canopies extending into the project area were included. The assessment procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with an identifying number and recording its location on a map;
3. Measuring the trunk diameter at a point 54” above grade;
4. Evaluating the health and structural condition using a scale of 0 – 5:
 - 5** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4** - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
 - 0** – Dead.
5. Rating the suitability for preservation as “high”, “moderate” or “low”. Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

High: Trees with good health and structural stability that have the potential for longevity at the site.

Moderate: Trees with somewhat declining health and/or structural defects that can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in ‘high’ category.

Low: Tree in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes and generally are unsuited for use areas.

Description of Trees

Thirty-one (31) trees were evaluated, representing nine species (Table 1). Nineteen (19) trees were in fair condition, three were in poor condition, and nine were in good condition. Off-site trees #249 - 251 were included in the assessment. Descriptions of each tree can be found in the **Tree Assessment Form** and locations are shown on the **Tree Assessment Map** (see Exhibits).

**Table 1. Condition ratings and frequency of occurrence of trees.
1699 & 1701 Old Bayshore Highway.
Burlingame CA.**

Common Name	Scientific Name	Condition			Total
		Poor (1-2)	Fair (3)	Good (4-5)	
Blackwood acacia	<i>Acacia melanoxylon</i>	-	1	-	1
Hollywood juniper	<i>Juniperus chinensis</i> 'Kaizuka'	-	1	-	1
Lemon bottlebrush	<i>Melaleuca citrinus</i>	-	8	3	11
Myoporum	<i>Myoporum laetum</i>	2	-	-	2
Monterey pine	<i>Pinus radiata</i>	-	1	-	1
Western sycamore	<i>Platanus racemosa</i>	-	6	1	7
Fremont cottonwood	<i>Populus fremontii</i>	1	1	-	2
African sumac	<i>Rhus lancea</i>	-	1	-	1
Mexican fan palm	<i>Washingtonia robusta</i>	-	-	5	5
Total		3	19	9	31

Eleven (11) lemon bottlebrush were growing along the southeast side of Malcolm Road and on the southeast side of 1669 Old Bayshore Highway. Trunk diameters range from 5 to 13 inches. Six trees were in fair condition and three were in good condition. Trees #228 and 230 were in poor condition. Trees growing next to 1669 Old Bayshore Highway were spaced close together forming a hedge. Those on Malcolm Road had greater space between trees (Photo 1).

Seven Western sycamore had trunk diameters ranging from 9 to 29 inches. All were in fair condition. Sycamores were growing in the landscape around 1699 Old Bayshore Highway. All trees had been previously topped (Photo 2). Topping has resulted in poor structure on most trees.

Five Mexican fan palms were growing in front of 821 Malcolm Road, all were in good condition. Trunk diameters ranged from 14 to 18 inches. All had roughly 40 feet of brown trunk. Overall, the palms had good form and structure.



Photo 1: Bottlebrush #226 had good form and structure with multiple stems that arose at five feet.



Photo 2: Sycamore #245 was growing in front of 1669 Old Bayshore Highway and had been previously topped.

Each of the remaining six species was represented by a two or fewer trees and included the following:

- Myoporum trees #232 and 233 were in poor condition with diameters of 9 and 10 inches respectively.
- Fremont cottonwood #250 and 251 were growing off-site with five feet of canopy overhanging the site. Tree #250 was in fair condition while #251 was poor.
- Hollywood juniper #247 was in fair condition. It had codominant stems with diameters of 9 and 5 inches.
- Blackwood acacia #234 was in fair condition with a 17-inch diameter. It was growing in the south corner of the 1669 Old Bayshore Highway parking lot.
- Monterey pine #248 was growing in the north corner of the 810 Malcolm Road parking lot. It was in fair condition with a 30-inch diameter. It had girdling roots and was lifting adjacent concrete.
- African sumac #249 was growing off-site with four feet of canopy overhanging the site. It had a 7-inch diameter and was in fair condition.

The City of Burlingame Municipal Code (Chapter 11.06.020 Urban Reforestation and Tree Protection) defines a protected tree as any tree 48 inches or larger in circumference (15.27 diameter). Palms do not qualify for protected status. Based on these criteria, eight trees had protected status.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. Where development encroaches into existing trees, we must consider their structural stability as well as their potential to grow and thrive in a new environment. Evaluation of suitability for preservation considers several factors:

- **Tree health**
Healthy, vigorous trees such as the Mexican fan palms are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. Sycamore trees on site with poor form and structure from topping is an example of this.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. Monterey pine is intolerant to impacts from construction whereas Western sycamore is moderately tolerant.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change. The sycamores were mature trees and I expect that it will be less tolerant and adaptable to disturbance.
- **Species invasiveness**
Species that spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<https://www.cal-ipc.org/plants/inventory/>) lists species identified as being invasive. San Mateo County is part of the Central West Floristic Province. Black acacia, Myoporum, and Mexican fan palm are listed as having invasive potential.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (see ***Tree Assessment Forms*** in Exhibits, and Table 2). We consider trees with high suitability for preservation to be the best candidates for preservation. We do not normally recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Table 2: Tree suitability for preservation. 1699 & 1701 Old Bayshore Highway. Burlingame CA.

High	These are trees with good health and structural stability that have the potential for longevity at the site. Six trees fall into this category: five Mexican fan palm and lemon bottlebrush #226.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the “high” category. Eighteen (18) trees had a moderate suitability for preservation: 8 lemon bottlebrush, seven Western sycamore, African sumac #249, Monterey pine #28, and Fremont cottonwood #250.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Seven trees were in this category: Lemon bottlebrush #228 and 230, myoporum #232 and 233, Hollywood juniper #247, Fremont cottonwood #251, and blackwood acacia #234.

Preliminary Evaluation of Impacts and Recommendations for Action

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The June 2021 **Tree Assessment Form** was the reference point for tree condition and quality. Impacts from construction were evaluated using the Tree Removal Plan L01-01 (undated).

The plan proposed demolition of all current structures and construction of a new development on the lots. The new construction covers the entirety of the lots requiring removal of all trees on-site and off-site trees, including the eight protected trees.

Based on my assessment of trees and evaluation of available plans, the current plan will remove all on-site trees. The project team is planning to work with the neighbors to request removal of the off-site trees included in the inventory.

Table 3. Proposed action. 1699 & 1701 Old Bayshore Highway. Burlingame CA.

Tree No.	Species	Trunk Diameter (in.)	Heritage Tree?	Condition 1=poor 5=excel.	Disposition	Comments
221	Mexican fan palm	17	No	5	Remove	Within the development area
222	Mexican fan palm	18	No	5	Remove	Within the development area
223	Mexican fan palm	18	No	5	Remove	Within the development area
224	Mexican fan palm	14	No	5	Remove	Within the development area
225	Lemon bottlebrush	12	No	4	Remove	Within the development area
226	Mexican fan palm	18	No	5	Remove	Within the development area
227	Lemon bottlebrush	7,6,5,5	No	4	Remove	Within the development area
228	Lemon bottlebrush	11	No	3	Remove	Within the development area
229	Lemon bottlebrush	13	No	4	Remove	Within the development area
230	Lemon bottlebrush	10,9	No	3	Remove	Within the development area
231	Lemon bottlebrush	12	No	3	Remove	Within the development area
232	Myoporum	9	No	2	Remove	Within the development area
233	Myoporum	10	No	1	Remove	Within the development area
234	Blackwood acacia	17	Yes	3	Remove	Within the development area
235	Lemon bottlebrush	8,2	No	3	Remove	Within the development area
236	Lemon bottlebrush	9,6	No	3	Remove	Within the development area
237	Lemon bottlebrush	8,6,5	No	3	Remove	Within the development area
238	Lemon bottlebrush	8,5	No	3	Remove	Within the development area
239	Lemon bottlebrush	6	No	3	Remove	Within the development area
240	Western sycamore	29,12	Yes	3	Remove	Within the development area
241	Western sycamore	21,18	Yes	3	Remove	Within the development area
242	Western sycamore	18	Yes	3	Remove	Within the development area
243	Western sycamore	13	No	3	Remove	Within the development area
244	Western sycamore	9	No	4	Remove	Within the development area
245	Western sycamore	21,10	Yes	3	Remove	Within the development area
246	Western sycamore	29	Yes	3	Remove	Within the development area
247	Hollywood juniper	9,5	No	3	Remove	Within the development area
248	Monterey pine	30	Yes	3	Remove	Within the development area
249	African sumac	7	No	3	Remove	Off-site; contact regarding removal
250	Fremont cottonwood	20	Yes	3	Remove	Off-site; contact regarding removal
251	Fremont cottonwood	6,4,3,3	No	2	Remove	Off-site; contact regarding removal

Please contact me if you have any questions regarding my observations or recommendations.

Sincerely,

Darya Barar, Managing Consulting Urban Forester & Arborist
 ISA Certified Arborist No. WE-6757A
 Registered Consulting Arborist #693
 ISA Tree Risk Assessment Qualified & Tree Appraisal Qualified



Exhibits

Tree Assessment Form

Tree Assessment Plan



Tree Assessment

1699 & 1701 Old Bayshore Highway
 Burlingame, CA
 July 20, 2021



Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
221	Mexican fan palm	17	No	5	High	Some penciling 12 feet; good form and structure; 40 feet brown trunk.
222	Mexican fan palm	18	No	5	High	Good form and structure; 40 feet brown trunk.
223	Mexican fan palm	18	No	5	High	Skinned close to trunk; good form and structure; 40 feet brown trunk; in rock covered planter.
224	Mexican fan palm	14	No	5	High	Good form and structure; 40 feet brown trunk; in rock covered planter.
225	Lemon bottlebrush	12	No	4	High	Good form and structure; multiple stems arose at 5 feet.
226	Mexican fan palm	18	No	5	High	Good form and structure; 40 feet brown trunk.
227	Lemon bottlebrush	7,6,5,5	No	4	Moderate	Good form and structure; in five foot planting strip; multiple stems arose at 3 feet.
228	Lemon bottlebrush	11	No	3	Moderate	Fungal fruiting bodies present; good form and structure; in 5 foot planting strip; multiple stems arose at 5 feet.
229	Lemon bottlebrush	13	No	4	Moderate	Good form and structure; in 5 foot planting strip; multiple stems arose at 6 feet.
230	Lemon bottlebrush	10,9	No	3	Moderate	Fungal fruiting bodies present; good form and structure; in 5 foot planting strip; multiple stems arose at 3 feet.
231	Lemon bottlebrush	12	No	3	Moderate	Embedded pole; good form and structure; planting strip.
232	Myoporum	9	No	2	Low	Extensive canopy dieback; thrip damage; raised narrow planting strip.
233	Myoporum	10	No	1	Low	Covered in ivy; extensive canopy dieback; thrip damage; narrow strip against fence.
234	Blackwood acacia	17	Yes	3	Low	Multiple stems arose at 6 feet; in corner of property against fence; some canopy dieback.
235	Lemon bottlebrush	8,2	No	3	Moderate	Pruned as a hedge; growing against building; multiple stems arose at 2 feet.
236	Lemon bottlebrush	9,6	No	3	Moderate	Pruned as a hedge; growing against building; multiple stems arose at 1 foot.

Tree Assessment

1699 & 1701 Old Bayshore Highway
 Burlingame, CA
 July 20, 2021



Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
237	Lemon bottlebrush	8,6,5	No	3	Moderate	Pruned as a hedge; open canopy; growing against building; multiple stems arose at 1 foot.
238	Lemon bottlebrush	8,5	No	3	Moderate	Pruned as a hedge; one sided canopy; growing against building; multiple stems arose at 1 foot.
239	Lemon bottlebrush	6	No	3	Moderate	Pruned as a hedge; growing against building; multiple stems arose at 4 feet.
240	Western sycamore	29,12	Yes	3	Moderate	Codominant stems arose from base; minor twig dieback; tree has been topped; open canopy.
241	Western sycamore	21,18	Yes	3	Moderate	Codominant stems arose from 1 foot; trunk wound 10x4; tree has been topped.
242	Western sycamore	18	Yes	3	Moderate	Codominant stems arose from 6 feet; heavy lean southeast; tree has been topped.
243	Western sycamore	13	No	3	Moderate	Codominant stems arose from 12 feet; open canopy with twig dieback; tree has been topped.
244	Western sycamore	9	No	4	Moderate	Codominant stems arose from 7 feet; bowing SE; tree has been topped.
245	Western sycamore	21,10	Yes	3	Moderate	Codominant stems arose from base; one stem was removed at 5 feet is sprouting; cracks on trunk; tree has been topped.
246	Western sycamore	29	Yes	3	Moderate	Leaning west; tree has been topped; twig dieback.
247	Hollywood juniper	9,5	No	3	Low	Codominant stems arose at 3 feet; bowing SE from wind.
248	Monterey pine	30	Yes	3	Moderate	Concrete damage present; girdled roots; some twig dieback ; multiple stems arose at 2 and 12 feet.
249	African sumac	7	No	3	Moderate	OFFSITE canopy overhangs property 4 feet; no tag.
250	Fremont cottonwood	20	Yes	3	Moderate	OFFSITE canopy overhangs property 6 feet; multiple stems at 8 feet; no tag.
251	Fremont cottonwood	6,4,3,3	No	2	Low	OFFSITE canopy overhangs property 6 feet; suckers from previous removal; trunk damage against fence; no tag.

Tree Assessment Plan

Malcolm Road &
Old Bayshore Highway
Burlingame, CA

Prepared for:
Helios Real Estate Partners
San Francisco, CA

July 2021

No Scale

Notes:
Base map provided by:
BKF
Pleasanton, CA

Numbered tree locations with no survey point were
approximately located in the field.

